No. 127942
Consolidated with No. 127944

IN THE SUPREME COURT OF ILLINOIS

WILLIAM “WES” JOHNSON, *Plaintiff-Appellee* v. LUCAS ARMSTRONG, M.D., SARAH HARDEN, and ADVOCATE HEALTH AND HOSPITALS CORPORATION, ADVOCATE BROMENN MEDICAL CENTER, *Defendants-Appellants*.	) On Petition for Leave to Appeal) From the Illinois Appellate Court,) Fourth District, No. 4-21-0014,)) There Heard on Appeal From The) Eleventh Judicial Circuit,) McLean County, Illinois,) Trial Court No. 2018 L 126)) The Honorable Rebecca S. Foley,) Judge Presiding)

BRIEF OF DEFENDANT-APPELLANT, LUCAS ARMSTRONG, M.D.

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NATURE OF THE CASE

This is an appeal from an Order of the Appellate Court, Fourth District, reversing and remanding an Order of the Circuit Court of the Eleventh Judicial District, McLean County, granting summary judgement in favor of Lucas Armstrong, M.D. ("Dr. Armstrong") on Plaintiff's medical negligence count premised on the doctrine of *res ipsa loquitur*.

Plaintiff brought this medical negligence action against Dr. Armstrong related to a left total hip arthroplasty (hip replacement surgery) performed by Dr. Armstrong on October 6, 2016. Plaintiff's Complaint asserts allegations of medical negligence, and medical negligence premised on the doctrine of *res ipsa loquitur*. Dr. Armstrong moved for summary judgment as to Count III in Plaintiff's Complaint premised on *res ipsa loquitur* on December 15, 2020, which the Trial Court granted.

Plaintiff appealed the Trial Court's grant of summary judgment in favor of Dr. Armstrong (A 264-289). In its published opinion, the Fourth District reversed and remanded the Trial Court's order granting summary judgment in favor of Dr. Armstrong. (A 1-20). In so doing, the Fourth District acknowledged and then disregarded the precedent it previously set in *Taylor v. City of Beardstown,* 142 Ill.App.3d 584, 491 N.E.2d 803 (4th Dist. 1986), requiring expert testimony to prove the applicable standard of care and breach therefrom to invoke the doctrine of *res ipsa loquitur*. *Johnson v. Armstrong*, 2021 IL App (4th) 210038 ¶¶ 68-69. (A 16-19).

Dr. Armstrong timely submitted his Petition for Leave to Appeal on December 2, 2021. No issues are raised on the pleadings.

JURISDICTION

This Court has jurisdiction pursuant to Illinois Supreme Court Rule 315. This Court granted Dr. Armstrong's Petition for Leave to Appeal on January 26, 2022.

STATUTES INVOLVED

735 ILCS 5/2-1113. Medical malpractice – res ipsa loquitur

In all cases of alleged medical or dental malpractice, where the plaintiff relies upon the doctrine of res ipsa loquitur, the court shall determine whether that doctrine applies. In making that determination, the court shall rely upon either the common knowledge of laymen, if it determines that to be adequate, or upon expert medical testimony, that the medical result complained of would not have ordinarily occurred in the absence of negligence on the part of the defendant. Proof of an unusual, unexpected or untoward medical result which ordinarily does not occur in the absence of negligence will suffice in the application of the doctrine.

ISSUES PRESENTED FOR REVIEW

I. The Appellate Court's decision to disregard its prior opinion in *Taylor v. City of Beardstown,* 142 Ill.App.3d 584, creates a split in the Appellate Courts of this State on the issue of whether expert testimony is required to invoke the doctrine of *res ipsa loquitur.*

II. The Appellate Court erred in its reliance on dicta in *Spidle v. Steward*, 79 Ill.2d 1, 8-9, 402 N.E.2d, 216, 220 (1980), and *McMillen v. Carlinville Area Hospital*, 114 Ill.App.3d 732, 737-38, 415 N.E.2d 10 (1983), in derogation of facts and law.

III. Summary judgment in favor of Dr. Armstrong is appropriate on the evidentiary issue of *res ipsa loquitur* where Plaintiff's expert testified the surgery was performed competently and Plaintiff presents no evidence of negligent conduct.

IV. The trial court properly met its gatekeeper obligation in deciding that the doctrine of *res ipsa loquitur* did not apply as a matter of law.

V. The Appellate Court erred when it failed to find that Plaintiff forfeited his appeal as to the grant of summary judgment for Dr. Armstrong with respect to the claim pursuant to the doctrine of *res ipsa loquitur*.

STATEMENT OF FACTS

A. Proceedings in the Trial Court.

Plaintiff filed a four-count Complaint, in which two of the counts were directed against Dr. Armstrong. (C 27-34; A 21-28). The allegations of Plaintiff's Complaint arise out of a total hip arthroplasty wherein Plaintiff claims injury to his femoral nerve. *Id*. In Count III of his Complaint, Plaintiff alleged a theory against Dr. Armstrong premised on the doctrine of *res ipsa loquitur*. *Id*.

During discovery, Plaintiff disclosed Dr. Sonny Bal as his Supreme Court Rule 213(f)(3) controlled expert witness. (C 298-353; A 29-84). Until recently, and at the time of the surgery at issue (October 2016), Dr. Bal was a professor in the Department of Orthopedic Surgery at the University of Missouri Health System-Columbia. (A 33-84). While at the University of Missouri Health System-Columbia he was the interim chair for The Department of Orthopedic Surgery. (A 33-84). Dr. Bal attended medical school at Cornell University Medical College. (A 33-84). He undertook a fellowship in orthopedic biomechanics at Massachusetts General Hospital and a fellowship at Massachusetts General Hospital Harvard Medical School in hip and implant surgery. (A 33-84). Dr. Bal has lectured and authored extensively on hip replacement surgery. (A 33-84).

Dr. Bal testified by way of a discovery deposition. (C 652-675; A 132-239). In his deposition, Dr. Bal testified nerve palsies are a recognized complication of hip replacement surgery. (C 658; A 156-159). He agreed Dr.

Armstrong advised the Plaintiff before surgery that femoral nerve injury was a risk of the procedure. (C 658; A 156-159). Dr. Bal agreed that he was not giving an opinion that simply because a femoral nerve injury occurred, it was a result of a breach in the standard of care. (C 658; A 156-159). Dr. Bal testified that a femoral nerve injury with the anterior approach utilized by Dr. Armstrong does not automatically equal negligence or a breach in the standard of care. (C 658; A 156-159).

Dr. Bal agreed that many times the cause of a femoral nerve injury is unknown. (C 658-659, C 666-667; A 156-163, A 188-195). Dr. Bal admitted that a femoral nerve injury resulting from a total hip arthroplasty can occur without negligence. (C 659, C 666-667; A 160-163, A 188-195). Dr. Bal testified that a femoral nerve injury may occur from a competently performed hip replacement surgery, and that Dr. Armstrong competently performed Plaintiff's hip replacement surgery. (C 659-660; A 160-167).

Dr. Bal testified that the location of the incision by Dr. Armstrong was within the standard of care (C 659-660, C 661; A 169-170). The branches of the femoral nerve affected (the rectus femoris and vastus lateralis) are distal to (away from) where the incision was made. (C 664-666; A 174-175). Dr. Bal has written on the topic of the direct anterior approach to total hip replacement (the approach taken by Dr. Armstrong here) and the description of the incision in his article is the same incision that Dr. Armstrong described in his operative note, and which Dr. Bal indicated was within the standard of care (C 662-663; A174-177).

The trial court granted summary judgment in favor of Advocate BroMenn Medical Center ("Advocate) and Surgical Technician Sarah Harden ("Tech. Harden") as to Count III where the doctrine of *res ipsa loquitur* was alleged against them. (C 23, C 525-676, C 898-899; R 1-20; A 242-243, A 244-263). The trial court found: (1) that the theory of *res ipsa loquitur* did not apply as a matter of law; and (2) that by pleading a theory of *res ipsa loquitur,* Plaintiff was not excused from establishing a duty of care and breach of that duty, and he had failed to do so. (R 11-14; A 254-257).

Dr. Armstrong moved for summary judgment as to Count III of Plaintiff's Complaint on the basis that the trial court determined the doctrine of *res ipsa loquitur* did not apply as a matter of law and that Plaintiff could not establish a breach in the standard of care through his expert, Dr. Sonny Bal. (C 25). The trial court granted Dr. Armstrong's Motion for Summary Judgment. (C 25, C 882-883; A 240).

B. The Appellate Court's Opinion.

The Fourth District issued its Opinion on October 28, 2021. It reversed the Trial Court's grant of summary judgment in favor of Dr. Armstrong, Tech. Harden, and Advocate. (A 1-20). The Fourth District held that *res ipsa loquitur* applied because Plaintiff's expert asserted that the retractor caused the injury, and that Tech. Harden held the retractor during surgery. *Johnson,* ¶ 60. (A 15). Furthermore, the Fourth District declined to follow its precedent set in *Taylor v. City of Beardstown,* 142 Ill.App.3d at 592-594, holding that expert testimony regarding the standard of care and deviation therefrom is required to invoke the

doctrine of *res ipsa loquitur. Johnson*, ¶¶ 68-69. (A 17-18). Thus, the Fourth District held that no expert testimony was needed as to the standard of care and breach thereof in the context of a claim for *res ipsa loquitur. Id*. at ¶¶ 64-71. (A 16-19).

STANDARD OF REVIEW

A trial court's decision to grant a motion for summary judgment is reviewed *de novo*. *Jackson v. Graham*, 323 Ill.App.3d 766, 778, 753 N.E.2d 525, 536 (4th Dist. 2001).

A trial court's determination of whether the *res ipsa loquitur* doctrine should apply is a question of law and subject to a *de novo* standard of review. *Raleigh v. Alcon Laboratories, Inc.*, 403 Ill.App.3d 863, 868, 934 N.E.2d 530, 535 (1st Dist. 2010).

ARGUMENT

I. The Appellate Court's decision to disregard its prior opinion in *Taylor v. City of Beardstown* created a split in the Appellate Courts of this State on the issue of whether expert testimony is required to invoke the doctrine of *res ipsa loquitur.*

In its Opinion, the Fourth District cited its prior opinion in *Taylor*, where it held that plaintiffs must establish all elements of *res ipsa loquitur* in order "to accede to the benefits of the doctrine." 142 Ill.App.3d at 592. Among other things, the plaintiff must demonstrate that he was "injured: (1) in an occurrence which would not ordinarily occur absence of negligence." *Id*. This element must be shown by expert testimony to prove the standard of care and breach thereof. *Id.* at 594; *Cassady v. Hendrickson,* 138 Ill.App.3d 925, 937, 486 N.E.2d 1329, 1336 (4th Dist. 1985).

The Fourth District noted that the First District followed the precedent set by *Taylor* in *Smith v. South Shore Hospital,* 187 Ill.App.3d 847, 857-58, 543 N.E.2d 868, 873 (1989). *Johnson*, ¶ 69. (A 17-18). The Fourth District then declined to follow its own precedent in *Taylor*. *Id*. at ¶¶ 68-69. (A 17-18). It held that plaintiffs were no longer required to show by expert testimony the applicable standard of care and breach thereof to proceed with claims under the doctrine of *res ipsa loquitur*. *Id*. at ¶¶ 64-71. (A 16-19).

Since the Fourth District's Opinion in *Taylor*, the expert witness requirement has been the law in Illinois. It has been either followed by, or referenced in, other Appellate Court opinions in addition to *Smith v. South Shore Hospital*. *See e.g.*, *Edelin v. West Lake Community Hospital,* 157 Ill.App.3d 857, 910 N.E.2d 958 (1st Dist. 1987); *Schindel v. Albany Medical Corp*., 252 Ill.App.3d 389, 625 N.E.2d 114 (1st Dist. 1993); *Roat v. Shivde,* 203 Ill.App.3d 181, 560 N.E.2d 113 (1st Dist. 1990); *Pogge v. Hale,* 253 Ill.App.3d 904, 625 N.E.2d 792 (4th Dist. 1993); *Nichols v. City of Chicago Heights,* 2015 IL App (1st) 122994, 31 N.E.3d 824 (1st Dist. 2015); *Andrews v. Northwestern Memorial Hospital,* 184 Ill.App.3d 486, 540 N.E.2d 447 (1st Dist. 1998); *Piquette v. Midtown Anesthesia Assoc.,* 192 Ill.App.3d 219, 584 N.E.2d 659 (1st Dist. 1989); *Welsch by Welsch v. Columbia Kinder,* 2017 IL App (5th) 160213-U (5th Dist. 2017); *Giegoldt v. Condell Medical Center,* 328 Ill.App.3d 907, 767 N.E.2d 497 (2d Dist. 2002). That is until the Fourth District's Opinion in this matter.

Here, Plaintiff's only expert, Dr. Bal, testified that a femoral nerve injury may occur from a competently performed hip replacement surgery and that Dr.

Armstrong competently performed Plaintiff's hip replacement surgery. (C 659-660; A 160-167). Dr. Bal testified that a nerve palsy, the subject of Plaintiff's lawsuit, is a recognized complication of hip replacement surgery, and that Dr. Armstrong explained that risk to Plaintiff pre-operatively. (C 658; A 156-159). Dr. Bal explained that simply because a femoral nerve injury occurred does not mean that it was the result of a breach in the standard of care. (C 658; A 156-159). Dr. Bal furthered testified that a femoral nerve injury resulting from a total hip arthroplasty performed with the anterior approach utilized by Dr. Armstrong does not automatically equal negligence or a breach in the standard of care. (C 658; A 156-159).

Dr. Bal also testified that the injury was most likely caused by a retractor, but that there was nothing inappropriate about Dr. Armstrong's placement of the retractor up against the rectus femoris muscle, “where it should be placed”, and then moving the retractor to an intracapsular location when he repositioned it during the procedure. (C 659-660; A 160-167). Plaintiff’s expert made clear that the location of the incision was within the standard of care (C 659-660, C 661; A169-170).

In essence, there was no testimony from Plaintiff's expert, Dr. Bal, that Dr. Armstrong was negligent in the care he provided to the Plaintiff. Both the incision and the retractor were properly placed by Dr. Armstrong. Without expert testimony that there was some negligent conduct on the part of the surgeon, summary judgment in favor of Dr. Armstrong is appropriate. *Taylor,* 142 Ill.App.3d at 592-594.

The trial court granted summary judgment in favor of Advocate and Tech. Harden on Plaintiff's allegations of *res ipsa loquitur* based upon the fact Plaintiff had no expert testimony to support that claim. Based upon its prior ruling in favor of Advocate and Tech. Harden, the Trial Court properly found that without all parties who had either management or control of the instrumentality present as defendants, the *res ipsa loquitur* claim against Dr. Armstrong could not stand and *res ipsa loquitur* did not apply as a matter of law. (C 25; C 882 – C 883; C 898 – C 899). Subsequently, the Fourth District held that the requirement of expert testimony to support a claim of *res ipsa loquitur* was no longer a law it would follow. *Johnson*, ¶¶ 64-71. (A 16-19). Now, confusion exists given the Fourth District's decision not to follow its own precedent in *Taylor*, where other districts have followed it as it relates to the requirement of expert testimony to invoke the doctrine of *res ipsa loquitur*, and in medical negligence cases generally.

It is appropriate here to review the statements of Professor Dean Prosser commenting on the doctrine of *res ipsa loquitur*:

> It is a thing of fearful and wonderful complexity in ramifications, and the problems of its application in effect have filled the courts of all our states with a multitude of decisions, baffling and perplexing alike, to students, attorneys and judges.

Prosser, *Res Ipsa Loquitur* in California, 37 CAL. L. Rev. 183 (1949).

The opinion of the Fourth District is similarly "baffling and perplexing." Id. Eliminating the long-established requirement of expert witness testimony to invoke the doctrine of *res ipsa loquitur* makes the doctrine problematic to apply. It directs the jury to speculate regarding the determination of fault in the setting of a

complex medical procedure. In addition to eliminating the requirement of expert testimony, the Fourth District ignored the expert deposition testimony of Plaintiff's expert in that the surgery was performed in a non-negligent fashion, that the retractor was properly placed during the procedure, and the location of the incision was within the standard of care. (C 658-660; A 156-167).

If a trial court finds that the doctrine applies, and where a plaintiff's own expert indicates that the care was not negligent, or there exists no competent expert testimony to invoke the doctrine, it invites a purely speculative leap and entrusts the jury with unreviewable power to impose liability as it sees fit. The inference of negligence in a *res ipsa loquitur* case must be based on more than speculation. However, the Fourth District's opinion here holds that the inference can be invoked even in the face of expert testimony that the defendant-physician's care was not negligent.

The Illinois Pattern Jury Instruction setting forth the law in Illinois on the doctrine of *res ipsa loquitur* provides in pertinent part:

> The plaintiff has the burden of proving each of the following propositions:
>
> First: the patient was injured.
>
> Second: that the injury occurred during a procedure in which the instrumentality was under the defendant's control.
>
> Third: that in the normal course of events, this injury would not have occurred if the defendant had used a reasonable standard of professional care while the instrumentality was under his control.
>
> ***

> Whether the injury in the normal course of events would not have occurred if the defendant had used a reasonable standard of professional care while the instrumentality was under his control must be determined from expert testimony presented in this trial. You must not attempt to determine this question from any personal knowledge you have.

Illinois Pattern Jury Instructions – Civil (2021 Ed.) Instruction No.105.09. The Fourth District disregarded the directive of this IPI jury instruction.

Under the Illinois Pattern Jury Instructions, expert testimony that when such an incident occurs as alleged, that it more probably than not happened as a result of negligence, is required. The evidence must show that there is a specific act of negligence of the type which caused the injury. Allowing the jury to speculate would result in many doctors who perform no negligent acts to be found guilty of medical malpractice via allegations premised on *res ipsa loquitur*. If the only serious obstacle to Plaintiff's recovery under the doctrine of *res ipsa loquitur* is getting the case to the jury, then our courts have created a strict liability in malpractice cases under the guise of *res ipsa loquitur.* In the face of testimony that the defendant-physician performed the surgery competently the jury is then permitted to speculate that a basis for drawing the inference of negligence actually exists.

This is demeaning to the law, to the legal profession, and to the judicial process because it will appear to the public in general, and to healthcare professionals in particular, that the legal profession and the courts are playing games with what has come to be a meaningless Latin phrase for the purpose of

permitting an injured party to recover on the basis of fault when there is, in fact, no fault involved.

If public policy requires that financial responsibility be placed upon the doctor for a complication where the plaintiff's own expert indicates that the event can occur without negligence, on the assumption that the risk of loss can be better spread to the public in large, the courts of Illinois should be truthful with themselves and the public, and not continue to attempt to assign fault to a largely fictious search for it. *See Spidle v. Steward,* 79 Ill.2d 1, 14-25, 402 N.E.2d 216 (1980) (Ryan, J., dissenting); *Renslow v. Mennonite Hospital,* 67 Ill.2d 348, 381, 367 N.E.2d 1250 (1977) (Ryan, J., dissenting).

The Illinois Supreme Court has not addressed the application of *res ipsa loquitur* in the context of a medical negligence claim since 2007 in *Heastie v. Roberts,* 226 Ill.2d 515, 877 N.E.2d 1065 (2007). With a clear split between the First and Fourth Districts regarding the requirement of expert testimony to proceed under the theory of *res ipsa loquitur,* along with the Fourth District's disregard of the language of IPI (Civil) 105.09 resulting in an unprecedented expansion of the application of the doctrine of *res ipsa loquitur,* this Court must consider the long-established expert witness requirement both in Illinois and in Courts in other states who have embraced it, and then decide if any basis exists to abandon it. *See e.g., Woodard v. Custer,* 473 Mich. 1, 702 N.W.2d. 522 (2015).

II. The Appellate Court erred in its reliance on dicta in *Spidle v Steward*, 79 Ill.2d 1, 8-9, 402 N.E.2d, 216, 220 (1980), and *McMillen v. Carlinville Area Hospital*, 114 Ill.App.3d 732, 737-38, 415 N.E.2d 10 (1983), in derogation of facts and law.

The Fourth District created a precedent that will be the source of great confusion for trial courts. Its Opinion provides no real standard to guide trial courts in ruling on the applicability of *res ipsa loquitur*. The Fourth District's opinion substantially alleviates plaintiffs' long-established burden of production in malpractice actions. Thus, it essentially places on defendants the burden to conclusively prove freedom from negligence. Although burden shifting has been misstated and misconstrued throughout Illinois case law, the operation of *res ipsa loquitur* was never intended to shift the ultimate burden of persuasion. 9 Wigmore, Evidence § 2489, 285 (3d ed. 1940) (the burden of persuasion never shifts since the rules of law are static and the parties know beforehand what they must prove in order to recover or rebut allegations of negligence).

The current Restatement discussion of *res ipsa* omits any mention of an affirmative shift in the burden of proof, explaining instead that a majority of jurisdictions adopt the permissive inference interpretation while others follow the rebuttable presumption approach. *See* Restatement (Third) of Torts § 17, comment j (2005). Most jurisdictions have recognized res ipsa as creating either an inference of negligence or a rebuttable presumption and not a wholesale shift in the burden of proof from plaintiff to defendant. See *Prosser, The Procedural Effect of Res Ipsa Loquitur,* 20 Minn. L. Rev. 241, 244-45, 250-54 (1936).

The ultimate effect of the Fourth District's alteration of the burden of proof, therefore, is to make medical practitioners insurers against bad results. *See Greenberg v. Michael Reese Hospital,* 78 Ill.App.3d 17, 24, 396 N.E.2d, 1008, 1088, 1093 (1st Dist. 1979) (In the professional negligence area, the recognition of the applicability of *res ipsa loquitur* conditioned only on a bad or unanticipated outcome to the treatment or litigation, would result in a presumption of negligence based upon result other than any negligent act. This special class of defendants, solely because of the risk-laden nature of their profession, would thus become, in effect, guarantors of result, and would have the burden of constant justification of their acts in the light of this reoccurring "presumption of negligence"). The Illinois Courts never intended this result. *Spidle v. Steward,* 79 Ill.2d at 24.

The Fourth District cited *Dyback v. Weber*, 114 Ill.2d 232, 242, 500 N.E.2d 8, 12 (1986), for the proposition that Plaintiff need not conclusively prove all the elements of *res ipsa loquitur* to invoke the doctrine. In so stating the Fourth District sidestepped the fact that Plaintiff's expert testified that the procedure was performed competently. The Fourth District was focused on the threshold to invoke *res ipsa loquitur* without assessing the evidence, or lack thereof, provided by the Plaintiff at summary judgment. In *Dyback*, this Court found that the doctrine of res ipsa loquitur did not apply due to the failure of the Plaintiff to provide competent expert testimony and evidence that the fire that destroyed the home would not have occurred absent negligence. 114 Ill.2d at 243.

Poole v. University of Chicago, 186 Ill.App.3d 554, 542 N.E.2d 746 (1989), relied upon by the Fourth District, is distinguishable. In *Poole,* there was no testimony from the plaintiff's expert that the procedure was performed competently and without negligence. 186 Ill.App.3d at 559-60. The plaintiff's expert in *Poole* testified that the plaintiff's bilateral vocal cord paralysis ordinarily would not have occurred absent negligence on the part of the operating physician in clearing the trachea without locating and protecting the recurrent laryngeal nerves and in using electrocautery to control bleeding in the glandular area of the trachea. *Id*. Plaintiff's expert in *Poole* provided very specific expert testimony that the bilateral vocal cord paralysis would not have occurred absent negligence and exactly how negligent conduct on the part of the physician can bring about the vocal cord paralysis complained of. *Id*.

The Fourth District cited *Kolakowski v. Voris,* 83 Ill. 2d 388, 395-396, 415 N.E.2d 397, 400-01 (1980), for the proposition that the burden of proof shifts to the defendants. However, plaintiffs have the burden to introduce evidence that the occurrence would not have occurred absent negligence. *Id*. at 400. The defendant in *Kolakowski* argued that the introduction of evidence of specific acts of negligence extinguishes a plaintiff's right to rely upon the doctrine *res ipsa loquitur*. *Id*. at 397. The *Kolakowski* Court rejected the proposition that the inference of negligence raised by the doctrine of *res ipsa loquitur* disappears when specific evidence of negligence is admitted. *Id*.

The *Kolakowski* opinion stands for the proposition that plaintiffs have the right to rely upon the doctrine even when evidence of the specific acts of

negligence are introduced. This begs the question: what happens when the testimony of plaintiffs is that the care provided by the defendant-physician was not negligent? There is no precedent in the law of *res ipsa loquitur* where the plaintiff's expert testifies the care was appropriate and the matter nonetheless proceeds to a jury for determination of fault.

Plaintiff's counsel and the Fourth District referenced the proposition that Dr. Bal testified the incision was too medial. (C 656-657, C 659-660, C 666; A 151-152, A 160, A 165, A 169, A 190-191). The exact testimony of Plaintiff's expert was:

> The documents I reviewed showed misplacement too far medial of the incision, and then twice in the operative record, the doctor documents the placement of the anterior retractor.

(C 660; A 165).

Dr. Bal's testimony in that regard is that the retractor is medial of the incision, not that the incision was too medial. (C 660; A 165). With respect to the location of the incision, he found that to be within the standard of care. (C 659-660, C661; A 169-170). Dr. Bal testified that the injury was most likely caused by a retractor, but there was nothing inappropriate about Dr. Armstrong's placement of the retractor up against the rectus femoris muscle, "where it should be placed," and then moving the retractor to an intracapsular location when he repositioned it during the procedure (C 659-660; A160-167).

In *Spidle*, this Court examined the equivocal testimony of a plaintiff's expert. 79 Ill.2d at 9. There, the plaintiff's counsel asked in his first question whether the fistula (fistula subsequent to a supracervical hysterectomy) in the absence of

negligence would ordinarily result. *Id*. at 8. The expert answered that the formation of the fistula is "a rare and unusual complication of hysterectomies and one would not normally expect to occur" *Id*. This Court found that such equivocal testimony was insufficient to establish "negligent antecedents" required under the doctrine of *res ipsa loquitur*:

> We cannot conclude with equanimity, from this colloquy alone, whether he meant fistula formation after hysterectomy is usually a result of negligence or whether there is an equal probability that they occur despite the exercise of due care.

Id. at 9 (citing *Walker v. Rumer*, 72 Ill.2d 495, 381 N.E.2d 689 (1978)).

There is no equivocation regarding Dr. Bal's testimony that the surgery was performed competently (C 659-660; A160-167). In *Spidle*, this Court relied upon the proposition that there was other evidence of the defendant's negligence upon which the theory of *res ipsa loquitur* could properly be given to the jury. The plaintiff's expert therein also testified about the inadvisability of operating on Mrs. Spidle if her pelvic inflammatory disease was in an acute or an acute flare-up stage. *Spidle*, 79 Ill.2d at 9-10. There was evidence, the defendant-physician admitted after the operation, that he had "operated a little too soon." *Id*.

Dr. Bal opined that the extent of the injury to the femoral nerve would only occur if the procedure was performed negligently. However, he did not include any criticism of Dr. Armstrong's surgical approach in this opinion. Like *Spidle,* at best there is equivocal testimony that the care provided by Dr. Armstrong was appropriate. (C 659-660; A 160-167). Additionally, there is no competent expert

testimony that Tech. Hardin's care was negligent. Therefore, summary judgment was appropriate.

III. Summary judgment in favor of Dr. Armstrong is appropriate on the evidentiary issue of *res ipsa loquitur* where Plaintiff's expert testified the surgery was performed competently and Plaintiff presents no evidence of negligence.

In the trial court and on appeal, Plaintiff did not dispute that expert opinion evidence is required on the issue of breach in the standard of care in order to survive summary judgment. Instead, he insisted Dr. Bal is competent to testify about nursing negligence even though he does not have a nursing degree, and contrary to this Court's holding in *Sullivan v. Edward Hospital*, 209 Ill.2d 100, 806 N.E.2d 245 (2004). Without expert testimony regarding the nursing standard of care, summary judgment was clearly appropriate in favor of Advocate and Tech. Harden.

Furthermore, without all potential defendants present, the doctrine of *res ipsa loquitur* cannot be invoked in a claim against Dr. Armstrong. *See, Raleigh v. Alcon Laboratories,* 403 Ill.App.3d 863, 869-70, 934 N.E.2d 530, 536 (1st Dist. 2010). In *res ipsa loquitur* actions, all parties who could have been the cause of a plaintiff's alleged injury must be joined as defendants. *Smith v. Eli Lilly & Co.*, 137 Ill.2d 222, 257, 560 N.E.2d 324, 339-40 (1990). Thus, "[a] plaintiff's failure to name as defendants all of the entities who might have caused his injuries is fatal to the action since the plaintiff must 'eliminate the possibility that the accident was caused by someone other than any defendant.'" *Raleigh*, 403 Ill.App.3d at 869.

The Trial Court granted summary judgment in favor of Advocate and Tech. Harden finding that Tech. Harden never had exclusive control of the retractor, but also because Plaintiff did not present any competent expert testimony as to the standard of care for a surgical technician such as Tech. Harden. (R 12-13; A 256-257). Just like Plaintiff's case against Dr. Armstrong, there is no expert testimony that Tech. Harden was negligent. (R 12-13; A 256-257).

While Plaintiff's Complaint may sufficiently allege a claim applying the doctrine of *res ipsa loquitur,* Plaintiff essentially eliminated through fact and expert discovery the ability to show the injury was caused by Tech. Harden and Advocate by failing to establish through expert testimony that there was a breach in the standard of care by Tech. Harden. The same is true with respect to the failure of Plaintiff to establish through expert testimony a breach in the standard of care by Dr. Armstrong.

The inference of negligence set forth in the doctrine of *res ipsa loquitur* was overcome by undisputed evidence of non-negligent conduct on the part of Dr. Armstrong and Tech. Harden. While Plaintiff claims there is a question of fact regarding exclusive control as it relates to Tech. Harden, and causation as it relates to Dr. Armstrong, Plaintiff can point to no evidence that either care provider was negligent in their respective care. Plaintiff's own expert conceded that there was no negligent conduct by either Dr. Armstrong or Tech. Harden, and was not qualified to render an opinion regarding the care provided by Tech. (C 670-671, A 204-211).

The Fourth District focused on the extent of the injury as an issue. However, it ignored the proposition that there was no evidence of negligent conduct on the part of someone who may have been in control of the instrumentality at issue. While some of the case law regarding *res ipsa loquitur* discusses that a scintilla of evidence is insufficient, there is not a scintilla of evidence that Dr. Armstrong's care fell below the standard. *McMillen v. Carlinville Area Hospital*, 114 Ill. App. 3d. 732, 737-38, 450 N.E.2d. 5, 10 (1983).

While it is true, as the Fourth District stated, that Plaintiff is not required to eliminate all possible causes of injury, it misstated the law when it indicated that Plaintiff was not required to show that the injury could only be a result of negligence. Evidence must be adduced at the point of summary judgment by way of testimony from Plaintiff's expert that the injury would not have occurred but for the negligence of someone. *Taylor,* 142 Ill.App.3d at 592. When Plaintiff's evidence or lack thereof cleared both Dr. Armstrong and Tech. Harden of any negligent conduct, summary judgment under the existing case law was clearly appropriate.

By holding that there was no obligation on the part of the Plaintiff to establish that there was negligence by way of expert testimony, the Fourth District's Opinion established an unwarranted deviation from the doctrine of *res ipsa loquitur* and is contrary to existing Illinois law. The inference that arises out of pleading a claim under the doctrine of *res ipsa loquitur* cannot be based solely upon the fact that a rare or unusual result occurred, but such evidence must be coupled with proof of a negligent act. *Adams v. Family Planning Assocs. Med.*

Group, 315 Ill.App.3d 533, 545-46, 733 N.E.2d 766, 775-76 (1st Dist. 2000). Plaintiff will point to Dr. Bal's testimony that permanency of the injury connotes that negligence occurred. But causation testimony alone does not meet the elements required under IPI 105.09. Illinois Pattern Jury Instructions – Civil (2021 ed.) Instruction Number 105.09.

The Fourth District's Opinion invites the jury to speculate, as proof of a bad result or mishap is not in and of itself evidence of negligence. *Sanders v. Frost,* 112 Ill.App.2d 234, 240, 250 N.E.2d 105, 107 (5th Dist. 1969); *Piquette v. Midtown Anesthesia Assoc*., 192 Ill.App.3d 219, 223, 548 N.E.2d 659, 663 (1st Dist. 1989). With application of the Fourth District's Opinion here, summary judgment in a medical negligence case will not be allowed even when appropriate.

IV. The trial court has a gatekeeper obligation to decide if the doctrine of *res ipsa loquitur* applies as a matter of law.

Illinois courts have been traditionally reluctant to apply the doctrine of *res ipsa loquitur* in medical malpractice actions. *See, Olander v. Johnson*, 258 Ill. App. 89, 96, 1930 WL 3155 (2d Dist. 1930) (sponge left in abdomen following surgery; *res ipsa loquitur* inapplicable); *Goodman v. Bigler*, 133 Ill. App. 301, 303, 1907 WL 1836 (4th Dist. 1907) (improper healing of fractured limb; *res ipsa loquitur* inapplicable). The rationale has been because medical procedures were not considered a matter of common knowledge, and the lay jury could only speculate as to the probabilities of negligence. What evolved was the requirement of expert testimony where in medical malpractice actions it was acknowledged that the complex nature of some medical treatments make jury

comprehension difficult if not impossible. *Heastie v. Roberts*, 226 Ill. 2d, 515, 532, 877 N.E.2d. 1064 ([w]hether the *res ipsa* doctrine should apply in a given case presents a question of law. It is a question of law which must be decided in the first instance by the trial court.).

Under Section 2-1113 of the Code of Civil Procedure, a trial court is specifically authorized to rely upon "the common knowledge of layman, if it determines that to be adequate", or upon expert testimony. 735 ILCS 5/2-1113 (West 2021); *Heastie*, 226 Ill.2d at 537. Illinois courts have been clear that where surgical technique is at issue, expert testimony is required. *See* I.P.I. 3d-Civil No. 105.09; *Gatlin v. Ruder*, 137 Ill. 2d. 284, 560 N.E.2d. 586 (1990); *Spidle v. Steward*, 79 Ill. 2d. 1, 402 N.E.2d. 216 (1980).

This Court expanded the utility of *res ipsa loquitur* in medical malpractice actions in *Walker v. Rumer* and re-established that expert testimony was necessary when complex medical procedures were involved. 72 Ill.2d at 500. This Court held that a specific factual situation had to be presented by an "appropriate state of facts," before *res ipsa loquitur* could be applied. *Id*. at 500-01. Here, Plaintiff has not presented this court with "the appropriate state of facts" because of the lack of expert testimony.

It is well settled in Illinois that the applicability of the doctrine of *res ipsa loquitur* is a matter of law for the trial judge to decide. *Spidle*, 79 Ill. 2d at 7; *see also Metz v. Central Illinois Electric and Gas Company,* 32 Ill.2d 446, 449-50, 207 N.E.2d 305, 307 (1965). The Fourth District recognized this traditional judicial

function, but nonetheless effectively delegated the decision on the applicability of the doctrine to the jury.

The Fourth District's Opinion ignores the rule that it is the duty of the trial court to decide whether the circumstantial evidence is sufficient to warrant an instruction on *res ipsa loquitur* by performing a preliminary weighing of the evidence to determine if the balance of probabilities favors a finding of negligence. The trial court must determine whether the existence of a fact testified to (*e.g.*, that a nerve injury occurred) is more probably than not attended by another fact (*e.g.*, that the nerve injury was probably caused by negligence). If the trial court determines there is illegitimacy to this inference, then summary judgment is appropriate since the jury should not then be allowed to determine whether the second fact, *i.e.*, the nerve injury was caused by negligence, exists. When ruling on this preliminary issue the trial judge must assess the probative value of the evidence needed to satisfy the requirements of the law. *Metz*, 32 Ill. 2d. at 449-50.

This initial determination made by the trial judge, although not foolproof, is essential in situations where the medical procedures involved are not a matter of common knowledge. In such cases, expert testimony must establish that the occurrence is such as would not happen in the ordinary of things absent negligence. *Gatlin v. Ruder*, 137 Ill. 2d. 284, 560 N.E.2d. 586, (1990).

What the trial judge determined here was that there was insufficient expert testimony to support the invocation of *res ipsa loquitur* as it relates to Tech. Harden, pursuant to *Sullivan v. Edward Hospital*, 209 Ill. 2d. 100, 806 N.E.2d.

244, (2004). There was similarly insufficient evidence to invoke the doctrine against Dr. Armstrong. In other words, the trial court determined that the doctrine did not apply because the expert testimony presented by Plaintiff did not provide sufficient relevant information for a jury to reach a conclusion.

Expert testimony that fails in its intended purpose has the same effect on litigation as if no expert witness had testified. Since the testimony of Plaintiff's expert, Dr. Bal, lacked the thresholds required by law, the trial judge determined that Plaintiff failed to sustain his burden of production regarding the probability element for *res ipsa loquitur.* The Trial Court weighed that issue, exercised its gatekeeping function, and properly determined that the evidence failed to meet the threshold to allow the matter to be considered by the jury on the theory of *res ipsa loquitur*. The trial judge followed existing law in doing so.

When complex medical procedures are involved and the plaintiff seeks a *res ipsa loquitur* instruction, medical expertise is required to inform the jury of the probability that the injury resulted from negligence. *Walker v. Rumer*, 72 Ill. 2d at 500. As a result, when Plaintiff's expert was unqualified to testify regarding the standard of care of Tech. Harden and testified that Dr. Armstrong performed the procedure in a non-negligent fashion, Plaintiff failed to satisfy his burden of production. *Metz*, 32 Ill. 2d at 449. (The applicability of *res ipsa loquitur* is a question of law for the trial court to decide.); *see also Clark v. Gibbons*, 66 Cal.2d 399, 426 P.2d 525, 58 Cal.Rptr. 125 (1967) (Such an inference [of negligence] must be based on more than speculation). When faced with the evidence

presented by Plaintiff, the Trial Court appropriately found Plaintiff failed to satisfy his burden of production as required in *Metz*.

V. The Appellate Court erred when it failed to find that Plaintiff forfeited his appeal as to the grant of summary judgment for Dr. Armstrong with respect to the claim pursuant to the doctrine of *res ipsa loquitur*.

A. *Where Plaintiff failed to present a sufficiently complete record on appeal, the Fourth District was required to presume that the Trial Court's grant of summary judgment to the Defendants with respect to the negligence counts pursuant to res ipsa loquitur conformed with the law and had a sufficient factual basis*.

Before the Fourth District, Advocate and Tech. Harden contended that Plaintiff forfeited his appeal on the dismissal of his claims for *res ipsa loquitur* because he failed to meet his burden to present a sufficiently complete record on appeal and omitted any record whatsoever with respect to the grant of summary judgment for Dr. Armstrong. (A 280-283).

Pursuant to Supreme Court Rule 321, the record on appeal "shall" include any report of proceedings prepared in accordance with Supreme Court Rule 323. Il. S. Ct. R. 321. "There is no distinction between the common law record and the report of proceedings for the purpose of determining what is properly before the reviewing court." *Id*. Plaintiff had "the burden to present a sufficiently complete record of the proceedings at trial to support a claim of error." *Foutch v. O'Bryant*, 99 Ill.2d 389, 391-92, 459 N.E.2d 958, 959 (1984).

Any doubts arising from Plaintiff's failure to include any record with respect to the December 15, 2020, hearing granting Dr. Armstrong's oral Motion for Summary Judgement in the record on appeal must be resolved against him. (C

25; C 882 – C 883; C 898 – C 899). *First American Bank v. Poplar Creek, LLC,* 2020 IL App (1st) 192450, ¶ 41. The absence of any record with respect to the grant of summary judgment for Dr. Armstrong on the claim for *res ipsa loquitur* required the Fourth District to presume that the Trial Court acted in conformity with the law and had a sufficient factual basis to enter that judgment. *Foutch*, 99 Ill.2d at 392.

The Fourth District improperly disregarded the Defendants' arguments regarding Plaintiff's forfeit of his ability to challenge the Trial Court's judgment by summarily stating only that it disagreed with those assertions. *Johnson*, ¶ 35. Therefore, the Fourth District erred when it refused to presume that the Trial Court acted in conformity with the law when it entered summary judgment on behalf of Dr. Armstrong with respect to Plaintiff's claims of *res ipsa loquitur*.

B. ***Plaintiff forfeited his argument on appeal that the Trial Court erred in granting summary judgment in favor of Dr. Armstrong on Plaintiff's res ipsa loquitur count by failing to make any argument regarding the same in his Brief of Appellant.***

Illinois Supreme Court Rule 341(h)(7) requires that an appellant's arguments "shall contain the contentions of the appellant and the reasons therefor, with citation of the authorities and the pages of the record relied on. … Points not argued are forfeited and shall not be raised in the reply brief, in oral argument, or on petition for rehearing." Ill. S. Ct. R. 341(h)(7); *Tirado v. Slavin*, 2019 IL App (1st) 181705 ¶ 59, 147 N.E.3d 939, 952 (1st Dist. 2019). Failure to argue a point in an appellant's opening brief violates Supreme Court Rule 341(h)(7). *City of Joliet v. Szayna*, 2016 IL App (3d) 150092 ¶ 68,

66 N.E.3d 875, 887 (3d Dist. 2016). Additionally, the mere failure to elaborate on an argument, cite persuasive authority, or present a well-reasoned argument violates Rule 341(h)(7). *Id*. The consequence of a plaintiff's violation of Rule 341(h)(7)'s mandatory requirements is forfeiture of his or her argument. *Tirado*, 2019 IL App (1st) 181705 ¶ 59.

In his Statement of Facts, Plaintiff states:

> the trial court granted summary judgment on the issue of *res ipsa loquitur* in favor of all defendants, reasoning that plaintiff needed a nursing expert to opine as to the proper surgical technique for a nurse's use of retractors, and that plaintiff's orthopedic surgeon was not qualified to testify to the proper technique of a nurse participating in the surgery.

(A 269-272). Notably, as discussed in Dr. Armstrong's Statement of Facts, *supra*, and in Section II., *infra*, this was not the reason why the Trial Court granted summary judgment in favor of Dr. Armstrong. (C 25; C 882 – C 883; C 898 – C 899).

Moreover, the only portion of Plaintiff's Brief of Appellant in the Fourth District that could relate to Dr. Armstrong is Section I. of his Argument. (A 273-279). However, Plaintiff makes no argument there, or in the remainder of his Brief of Appellant, discussing any contentions and the reasons therefore, with citation of the authorities and the pages of the record relied on, that the Trial Court erred in granting summary judgment in favor of Dr. Armstrong. (A 273-279).

For these reasons, Plaintiff failed to comply with Rule 341(h)(7) in failing to argue that the Trial Court erred in granting summary judgment in favor of Dr. Armstrong, by failing to provide any reasons for that argument, by failing to

cite to any authority in support of that argument, and by failing to cite to any pages of the record relied upon. As such, Plaintiff forfeited any argument that the Trial Court erred in granting summary judgment in favor of Dr. Armstrong.

CONCLUSION

It has never been the law in Illinois that the doctrine of *res ipsa loquitur* can be applied in a fashion where plaintiffs can meet their burden of proof without expert opinion evidence of negligent care in the fact setting of this case. If the Fourth District's Opinion here stands, jurors will be directed to speculate as to whether the care provided by a defendant was negligent in the complete absence of expert medical testimony that a defendant breached the applicable standard of care.

FROM THE FOREGOING, Appellant, Lucas Armstrong, M.D., prays that the decision of the Illinois Appellate Court for the Fourth District, dated October 28, 2021, be reversed and the case be remanded for further proceedings consistent with this Court's opinion.

Dated: March 2, 2022.

Respectfully submitted,
LUCAS ARMSTRONG, M.D.,
Defendant-Appellee,

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One of his attorneys

By: /s/ Kevin M. Toth (ARDC# 6307191)
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CERTIFICATE OF COMPLIANCE

I certify that this brief conforms to the requirements of Rules 341(a) and (b). The length of this brief, excluding the pages or words contained in the Rule 341(d) cover, the Rule 341(h)(1) table of contents and statement of points and authorities, the Rule 341(c) certificate of compliance, the certificate of service, and those matters to be appended to the brief under Rule 342(a), is twenty-nine (29) pages.

/s/ Kevin M. Toth (ARDC# 6307191)

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APPENDIX

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NO. 4-21-0038

FILED
October 28, 2021
Carla Bender
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Court, IL

IN THE APPELLATE COURT

OF ILLINOIS

FOURTH DISTRICT

WILLIAM "WES" JOHNSON, Plaintiff-Appellant, v. LUCAS ARMSTRONG; McLEAN COUNTY ORTHOPEDICS, LTD.; SARAH HARDEN; and ADVOCATE HEALTH AND HOSPITALS CORPORATION, d/b/a Advocate BroMenn Medical Center, Defendants-Appellees.	)	Appeal from the Circuit Court of McLean County No. 18L126 Honorable Rebecca S. Foley, Judge Presiding.

JUSTICE STEIGMANN delivered the judgment of the court, with opinion.
Justices DeArmond and Cavanagh concurred in the judgment and opinion.

OPINION

¶ 1 In September 2018, plaintiff, William "Wes" Johnson, filed a complaint alleging defendants, Lucas Armstrong, McLean County Orthopedics, Ltd. (McLean County Orthopedics), Sarah Harden, and Advocate Health and Hospitals Corporation, d/b/a Advocate BroMenn Medical Center (Advocate BroMenn), negligently performed a hip replacement surgery that resulted in Johnson's suffering permanent nerve damage. Johnson advanced two legal theories of recovery: ordinary negligence and *res ipsa loquitur*. Johnson sought to hold Armstrong and Harden directly liable and McLean County Orthopedics and Advocate BroMenn indirectly liable under the doctrine of *respondeat superior*.

¶ 2 In August 2020, defendants Advocate BroMenn and Harden (collectively referred to as Advocate) filed a motion for summary judgment, arguing that Johnson had failed to

(1) establish the standard of care for Harden or that she deviated from the standard of care and (2) demonstrate that he met the requirements to invoke the doctrine of *res ipsa loquitur*. In October 2020, the trial court conducted a hearing on Advocate's motion and granted summary judgment in its favor.

¶ 3 In December 2020, Armstrong made an oral motion for summary judgment on the remaining *res ipsa* count, which the trial court granted. The court subsequently entered written orders, entering judgment in the defendants' favor on the *res ipsa* counts and making a finding that the orders were final and appealable pursuant to Illinois Supreme Court Rule 304(a) (eff. Mar. 8, 2016).

¶ 4 Johnson appeals, arguing that the trial court erred by entering summary judgment against him because (1) he made a *prima facie* showing of the elements of *res ipsa loquitur* and (2) his expert was qualified to testify to the applicable standard of care for Harden. We agree and reverse.

¶ 5 I. BACKGROUND

¶ 6 A. The Complaint

¶ 7 In September 2018, Johnson filed a four-count complaint alleging defendants negligently injured him during a left, total hip arthroplasty (THA) performed by Armstrong and assisted by Harden. The complaint alleged that the surgery was performed at Advocate BroMenn in October 2016. Following surgery, Johnson had femoral nerve palsy, and subsequent testing revealed he had "severe left femoral neuropathy that is specific to the branches to the vastus lateralis and rectus femoris muscles." (We note that these are two of the muscles that comprise a person's quadriceps.) Johnson alleged, "The lesion appears complete with no evidence of voluntary motor unit potential activation."

¶ 8 Count I alleged ordinary negligence against Armstrong and specifically claimed that Armstrong (1) failed to protect Johnson's femoral nerve, (2) improperly "retract[ed]" Johnson's femoral nerve, or (3) directly injured Johnson's femoral nerve. Count II alleged McLean County Orthopedics was vicariously liable under the doctrine of *respondeat superior*.

¶ 9 Count III alleged that Armstrong and Harden were negligent pursuant to the doctrine of *res ipsa loquitur*. More specifically, Johnson asserted that (1) Armstrong was assisted by Harden, (2) the injury to Johnson's femoral nerve occurred while the retractors and other surgical instruments were under Armstrong and Harden's control, and (3) Johnson's injuries ordinarily would not have occurred if the standard of care was met. Count IV asserted the same claim against Advocate BroMenn on the basis that Advocate BroMenn employed Harden.

¶ 10 B. Advocate's Motion for Summary Judgment

¶ 11 In August 2020, Advocate filed a motion for summary judgment in which it argued the following. First, Advocate claimed Johnson had not disclosed any expert to testify as to the standard of care for nurse Harden or that she breached her standard of care. Second, Advocate asserted that Johnson's disclosed expert was not qualified to give an opinion on the nursing standard of care and did not offer one at his deposition. Third, Advocate contended that Johnson had not made a *prima facie* case that he was entitled to rely on the doctrine of *res ipsa loquitur* as to Harden because (1) the undisputed facts showed Harden did not have control over the instrumentality of the injury and (2) Johnson's expert did not testify at his deposition that Harden acted negligently. In support of its motion, Advocate attached the depositions of Harden, Pamela Rolf, Armstrong, and Sonny Bal, Johnson's expert.

¶ 12 1. *Deposition of Sarah Harden*

¶ 13 Harden testified that she was a surgical technician, commonly called a "scrub tech."

She described her duties as follows: "A second scrub will hold a retractor wherever it is placed by the doctor, and that is pretty much it." "I don't use anything. I hold things." "I hold what I'm told to hold—whatever the doctor tells me to do, I do." Harden repeatedly stated it was not her responsibility to, nor did she ever, place, reposition, move, or otherwise use any instrument during surgery, including retractors. Those actions were always performed by the surgeon, and the surgeon was responsible for the instruments at all times. Harden testified that she had no independent recollection of the surgery but, based on her review of the medical records, she complied with the standard of care.

¶ 14 2. *Deposition of Lucas Armstrong*

¶ 15 At his deposition, Armstrong agreed Johnson did not have femoral nerve palsy before the THA surgery and did have it afterwards. Armstrong stated he placed and moved the retractors and Harden would have done nothing more than hold them. Armstrong further stated that, although he had no independent recollection of the surgery, if Harden would have done something abnormal while holding the retractor, such as moving it, he would have noted that in the records. Armstrong testified that he complied with the standard of care and disagreed that the type of injury Johnson sustained would not ordinarily occur absent negligence.

¶ 16 3. *Deposition of Sonny Bal*

¶ 17 Sonny Bal testified as an expert witness for Johnson. Bal, a retired orthopedic surgeon, stated that before he retired, he performed between 100 and 200 THAs per year on average and most commonly used the anterior approach, which was the same approach used by Armstrong in this case. Bal agreed that, "as a general proposition," "nerve palsies are a recognized complication of hip replacement surgery." Bal also agreed that, in general, merely because a femoral nerve injury occurs does not mean there is a breach in the standard of care ("I would need

more data."). In his career, Bal had two patients develop femoral nerve palsies after THAs. One was caused by internal bleeding putting pressure on the nerve, and the other had an unknown cause. Bal agreed that the cause of femoral nerve palsies was often unknown.

¶ 18 Bal testified, "There's evidence of direct injury to the [femoral] nerve based on the EMG findings." Bal believed the injury was caused by a retractor, an instrument used to hold tissue to allow the surgeon to see the surgical site. Regarding the cause of Johnson's injury, Bal testified as follows:

> "The documents I reviewed show misplacement too far medial of the incision, and then twice in the operative record, the doctor documents the placement of the anterior retractor. While documentation does not say that the retractor was up against the femoral nerve, that is my opinion ***.
>
> * * *
>
> *** [Armstrong] does mention placing the retractor up against the rectus femoris muscle, which is where it should be placed, and then moving it to an intracapsular location when he repositioned it once during the operation."

Bal agreed that "[a]s it's stated, [there was] nothing inappropriate about that." Bal agreed that Armstrong's incision, though too far medial, was still within the standard of care.

¶ 19 Bal clarified his testimony that femoral nerve palsies can occur in the absence of negligence and stated the following:

> "There are two distinct types of femoral nerve neuropathies, and I want to make sure we're clear on the distinction.
>
> Transient femoral neuropathy injury, neuropraxia palsy, as referred to in this paper *** occurs in the absence of negligence. It is transient; it has a good

prognosis; strength returns, and the patient goes on with a temporary time period during which there is a deficit that improves rapidly, and those are what I've encountered in my practice. That palsy can occur and does occur in the absence of negligence from a variety of factors.

My testimony here is a complete injury to the femoral nerve, as occurred here, verified by repeat EMG and subsequent treatment by a nerve specialist like Dr. Tung, does not occur absent negligence."

¶ 20 Bal supported his opinions by stating as follows:

"The medial placement of the incision; the fact that the retractor was moved during surgery; the fact that the two branches that suffered complete injury are to the vastus lateralis and the intermedius, and those would be closer to the retractor than the branch to the medialis, which is further medial; and the fact that the article [presented to Bal by defense counsel during the deposition] clearly states a retractor tip is strikingly close to the femoral nerve when placed near the anterior rim of acetabulum, and one study demonstrated alarmingly high pressures around the nerve during retractor placement."

¶ 21 Throughout the deposition, Bal indicated that, based on his experience and literature he reviewed, only transient femoral nerve palsies were known complications and outcomes that occurred in the absence of negligence. Bal testified that Johnson suffered a complete injury to two branches of his femoral nerve and the loss of muscle function and other symptoms he experienced were permanent. In sum, Bal indicated his opinion was that the permanent injury suffered did not occur in the absence of negligence.

¶ 22 C. The Hearing on Advocate's Motion for Summary Judgment

¶ 23 In October 2020, the trial court conducted a hearing on Advocate's motion for summary judgment. Advocate argued that Johnson had not disclosed a nursing expert and Bal was not qualified to give an opinion as to the standard of care for a surgical technician. Advocate further argued that Johnson had not demonstrated that Harden exercised any control over the retractor that allegedly caused the injury; Armstrong placed and moved the retractor, and Harden merely held it in place. Harden had no part in deciding where to place the retractor or whether to move it.

¶ 24 Johnson acknowledged, "with reference to the fact that we don't have a nursing expert, that's absolutely correct, but that's because a nursing expert cannot render an opinion on what is or is not appropriate with respect to an orthopedic surgical procedure." Johnson maintained, "As a matter of law, it has to be testimony from an orthopedic surgeon, and we have that here." Bal opined the injury was caused by a retractor and the undisputed facts showed that Harden held the retractor. ("I think the evidence at trial will be that she held the retractors only after they were placed or moved by Dr. Armstrong, but that doesn't affect the fact that she's the one holding the retractors and that's when the damage occurred.") Johnson further noted that Bal unequivocally stated that the type of injury sustained, complete denervation of two quadriceps, does not occur in the absence of negligence.

¶ 25 Advocate noted that "all the testimony says that [Harden] did exactly what was expected." Advocate maintained that Johnson had to show Harden performed a negligent act and he had failed to do so.

¶ 26 The trial court agreed with Advocate. The court explained that Johnson was still required to show the standard of care and a breach of that standard. "Plaintiff has disclosed only one expert, Dr. Sonny Bal." The court ruled that Bal was not qualified to give an opinion relative to the nursing standard of care because "he does not practice within the same school of medicine

as Nurse Harden, namely nursing." The court further noted that the record did not contain any evidence that Harden committed a negligent act or omission.

¶ 27 The trial court stated as follows: "All witnesses testified that Defendant Armstrong, as the surgeon, placed the retractor. While Defendant Harden may have physically held the retractor upon placement, it was only at the direction of Defendant Armstrong. She did not exercise any independent control over any surgical tools, according to the testimony." "Furthermore, the witnesses agree she only acted as directed, and she did not take any actions other than those directed by Dr. Armstrong. Accordingly, the retractor was never under the exclusive control of Nurse Harden." The trial court granted summary judgment to Harden and to Advocate BroMenn because Advocate BroMenn was named as a defendant solely under *respondeat superior*.

¶ 28 D. Subsequent Proceedings

¶ 29 In November 2020, Johnson filed a motion to reconsider the trial court's granting of Advocate's motion for summary judgment. In December 2020, the trial court conducted a hearing on that motion and denied it.

¶ 30 Later in December 2020, at a hearing on a discovery matter, Armstrong orally moved for summary judgment, and the trial court granted his oral motion. On December 22, 2020, the trial court entered a written order entering summary judgment in favor of Armstrong on count III and finding no just reason for delaying enforcement or appeal of that order pursuant to Rule 304(a). The trial court stayed any pending litigation on the remaining counts against Armstrong and McLean County Orthopedics.

¶ 31 In January 2021, the trial court entered a written order (1) granting summary judgment in favor of Advocate and (2) finding no just reason for delaying the appeal of its order.

¶ 32 This appeal followed.

¶ 33 II. ANALYSIS

¶ 34 Johnson appeals, arguing that the trial court erred by entering summary judgment against him because (1) he made a *prima facie* showing of the elements of *res ipsa loquitur* and (2) he did not need a nursing expert to testify to the applicable standard of care for Harden. We agree and reverse.

¶ 35 As an initial matter, the defendants make several arguments that Johnson has, for various reasons, forfeited his ability to challenge the trial court's judgment. We disagree with these assertions and address this case.

¶ 36 A. The Applicable Law

¶ 37 1. *Summary Judgment*

¶ 38 Summary judgment is appropriate when "the pleadings, depositions, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." 735 ILCS 5/2-1005(c) (West 2018). "A genuine issue of material fact precluding summary judgment exists where the material facts are disputed, or, if the material facts are undisputed, reasonable persons might draw different inferences from the undisputed facts." (Internal quotation marks omitted.) *Monson v. City of Danville*, 2018 IL 122486, ¶ 12, 115 N.E.3d 81. When examining whether a genuine issue of material fact exists, a court construes the evidence in the light most favorable to the nonmoving party and strictly against the moving party. *Beaman v. Freesmeyer*, 2019 IL 122654, ¶ 22, 131 N.E.3d 488.

¶ 39 Summary judgment is a drastic means of disposing of litigation and "should be allowed only when the right of the moving party is clear and free from doubt." (Internal quotation marks omitted.) *Id.* A trial court's entry of summary judgment is reviewed *de novo*. *Id.*

¶ 40 2. Res Ipsa Loquitur

¶ 41 "The doctrine of *res ipsa loquitur* allows the trier of fact to draw an inference of negligence from circumstantial evidence when direct evidence of the cause of the injury is primarily within the knowledge and control of the defendant. [Citation.] [T]he doctrine is not a separate theory of liability [but] a type of circumstantial evidence which permits the trier of fact to infer negligence when the precise cause of injury is not known by the plaintiff." (Internal quotation marks omitted.) *Poole v. University of Chicago*, 186 Ill. App. 3d 554, 558, 542 N.E.2d 746, 748-49 (1989).

¶ 42 "The trial court must decide whether the doctrine applies as a question of law, subject to *de novo* review." *Willis v. Morales*, 2020 IL App (1st) 180718, ¶ 36, 169 N.E.3d 74. "[A] plaintiff seeking to rely on the *res ipsa* doctrine must plead and prove that he or she was injured (1) in an occurrence that ordinarily does not happen in the absence of negligence, (2) by an agency or instrumentality within the defendant's exclusive control." *Heastie v. Roberts*, 226 Ill. 2d 515, 531-32, 877 N.E.2d 1064, 1076 (2007).

¶ 43 "If the plaintiff was unconscious at the time of the injury, and under the defendants' control, then the plaintiff has adequately shown the control element for *res ipsa loquitur*, even if she cannot establish the exact instrumentality that caused the injury." *Willis*, 2020 IL App (1st) 180718, ¶ 37. Further, "if [the plaintiff] can convince a finder of fact that the injury occurred during the surgery, 'it can be inferred *** that the instrumentality of the injury was the handling' of [the plaintiff] by defendants." *Id.* (quoting *Collins v. Superior Air-Ground Ambulance Service, Inc.*, 338 Ill. App. 3d 812, 820, 789 N.E.2d 394, 401 (2003)).

¶ 44 "[U]nder Illinois precedent, [a] plaintiff is not required to show that his injuries were more likely caused by any particular one of the defendants in order to proceed with his

res ipsa claim, nor must he eliminate all causes of his injuries other than the negligence of one or more of the defendants." *Heastie*, 226 Ill. 2d at 533-34. "In order to show the first element of *res ipsa loquitur*, an occurrence that ordinarily does not happen in the absence of negligence, a plaintiff is not required to show that the injury in question never happens without negligence, only that it does not ordinarily happen without negligence." *Adams v. Family Planning Associates Medical Group, Inc.*, 315 Ill. App. 3d 533, 545, 733 N.E.2d 766, 775-76 (2000).

¶ 45 "A plaintiff need not conclusively prove all the elements of *res ipsa loquitur* in order to invoke the doctrine. He need only present evidence reasonably showing that elements exist that allow an inference that the occurrence is one that ordinarily does not occur without negligence." *Dyback v. Weber*, 114 Ill. 2d 232, 242, 500 N.E.2d 8, 12 (1986).

> "Illinois law does not require a plaintiff to show the actual force which initiated the motion or set the instrumentality in operation in order to rely on the *res ipsa* doctrine. To the contrary, if the specific and actual force which initiated the motion or set the instrumentality in operation were known unequivocally, leaving no reason for inference that some other unknown negligent act or force was responsible, the *res ipsa* doctrine could not even be invoked." *Heastie*, 226 Ill. 2d at 539.

¶ 46 B. Johnson Made a *Prima Facie* Showing of the Elements of *Res Ipsa Loquitur*

¶ 47 1. *The Injury Was One That Ordinarily Does Not Occur Absent Negligence*

¶ 48 Bal's testimony indicated that he had performed hundreds of hip replacements and had not encountered an injury such as the one Johnson had. Bal further stated that his review of the literature regarding injuries to the femoral nerve during a total hip replacement showed that the injuries experienced were transient or temporary and, to the extent such injuries continued, they were not anywhere near as severe as those Johnson experienced. Bal's deposition testimony

adequately set forth his opinion that a severe and permanent injury to the femoral nerve does not occur in the absence of negligence and the factual bases therefor.

¶ 49 In *Spidle v. Steward*, 79 Ill. 2d 1, 8, 402 N.E.2d 216, 219 (1980), the Illinois Supreme Court acknowledged that had the expert in that case testified that the injury would not have occurred ordinarily in the absence of negligence, such testimony "would have established directly plaintiff['s] initial burden with respect to the probability component." "Such a direct answer *** would be sufficient initially even though it would not have constituted proof that [the injury at issue] never happen[s] without negligence." *Id.* at 9.

¶ 50 In *Poole*, the plaintiff's expert testified that although vocal cord paralysis was a known risk of a subtotal thyroidectomy, "*bilateral* vocal cord paralysis ordinarily would not have occurred in the absence of a deviation from the standard of care." (Emphasis in original.) *Poole*, 186 Ill. App. 3d at 556. The appellate court held that the jury should have been given the *res ipsa loquitur* instruction even though (1) the defense expert testified that the bilateral injury was a known complication and (2) the plaintiff's evidence "did not conclusively prove how or why the nerves [responsible for the injury] were damaged." *Id.* at 559-60.

¶ 51 Bal opined that a retractor caused the injury. His opinion was based on the medial location of the incision, which would have increased the proximity of the retractor to the branches of the femoral nerve that were ultimately permanently injured and increased the risk of damage. Bal acknowledged that the location of the incision was not a violation of the standard of care despite the increased risk of nerve damage.

¶ 52 Although Bal agreed that femoral nerve injuries were a known risk of total hip replacement surgery, he clarified that the type and degree of such injuries were limited to transient symptoms that eventually resolved or to mild symptoms that were generally tolerable. Bal

unequivocally stated that Johnson's injury, a permanent denervation of multiple branches of the femoral nerve resulting in the inability to use two of his quadricep muscles, was not the type of injury that would have occurred in the absence of negligence.

¶ 53 Almost 40 years ago, this court examined whether the plaintiff in a medical malpractice case presented sufficient evidence in her case in chief to invoke the *res ipsa* doctrine and withstand a directed verdict. See *McMillen v. Carlinville Area Hospital*, 114 Ill. App. 3d 732, 737-38, 450 N.E.2d 5, 10 (1983). In affirming the directed verdict in the defendant's favor, we noted that the expert testified merely that the plaintiff's reaction was unexpected and the doctor " 'couldn't rule it out completely' " that the injection caused the injury. *Id.* at 738. We then concluded, "It is thus apparent that while plaintiff might have had a scintilla of evidence in support of her elements, that is insufficient ***." *Id.* By contrast, Bal testified the retractor caused the injury and explained that the injury was not merely unexpected, but instead was so severe that it would not have occurred absent negligence.

¶ 54 Bal's deposition testimony was sufficient to establish a genuine issue of material fact regarding the cause of Johnson's injury. Johnson was not required to eliminate all possible causes of the injury, nor was he required to show that the injury could *only* be the result of negligence. The plain language of the *res ipsa* statute is clear: "Proof of an unusual, unexpected or untoward medical result which *ordinarily* does not occur in the absence of negligence *will suffice* in the application of the doctrine." (Emphases added.) 735 ILCS 5/2-1113 (West 2018). Bal's testimony went much further, opining that he had never seen nor read about such an injury occurring in the absence of negligence. Although defendants are correct that an unexpected result is not enough on its own to invoke the *res ipsa* doctrine, such a result is sufficient when coupled with expert testimony that the result does not ordinarily occur in the absence of negligence. *Spidle*,

79 Ill. 2d at 9.

¶ 55 2. *Harden Had Control of the Retractor for* Res Ipsa *Purposes*

¶ 56 Advocate contends Johnson failed to establish that the instrumentality of the injury—the retractor—was within the control of Harden or other agents of Advocate BroMenn. In fact, Advocate argues, the deposition testimony unequivocally shows that Armstrong had exclusive control over the retractors because each occurrence witness testified to the same. We disagree. As we explain, Advocate misconstrues the showing necessary to establish control.

¶ 57 "In *res ipsa loquitur* and alternative liability situations, all parties who could have been the cause of the plaintiff's injuries are joined as defendants." *Smith v. Eli Lilly & Co.*, 137 Ill. 2d 222, 257, 560 N.E.2d 324, 339-40 (1990). "A plaintiff's failure to name as defendants all of the entities who might have caused his injuries is fatal to the action since the plaintiff must eliminate the possibility that the accident was caused by someone other than any defendant." (Internal quotation marks omitted.) *Raleigh v. Alcon Laboratories, Inc.*, 403 Ill. App. 3d 863, 869, 934 N.E.2d 530, 536 (2010).

¶ 58 Advocate is correct that Harden, Armstrong, and even Bal testified at their depositions that Armstrong was the only person to place, reposition, or otherwise move the retractor. They all similarly testified that although Harden physically held the retractor, she did so only as instructed by Armstrong. In other words, Armstrong was responsible for the retractor at all times.

¶ 59 However, this testimony establishes precisely why Harden was in control of the retractors in the sense necessary to support the elements of *res ipsa loquitur*. As explained, *res ipsa loquitur* is a form of proof available when the plaintiff can establish that an injury would not have occurred in the absence of negligence but cannot conclusively establish the precise cause

of the injury. *Poole*, 186 Ill. App. 3d at 558. Harden testified that the job of a surgery technician is to follow the surgeon's instructions precisely and not move or use (other than by holding in place) any surgical instrument. Obviously, if a surgical technician *did* move an instrument or hold that instrument incorrectly and an injury occurred as a result, the technician would be liable.

¶ 60 The undisputed evidence shows that Harden held the retractor. Bal testified that, in his opinion, the retractor caused the injury. Bal further testified that permanent and severe nerve damage to the femoral nerve does not occur in the absence of negligence. Accordingly, Johnson made a *prima facie* showing of the elements of *res ipsa loquitur*.

¶ 61 Although none of the people present during the surgery testified at their depositions that Harden acted improperly, this is not unexpected. Even Bal agreed during his deposition that from his review of the medical records, Armstrong complied with the standard of care. But that is precisely why the *res ipsa loquitur* doctrine applies: the injury speaks for itself. Bal explained that even though the documentation *says* all of the right things, in his opinion—based on his education and experience—the outcome was one that would not have occurred in the absence of negligence. That is, if the medical records and deposition testimony of the occurrence witnesses accurately reflected what happened, then Johnson would not have suffered permanent nerve damage.

¶ 62 In *Willis*, the experts testified that the plaintiff's injuries could have occurred in any number of ways caused by any number of people, such as a nurse placing too much pressure on a particular area. Likewise, in this case, Harden could have accidentally or unknowingly held the retractor in such a way as to cause the injury.

¶ 63 It is important to note that the inference of negligence is not the same in every case or even as to each defendant. Bal's opinion was that Armstrong improperly placed the retractor so as to damage the femoral nerve. At trial, even if Advocate did not present any evidence, the jury

would be free to reject the inference of negligence based on the mere fact that none of the witnesses identified a single thing Harden did wrong. See *Imig v. Beck*, 115 Ill. 2d 18, 27, 29, 503 N.E.2d 324, 329 (1986) ("The inference may be strong, requiring substantial proof to overcome it, or it may be weak, requiring little or no evidence to refute it. The weight or strength of such inference will necessarily depend on the particular facts and circumstances of each case and is normally a question of fact to be determined by the jury." "Since the doctrine gives rise only to a permissive inference, in most cases a directed verdict for the plaintiff will not be appropriate, even where the defendant presents no explanation or rebuttal, because it must be left to the jury whether to draw the inference of negligence from the circumstances of the occurrence."). But if Johnson did not include Harden as a defendant, Armstrong could, quite rightly, argue to the trial court that the *res ipsa* doctrine was not appropriate because Harden had physical control over the instrumentality of the injury during the surgery.

¶ 64 3. *Johnson Did Not Need an Expert To Establish Harden's Standard of Care*

¶ 65 The whole point of the *res ipsa* doctrine is to provide an alternative method of proof when the injury would be otherwise unexplainable. Once a plaintiff establishes, through sufficient expert testimony, that the injury is one that would not ordinarily occur in the absence of negligence, and *res ipsa* applies, all defendants alleged to be in control of the instrumentality that allegedly caused the injury must be named defendants, and no further standard of care testimony is required.

¶ 66 If Advocate were correct, the same argument could be made successfully in the prototypical *res ipsa* case: a sponge left in a patient following surgery. Had this occurrence happened to Johnson, it would be no defense for Harden or Armstrong to state that the undisputed evidence shows that neither of them did anything wrong or that Johnson did not present any testimony as to what a reasonably careful surgeon or surgical technician would have done. The

sponge was still left in the patient, and *someone's* negligence during that operation was responsible for that error.

¶ 67 The essence of *res ipsa loquitur* is that the *injury* speaks for itself. Were it otherwise, there would be no need for the doctrine. Armstrong and Harden would be home free because Johnson could never find an expert to suggest that either one did something specifically wrong because all the records and testimony would point in the opposite direction.

¶ 68 Here, Johnson needs an expert to explain to the jury whether or not the type of injury in this case is the total-hip-replacement equivalent of leaving a sponge in a patient. However, the circumstances of the injury themselves—*i.e.*, going to a hospital, being rendered unconscious, and having surgery performed—unquestionably establish that those in control of the patient have a duty to exercise ordinary care and not injure the patient by violating that duty. In essence, the *control* element of the *res ipsa* doctrine is sufficient to establish a duty of care. Expert testimony is required to show that the injury is not one that would ordinarily occur absent negligence. The jury must then decide whether the resulting inference of negligence is sufficient to establish liability.

¶ 69 Advocate cites *Taylor v. City of Beardstown*, 142 Ill. App. 3d 584, 491 N.E.2d 803 (1986). We acknowledge that 35 years ago, this court held in *Taylor* that testimony regarding the standard of care and deviation from that standard was required to invoke the *res ipsa* doctrine. *Id.* at 593. We note that, as far as we can tell, the only other case to make such an explicit statement or rely on *Taylor* for that same proposition is *Smith v. South Shore Hospital*, 187 Ill. App. 3d 847, 857-58, 543 N.E.2d 868, 873 (1989), which itself has never been cited for that proposition. Indeed, in *Solon v. Godbole*, 163 Ill. App. 3d 845, 850, 516 N.E.2d 1045, 1048 (1987) (quoting *Plost v. Louis A. Weiss Memorial Hospital*, 62 Ill. App. 3d 253, 258, 378 N.E.2d 1176, 1180 (1978)), the

Third District noted, "[A] plaintiff may proceed to trial without an expert '*** where the theory is "*res ipsa loquitur*." ' " We decline to follow *Taylor*.

¶ 70 Additionally, Illinois Supreme Court cases indicate that a plaintiff need demonstrate only a *prima facie* case of the elements of *res ipsa loquitur* to be entitled to proceed to trial using that method of proof. This reasoning makes sense because the plaintiff may have no idea how the injury happened and, as in this case, the medical records may state that everything occurred normally and the providers complied with the standard of care. Quoting a California case, the Illinois Supreme Court wrote the following:

> " 'The present case is of a type which comes within the reason and spirit of the doctrine more fully perhaps than any other. *** [I]t is difficult to see how the doctrine can, with any justification, be so restricted in its statement as to become inapplicable to a patient who submits himself to the care and custody of doctors and nurses, is rendered unconscious, and receives some injury from instrumentalities used in his treatment. Without the aid of the doctrine a patient who received permanent injuries of a serious character, obviously the result of someone's negligence, would be entirely unable to recover unless the doctors and nurses in attendance voluntarily chose to disclose the identity of the negligent person and the facts establishing liability.
>
> * * *
>
> *** The control, at one time or another, of one or more of the various agencies or instrumentalities which might have harmed the plaintiff was in the hands of every defendant or of his employees or temporary servants. This, we think, places upon them the burden of initial explanation.' " *Kolakowski v. Voris*, 83 Ill.

2d 388, 395-96, 415 N.E.2d 397, 400-01 (1980) (quoting *Ybarra v. Spangard*, 154 P.2d 687, 689-90, 25 Cal. 2d 486, 490-92 (Cal. 1944)).

¶ 71 The Illinois Supreme Court also wrote the following in *Spidle*:

"In addition, the [*res ipsa*] doctrine is useful in combatting the reluctance of medical personnel to testify against one another. (*Sanders v. Frost* (1969), 112 Ill. App. 2d 234, 241; Prosser, Torts sec. 39, at 227 (4th ed. 1971).) Doctors, for example, 'may be more willing to testify that the injury was of a kind which would not ordinarily occur in the exercise of due care than they would be to specify those acts which constituted negligence.' Note, *The Application of Res Ipsa Loquitur in Medical Malpractice Cases*, 60 Nw. U.L. Rev. 852, 865 (1966)." *Spidle*, 79 Ill. 2d at 6.

¶ 72 III. CONCLUSION

¶ 73 For the reasons stated, we reverse the trial court's judgment and remand for further proceedings.

¶ 74 Reversed and remanded.

No. 4-21-0038

Cite as:	*Johnson v. Armstrong*, 2021 IL App (4th) 210038
Decision Under Review:	Appeal from the Circuit Court of McLean County, No. 18-L-126; the Hon. Rebecca S. Foley, Judge, presiding.
Attorneys for Appellant:	James P. Ginzkey, of Ginzkey Law Office, of Bloomington, for appellant.
Attorneys for Appellee:	Peter W. Brandt and Kevin M. Toth, of Livingston, Barger, Brandt & Schroeder, LLP, of Bloomington, for appellee Lucas Armstrong. Stacy K. Shelly, Troy A. Lundquist, and Scott A. Schoen, of Langhenry, Gillen, Lundquist & Johnson, LLC, of Princeton, for appellees Advocate Health and Hospitals Corporation and Sarah Harden.

IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
MCLEAN COUNTY, ILLINOIS

WILLIAM "WES" JOHNSON,

Plaintiff,

vs.

LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD., SARAH HARDEN, PAMELA ROLF, and ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER,

Defendants.

and

BRIAN STENGER and JORDAN PROSSER,

Respondents in Discovery.

2018L0000126

FIRST CASE MANAGEMENT CONFERENCE
BEFORE JUDGE LAWRENCE
SET ON 03/07/2019 AT 10:00 AM

COMPLAINT

COUNT I
(Negligence v. Armstrong)

Plaintiff, WES JOHNSON, complains of defendant LUCAS ARMSTRONG, M.D. as follows:

1. At all times alleged herein defendant, LUCAS ARMSTRONG, M.D., (hereinafter, "ARMSTRONG") was a physician licensed in the State of Illinois and practicing in the field of orthopedic surgery in McLean County, Illinois.

2. On or prior to October 6, 2016 ARMSTRONG diagnosed WES JOHNSON with left hip osteoarthritis due to developmental dysplasia of the hip.

3. On October 6, 2016 ARMSTRONG performed a left total hip arthroplasty on WES JOHNSON using a direct anterior approach.

4. Following ARMSTRONG's surgery WES JOHNSON was discharged from the hospital with postoperative femoral nerve palsy.

5. At all times alleged herein ARMSTRONG had a duty to act as a reasonably careful orthopedic surgeon under the circumstances described.

6. In breach of that duty, on October 6, 2016 ARMSTRONG was guilty of the following negligent acts and omissions:

   a. Failing to properly identify, preserve, and protect WES JOHNSON'S femoral nerve;

   b. Improperly retracting WES JOHNSON's femoral nerve or improperly directing the placement of the retractors; or

   c. Directly traumatizing WES JOHNSON's femoral nerve.

7. On both January 11, 2017 and June 1, 2017 ARMSTRONG's partner, Dr. Craig Carmichael, performed an electromyogram on WES JOHNSON.

8. Both studies demonstrated a severe left femoral neuropathy that is specific to the branches to the vastus lateralis and rectus femoris muscles.

9. The lesion appears complete with no evidence of voluntary motor unit potential activation.

10. As a direct and proximate result of ARMSTRONG'S negligence, WES JOHNSON endured and continues to endure significant pain and suffering, incurred medical expenses, sustained permanent disability, and suffered loss of a normal life.

11. Attached hereto and made a part hereof in conformance with 735 ILCS 5/2-622 are both an affidavit of counsel and a physician's report.

Wherefore, plaintiff prays judgment against defendant in an amount in excess of $50,000 plus costs of suit.

COUNT II
(Respondent Superior v. McLean County Orthopedics)

Plaintiff, WES JOHNSON, complains of defendant, McLEAN COUNTY ORTHOPEDICS, LTD., as follows:

1-11. Plaintiff repeats and realleges paragraphs 1 through 11 of Count I as and for paragraphs 1 through 11 of Count II as though fully set forth herein.

12. The action and inactions of LUCAS ARMSTRONG were performed within the scope and authority of his employment by McLEAN COUNTY ORTHOPEDICS, LTD.

Wherefore, plaintiff prays judgment against defendant for an amount in excess of $50,000 plus costs of suit.

COUNT III
(*Res Ipsa loquitur*)

Plaintiff, WES JOHNSON, complains of defendants, LUCAS ARMSTRONG, SARAH HARDEN, AND PAMELA ROLF as follows:

1-9. Plaintiff repeats and realleges paragraphs 1 through 9 of Count I as and for paragraphs 1 through 9 of Count III as though fully set forth herein.

10. During the October 6, 2016 surgery ARMSTRONG was assisted by scrub nurses, SARAH HARDEN and PAMELA ROLF.

11. The injuries to WES JOHNSON's femoral nerve occurred while the retractors, scalpel, electrocautery device and other surgical instruments were under the control of ARMSTRONG, HARDEN, and ROLF.

12. In the ordinary course of events, the injuries sustained by WES JOHNSON would not have occurred if ARMSTRONG, HARDEN, and ROLF had used a reasonable standard of professional care while the retractors, scalpel, electrocautery device and other surgical instruments were under their control.

13. As a direct and proximate result of the negligence of ARMSTRONG, HARDEN, AND ROLF, WES JOHNSON sustained the damages previously described.

14. Attached hereto and made a part hereof in conformance with 735 ILCS 5/2-622 are both an affidavit of counsel and a physician's report

Wherefore, plaintiff prays judgment against defendant for an amount in excess of $50,000 plus costs of suit.

COUNT IV
(*Res ipsa loquitur* v. AHHC)

Plaintiff, WES JOHNSON, complains of defendant, ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER, as follows:

1-13. Plaintiff repeats and realleges paragraphs 1 through 13 of Count III as and for paragraphs 1 through 13 of Count IV as though fully set forth herein.

14. The actions or inactions of SARAH HARDEN and PAMELA ROLF were performed within the scope and authority of their employment by ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER.

15. As a direct and proximate result of the negligence of AAHC, WES JOHNSON sustained the damages previously described.

Wherefore, plaintiff prays judgment against defendant in an amount in excess of $50,000 plus costs of suit.

RESPONDENTS IN DISCOVERY

Pursuant to 735 ILCS 5/2-402, plaintiff hereby names BRIAN STENGER and JORDAN PROSSER as Respondents in Discovery.

WILLIAM "WES" JOHNSON, Plaintiff

By: /s/ James P. Ginzkey
One of his Attorneys

James P. Ginzkey
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K:\Clients\Johnson, W\0 Pleadings\1Complaint.wpd

ATTORNEY'S AFFIDAVIT

STATE OF ILLINOIS)
) ss.
COUNTY OF MCLEAN)

I, JAMES P. GINZKEY, after having been first duly sworn on oath and affirmation and pursuant to 735 ILCS 5/2-622 of the Illinois Code of Civil Procedure state:

1) I have consulted and reviewed the facts of this case with a health care professional who is a physician licensed to practice medicine in all its branches and who I reasonably believe:

   a) is knowledgeable in the relevant issues involved in this particular action;

   b) practices or has practiced with the last 6 years or teaches or has taught within the last 6 years in the same area of health care or medicine that is at issue in this particular action; and

   c) is qualified by experience or demonstrated competence in the subject of this case.

2) That the reviewing health care professional has determined in a written report, after a review of medical records and other relevant material involved in this particular action, that there is a reasonable and meritorious cause for the filing of this action.

3) That I have concluded on the basis of the reviewing health care professional's review and consultation that there is a reasonable and meritorious cause for filing this action.

FURTHER AFFIANT SAYETH NOT.

Subscribed and sworn to before me this

18th day of September, 2018.

Notary Public

James P. Ginzkey
GINZKEY LAW OFFICE
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Primary email: service@ginzkeylaw.com
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OFFICIAL SEAL
SUSAN RASOR
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:03/05/21

James P. Ginzkey 221 E.
Washington Bloomington,
IL 61701

RE: William "Wes" Johnson
d/o/b: 03/21/1962

Dr. Mr. Ginzkey:

At your request, I have now reviewed the records of Wes Johnson from Advocate BroMenn Medical Center in Normal, Illinois and the office charting of McLean County Orthopedics in Bloomington, Illinois. Those records reflect that on October 6, 2016 Wes Johnson underwent a left total hip arthroplasty using a direct anterior approach by Dr. Lucas Armstrong of McLean County Orthopedics. The patient's discharge summary from the following day reflects that he was suffering from postoperative femoral nerve palsy.

The patient was seen by Dr. Armstrong's partner, Dr. Craig Carmichael, on January 11, 2017 and June 1, 2017. On both dates Dr. Carmichael conducted an electromyogram. Both studies demonstrated a severe left femoral neuropathy that is specific to the branches to the vastus lateralis and rectus femoris muscles, but spares the branch to the vastus medialis. The lesion is complete with no evidence of voluntary motor unit potential activation. While temporary injury to the patient's lateral femoral cutaneous nerve is a known risk of the direct anterior approach in total hip arthroplasty, direct trauma or traction injury causing permanent damage to the femoral nerve involved here, is not an expected outcome of anterior approach total hip arthroplasty. This patient's femoral nerve was not properly identified, preserved, and protected at the time of the surgical procedure by Dr. Armstrong, or at his direction. The surgical technique used here fell below the standard of care. This type of permanent injury generally does not occur absent negligence.

I believe that a meritorious cause of action exists against Dr. Armstrong, McLean County Orthopedics, Ltd., scrub nurses, Sarah Hardin and Pamela Rolf, as well as their employer, Advocate Health and Hospitals Corporation d/b/a Advocate BroMenn Medical Center. I am board certified in orthopedic surgery and am familiar with the type of surgery performed here. I am also familiar with the medical sequelae arising from these types of procedures. My opinions are based upon a reasonable degree of medical certainty but I reserve the right to amend my opinions as more information becomes available.

Respectfully,

SUPREME COURT RULE 222(b) AFFIDAVIT

STATE OF ILLINOIS)
) ss
COUNTY OF McLEAN)

I, JAMES P. GINZKEY, after having been first duly sworn, on oath and affirmation state that damages sought in this cause **do** exceed $50,000.

FURTHER AFFIANT SAYETH NOT.

James P. Ginzkey

Subscribed and sworn to before me this

18th day of September,
2018.

Notary Public

OFFICIAL SEAL
SUSAN RASOR
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:03/05/21

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IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
MCLEAN COUNTY, ILLINOIS

FILED
4/14/2020 2:22 PM
DONALD R. EVERHART, JR.
CLERK OF THE CIRCUIT COURT
MCLEAN COUNTY, ILLINOIS

WILLIAM "WES" JOHNSON,	)	
	)	
Plaintiff,	)	
vs.	)	2018 L 0000126
	)	
LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD., SARAH HARDEN, and ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER,	)	
	)	
Defendants.	)	

PLAINTIFFS' SUPREME COURT RULE 213(f)(3)
WITNESS DISCLOSURE OF SONNY BAL, M.D.

Pursuant to Supreme Court Rule 213(f)(3) plaintiff discloses the following "controlled expert witness" and (i) the subject matter on which the witness will testify; (ii) the conclusions and opinions of the witness and the bases therefore; (iii) the qualifications of the witness; and (iv) any reports prepared by the witness about the case:

B. Sonny Bal, M.D.
2000 E. Broadway, #251
Columbia, MO 65201

(i) Dr. Bal will testify to the standard of care applicable to a total hip arthroplasty using an anterior approach, whether there were any deviations from that standard in the present case, and what injuries were proximately caused by any such deviations.

(ii) Dr. Bal's opinions and conclusions, and the bases therefore are as follows:

(a) In his left total hip arthroplasty of 10/6/2016 Lucas Armstrong deviated from the required standard of care in the following respects:

1) making his initial incision much too medially;

2) failing to properly identify the patient's femoral nerve;

3) failing to adequately protect the patient's femoral nerve; and

4) causing injury to the patient's left femoral nerve resulting in permanent denervation of the branches to 2 of the patient's 4 quadriceps muscles, the vastus lateralis and rectus femoris.

(b) The surgical instruments injuring the patient's femoral nerve were under the control of Lucas Armstrong and his scrub nurse, Sarah Harden, who was acting at his direction.

(c) In the normal course of a total hip arthroplasty, complete denervation of 2 of a patient's 4 quadriceps muscles does not happen in the absence of negligence.

(d) Complete denervation of 2 of the patient's 4 quadriceps muscles has caused loss of strength in the patient's left leg resulting in multiple falls and head trauma.

(iii) Dr. Bal's opinions are based upon his education, training and experience as set forth in the attached curriculum vitae, as well as his review of the following materials:

(a) Medical:

1) Chronology with 8 supporting records;
2) Advocate BroMenn Medical Center charting from 9/13/16 through 11/4/16 (including OP Note of 10/6/16 and Discharge Summary of 10/7/16);
3) Washington Univ. Physicians records (including nerve transplant consult of 7/16/18);
4) EMG/NCVs of 1/11/2017 and 6/14/17;
5) 3T MARS MRI of 9/30/2019

(b) Depositions with exhibits:

1) **Lucas Armstrong, M.D.;**
2) **Sarah Harden;**
3) **Pamela Rolf;**
4) **William "Wes" Johnson;**
5) **Craig Carmichael, M.D.;**
6) **Thomas Tung, M.D.;**

(c) Other documents:

1) **Exhibit 13 to deposition of Craig Carmichael, M.D.**
2) **Photograph of incision taken 4/16/19**
3) **DePuy Synthes brochure "The Anterior Approach"**

(iv) Dr. Bal prepared no reports.

Plaintiff reserves the right to call as a witness any person disclosed or identified as a trial witness pursuant to Supreme Court Rule 213(f)(3) by any other party to this litigation, regardless of whether that person is, in fact, actually called as a witness by the disclosing party, either in their case in chief or in rebuttal.

William "Wes" Johnson, Plaintiff

By: /s/James P. Ginzkey
One of his attorneys

James P. Ginzkey
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ARDC #3124355
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Secondary email: jim@ginzkeylaw.com

PROOF OF SERVICE

Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned, a non-attorney, certifies that on the 14th day of April, 2020 at or before the hour of 5:00 p.m. the foregoing instrument was filed with the Clerk of the Court using Odyssey eFile and Serve, which shall serve the following attorney(s) of record at the email addresses designated in the system, as follows:

Peter W. Brandt, Esq.
e-mail: pbrandt@lbbs.com
Rachel J. Brandt, Esq.
e-mail: rbrandt@lbbs.com

Troy A. Lundquist, Esq.
e-mail: tlundquist@lglfirm.com
Scott A. Schoene, Esq.
e-mail: sschoen@lglfirm.com

/s/ Susan Rasor
susan@ginzkeylaw.com

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B. SONNY BAL; MD, MBA, JD, Ph.D

CURRICULUM VITAE

CONTACT :

Mailing: 2000 E. Broadway, # 251
Columbia, MO 65201

Telephone: (573) 808 4512
Email: balb@missouri.edu

PRESENT POSITION:

Chief Executive Officer and President
SINTX Technologies
1885 W. 2100 South
Salt Lake City, UT 84119

PROFESSIONAL HIGHLIGHTS:

1. **MEDICAL:**
    a. Jackson County Orthopaedics, Blue Springs, MO: Private practice in general orthopaedic surgery as partner in 4-physician group; 1994-1999.
    b. University of Missouri-Columbia: Academic practice in arthroplasty surgery; 1999-2017

2. **LEGAL**:
    a. Contributing Editor: "Orthopaedic Medico-Legal Advisor" Column in *Orthopedics Today* newsletter; 2005-present
    b. Contributing Editor: "MedicoLegal Sidebar" quarterly column in peer-reviewed *Clinical Orthopaedics and Related Research;* 2012-present
    c. Assisted law firms nationwide in medical malpractice, product liability, and intellectual property litigation.

3. **CORPORATE**:
    a. President, and CEO of SINTX Technologies (Nasdaq: SINT); 2014-present
    b. Chairman, Board of Directors SINTX Technologies; 2014-present
    c. Financing milestones:
        i. Dawson James Securities (Agent): Public offering of stock and warrants, $13 million, December 2014.
        ii. Ladenburg-Thalmann (Agent): Registered Direct/Private Placement $15 million in Common Stock and Warrants, September 2015
        iii. Ladenburg-Thalmann (Agent): Follow-on Offering, $12.7 million in

Common Stock & Warrants, and Convertible Preferred Stock & Warrants, July 2016

iv. Maxim Group New York (Agent): Follow on Offering in Common Stock and Warrants, $4.5 million, January 2017

v. Maxim Group New York (Agent): Preferred Stock and Warrants Offering; $15 million, May 2018

EDUCATION:

Engineering:

Kyoto Institute of Technology (Ph.D) — 10/15/2014 to 9/26/2016
Kyōto Kōgei Sen'i Daigaku, Kyoto, Japan

Law:

University of Missouri School of Law (JD) — 8/27/2002 to 5/16/2009
Columbia, Missouri

Business Management:

Kellogg Graduate School of Management (MBA) — 09/1/1997 to 6/30/1999
Northwestern University
Evanston, Illinois

Medical School:

Cornell University Medical College (MD) — 8/1/1983 to 5/27/1987
New York, New York

College:

University of California (MS-Genetics) — 7/1/1982 to 6/30/1983
Davis, California

University of California (BS-Genetics) — 3/1/1981 to 6/30/1982
Davis, California

San Joaquin Delta College (AA-Biology) — 1/16/1979 to 2/28/1981
Stockton, California

POST GRADUATE MEDICAL TRAINING

Fellowships:

Research Assistant — 8/1/1994 to 7/31/1995
Orthopaedic Biomechanics Laboratory
William H. Harris, M.D.
Massachusetts General Hospital
Boston, Massachusetts

Hip and Implant Surgery, Post-graduate year 7 — 8/1/1993 to 7/31/1994
William H. Harris, M.D.
Massachusetts General Hospital
Harvard Medical School
Boston, Massachusetts

Internship & Residency:

Orthopaedic Surgery, Post-graduate years 3-6 — 7/1/1989 to 6/30/1993
Department of Orthopaedic Surgery
University of Missouri School of Medicine
Kansas City, Missouri

General Surgery, Post-graduate years 1-2 — 7/1/1987 to 6/30/1989
Department of General Surgery
University of California Hospitals and Clinics
San Francisco, California

ACADEMIC APPOINTMENTS

Professor (with Tenure) — 9/1/2013 to 11/6/2017
Department of Orthopaedic Surgery
University of Missouri Health System-Columbia

Adjunct Faculty — 8/2012 to Present
Executive MBA Medicine Program
University Malaysia

Interim Chairman — 12/15/2008 to 8/30/2009
Department of Orthopaedic Surgery
University of Missouri Health System-Columbia

Chief of Adult Reconstruction — 9/1/2007 to 8/31/2013
Department of Orthopaedic Surgery
University of Missouri Health System-Columbia

Associate Professor — 9/1/2007 to 8/31/2013
Department of Orthopaedic Surgery
University of Missouri Health System-Columbia

Adjunct Professor — 2005 to Present
Department of Materials Science and Engineering
Missouri Science & Technology University -Rolla

Assistant Professor — 9/1/1999 to 8/31/2007
Department of Orthopaedic Surgery
University of Missouri Health System-Columbia

Assistant in Orthopaedic Surgery — 1993 to 1995

Cambridge Hospital/Harvard Medical School
Cambridge, Massachusetts

BOARD CERTIFICATION

American Board of Orthopaedic Surgery, July 1997
American Board of Orthopaedic Surgery, Recertified July 2016.
Licensed to practice law in Missouri since 2009

PROFESSIONAL MEMBERSHIPS & APPOINTMENTS

Orthopaedic Research & Education Foundation (OREF), Board of Trustees 2016-2019
CEO and President; Amedica Corp. (NASDAQ: AMDA, now SINT) 9/30/14 to present.
Chairman, Board of Directors, Amedica Corp. (above) August 21, 2014 to present.
MU Department of Radiology Promotion and Tenure Committee; July 2014 to present.
Amedica Corporate Board of Directors (above); January 1 2013 to present.
Amedica Corporate Audit Committee; January 1 2013 to present.
Amedica Corporate Compensation Committee; January 1 2013 to present.
Lifetime Member: International Soc. for Tech. in Arthroplasty; January 1, 2013 to present.
Professional Liability and Compliance Committee; March 1, 2012-October 30, 2015.
American Bar Association; 2009 to present.
The Missouri Bar Association; 2009 to present.
Florida Expert Witness Certificate since March 2014
University of Missouri Graduate Faculty; 2009.
University Physicians Professional Liability Committee; 2006 to 2008.
Clinical Orthopaedic Society; 2005 to present.
Jefferson Club, University of Missouri-Columbia; 2005 to present.
The Library Society, University of Missouri-Columbia; 2005 to present.
The McAlester Society, University of Missouri-Columbia; 2005 to present.
McMaster University Evidence-Based Journal Reviewing System; 2003 to 2006.
Missouri State Orthopaedic Association; 2003 to 2013.
American Association of Hip and Knee Surgeons; 2001 to present.
Mid-America Orthopaedic Association; 2000 to 2013.
Orthopaedic Research Society; 2000 to present.
Society for Biomaterials; 2000 to present.
American Academy of Orthopaedic Surgeons.
Shareholder/Partner, Jackson Country Orthopaedics, Inc., Blue Springs, MO; 1995 to 1999

HOSPITAL AFFILIATIONS

University of Missouri Hospital and Clinics; 6/21/1999 to 11/06/2017
Women's and Children, known as Columbia Regional Hospital; 8/16/2000 to present. (Active)
Boone Hospital Center; 6/2000 to 2/13/2014. (Courtesy)
Capital Region Medical Center; 11/15/2005 to present. (Active)
Harry S. Truman Veterans' Memorial Hospital; 12/12/1999 to present. (WOC)
St. Mary's Hospital, Blue Springs, MO; 7/1995 to 8/1999.

Centerpoint Medical Center of Independence, Independence, MO; 1995 to 1999.
Cambridge Hospital, Cambridge, MA; 1994 to 1995.

OUTPATIENT CENTER AFFILIATIONS

The Institute for Outpatient Surgery; 7/1/2002 to present.
HealthSouth Rusk Rehabilitation Center; 6/8/2006 to present.

HONORS AND AWARDS

Examiner, American Board of Orthopaedic Surgeons Part II: July 2009, 2011, 2012, 2017.
Missouri Hospitals Association Award for Exceptional Care, May 2017
Elite Reviewer for the Journal of Arthroplasty and 2014 "Wall of Fame"
AAOS Achievement Award, March 12, 2013.
Certificate of Editorial Achievement, Guest Editor for Composite Materials in Skeletal Engineering for Open Access Journal. December 2012.
AAOS Achievement Award for Volunteer Service. January 27, 2012.
Missouri Life Sciences Research Award. The Evaluation of a Synthetic Bioactive Biomaterial Scaffold for the Tissue Engineering of Cartilage. P Jayabalan, MN Rahaman, BS Bal, HJ Sims, JL Cook. July 18 – 21, 2011.
2nd Place Phi Zeta Research Day Poster Presentation, University of Missouri. July 18 – 21, 2011.
University of Missouri President's Intercampus Collaboration Award. March 4, 2011.
University of Missouri, Research and Creativities Forum 2010: 1st Place Award Bioactive Glass 13-93 as a subchondral substrate for tissue engineered osteochondral constructs *P Jayabalan, AR Tan, MN Rahaman, BS Bal, CT Hung, JL Cook.*
Appointed to Elwood L. Thomas Inn of Court, MU School of Law; 2008 to 2009.
American Board of Orthopaedic Surgeons: Invited examiner for oral examination of candidates taking Part II of ABOS Certification Examination, July 14-17, 2008, July 2017.
COL Making a Difference Award, 2008.
Paul "HAP" Award for Outstanding Scientific Paper, International Society of Technology in Arthroplasty (ISTA), August 2007.
American Academy of Orthopaedic Surgeons, Clinician-Scientist Travel Fellowship Award, December 2006.
American Academy of Orthopaedic Surgeons, Leadership Fellows Program, Class of 2007 (elected 2006).
University of Missouri Health Care Service Quality Award for July 2005.
Columbia Chamber of Commerce Leadership Certificate may 29, 2001
Department of Radiology-Chair Search Committee, University of Missouri Health Care, 2001.
St. Luke's Hospital House Staff Research Award, University of Missouri School of Medicine 1991.
Rex L. Diveley Orthopaedic Research Award, University of Missouri–Kansas City School of Medicine 1990, 1992, and 1993.
Department of Orthopaedic Surgery Prize, University of Missouri - Kansas City School of Medicine 1990, 1991, 1992, and 1993.
Richard H. Kiene Orthopaedic Award, University of Missouri - Kansas City School of Medicine 1990, 1991, and 1992.
Honors in Research with M.D. degree, Cornell University Medical College 1987.

Dept. of Physiology Basic Science Research Prize, Cornell University Medical College 1987.
Teaching Assistantships, Genetics and Biochemistry, University of California-Davis 1982 to 1983.
Alpha Zeta Honor Society, University of California-Davis 1982.
B.S. degree with High Honors, University of California-Davis 1982.
A.A. degree with High Honors, San Joaquin Delta College 1981.
Teaching Assistantships, Chemistry and Physics, San Joaquin Delta College 1980 to 1981.
Alpha Gamma Sigma Honor Society, San Joaquin Delta College 1980.

STUDENT RESEARCH ADVISOR, SPONSOR, MENTOR

"Design of a Cable Tensioning Tool For Reattachment of the Greater Trochanter." Undergraduate thesis, Mechanical & Aerospace Engineering, MU MAE 350 Honors Research, December 2002, Jonathan T. Brown. Sherif El-Gizawy, PhD, Honors Advisor and **B. Sonny Bal, MD**, Research Advisor.

"Finite Element Analysis of Proximal Femoral Loading In Minimally Invasive Total Hip Replacement." MS Thesis, October 2005, Aaron Xavier Molina Martell. Sherif El-Gizawy, PhD, Thesis Supervisor and **B. Sonny Bal, MD**, Thesis Co-Supervisor.

"Alternative Avenues for MedicoLegal Dispute Resolution." Program mentor and graduate advisor, 2005-2006, Sukhsimranjit Singh, LLM degree, University of Missouri Law School.

"Fabrication of Functional Gradient Composite Ceramic Materials for Orthopaedic Bearings." Hrishikesh Keshavan, 2002-2003. MS thesis, MU Aerospace and Mechanical Engineering. Graduate student advisors: Khaled Morsi, PhD, and **B. Sonny Bal, MD**.

"Response of primary human blood monocytes and the U937 human monocytic cell line to alumina ceramic particles." Efrat Yagil, MS thesis, MU School of Veterinary Immunobiology. Graduate Advisors: D. Mark Estes, PhD, and **B. Sonny Bal, MD.**

"Tissue-engineered osteochondral constructs." Post Graduate fellowship advisor: Dr. Wenhai Huang, PhD. January 1, 2005 to June 30, 2006. Mohamed Rahaman, PhD, and **B. Sonny Bal, MD.**

"Alumina/polyethylene acetabular cups and alumina-niobium bearings for total hip arthroplasty." Post Graduate fellowship advisor: Yadong Li, PhD, April 1, 2005 to July 31, 2006. Co-Advisors: Mohamed Rahaman, PhD, and **B. Sonny Bal, MD.**

"Interaction of cells with bioactive glasses." Undergraduate fellowship; Second Prize in the UM-Rolla annual undergraduate research competition, Agatha Dwilewicz, April 2006. Advisors: Mohamed Rahaman, PhD, and **B. Sonny Bal, MD.**

"Fabrication of hydroxyapatite and bioactive glass scaffolds for bone repair and regeneration." Qiang Fu, PhD, August 2005. Advisor: Mohamed Rahaman, PhD, and **B. Sonny Bal, MD.**

"Composite Ceramic THA Bearings." Post Graduate fellowship Dr. Aihua Yao, Visiting Scientist, July 15, 2006 to present. Advisors: Mohamed Rahaman, PhD, and **B. Sonny Bal, MD.**

"Nanomechanical Property Characterization of Femoral Heads." Masters of Science thesis presented to the Faculty of the Graduate School, University of Missouri-Columbia, Prashanthi Tirunagari 2006. Sanjeev Khanna, PhD, Thesis Supervisor and **B. Sonny Bal, MD**, Research Advisor.

"Freeze casting of bioactive ceramics and glass scaffolds for engineering bone tissue." PhD/DE Advisory and Thesis Defense Committee. Qiang Fu August 15, 2005 to May 28, 2009. Mohamed Rahaman, PhD, Faith Dogan, PhD, Roger Brown, PhD, Delbert Day, PhD and **B. Sonny Bal, MD**.

"Serum Amyloid Factor and Osteophyte Formation in Degenerative Joint Disease." Srijita Dhar, student May 2008 to present. Master's thesis committee.

Doctoral Dissertation and Advisory Committee member, PhD degree, Graduate Student Xin Liu, January 2010-August 2012, Missouri S&T University, Rolla, MO. Dissertation: Bioactive Glass Scaffolds for the Regeneration of Load-Bearing Bone.

"Bioactive Glass (13-93) as a subchondral substrate for tissue-engineered osteochondral constructs." Prakash Jayabalan, Andrea Tan, Mohammed N Rahaman, **B Sonny Bal**, Hannah J Sims, Clark T Hung and James L Cook. Prakash won 2010 MU Post-Doctoral Association Travel Award Grant.

Faculty Mentor: MU Discovery Fellow Research Student (Darby Provance); 2011 to 2012.

"A New Standard for Measuring Professional Conduct of the Physician in Training." *Publication in preparation* Faculty Advisor: Haden Ross Compton, 2nd year law student, University of Missouri-Columbia.

Advisor to Missouri Law Review Associate Member, fall 2011 academic semester, University of Missouri, Columbia.

Advisor to Clint Mathews. A class ran by Jake Holliday of the Missouri Innovation Center - Starting a High Growth Venture - The Business Plan.

Supported seven (7) post-graduate fellows at Comparative Orthopaedic Laboratory, 2003-2012.

PhD Advisory Committee; Wei Xiao. Bioactive glass scaffolds for structural bone repair. 2016

Pre-Clerkship Advisor to first year medical students and Clinical Advisor to students early in the M3 year.

Faculty Mentor: Student Research Fellowship (Mitchell Tarka); 2014-2015.

Committee Member for Yinan Lin for work on 13-93 bioactive glass doped with Cu in rat calvarial defect model and segmental model; 2014.

Clinical Risk and Judicial Reasoning –How to Make Legally Sound Clinical Decisions. Mentor: Caroline Poma, Class of 2017, University of North Carolina School of Law.

Faculty Mentor: Student Research Samuel Thompson and Dominic Zanaboni; A Comparison of Cost and Hospital Outcomes in Patients Receiving the ConforMIS iTotal TKA vs. an off the shelf brand; 2015.

Thesis advisory committee member for Yinan Lin: Healing of Bone Defects in a Rodent Calvarial Defect Model Using Strong Porous Bioactive Glass (13-93) Scaffolds; 2015.

ASC Preclerkship Advisor: Kenny Weith; August 2015-July 2016.

Mentor and Pre-clerkship Advisor: Medical Student John Welsh, University of Missouri 2017.

COMMITTEE SERVICE

National/International:

At-Large Legal Advisor for Health Policy Committee, American Association of Hip and Knee Surgeons, January 2010 to present.

Contributing Author to the Interactive Educational Program (IEP) for Total Joint, 2010 to present.

Orthopaedic Research & Education Foundation (OREF), Orthopaedic Partners Committee. Appointment, June 2010 to present.

Medical Liability Committee, American Academy of Orthopaedic Surgeons, March 2008 to March 2010.

Honorary One Health Initiative Website Advisory Board, July 2009 to present.

Hip, Knee, and Adult Reconstruction Evaluation Subcommittee, American Academy of Orthopaedic Surgeons, 2007 to March 2013.

American Academy of Orthopaedic Surgeons, Leadership Fellows Program, 2007 to 2008.

Legal Advisory Committee, American Association of Hip and Knee Surgeons, July 2005 to present; Vice-Chairman, November, 2005, Chairman elect 2007 to 2010.

American Legal Forum and Orthopaedic Medical Legal Advisor Bulletin, Founding Member, and Board of Directors, Chapel Hill, NC, 2005 to present.

Medical Liability Committee, American Academy of Orthopaedic Surgeons,
Academic Business and Practice Management Committee, American Academy of Orthopaedic Surgeons, 2002 to 2005.

Foundation for the Advancement of Research in Medicine, Board of Directors, California, 2002 to present.

ECRI-Health Technology Forecast Advisory Board, 2003 to 2005.

Orthopaedic Research & Education Foundation (OREF), Finance Committee. Appointment, August 2012 to present.

American Bar Association Advisory Panel, appointed March 2012 to present.

Advisory Board for *Physicians' Life* magazine, November 2014 to present.

Orthopaedic Research & Education Foundation (OREF), Visionary Research Society, August 2014-present.

Orthopaedic Research & Education Foundation (OREF) Board of Trustees, February 29, 2016-February 29, 2019.

Industry:

Board of Directors, Amedica US Spine Inc., Salt Lake City, UT. Appointed January 2012.

Board of Directors, OrthoMind Inc. Social Media website for Orthopaedic Surgeons. Appointed August 2011.

Hip and Knee Implant Designer Surgeon Panel, Zimmer Inc., Warsaw, Indiana, 2002-2011.

Total Joint Reconstruction Clinical Advisory Panel, Amedica Inc., Salt Lake City, UT, 2005 to present.

Board of Directors, BoneSmart.org and FARMortho LLC.

Scientific Advisory Board for the ConforMIS iTotal Hip Implant, May 2013 to present.

University of Missouri:

MU Discovery Fellows Program for the 2011 to 2012 academic year.

MU Orthopaedic Transitional Leadership Advisory Committee, 2008 to 2009.

Member; Board of Directors and Executive Committee, Missouri Orthopaedic Institute, University of Missouri.

Promotion & Tenure Committee of the Department of Orthopaedic Surgery, University of Missouri, Columbia.

University Physicians Medical Malpractice Committee.

EDITORIAL BOARDS/PEER REVIEWER

Peer reviewer for the Hip, Knee & Adult Reconstruction questions for the new Self-Assessment Examination based on the AAOS Orthopaedic Knowledge Online, April 27, 2012 to present.

Editorial Manager, Adult Reconstruction OKO Self-Assessment Exam: Adult Reconstruction, April 2011.

Editorial Board, *World Journal of Orthopedics* (WJO), March 2011 to present.

Peer reviewer, *Journal of Knee Surgery*, April 2010 to present.

Editorial Board member of *Orthopedics Today*, April 2010 to present.

Editorial Board of *Global Journal of Surgery*, February 2010 to June 30, 2012.

Dove Medical Press, Honorary Editorial Board, 2008 to present.

Editorial Board, *Journal of Orthopaedic Surgical Advances*, October 2007 to present.

Peer reviewer for *Journal of the American Academy of Orthopaedic Surgeons*.

Editorial Board for the *International Journal Medicine and Law*, January 1, 2014 to present.

Peer Reviewer, "Patient-Specific Rehabilitation in Knee Osteoarthritis"; PI – Stephen Sayers; University of Missouri Research Board Grant; May 2014.

Editorial Board, *Arthroplasty Today*, October 2014 to present.

SCIENTIFIC PRESENTATIONS (peer reviewed)

1. **Bal BS**. "Alpha-adrenergic blockade alters regional perfusion during E. coli bacteremia." First International Shock Congress and Tenth Annual Conference on Shock, Montreal, Canada, June 7-11, 1987.

2. **Bal BS**. "Concentration- and calcium- dependent binding of acidic phosphoproteins to type-I collagen." American Society for Bone and Mineral Research, San Diego, California, August 24-28, 1991.

3. **Bal BS**. "The oblique trochanteric osteotomy." 23rd Annual Hip Course, Harvard Medical School, Boston, Massachusetts, 1993.

4. **Bal BS**. "Factors in trochanteric union." 24th Annual Hip Course, Harvard Medical School, Boston, Massachusetts, 1994.

5. **Bal BS**. "Wear in monoblock versus modular femoral stems." 25th Annual Hip Course, Harvard Medical School, Boston, Massachusetts, 1995.

6. **Bal BS**. "Fate of trochanters in revision total hip arthroplasty." 25th Annual Hip Course, Harvard Medical School, Boston, Massachusetts, 1995.

7. **Bal BS**. “Trochanteric escape in revision total hip arthroplasty.” 25th Annual Hip Course, Harvard Medical School, Boston, Massachusetts, 1995.

8. **Bal BS**, Vandelune D, Gurba DM and Harris WH. “A comparison of polyethylene wear between femoral stems of different modularity, porous-coating, and metal composition.” Annual Meeting of the American Academy of Orthopaedic Surgeons, Atlanta, Georgia, February 22-26, 1995.

9. **Bal BS**. “Cementless cups into prior allografts.” 29th Annual Hip Course, Harvard Medical School, Boston, Massachusetts, 1999.

10. **Bal BS**. “Ceramic femoral components in total knee replacement.” Mid-Central States Orthopaedic Society/Missouri State Orthopaedic Association Annual Meeting, Branson, Missouri, June 2000.

11. **Bal BS**. “Ceramic femoral head fractures.” 4th Annual Symposium on Alternate Bearings in Total Joint Arthroplasty, Maui, Hawaii, September 24-26, 2001.

12. **Bal BS**. “Zirconia ceramic femoral component in total knee replacement.” 4th Annual Symposium on Alternative Bearings in Total Joint Arthroplasty, Maui, Hawaii, September 24-26, 2001.

13. Cook JL, Ray A, Ray BK, Kuroki K, Kenter K, **Bal BS**. “Transcription factor SAF-1 regulates matrix metalloproteinase-1 gene expression in osteoarthritis” Aust G. Orthop Res Soc, New Orleans, LA, February 2-5, 2003. ***Orthopaedic Research Society’s 2003New Investigator Recognition Award Winner***

14. **Bal BS**. “Ceramic-on-ceramic bearings in total hip replacement.” 33rd Annual Course, Advances in Arthroplasty, Harvard Medical School, Cambridge, MA, September 17-20, 2003.

15. **Bal BS**. “Ceramic total knee replacement.” The 6th Annual Symposium on Alternative Bearing Surfaces in Total Joint Replacement, San Francisco, California, September 22-24, 2003.

16. **Bal BS**. “Characterization of surface damage to alumina bearings in total hip arthroplasty.” 17th Annual Symposium of the International Society for Technology in Arthroplasty, Rome, Italy, September 23-25, 2004.

17. **Bal BS**. “Ceramics dislocation.” 34th Annual Course, Advances in Arthroplasty, Harvard Medical School, Cambridge, MA, September 29-October 2, 2004.

18. **Bal BS**. “My first 50 cases.” 34th Annual Course, Advances in Arthroplasty, Harvard Medical School, Cambridge, MA, September 29-October 2, 2004.

19. **Bal BS**. “Encore ceramic-ceramic and status of PDP.” The 7th Annual Symposium on Alternative Bearing Surfaces in Total Joint Replacement, Philadelphia, PA, October 14-15, 2004.

20. **Bal BS**. "Ceramic total knee replacement." The 7th Annual Symposium on Alternative Bearing Surfaces in Total Joint Replacement, Philadelphia, PA, October 14-15, 2004.

21. **Bal BS**. "MIS THR: not an easy road." The 7th Annual Symposium on Alternative Bearing Surfaces in Total Joint Replacement, Philadelphia, PA, October 14-15, 2004.

22. **Bal BS**. "Early clinical results of primary hip replacement surgery using two incisions." The 14th Annual American Association of Hip and Knee Surgeons, November 5-7, 2004, Dallas, Texas.

23. **Bal BS**, Haltom D, Aleto T, Barrett MO. "Clinical results in eighty-nine primary total hip replacements performed with a two-incision minimally invasive technique." Minimally Invasive Surgery meets Computer Assisted Orthopaedic Surgical Technology (MIS meets CAOS) Indianapolis, IN, May 19-21, 2005.

24. **Bal BS**, Garino JP. "Ceramic-on-ceramic versus ceramic-on-polyethylene bearings in total hip arthroplasty: results of a multicenter prospective randomized study and update of modern ceramic total hip trials in the USA." Biolox Symposium, Washington, DC, June 1-11, 2005.

25. **Bal BS**. "Surface changes to alumina femoral heads after metal staining during implantation, and after recurrent dislocations of the prosthetic hip." Biolox Symposium, Washington, DC, June 1-11, 2005.

26. **Bal BS**. "Primary total knee replacement with a zirconia ceramic femoral component." Biolox Symposium, Washington, DC, June 1-11, 2005.

27. **Bal BS**. "MIS sub-vastus approach to total knee replacement." 35th Annual Course, Advances in Arthroplasty, Harvard Medical School, Cambridge, MA, September 28-October 1, 2005.

28. **Bal BS**. "Ceramics for the orthopaedic surgeon." 35th Annual Course, Advances in Arthroplasty, Harvard Medical School, Cambridge, MA, September 28-October 1, 2005.

29. **Bal BS**. "High incidence of fractures of the polyethylene tibial post in a posterior cruciate-substituting total knee system." The 15th Annual American Association of Hip and Knee Surgeons, Dallas, Texas November 4-6, 2005.

30. **Bal BS**. "A few concepts, regards, medical defense, action and liability reform." An educational presentation by the AAHKS Legal Advisory Committee. The 15th Annual American Association of Hip and Knee Surgeons, Dallas, Texas, November 4-6, 2005.

31. **Bal BS**, Khandkar A."Alternative bearing in total hip replacement." The 50th Annual Conference of Indian Orthopaedic Association, Mumbai, India, December 28, 2005.

32. **Bal BS**."Alternative bearing – ceramics." The 50th Annual Conference of Indian Orthopaedic Association, Mumbai, India, December 28, 2005.

33. **Bal BS**, Greenberg DD, Li S, Cherry KL, Aleto TJ. "Failure of the polyethylene tibial post in a posterior cruciate-substituting total knee arthroplasty." Annual Meeting of the American Academy of Orthopaedic Surgeons, Chicago, Ill., March 24, 2006.

34. **Bal BS**, Lowe J, Burlingame N, Serafin L. "Relationship between diameter and load to failure in ceramic femoral heads." 23rd Annual Southern Orthopaedic Association Meeting, Paradise Island, Bahamas, July 20, 2006.

35. **Bal BS**, Lowe J. Burlingame N, Serafin L. "MIS sub-vastus approach to total knee replacement." Twenty-third Annual Southern Orthopaedic Association Meeting, Paradise Island, Bahamas, July 20, 2006.

36. **Bal BS**, Barrett MO, Lowe J. "Early outcomes of primary total hip replacements with a modified two incision approach." 23rd Annual Southern Orthopaedic Association Meeting, Paradise Island, Bahamas, July 20, 2006.

37. **Bal BS**. "Zimmer MIS 2-incision THA improvement—M/L taper hip." Zimmer Arthroplasty Course, Nashville, Tennessee, November 10, 2006.

38. **Bal BS**. "Avoiding leg length discrepancy with *VerSys* hip/longevity poly." Zimmer Arthroplasty Course, Nashville, Tennessee, November 10, 2006.

39. **Bal BS**, Ries M, Atwood S, Anderson M, Penenberg B, Halley D, Greenwald A, Pruitt L, Penenberg, B. "Fracture of highly cross-linked UHMWPE acetabular Liners." Presented at the 75th Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, March 5-9, 2008.

40. Khandkar AC, Bernero J, **Bal BS**, Lakshminarayanan R, Clarke I, Hoffman AA. "Silicon nitride: a new material for spinal implants." 10th Annual Update in Hip and Knee Arthroplasty and Bearings Surfaces, held in Racho Mirage, CA, September 17-19, 2008.

41. Cook JL, Lima EG, Ng KW, Kuroki K, Stoker AM, **Bal BS**, Ateshian GA, Hung CT. "Towards biologic osteochondral resurfacing of the canine patella using tissue engineered anatomic constructs." Orthopaedic Research Society, New Orleans, LA, March 6-9, 2009.

42. Lima EG, Chao PH, Ateshian GA, Cook JL, **Bal BS**, Vunjak-Novakovic G, Hung CT. "Porous tantalum metal outperforms devitalized bone as a substrate for osteochondral tissue engineering." Orthopaedic Research Society, New Orleans, LA, March 6-9, 2009.

43. Tan AR, Barsi JM, Jayabalan PS, Rahaman MN, **Bal BS**, Ateshian GA, Cook JL, Hung, CT. "The potential for 13-93 bioglass as a medium supplement for culturing tissue engineered cartilage." Orthopaedic Research Society, New Orleans, LA, March 6-9, 2009.

44. Jayabalan P, Tan AR, Rahaman MN, **Bal BS**, Sims HJ, Hung CT, Cook JL. "Bioactive glass (13-93) as a subchondral substrate for tissue-engineered osteochondral constructs." Orthopaedic Research Society, New Orleans, March 6-9, 2009

45. **Bal, BS**: "2010 Anterior approach total hip arthroplasty" for the round table discussion tip and tricks Q&A and "Learning the anterior approach my experience with technique (from 2–incision to anterior approach)" in Las Vegas, NV, October 22, 2010.

46. **Bal, BS**: "The anterior approach optimizes THA outcome" and "Ceramic-ceramic use in THA: comforts and caveats." 12th Annual Current Concepts in Joint Replacement Las Vegas, NV May 22 – 25, 2011.

47. **Bal BS**: "Anterior total hip replacement" 63rd Annual Meeting of The Association of Bone and Joint Surgeons in Dublin, Ireland, June 8-12, 2011.

48. **Bal BS**, Brenner LB: Symposium: "Contemporary medico-legal issues in orthopaedic surgery" in San Francisco, CA, February 6 - 10, 2012.

49. **Bal BS**: "Medico-legal issues in arthroplasty surgery," "Metal cones in TKR," "Fundamentals of revision TKA basic principles – case presentations and rapid fire discussions," "Bioactive glasses in skeletal reconstruction," "Infected TKR - case presentations and rapid fire discussions." 11th Anniversary of the Annual Advances in Arthritis, Arthroplasty and Trauma Course in St. Louis, MO, April 26-28, 2012.

50. **Bal BS**: "Current status of ceramic total hip bearings" and "Discussion panel: metal-on-metal total hips." 2012 Annual Missouri State Orthopaedic Association Meeting May 18 – 19, 2012.

51. **Bal BS** : "Ceramic Bearings in Total Hip Replacement", The 42nd Annual Advances in Arthroplasty Course, Harvard Medical School, Cambridge, MA, October 2–5, 2012.

52. **Bal BS**: 2013 Annual Meeting American Academy of Orthopaedic Surgeons, Instructional Course: "Contemporary medico-legal issues in orthpaedic surgery" in Chicago, IL, March 19-23, 2013.

53. **Bal BS**: 2013 Annual Meeting American Academy of Orthopaedic Surgeons, Symposium: "Medical-legal considerations in managing patients with musculoskeletal tumors" in Chicago, IL, March 19-23, 2013.

54. **Bal BS**: The Stevens Conference: The 2nd Conference on Bacteria – Material Interactions: "Silicon nitride – A unique antibacterial bioceramic" in Hoboken, NJ, June 6, 2013.

55. **Bal BS**: ISTA 26th Annual Congress: "Patient-specific implants and instruments improved outcomes of total knee replacement" in Palm Beach, Florida, October 18, 2013.

56. **Bal BS**: "A new generation of bioceramics: the case for silicon nitride." 2015 2nd Annual Pan Pacific Orthopaedic Congress, Big Island of Hawaii, July 22-25, 2015.

57. McEntire BJ, **Bal BS**, Rahaman MN, Pezzotti G. "The effect of accelerated aging on the material properties of ceramic femoral heads." ISTA 28th Annual Meeting, Vienna, Austria, September 30 - October 3, 2015.

58. Bock RM, McEntire BJ, **Bal BS**, Rahaman MN, Boffelli, M, Pezzotti G. "Surface modulation of silicon nitride ceramics for orthopaedic application." ISTA 28th Annual Meeting, Vienna, Austria, September 30 - October 3, 2015.

59. Pezzotti G, Puppulin L, Boffelli M, McEntire BJ, Rahaman MN, Yamamoto K, **Bal BS**. "The effect of ceramic femoral head material composition on polyethylene structure and oxidation in total hip bearings." ISTA 28th Annual Meeting, Vienna, Austria, September 30 - October 3, 2015.

60. **Bal BS**, McEntire BJ, Rahaman MN, Pezzotti G. "Debunking the myth that ceramics are bioinert: comparision of alumina versus silicon nitride." ISTA 28th Annual Meeting, Vienna, Austria, September 30 - October 3, 2015

61. McEntire BJ, Enomoto Y, Zhu W, Boffelli M, Marin E, **Bal BS**, Pezzotti G. "Differential effects of hydrothermal ageing on the surface fracture toughness of ceramics." 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

62. McEntire BJ, Jones E, Ray D, Bock RM, **Bal BS**, Pezzotti G. "Differential bacterial expression on silicon nitride, PEEK, and titanium surfaces." 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

SCIENTIFIC PRESENTATIONS (invited, not peer reviewed)

1. **Bal BS**. "Dorsal Capsulodesis of the Scaphoid for Scapholunate Dissociation." American Orthopaedic Association Residents' Conference, Kansas City, Missouri, 1991.

2. **Bal BS**. "Experience with Ceramic Knee Femur." Orthopedic Review Symposium, Vail Colorado, January 2002.

3. **Bal BS**. "Minimally Invasive Total Knee Technique & Results." Contemporary Topics in Orthopedics, Vail Colorado, January 2-3, 2003.

4. **Bal BS**. "Minimally Invasive Total Hip Replacement." Contemporary Topics in Orthopedics, Vail Colorado, January 2-3, 2003.

5. **Bal BS**. "Minimally Invasive Hip and Knee Replacement Surgery: Fact, Fiction, Reality and Myth. What the Patient Should Know." Columbia, MO, March 12, 2005.

6. **Bal BS**. "Ceramic Bearings in Prosthetic Hip and Knee Joints." University of Missouri-Rolla, Department of Materials Science and Engineering, December 1, 2005.

7. **Bal BS**. "Modified Two Incision Technique." 20th Annual Vail Orthopaedic Symposium, Total Hip & Knee Arthroplasty, Vail, Colorado, January 22-27, 2006.

8. **Bal BS**, Rahaman MN. "Tissue-Engineering of Cartilage on Bioactive Glass Scaffolds." 6th Annual Comparative Orthopaedics Day, Columbia, Missouri, April 14, 2006.

9. **Bal BS**, Aleto TJ. "Advances in Hip and Knee Replacement." Columbia Activity Recreation Center, September 15, 2006.

10. **Bal BS**. "The Outcomes of Two-Incision Total Hip Arthroplasty Performed Without Intraoperative Fluoroscopy." Minimally Invasive Surgery meets Computer Assisted

Orthopaedic Surgical Technology (MIS meets CAOS) in Scottsdale, AZ, October 26-28, 2006.

11. **Bal BS**. "Subvastus Total Knee Arthroplasty Without Cement or Tourniquet." Minimally Invasive Surgery meets Computer Assisted Orthopaedic Surgical Technology (MIS meets CAOS) in Scottsdale, AZ. MIS-CAOS, October 26-28, 2006.

12. **Bal BS**. "Acetabular Reaming and Positioning." Anterior Approach Total Hip Arthroplasty, San Francisco, CA, March 1, 2013.

13. Tolias P, Marlow M, **Bal BS**, Phillips S. Panel Discussion: "How Can We More Quickly Bring New Materials-Based Infection-Control Strategies to Clinical Practice?" Matthew Libera, moderator. The Stevens Conference: The 2nd Conference on Bacteria – Material Interactions, Hoboken, NJ, June 6, 2013.

14. **Bal BS**: Panel Moderator: "Liability Exposure for New Orthopedic Technologies- All That Glitters May Not Be Gold!" 2014 Annual Meeting of Western Orthopaedic Association Scientific Program, The Fairmont Orchid, Big Island, HI, July 31-August 2, 2014.

15. **Bal BS**: Panel Moderator: "What a Difference a Year Makes." Ted Davis, moderator. 12th Annual Musculoskeletal New Ventures Conference, Memphis, TN, October 28-29, 2014.

16. **Bal BS,** Tarka M**:** "Design and Rationale of a Constrained Acetabular Component." MU Campus Fast Track 2015 Pitch Competition, April 13, 2015- May 8, 2015

17. **Bal BS**, Brenner LR. Symposium 4 – Medical Liability Update. 32nd Annual Southern Orthopaedic Association Annual Meeting, Asheville, NC, July 15-18, 2015.

18. **Bal BS**: "Why iTotal," "iTotal Cadaver Debrief" and "iTotal® Patient Indications & Selection." National Surgeon Training: iTotal CR, iTotal PS, and iUni G2 Knee Replacement Systems, Plano, TX, January 9, 2016.

19. **Bal BS**: "Clinical application of the silicon nitride for arthroplasty" 46th Annual Meeting of the Japanese Society for Replacement Arthroplasty. Congress Convention Center, Osaka, Japan, February 26-27, 2016.

ABSTRACTS/POSTERS (peer reviewed)

1. **Bal BS**, Cherry K, Edelstein D. "Prospective Randomized Study Comparing Ceramic/Ceramic and Ceramic/PE Bearing Surfaces in Total Hip Arthroplasty." The American Academy of Orthopaedic Surgeons 69th Annual Meeting in Dallas, Texas, February 2002.

2. Cook JL, Kuroki K, **Bal BS**. "Effects of Bipolar Radiofrequency Energy on Articular Cartilage Extracellular Matrix." Orthop Res Soc in Dallas, TX, February 10-14, 2002.

3. Kazmier P, Burd T, **Bal BS**. "Nonunion of the Greater Trochanter Following the Anterior Trochanteric Slide Osteotomy." The 35th Annual Residents Conference in Memphis,

Tennessee, April 12-14, 2002.

4. Marberry KM, Cook JL, Kuroki K, Brawner T, Geiger T, Jayalaban P, Kenter K, **Bal BS**. "Effects of Radiofrequency Generated Heat on Human Degenerative Articular Cartilage." American Orthopaedic Association - 35th Annual Residents Conference in Memphis, TN, April 13-15, 2002.

5. Kazmier P, Burd T, **Bal BS. "**Nonunion of the Greater Trochanter Following the Anterior Trochanteric Slide Osteotomy." 12th Annual Meeting of the Mid-America Orthopaedic Association in Tucson, Arizona, April 24-28, 2002.

6. Marberry KM, Cook JL, Kuroki K, Kenter K, **Bal BS**. "In Vitro Assessment of Articular Cartilage Stiffness Following Treatment with Radiofrequency Generated Heat." 20th Annual Mid-America Orthopaedic Association Meeting in Tucson, AZ, April 25-28, 2002.

7. Kazmier P, **Bal BS**, Patil SK, Rahaman MN**.** "Microscopic Characterization of Alumina Bearing Surfaces in Total Hip Arthroplasty." The 49th Annual Meeting of the Orthopaedic Research Society in New Orleans, Louisiana, February 2-5, 2003.

8. Kazmier P, Gornowicz B, Crow B,Christensen G, **Bal BS**. "Bacterial Adhesion to Alumina Ceramic Versus Cobalt-Chrome Femoral Heads." The 49th Annual Meeting of the Orthopaedic Research Society, New Orleans, Louisiana, February 2-5, 2003.

9. Kuroki K, Ray A, Aust G, Cook JL, **Bal BS**, Ray B. "SAF-1 Regulates Matrix Metalloproteinase-1 in Osteoarthritis." Missouri Life Sciences Week in Columbia, MO, March 3-7,2003.

10. Roller BL, Cook JL, **Bal BS**, Stoker AM. "Correlation of Clinical Assessment of Meniscal Pathology to Biochemical and Molecular Analyses." University of Missouri Health Sciences Research Day in Columbia, MO, November 11, 2004.

11. Kumar D, Shakya A, Kuroki K, Cook JL, **Bal BS**, Ray A, Ray BK. "Induction of Matrix Metalloproteinases in Chondrocyte Cells of Osteoarthritic Cartilage is Mediated by Inflammation-Responsive Transcription Factors." The American Society For Biochemistry and Molecular Biology Meeting, 2004.

12. Hendricks KJ, Aleto TJ, **Bal BS**. "Early results of Modern Ceramic on Ceramic Total Hip Arthroplasty, A Prospective Randomized Study." 22nd Annual Mid-America Orthopaedic Association Meeting, 2004.

13. Roller BL, Cook JL, **Bal BS**, Stoker AM. "Correlation of Clinical Assessment of Meniscal Pathology to Biochemical and Molecular Analyses." 3rd Biology of the Meniscus Meeting in Washington, DC, February 23, 2005.

14. **Bal BS**, Kazmier P, Burd T, Aleto TJ. "Anterior Trochanteric Slide Osteotomy for Primary Total Hip Replacement. Review of Nonunion and Complications." American Academy of Orthopaedic Surgeons Annual Meeting in Washington, D.C. February 23-27, 2005.

15. **Bal BS**, Ray BK, Shakya A, Ray A. "Overexpression of MMP-14 in Human Osteoarthritic Joint Is Mediated by SAF-1." 52nd Annual Meeting of the Orthopaedic Research Society in Chicago, IL, March 19-22, 2006.

16. **Bal BS**, Evans R, Rahaman M, Ellingsen MD, Khanna, SK. "Comparison of Surface Characteristics and Prediction of Wear Properties between Alumina and Oxinium Femoral Heads." 52nd Annual Meeting of the Orthopaedic Research Society in Chicago, IL, March 19-22, 2006.

17. **Bal BS**, Rahaman M, Kuroki K, Cook JL. "In Vivo Comparison of Tissue Engineered Osteochondral Plugs Using Allograft Bone, Trabecular Metal and Bioactive Glass Substrates." Orthop Res Soc in San Diego, CA, February 11-14, 2007.

18. Roller BL, Stoker AM, Fox DB, **Bal BS**, Cook JL. "Characterization of Pathology of Knee Menisci: Correlation of Radiographic, Gross, Histologic, Biochemical and Molecular Measures of Disease." Orthop Res Soc in San Diego, CA, February 11-14, 2007.

19. **Bal BS**, Hillard A, Lowe J, Aleto TJ, Greenberg D. "Muscle Damage after Total Hip Arthroplasty with the Two-incision Technique." 24th Annual Mid-America Orthopaedic Association Meeting in Boca Raton, Florida, April 11-15, 2007.

20. **Bal BS**, Hughes M, Li S, Aleto TJ, Rahaman MN. "The Effect of Metal Staining on Alumina-Alumina Hip Simulation Wear." 24th Annual Mid-America Orthopaedic Association Meeting in Boca Raton, Florida, April 11-15, 2007.

21. **Bal BS**, Barrett MO, Greenberg DD, Lowe J, Aleto TJ. "Incidence of Heterotopic Ossification Following Primary Two-incision Total Hip Arthroplasty." 24th Annual Mid-America Orthopaedic Association Meeting in Boca Raton, Florida, April 11-15, 2007.

22. **Bal BS**, Aleto TJ, Lakshminarayanan RR, Khandkar A, Clarke I, Hoffman A. "The Wear of Silicon Nitride Ceramic Bearings in a Hip Simulator." 24th Annual Mid-America Orthopaedic Association Meeting in Boca Raton, Florida, April 11-15, 2007.

23. Rahaman MN, Li Y, Aleto TJ, **Bal BS**. "Alumina Ceramic Femoral Heads with a Metal Taper." 24th Annual Mid-America Orthopaedic Association Meeting in Boca Raton, Florida, April 11-15, 2007.

24. Cook JL, Lima EG, Ng KW, Kuroki K, Stoker AM, **Bal BS**, Ateshian GA, Hung CT. "Towards Biologic Osteochondral Resurfacing of the Canine Patella Using Tissue Engineered Anatomic Constructs." Orthop Res Soc in Las Vegas, NV, February 22-25, 2009.

25. Lima EG, Chao PH, Ateshian GA, Cook JL**, Bal BS**, Vunjak-Novakovic G, Hung CT. "Porous Tantalum Metal Outperforms Devitalized Bone as a Substrate for Osteochondral Tissue Engineering." Orthop Res Soc in Las Vegas, NV, February 22-25, 2009.

26. Tan AR, Barsi JM, Jayabalan P, Rahaman MN, **Bal BS**, Ateshian GA, Cook JL, Hung CT. "The Potential for 13-93 Bioglass as a Medium Supplement for Culturing Tissue Engineered

Cartilage." 55th Annual Orthopaedic Research Society Conference in Las Vegas, NV, February 22 – 25, 2009.

27. Jayabalan P, Tan AR, Barsi JM, Rahaman MN, Ateshian GA, Hung CT, Cook JL, **Bal BS**. "In Vitro Optimization of Tissue Engineered Osteochondral Grafts." 9th Annual Comparative Orthopaedics Day in Columbia, MO, April 2009

28. Jayabalan P, Tan AR, Barsi JM, Rahaman MN, **Bal BS**, Ateshian AG, Hung CT, Cook JL. 'Bioactive Glass (13-93) as a Subchondral Substrate and Culture Media Supplement for Tissue Engineered Cartilage." International Cartilage Repair Society conference in Miami, Florida, May 2009.

29. Franklin SP, Hung C, Lima E, Ng K, Kuroki K, Stoker A, **Bal BS**, Ateshian G, Pfeiffer F, Cook JL. "Progression toward Biologic Joint Resurfacing in Dogs." Veterinary Orthopedic Society Conference in Breckenridge, CO, February 20-27, 2010.

30. Roller BL, Stoker AM, Marberry KM, White RA, **Bal BS**, Cook JL. "Characterization of Meniscal Pathology with Molecular and Proteomic Analyses." Orthop Res Soc in New Orleans, LA, March 6-9, 2010.

31. Roller BL, Stoker AM, Garner BC, **Bal BS**, Raghu DR, Cook JL. "Analysis of Synovial Fluid Biomarkers and Correlation with Radiography." Orthop Res Soc in New Orleans, LA, March 6-9, 2010.

32. Jayabalan P, Tan AR, Rahaman MN, **Bal BS**, Sims HJ, Hung CT, Cook JL. "Bioactive Glass (13-93) as a Subchondral Substrate for Tissue-engineered Osteochondral Constructs." Orthop Res Soc in New Orleans, LA, March 6-9, 2010.

33. **B.S. Bal,** Aleto TJ, Aggarwal A, Wegman B. "Primary Uncemented Total Knee Replacement with a Monoblock Tibial Component." American Academy of Orthopaedic Surgeons Annual Meeting in San Diego, CA, February 15-19, 2011.

34. **Bal BS**. "Informed Consent Law: How Much to Disclose?" 64th Annual Meeting of the Association of Bone and Joint Surgeons in Charleston, South Carolina, May 2–6, 2012.

35. Pfeiffer FM, **Bal BS**. "P51; Fabrication and Evaluation of Tissue Engineered Femoral Head Implants for Resurfacing of Osteoarthritic Joints." International Cartilage Repair Society conference in Montreal, Canada, May 12-15, 2012.

36. McEntire BJ, Lakshminarayanan A, **Bal BS**, Webster TJ. "An Overview of Silicon Nitride as a Novel Biomaterial." 2012 Innovations in Biomaterials Conference, American Ceramic Society in Raleigh, NC, September 11-13, 2012.

37. Franklin S, Pfeiffer FM, Cockrell M, Stoker A, **Bal BS**, Cook JL. "Effects of low temperature hydrogen peroxide gas plasma sterilization on in vitro cytotoxicity of poly-l-caprolactone (PCL)."

38. Ivie C, **Bal BS**. "Concerns and Limitations of Ceramic Total Hip Bearings." The Association of Bone and Joint Surgeons 65th Annual Meeting at Çirağan Palace Kempinski in Istanbul, Turkey, April 24-28, 2013.

39. Ivie C, Probst P, Bal A, Gallizzi M, Bal BS. "Patient-specific implants and instruments improved outcomes of total knee replacement." The Clinical Orthopaedic Society's 101st Annual Meeting in Niagara, NY, Sept. 19-21, 2013.

40. Rahaman MN, **Bal BS**, Huang T. "Porous titanium implants fabricated by a salt bath sintering process for bone repair applications." Materials Science & Technology 2013, Next Generation Biomaterials; Montreal, Quebec Canada, October 27-31, 2013.

41. **Bal BS,** Ivie C, Davis M, Crist B. "Patient-specific implants and instruments improved outcomes of total knee replacement." 2013;95B(34):86. Abstract published in Orthopaedic Proceedings, Dec. 31, 2013.

42. **Bal BS**, Liu X, Rahaman MN, Bi LX, Bonewald LF. "Strong porous bioactive glass implants for structural bone repair." 60th Annual Meeting of the Orthopaedic Research Society at the Hyatt Regency New Orleans, March 15-18, 2014.

43. **Bal BS**. "Silicon nitride bearings for total joint arthroplasty." 27th Annual Congress of the International Society for Technology in Arthroplasty (ISTA) to be held at the Hotel Okura in Kyoto Japan, September 24-27, 2014. *Lubricants*. 2016,4(4), 35.

44. **Bal BS**, McEntire BJ, Bock RM, Jones E, Rahaman M. "Surface modulation of silicon nitride ceramics for orthopaedic applications'. International Congress for Joint Reconstruction -- Transatlantic Orthopaedic Congress, in New York, NY, Oct. 3-5, 2014. Winner of a 2014 Transatlantic Orthopaedic Congress Abstract Award.

45. Tarka M, **Bal BS**. "End of arm robotic tool design for automated cutting assistance during total hip arthroplasty." Health Sciences Research Day, University of Missouri School of Medicine, Columbia, MO, Nov. 16, 2014.

46. Cutler CS, Lattimer J, Kelsey J, Kuchuk M, O'Connor D, **Bal BS**, Katti KV. "Nano-radiosynovectomy for osteoarthritis treatment." 2015 Society of Nuclear Medicine and Molecular Imaging Annual Meeting, Baltimore, Maryland, June 6-10, 2015.

47. Peterson BE, Buchert G, Probst P, Aleto TJ, **Bal BS**, Crist BD. "The use of fluoroscopy in aiding acetabular cup position in direct anterior total hip arthroplasty." 2015 2nd Annual Pan Pacific Orthopaedic Congress, Big Island of Hawaii, July 22-25, 2015.

48. "Silicon nitride for orthopaedics – A bioactive and interactive non-oxide ceramic." 46th Annual Meeting of the Japanese Society for Replacement Arthroplasty, Osaka, Japan, February 26-27, 2016.

49. McEntire BJ, Zhu WL, Boffelli M, Marin E, Bal BS, Pezzotti G. "Effect of accelerated hydrothermal ageing on the surface fracture toughness of bioceramics." 46th Annual Meeting of the Japanese Society for Replacement Arthroplasty, Osaka, Japan, February 26-27, 2016.

50. Werner N, Stoker AM, Bozynski C, **Bal BS**, Cook JL. “Responses of osteoarthritic osteochondral tissue to cytokine stimulation *in vitro*.” 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

51. Werner N, Stoker AM, Stannard J, **Bal BS**, Cook JL. “Assessment of biomarker production by osteochondral tissue obtained from patients undergoing total knee arthroplasty.” 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

52. Werner N, Stoker AM, Pfeiffer F, Stannard J, Bozynski C, **Bal BS**, Cook JL. “Correlation of biomarker production of biomechanical, biochemical, and histological properties of osteoarthritic osteochondral tissue obtained from patients undergoing total knee replacement.” 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

53. Pezzotti G, Puppulin L, Boffelli M, McEntire BJ, Rahaman MN, Yamamoto K, **Bal BS**. “Do ceramic femoral heads contribute to polyethylene oxidation.” 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

54. Pezzotti G, Puppulin L, Boffelli M, McEntire BJ, Sugano N, **Bal BS**. “Metal ions contribute to the material instability of zirconia toughened alumina.” 2016 Orthopaedic Research Society, Orlando, Florida, March 5-8, 2016.

55. Peterson BE, Buchert G, Probst P, Aleto TJ, **Bal BS**, Crist BD. “The use of fluoroscopy in aiding acetabular cup position in direct anterior total hip arthroplasty.” 47th Annual Meeting Missouri State Orthopaedic Association, Kansas City, MO, April 1-2, 2016.

56. McEntire BJ, Enomoto Y, Zhu W, Boffelli M, Marin E, Bal BS, Pezzotti G. “Comparative evaluation of the surface fracture toughness of bioceramics.” 68th Annual Meeting of The Association of Bone and Joint Surgeons, Auckland, New Zealand, April 5-9, 2016.

57. Pezzotti G, Puppulin L, Boffelli M, McEntire BJ, Rahaman MN, Yamamoto K, **Bal BS**. “The effect of ceramic femoral head material composition on polyethylene structure and oxidation in total hip bearings.” Innovations in Biomedical Materials and Technologies, Rosemont Hyatt in Chicago, IL, July 29-31, 2016.

58. “In situ Monitoring of Porphyromonas Gingivalis on Chemistry-Modulated Silicon Nitride Bioceramics.” Innovations in Biomedical Materials and Technologies, Rosemont Hyatt in Chicago, IL, July 29-31, 2016.

59. “Enhanced Osteoconductivity on Surface-Modulated Silicon Nitride Bioceramics Monitored by in situ Raman Spectroscopy.” Innovations in Biomedical Materials and Technologies, Rosemont Hyatt in Chicago, IL, July 29-31, 2016.

60. “Engineering Bacteriostatic Behavior into Implantable Medical Devices.” Innovations in Biomedical Materials and Technologies, Rosemont Hyatt in Chicago, IL, July 29-31, 2016.

61. Pezzotti G, McEntire BJ, Bock R, Zhu W, Vitale E, Puppilin L, Adachi T, Yamamoto T, Kanamura N, **Bal BS**. “Enhanced Osteoblast Proliferation and Hydroxyapatite Formation on Silicon Nitride.” The 28th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, Charlotte, NC, Oct. 18-21, 2016.

62. Zhu W, Pezzotti G, McEntire BJ, Zanocco M, Marin E, Sugano N, **Bal BS**. "Transition Metal Ions Accelerate the Polymorphic Phase Transformation in Zirconia-Toughened Alumina." The 28th Symposium and Annual Meeting of the International Society for Ceramics in Medicine, Charlotte, NC, Oct. 18-21, 2016.

63. Bal BS, Bock R, Rondinella A, Marin E, Zhu W, Adachi T, McEntire BM, Pezzotti G. "Osteoinductive Properties of Silicon Nitride, Alumina, and Titanium." Orthopaedic Research Society 2017 Annual Meeting at the San Diego Convention Center in San Diego, California, March 19-22, 2017.

64. **Bal BS**, McEntire BM, Pezzotti G, Oba N, Marin E, Rondinella A, Boschetto, Zhu W, Yamamoto K. "Investigation of the Osteointegration Characteristics of a Silicon Nitride Intervertebral Spinal Spacer: A Retrieval Study." 7th International Conference Advances in Orthopaedic Osseointegration, San Diego, CA, March 12-13, 2017.

65. **Bal BS**, Zhu W, McEntire BM, Pezzotti G. "Metal staining leads to instability of zirconia alumina femoral heads." AAOS 2017 Annual Meeting, San Diego, CA, March 14-18, 2017.

66. McEntire B, **Bal BS**, Ishikawa M, Bentley KL, Schwarz EM, Xie C. "Effect of Surface Topography on the bacteriostatic and osseointegration behavior of silicon nitride." Australian Spine Society, Adelaide, Australia, April 28, 2018

67. Assad M, McEntire B, Iacampo S, Trudel Y, **Bal BS**. Osseointegration and Biocompatibility Evaluation of Silicon Nitride Composite Using Ovine Distal Femoral Epiphyseal Insertion and Rabbit Paravertebral Muscle Implantation Models. Orthopaedic Research Society Annual Meeting, Feb 2-5 2019, Austin Texas

INVITED MODERATOR, KEYNOTE SPEAKER

Moderator. "Alternative Bearings and Minimally Invasive Surgery Techniques" at the University of Pennsylvania for The 7th Annual Symposium on Alternative Bearing Surfaces in Total Joint Replacement, Philadelphia, PA, October 14-15, 2004.

"Advances in Arthroplasty, an Emphasis on Treatment Options for the Young/Active Patient." Harvard University, Cambridge, MA, October 3-7, 2006.

Meeting Co-Chairman and Presenter. "Minimally Invasive Total Hip Surgery." Minimally Invasive Surgery meets Computer Assisted Orthopaedic Surgical Technology (MIS meets CAOS) in Scottsdale, AZ, October 26-28, 2006.

"MIS Total Joint Arthroplasty and other Factors Effecting Recovery." American Association of Hip & Knee Surgeons Meeting in Dallas, TX, November 3-5, 2006.

Keynote Speaker. "Hard-on-hard Bearings in THA." Moderator: "Mini-Smith Peterson and Head Damage: Hard on Hard." Hip and Knee Arthroplasty Continuing Education Course at Harvard University in Cambridge, MA, September 25-27, 2007.

Moderator. "Soft Tissue and Tachnology." Tissue Engineering of Articular Cartilage.

Musculoskeletal Transplant Foundation in Vancouver, British Columbia, October 11-13, 2007.

Meeting Chairmen and Presenter. “Anterior Total Hip Arthroplasty Mini-Symposium.” American Association of Hip & Knee Surgeons, November 2, 2007.

Orthopaedic Research Society in Las Vegas, NV, Feb 2009.

Regional Life Sciences Summit in Kansas City, MO, March 9, 2010.

The Anterior Approach Total Hip Arthroplasty Lab in Henderson, NV, October 21-22, 2010.

The Anterior Approach THA Cadaver Lab in Houston, TX, January 13-14, 2011.

Anterior Approach Total Hip Arthroplasty. “Anatomic Consideration and Patient Selection for the Anterior Approach” and “Learning the Anterior Approach – My Experience with the Technique (From 2-Incision to Anterior Approach).” Las Vegas, NV April 8, 2011.

“Filling the Gaps: Bone Deficiency and Treatment Options.” Missouri Musculoskeletal Conference in Kansas City, MO, July 28, 2011.

Moderator and speaker for the 11th Anniversary of the Annual Advances in Arthritis, Arthroplasty and Trauma Course in St. Louis, Missouri, April 26-28, 2012.

“Custom Implants in Joint Replacement.” Meeting of the Morgan-Stanley Investment Banking Group, Boston, MA, March 28, 2013.

“Closed Medical Negligence Claims Can Drive and Reduce Litigation.” The 4th Annual Pegalis and Erickson Lectureship, New York, New York, April 9, 2013.

“Reducing Liability Risk and Improving Quality: Role of the Orthopaedic Executive.” 2013 Annual American Association of Orthopaedic Executives, San Diego, CA, April 28-30, 2013.

Faculty Panel Presenter. “Perioperative Management THA. AAOS/AAHKS Challenges and Controversies in Total Joint Arthroplasty, Rosemont, IL. May 3, 2013.

Lab Faculty. “Primary THA (Direct THA/Mini Posterior).” AAOS/AAHKS Challenges and Controversies in Total Joint Arthroplasty, Rosemont, IL. May 3, 2013.

Lab Faculty. “Revision THA (Trochanteric Osteotomy, Augment, Cage).” AAOS/AAHKS Challenges and Controversies in Total Joint Arthroplasty, Rosemont, IL. May 3, 2013.

Lab Faculty. “Primary TKA.” AAOS/AAHKS Challenges and Controversies in Total Joint Arthroplasty, Rosemont, IL. May 4, 2013.

Lab Faculty. “Revision TKA.” AAOS/AAHKS Challenges and Controversies in Total Joint Arthroplasty, Rosemont, IL. May 4, 2013.

Informed Consent and Risk Awareness in the Operating room Environment given to the Operating Room staff on October 2, 2013.

Moderator: "Contemporary Medico-Legal Issues in Orthopaedic Surgery." 2014 AAOS Annual Meeting, in New Orleans, Louisiana, March 11-15, 2014.

Invited Faculty: “Integrating the Anterior Approach Into Practice: minimizing your learning curve.” “History and Role of the Old and New Technology.” Short Stems do we need them?” “Most Total Knees Have Same Geometry on Both Sides.” “Smart Trials – Unnecessary?” State-of-the-Art Solutions in the Hip and Knee Reconstruction, in Chicago, IL, June 27-28, 2014.

Invited speaker: Avoidable complications in knee surgery that invite litigation; Resident liability in medical negligence claims; Joint medical and legal complications of total hip arthroplasty. 16th Annual Multispecialty Conference- Medical Negligence and Risk Management in Medicine, Surgery, Emergency Medicine, Radiology, and Family Medicine, in the Bahamans, January 5-8, 2016.

Moderator: “Panel Discussion: Collaborating with FDA to Ensure Medtech Approval.” 7th Annual Life Science Chief Executive Officer Forum, in Atlanta, GA, January 25-26, 2016.

Invited Scholar: “Silicon nitride for orthopaedics – A bioactive and interactive non-oxide ceramic.” Kyoto Institute for Technology Mini-Symposium, Sakyo-ku, Kyoto, Japan, February 22, 2016.

Invited speaker: “Bioactive silicon nitride: A new therapeutic material for osteoarthropathy.” Texas A&M College of Dentistry “Pathways to Excellence” seminar on March 8, 2017.

MAJOR LECTURES AND VISITING PROFESSORSHIPS

Visiting Professor; University of Oklahoma, Dept. of Orthopaedic Surgery, September 29, 2017

Neumann Visiting Professorship; University of Rochester, Center for Musculoskeletal Research, New York, August 1-2, 2017

Visiting Professor: Collaborative research in silicon nitride ceramics. Kyoto Institute of Technology, Osaka, Japan. July 20-26, 2015.

Visiting Professor: Liability, Standards, and the Future of Medical Malpractice. University of South Alabama, Mobile, AL. August 8, 2014.

Visiting Professor: Legal Liability during Residency Training. University of Southern California, Los Angeles, CA. June 8, 2012.

Visiting Professor: Anterior Total Hip Replacement –Affirmative. Louisiana State University, Shreveport, LA. September 23, 2011.

Visiting Professor: Medical Liability of Physicians in Training. Louisiana State University, Shreveport, LA. September 22, 2011.

RESEARCH GRANT APPLICATIONS

Principal Investigator:

Arthritis Foundation: “Comparison of tissue-engineered osteochondral grafts fabricated with mesenchymal stem cells and trabecular metal or allograft bone.” $199,997.00. 6/1/2005 to 5/31/2007.

Pfizer Inc.: “Comparison of tissue-engineered osteochondral grafts fabricated with mesenchymal stem cells and trabecular metal or allograft bone.” $199,999.00. 7/1/2005 to 7/1/2007.

Musculoskeletal Transplant Foundation: “Comparison of tissue-engineered osteochondral grafts fabricated with mesenchymal stem cells and trabecular metal or allograft bone.” $100,000.00. 7/1/2005 to 6/30/2007. (Awarded)

Aircast Foundation: “Development of osteoarthritis in transgenic mice with increased SAF-1 expression in articular cartilage.” $99,998.00. 8/1/2005 to 7/31/2007.

National Health Institute: “Development of osteoarthritis in transgenic mice with increased SAF-1 expression in articular cartilage.” $404,248.00. 10/1/2005 to 9/30/2007.

Zimmer Holdings, Inc.: “Comparison of tissue-engineered osteochondral grafts fabricated with mesenchymal stem cells and trabecular metal or allograft bone.” $125,406.00. 5/25/2006 to 5/24/2007 (Awarded)

Orthopaedic Research and Education Foundation: “Comparison of tissue-engineered patellar osteochondral grafts fabricated from mesenchymal stem cells and bioactive glass or trabecular tantalum metal.” $150,625.00. 7/1/2007 to 6/30/2010.

National Institute of Health: “Novel freeze-cast bioactive glass scaffolds for bone repair.” $108,472.00. 1/1/2009 to 12/31/2010. (Awarded)

Missouri Life Science Research Board: “Missouri consortium for biomaterials research and commercialization.” $292,287.00. 1/1/2009 to 12/31/2011.

Missouri Life Science Research Board: “Tissue engineered resurfacing of the hip joint.” $198,459.00. 1/1/2009 to 12/31/2011.

Missouri Life Science Research Board: “Research on freeform fabrication of objects with graded bio-materials.” $105,283.00. 1/1/2009 to 12/31/2011.

Orthopaedic Research and Education Foundation: “Bioactive glass scaffolds for bone repair.” $131,328.00. 7/1/2009 to 6/30/2012.

Department of Health and Human Services: “Novel freeze-cast bioactive glass scaffolds.” $108,482.00. 8/19/09 to 7/31/12.

National Institute of Health: “Functional tissue-engineered osteochondral composite constructs.” $254,701.00. 10/15/2009 to 10/14/2011.

Missouri Life Science Research Board: “Research of freeform fabrication of objects.” $105,284.00. 1/1/2010 to 12/31/2012.

Missouri Life Science Research Board: “Missouri consortium for biomaterials research and commercialization.” $400,001.00. 1/1/2010 to 12/31/2012.

Missouri Life Science Research Board: “Ceramic-metal composite femoral head for total hip arthroplasty.” $125,826.00. 2/1/2010 to 1/31/2012.

Missouri Life Science Research Board: “Development of a hybrid metal-bioactive glass material for skeletal repair.” $123,955.00. 1/1/2011 to 12/31/2012.

National Institute of Health: “Bioengineering research partnership: bioactive glass in regenerative medicine.” $719,725.00. 8/1/2011 to 7/31/2016.

Orthopedic Research Society: “Faculty career development through the orthopaedic research society's collaborative exchange award.” $7,501.00. 10/1/2011 to 9/30/2012.

Musculoskeletal Transplant Foundation: “Fabrication and testing of a canine biological femoral head arthroplasty.” $301.106.00. 1/1/2012 to 12/31/2014.

National Institute of Health: “Bioactive glass in osteochondral tissue engineering.” $138,969.00. 1/1/2012 to 12/31/2013.

Musculoskeletal Transplant Foundation: “Bioactive glass in skeletal regeneration.” $0.00. 1/1/2012 to 12/31/2014.

National Institute of Health: “Bioactive glass in regenerative medicine.” $114,638.00. 5/1/2012 to 4/30/2017.

Orthopaedic Research and Education Foundation: “Fabrication and testing of a canine biological femoral head arthroplasty.” $223,932.00. 7/1/2012 to 6/30/2015.

Department of Defense: “Bicompatible device for repairing segmental bone defects.” $292,335.00. 7/1/2012 to 6/30/2014.

Consultant for a NIH SBIR research project “Silorane based bone cements” proposal by Nanova and UMKC. Grant pending.

Career Development Grant, Orthopaedic Research and Education Foundation: “Fabrication and testing of a biological femoral head arthroplasty.” $224,995. 7/1/2014 to 6/30/2017.

University of Missouri Interdisciplinary Intercampus Research Program (IDIC): Healing Chronic Bone Infection Using Bioactive Glass. $145,000. 8/1/2014 to 7/31/2015. (Awarded)

Bal BS, Rahaman M, Tarka M. Constrained Ball-and-Socket Design for Total Hip Replacement University of Missouri FastTrack Initiative. 7/1/2015-6/30/2016; $50,000. (Awarded)

Bal BS, Rahaman M. Constrained Ball-and-Socket Design for Total Hip Replacement, Coulter Foundation Development Grant. 7/1/2017-6/30/2018; $100,000. (Awarded)

Co-Investigator:

National Science Foundation: "MRSEC interactions & transformation at membrance interfaces." $22,774,108.00. 9/1/2005 to 8/30/2011.

Musculoskeletal Transplant Foundation: "Characterization of pathology of the knee menisci for optimizing diagnosis and treatment of meniscal disorders." $56,252.00. 1/1/2007 to 12/31/2007.

Orthopaedic Research and Education Foundation: "Characterization of pathology of the knee menisci for optimizing diagnosis and treatment of meniscal disorders." 7/1/2007 to 6/30/2008.

Arthritis Foundation: "Analysis of regional chondrocyte metabolism in canine and human OA patients." $200,000.00. 7/1/2007 to 6/30/2009.

National Institute of Health: "Synovial fluid molecules pertaining to toll-like receptors as biomarkers of osteoarthritis followed by acute knee injury." $ 789,738.00. 10/1/2009 to 9/30/2011.

National Football League: "Characterization of pathology of the knee menisci for optimizing diagnosis and treatment of meniscal disorders." $119,252.00. 1/1/2010 to 6/30/2012.

Arthritis Foundation: "Synovial fluid derived biomarkers in osteoarthritis." $74,800.00. 6/1/2011 to 5/31/2012.

National Institutes of Health: "Center of research translation." $7,233,877.00. 7/1/2012 to 6/30/2017.

Coulter Foundation: "Nano-radiosynovectomy for osteoarthritis treatment" $41,976.00. 09/01/2012 to 08/31/2013.

Nutramax Lab, Inc. "Clinical pilot study assessing the structure/function efficacy in a knee OA patient cohort following consumption of a novel nutraceutical blend containing glucosamine, chondroitin sulfate, avocado/soybean unsaponifiables (ASU) and AKBA." $100,980 ($80,143 direct; $20,837 indirect). 1/1/2014 to 12/1/2016.

National Institutes of Health: "Structural bone repair using strong porous bioactive scaffolds with enhanced osteogenic capacity. $92,034. 9/21/2014 to 8/31/2017. *Submitted.*

Key Personnel on Grants:

AO Research Fund: "Characterizing knee menisci pathology for optimal diagnosis and treatment of meniscal disorders." $51,380.00. 8/1/2009 to 7/31/2009.

National Institute of Health: "Creation of new musculoskeletal engineering faculty position." $1,365,092.00. 10/1/2009 to 9/30/2011.

National Institute of Health: “Characterization of pathology of the knee menisci for optimizing diagnosis and treatment of meniscal disorders.” $227,250.00. 4/1/2010 to 3/31/2013.

National Institute of Health: “Fabrication and testing of a canine biological femoral head arthroplasty.” $218,495.00. 7/1/2012 to 6/30/2015.

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3. Chen Y, **Bal BS**, Gorski JP. Calcium and collagen binding properties of osteopontin, bone sialoprotein, and bone acidic glycoprotein-75 from bone. *J Biol Chem.* 1992 Dec 5;267(34):24871-8.

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15. Keshavan H, **Bal BS**, Morsi K. Preliminary investigation into the production of grain-size functionally gradient materials for artificial hip implant applications, TMS Annual Meeting, Symposium: Surface Engineering: In *Materials Science* II, Mar 2-6 2003, San Diego, CA, United States, 2003, p 233-41.

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20. Ray A, **Bal BS**, Ray BK. Transcriptional induction of matrix metalloproteinase-9 in the chondrocyte and synoviocyte cells is regulated via a novel mechanism: evidence for functional cooperation between serum amyloid A-activating factor-1 and AP-1. *J Immunol.* 2005 Sep 15;175(6):4039-48.

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PHILANTHROPY

Founder, The Sonny and Dana Bal Orthopaedic Endowment. Award funds for orthopaedic educational and scientific endeavors at the University of Missouri-Columbia.

"Substrates for Osteochondal Tissue Engineering." Research grant and work in progress with Columbia University, New York and The Comparative Orthopaedic Laboratory, University of Missouri, Columbia. Total budget is $15,764.27.

Very Distinguished Fellows- Diplomats, Jefferson Club 2006-2007. Members support translates into student scholarships, nationally recognized faculty, groundbreaking research and state-of-the-art facilities that enhance the University's reputation and stature.

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Deposition of

Lucas Armstrong, MD

October 15, 2019

William "Wes" Johnson v. Lucas Armstrong, et al.

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IN THE CIRCUIT COURT OF THE ELEVENTH
JUDICIAL CIRCUIT OF ILLINOIS
MCLEAN COUNTY

WILLIAM "WES" JOHNSON,)
)
Plaintiff,)
)
-vs-) No. 2018 L 0000126
)
LUCAS ARMSTRONG, MCLEAN)
COUNTY ORTHOPEDICS, LTD.,)
SARAH HARDEN, PAMELA)
ROLF, and ADVOCATE HEALTH)
AND HOSPITALS CORPORATION)
d/b/a ADVOCATE BROMENN)
MEDICAL CENTER,)
)
Defendants.)
)
and)
)
BRIAN STENGER and JORDAN)
PROSSER,)
Respondents)
In Discovery.)

THE DISCOVERY DEPOSITION OF LUCAS ARMSTRONG, MD, a defendant, called by the Plaintiff, for examination pursuant to notice, taken before Gina Fick, Illinois CSR 084-003872, CRR, RMR, on Tuesday, the 15th day of October, 2019, commencing at the hour of 9:05 a.m., at McLean County Orthopedics, 1111 Trinity Lane, Suite 111, in the City of Bloomington, County of McLean, and State of Illinois.

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INDEX OF EXAMINATIONS

LUCAS ARMSTRONG, MD,
having been first duly sworn, was examined and testified as follows:

EXAMINATION BY MR. GINZKEY:
Q. Will you please state your name for the record.
A. Lucas Armstrong.
Q. Dr. Armstrong, your counsel handed me a curriculum vitae, which I've marked as Exhibit 36. I just have a couple questions about that. Is it relatively up to date?
A. I would say in the last two years, relatively.
Q. Okay. If I'm following this correctly, you would have served an orthopaedic surgery residency at the University of Kansas-Wichita, correct?
A. Correct.
Q. Were you primarily at one hospital in Wichita?
A. I was primarily at two hospitals in Wichita.
Q. What were those institutions?
A. One was Wesley Medical Center; it's W-e-s-l-e-y.
Q. Got it.

A. The other one was Saint Francis, and that has gone through a couple of different ownerships, and I can't tell you.
Q. Okay. On Page 2 of that curriculum vitae there was a presentation that you gave in connection with peripheral nerve healing and repair.
Would you still have copies of whatever documents were associated with that presentation?
A. I do not.
Q. Okay. Then, Doctor, let me hand you some exhibits that I've marked.
MR. BRANDT: Okay. Thank you.
MR. LUNDQUIST: Thank you, sir.
BY MR. GINZKEY:
Q. And Exhibit 1 is three pages, and they're copies of answers to questions that have been propounded in this case.
And looking at Page 1 of Exhibit 1 there was a suit in Kansas by the name of Balandran versus Armstrong. I'm assuming that that was -- you were a resident at that time?
A. That is correct.

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Q. Do you recall what the allegations in that case were?
A. I do recall the outcome of the case, but I do not recall the direct -- the true allegations --
Q. Okay.
A. -- of it.
Q. And the outcome of the case was it was dismissed, correct?
A. I was dismissed from this case.
Q. Understood.
I was in one of these depositions two weeks ago, and the answer to that question had changed meaning that between the time that the interrogatories were answered by the doctor and the time of the deposition there was another lawsuit that had been filed.
Other than the case of Wes Johnson that we're here to discuss this morning, is this Balandran the only other case filed against you?
A. Yes.
Q. Then if we can go to Page 2 of that Exhibit 1,

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it's Interrogatory 4, which simply asks, "Identify by date, time and source document any and all entries and/or portions of plaintiff's charting," plaintiff being Wes Johnson, "which are inaccurate or incomplete."
And, again, it's been my experience in these depositions that in preparing, the physician goes through the charting and does find one or two typos or misstatements.
And, again, my question to you would be, has your answer to Interrogatory 4 changed? The answer was, "None to my knowledge," meaning you didn't see any inaccuracies in the charting for Wes Johnson. Does that remain the case?
MR. BRANDT: We talked about one yesterday.
A. I did identify one. I cannot identify the date, time and source.
MR. GINZKEY: Okay. We can go off the record.
MR. BRANDT: Yes.
(Discussion off the record.)
MR. GINZKEY: If we can go back on the record.
BY MR. GINZKEY:
Q. Doctor, as I understand it, the last office visit with Wes Johnson contains a statement that the EMG was normal, and it should actually read the EMG was abnormal, correct?
A. Correct.
Q. And that's the only typo or other error that you saw in the charting, true?
A. True.
MR. BRANDT: Just, for the record, that's a visit of 6/27/17.
BY MR. GINZKEY:
Q. Then if we can go to what would be Exhibit 2, that is a copy of a portion of the Complaint that's pending in this case, and if we can go to Page 2 of Exhibit 2, Paragraph 4, one of the allegations as stated in Paragraph 4 is, "Following Armstrong's surgery Wes Johnson was discharged from the hospital with postoperative femoral nerve palsy," and that allegation was admitted as true, correct?
A. True.

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Q. It would also be true that it was your left hip arthroplasty that caused the postoperative femoral nerve palsy, true?
MR. BRANDT: Object to the form. You can answer.
A. That depends.
BY MR. GINZKEY:
Q. What does it depend on?
A. It depends on a lot of different things.
Q. Can you tell me what those different things are?
A. Every patient is different. There is a myriad of different reasons.
Q. Let me see if I can approach it in this fashion: Prior to the total left hip arthroplasty that we're here to discuss, did you document any femoral nerve palsy in Wes Johnson concerning his left leg?
A. No, I did not.
Q. Isn't it the case that prior to your surgery Wes Johnson did not have a left femoral nerve palsy?
A. Correct.

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Q. And when you say that the answer to No. 4 depends, are you indicating that there is different portions of the surgery where such a nerve palsy can happen, or are you suggesting that there is some idiosyncratic etiology for Wes Johnson's femoral nerve palsy?
A. I'm saying that a femoral nerve palsy after a total hip replacement can be caused by many different things.
Q. And let me explain where I'm coming from. I'm not suggesting that there aren't different etiologies from a femoral -- or for a femoral nerve palsy following THA, but in this case it appears to me that it was the THA that caused the femoral nerve palsy that the patient has, and wouldn't you agree with that?
A. I would agree before the total hip arthroplasty he did not have a femoral nerve palsy --
Q. Okay.
A. -- and after the total hip arthroplasty he did have a femoral nerve palsy.
Q. If I can have you, Doctor, go to the bottom of this second page of Exhibit 2, Paragraph 9.

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A. Uh-huh.
Q. And Paragraph 9 is an allegation that reads, "The lesion appears complete with no evidence of voluntary motor unit potential activation."
The answer that was filed indicated that there was either no knowledge or insufficient knowledge with respect to that allegation.
And if I can have you go to Exhibit 3, it's four pages down -- five pages down in your documents, this Exhibit 3 is the EMG report of Dr. Carmichael concerning his performance of an EMG on Wes Johnson on January 11 of 2017, correct?
A. Correct.
Q. And this Exhibit 3 would be part of Wes Johnson's chart here at McLean County Orthopedics, correct?
A. Correct.
Q. So you have access to this Exhibit 3 in Wes Johnson's charting here at your office at McLean County Orthopedics, correct?
A. Correct.

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Q. And if we look at the first full paragraph at the top of Page 1 of this Exhibit 3 under Diagnostic Interpretation, about three sentences down it says, "At this time the lesion appears complete with no evidence of voluntary motor unit potential activation." That's what it says, correct?
A. Correct.
Q. What evidence, statements or documents are you aware of, as you sit here today, to suggest that that statement by Dr. Carmichael in this Exhibit 3 is not accurate?
MR. BRANDT: Object to the form, unless we put a time on it, but you can answer it.
A. I would agree on January 11, 2017, that there -- the lesion appears complete per this study.
BY MR. GINZKEY:
Q. Okay. The lesion appears complete, and there is no evidence of voluntary motor unit potential activation, correct?
A. Correct.

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Q. And sticking with that Diagnostic Interpretation paragraph at the top of Page 1 of Exhibit 3, the statement made by Dr. Carmichael is, "There is a severe left femoral neuropathy that is specific to the branches of the vastus lateralis and rectus femoris muscles," correct?
A. Correct.
Q. Those are two of the four muscles in the quadriceps?
A. Correct.
Q. When Dr. Carmichael says that the lesion appears complete with no evidence of voluntary motor unit potential activation, doesn't that mean that both the vastus lateralis and rectus femoris are completely denervated?
MR. BRANDT: Objection with respect to time.
A. That depends on what time you're...
BY MR. GINZKEY:
Q. All right. I understand what you're saying. Let's take January of '17. Based on what's written on Page 1 of this Exhibit 3, isn't it

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true that in January of 2017 Wes Johnson's vastus lateralis and rectus femoris muscles in his left quadriceps were completely denervated?
A. According to the study, yes.
Q. Are you aware of any subsequent studies, any subsequent clinical findings that would suggest that at this point in time, and by that I mean mid October of 2019, that the patient Wes Johnson has recovered any of his motor function for either the vastus lateralis or rectus femoris muscles of his left quadriceps?
A. I have not examined the patient. No, I am not aware of any studies.
Q. Is Dr. Carmichael still with McLean County Orthopedics?
A. As of today, yes.
Q. Is that status going to change?
A. It is going to change.
Q. Do you have any idea where he might be going?
A. He will be practicing in Peoria.
Q. Do you happen to know what group he might be with in Peoria, he might be going to?
A. I believe he is going to Midwest Orthopaedics.

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Q. Okay. Thank you.
Then, Doctor, if we can go back to Exhibit 2 and move to what would be Page 4. I've highlighted Paragraph 12. And I've got some preliminary questions. Would you agree with me that femoral nerve palsy is a known complication of a THA?
A. I would agree it's a known complication.
Q. Would you also agree that in the vast majority of those cases where there is a femoral nerve palsy secondary to THA that that palsy is temporary in nature?
MR. BRANDT: Object to the form. I'm not sure what you mean by "vast majority," but you can answer.
A. I do agree that the femoral nerve palsy would be transient.
BY MR. GINZKEY:
Q. Wouldn't you agree that it is unusual for a femoral nerve palsy secondary to THA to be permanent?
MR. BRANDT: Object to the form. I don't know what you mean by "unusual."

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You can answer.
A. It is a possibility that it is permanent.
BY MR. GINZKEY:
Q. But statistically isn't that possibility very slim?
MR. BRANDT: Same objection. I don't know what you mean by "slim."
A. I can't answer the question without a percentage to agree to.
Q. Let's move on from Exhibits 3 and 4 and go to Exhibit 5. Exhibit 5 would be a true and accurate copy of your dictated Discharge Summary in connection with the THA that we're discussing, correct?
A. Correct.
Q. And part of what you dictated I've got highlighted "postoperative femoral nerve palsy." That is what you dictated, correct?
A. Correct.
Q. Then I want to go from there. If I can have you go to Exhibit 8. For the record, Exhibit 8 is an abstract of a peer reviewed medical journal article that begins with the phrase or

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the title "Is the Anterior Approach Safe," and it's coauthored by Drs. Gorab and Matta.
You agree with me that both Drs. Gorab and Matta are recognized as authoritative authors with respect to THAs?
MR. BRANDT: Object to the form.
MR. LUNDQUIST: I'll join.
A. I would agree that Dr. Matta has a lot of publications on total hip replacements.
BY MR. GINZKEY:
Q. Are his publications considered authoritative?
MR. BRANDT: Object to the form.
MR. LUNDQUIST: Same objection.
A. That depends.
Q. Doesn't Dr. Gorab also have quite a number of peer reviewed medical journal articles concerning THAs?
A. I am unaware of Dr. Gorab's CV.
Q. Okay. In any event, and I'm paraphrasing, and I've highlighted what I'm paraphrasing in this Exhibit 8, Drs. Gorab and Matta were two of the coauthors with respect to a study cohort that consisted of 5,090 consecutive primary

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procedures, and we're talking about THAs, and what they documented in their study was that there were only two sciatic nerve palsies and one peroneal nerve palsy. Isn't that what's reflected in Exhibit 8?

MR. BRANDT: Take your time and look through this before you answer, please.

THE WITNESS: Okay.

A. Now, that I've read it, will you please restate the question, because I've kind of forgot.

MR. GINZKEY: Yeah, if you can reread that, Gina.

(Record read.)

A. That is what is documented in the Results section of this paper, of this abstract.

Q. And you would agree with me, would you not, that there are other peer reviewed medical journal articles with reference to this topic, and by that I mean nerve palsies following THA, that document similar percentages?

MR. BRANDT: Object to the form. I'm not sure what you mean.

A. I actually disagree.

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BY MR. GINZKEY:

Q. Okay. Tell me why you disagree.

A. There are multiple studies in peer reviewed journals showing different nerve palsies from different approaches at a much higher rate than 3 per 6,000.

Q. What are those approaches that have a higher incidence of nerve palsy for THA?

A. There are multiple different approaches to the hip, and there are multiple studies stating the incidence of nerve palsy is roughly equivalent.

Q. Regardless of approach?

A. Correct.

Q. If I can have you go back to Exhibit 6, that is a one-page document. And, for the record, that's what we attorneys call a Certificate of Merit, it's appended to the Complaint, and what I've highlighted is the author's statement, "While temporary injury to the patient's lateral femoral cutaneous nerve is a known risk of the direct anterior approach in total hip arthroplasty, direct trauma or traction injury

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causing permanent damage to the femoral nerve involved here is not an expected outcome of anterior approach total hip arthroplasty."

Do you agree or disagree with that statement?

MR. BRANDT: Object to the form. I don't know what he means by "expected outcome." You can answer.

A. I would agree that it is a known complication from a total hip replacement.

BY MR. GINZKEY:

Q. That permanent nerve damage is a known complication is your testimony, correct?

A. Nerve damage, whether it be transient or permanent, from a total hip replacement is a known complication.

Q. Okay. Let me have you look at Exhibit 7. That's a consent form, and specifically what I'm interested in is Paragraph 4, which reads, "My Physician or his/her associates has/have fully explained to me the diagnosis of my condition, the nature of the proposed care and the material risks, complications and adverse

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outcomes potentially associated with the proposed care, including, but not limited to, death."

It's true, is it not, that you never told Wes Johnson that permanent femoral palsy was a risk of the procedure you were about to perform?

A. I would agree that I specifically stated there is a possibility of nerve damage during the procedure.

Q. And I understand that. But the question is, permanent nerve damage, did you ever indicate to Wes Johnson that there is a risk that there is going to be permanent nerve damage to your quadriceps as a result of this procedure?

A. I do not recall specifically stating that, but I definitely said there is a possibility of nerve damage.

Q. When would that statement have taken place? Where were you, where was Wes and where in the scope of the procedure --

A. I can -- may I look back in my records?

Q. Absolutely.

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MR. BRANDT: Hang on. Just so everybody is on the same page, I'm going to hand him, this would be the visit that he had on -- bear with me -- this immediate preop visit, and I'm just looking for the date here, 6/27.

A. My statement is, The risks, comma, benefits, comma, complications and alternatives to total hip arthroplasty were discussed. The risks are including, comma, but not limited to, comma, bleeding, comma, infection, comma, nerve and vessel damage, comma, fracture, comma, need for further surgery, coma, limb length discrepancy, comma, dislocation, and thromboembolic events, such as DVT, comma, PE, comma, stroke, comma, MI and death.

Q. Let me have you move, Doctor, to Exhibit 9. That's, for the record, a part of the charting from Advocate BroMenn Medical Center where the surgery in question took place, and what you would have been using would have been DePuy's Pinnacle System, correct?

A. On the acetabular side, correct.

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Q. If I could have you look at Exhibit 10.

It might be before that. It's this grid.

MR. BRANDT: Yeah, we've got it.

A. Oh, sorry.

MR. BRANDT: Oh, I'm sorry.

BY MR. GINZKEY:

Q. Under that Exhibit 10 marker, there is a legend that says DePuy 000589. I want you to assume that that's what we attorneys call a Bates stamp.

A. Oh, way down here, yeah.

Q. Yes. Just meaning that this was produced by DePuy in this case.

A. Okay.

Q. And what they had been asked to produce was their records of your training with respect to the use of their products, and what they have got listed here are two essentially CME courses, one is for -- the second one is for the Attune Knee System, which is not relevant, so we're going to skip that, but what is reflected here is that on November 13 of 2015

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you did attend in Rosemont, Illinois, CME with respect to the anterior approach for total hip arthroplasty. Do you see that?

A. Yes.

Q. Then if we go to Exhibit 11, that is part of the handouts from that course. If you look at the title at the top of Page 1 of Exhibit 11 and the date and the place, it's Anterior Approach for Total Hip Arthroplasty taught by Dr. Matta at Rosemont, on November 13, 2015. So that would be the course that you attended, correct?

A. I attended this course. I'm pretty certain Dr. Matta was not there.

Q. Okay. If I can have you go to Page 2 of this Exhibit 11, I've got highlighting, and this handout states, "I encourage you to take advantage of the ongoing support available to you. These tools include visitation sites and regionally based, cadaveric SMART labs and 3-D animation."

My question to you would be, you didn't attend any of DePuy's cadaveric training

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labs, did you?

A. I am uncertain whether I -- that day we did a cadaver.

Q. Okay. Were you in a hands-on position that day?

A. Yes.

Q. What about -- let me back up.

If you recall, were there any other cadaveric labs with respect to DePuy's Pinnacle System that you attended?

A. No.

Q. Did you participate in any of the DePuy's 3-D animation training sessions?

MR. BRANDT: I object to the form. I'm not sure what that is. But you can answer, if you know.

A. If the 3-D animation is the chapter video, then yes.

BY MR. GINZKEY:

Q. Okay. Did you assist on any THAs prior to starting to use the DePuy Pinnacle System yourself?

A. Absolutely.

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Q. Okay. How many and where, if you recall?
A. In my fellowship for total hips we used the Pinnacle System from multiple approaches.
Q. So University of Kansas at Wichita?
A. In my fellowship --
Q. Gotcha.
A. -- hip and knee at Virginia Commonwealth.
Q. VCU?
A. Correct.
Q. Okay.
A. Virginia Commonwealth University Medical College of Virginia.
Q. Let me have you flip to Exhibit 12. That, quite frankly, is just a screen shot off a website of the Anterior Hip Foundation. Do you belong to that foundation?
A. I do not.
Q. Have you ever attended any of the training labs promulgated -- or sponsored, I should say, by the Anterior Hip Foundation?
A. I can say that I've never been to a training lab solely sponsored by this foundation.
Q. Let me give a preface for this next question.

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We attorneys have to engage in continuing legal education, CLE as opposed to CME. We also are obligated to file proof of what courses we've attended with the Illinois Supreme Court.

Is there -- and I should back up. So there is essentially a database for Illinois lawyers where you can go and see what courses they have taken through the years.

Is there a similar database for orthopaedic surgeons?

A. I am unaware of any database --
Q. Me too.
A. -- but we do have to perform CMEs.
Q. I understand.

Do those get reported to, for instance, the Illinois Department of Professional and Financial Regulation?

A. This is horrible of me, I do my CMEs, and I give them to my office staff, and they get filed to the authorities.
Q. If you wanted to ask somebody here at MCO to whom or what entity proof of those CME credits are filed with, who would you ask here at MCO?

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We can get that answer from him or her.
A. Angie Yoches, Y-o-c-h-e-s.
Q. Thank you.

If we can go to Exhibit 13. That's just a picture of an anterior approach broach. And my first question would be, it's true, is it not, that that broach is not a part of the total hip arthroplasty box, for lack of a better term, that the reps bring to the surgeries, is it?

A. I do not understand the question.
Q. Okay.

MR. BRANDT: He'll rephrase it.

BY MR. GINZKEY:
Q. With respect to the components of the artificial hip, the acetabulum shell, the liner, those components are actually brought to the operating room by the DePuy reps, correct?
A. Correct.
Q. And it's my understanding that what the reps bring are the components that are going to be used in the artificial hip as opposed to, for instance, Stryker drills; they don't bring the

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Stryker drills, do they?
A. Exhibit 13 is not an implant, and I do not know who brings the instruments. I'm unaware of who owns the instrument sets and who brings them.
Q. Would you have used an anterior approach broach such as depicted in Exhibit 13 for Wes Johnson's THA?
A. Yes.
Q. If we look at Exhibit 14, that is a list -- actually it's your preference card for hip arthroplasty, and I certainly may have missed it, but looking the three pages of Exhibit 14, can you tell me where that anterior broach is listed?

MR. BRANDT: Take your time.

A. I'm unaware of where. I do not see it listed specifically.

BY MR. GINZKEY:
Q. And if we look at Exhibit 15, firstly, my question would be, the four pages comprising Exhibit 15 would be a true and accurate copy of your dictated operative note for the surgery in question, correct?

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A. Correct.
Q. And this might take a minute, but is the anterior approach broach mentioned in your dictated op note?
MR. BRANDT: Take your time.
A. Page 3 of the operative note, there is a large paragraph at the top of the page, about halfway down -- it's a little bit more than halfway down -- "Box osteotome was used to set the appropriate version. The femur was sequentially broached to the appropriate size."
Q. So the word -- well, the verb "broached" refers in essence to what we have depicted in Exhibit 13, correct?
A. Correct, broach refers to using the broach.
Q. I follow.
If we go to Page 1 of this Exhibit 15, this op note, you make reference to developmental dysplasia. What do you mean by that?
A. The simple statement is he had a congenital problem with his hips, and he has a shallow hip socket.

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Q. Is that specifically on the left side, or would it be for both, if you know?
A. He already had a total hip replacement on the right side when I met him. I am unable to describe the preoperative deformity on the right side.
Q. Okay. But on the left side, and I'm a little bit confused here, because 15, the dictation, says developmental dysplasia. You just mentioned congenital. Wouldn't those be two different etiologies?
A. They are one and the same.
Q. Okay. That shallow hip socket, how is that diagnosed? Is it diagnosed clinically, by imaging, both?
A. In this case it was done by imaging.
Q. Would that imaging have been here at MCO?
A. I cannot recall specifics, but there were preoperative radiographs done that I evaluated prior to surgery.
Q. And that was going to be my next question. Did you actually look at the imaging, or did you rely on the radiologist's report?

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A. I viewed the image.
Q. So preop imaging that you reviewed for Wes Johnson's left hip led you to diagnose that he had a shallow hip socket on the left, correct?
A. Correct.
Q. Does preexisting dysplasia of the hip increase the risk of neurological injury in a THA?
A. Yes, it does.
Q. Was that discussed with the patient?
A. I do not recall.
Q. Excluding for the sake of this question whether the neurological injury secondary to THA is transient versus permanent, tell me what your understanding of the percentage risk of neurological injuries secondary to THA is overall.
A. That really depends on the patient.
Q. Have you seen any published statistics similar to one of the prior exhibits we had here today?
MR. BRANDT: Are you talking about a statistic?
MR. GINZKEY: Yes.
MR. BRANDT: Yeah.

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A. I've read multiple studies on total hip replacement giving different numbers.
BY MR. GINZKEY:
Q. Okay. By how much does the risk of neurological injury subsequent to THA increase due to the presence of dysplasia?
A. That really depends on the amount of dysplasia the patient has preoperatively.
Q. Is there an amount of dysplasia, preexisting dysplasia, that contraindicates the performance of the THA?
A. To my knowledge, there is not.
MR. GINZKEY: Off the record for just a second.
(Discussion off the record.)
Q. Doctor, if I can have you go to Exhibit 16, that is the charting of the anesthesiologist in connection with the surgery in question, and my only question is, the surgery start time is charted as 0845 hours and the surgery finish at 1032 hours.
To the best of your recollection, does that seem approximately correct?

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A. I have no true recollection of the timing of the surgery. I would have to trust this document.
Q. Good enough.
Then during your procedure you use a c-arm, correct?
A. Yes, sir.
Q. And Exhibit 17 through 21 would be fluoroscopic images from the c-arm, correct?
A. Correct.
Q. Exhibit 17, tell me what the significance of the two dark lines -- the two dark horizontal lines are. What are those?
A. First off, these are bad copies. And I know what they're picturing, though.
MR. BRANDT: Okay. That's fine. Go ahead. He's just wanting to know what these two lines represent, if you can tell.
A. Yes, I know.
BY MR. GINZKEY:
Q. What are the two horizontal lines?
A. There are pieces of -- they're long straight pieces of metal that the surgeon uses to judge

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leg length.
Q. The top horizontal line on Exhibit 17, is that the intertrochanteric line?
A. I cannot confidently say yes or no because of the poor quality of these images. I think it is through the center of the femoral head, the top one.
Q. Okay. Is the bottom one then from one greater trochanter to the other?
A. Again, I am assuming so.
Q. Okay. Let me hand you --
MR. GINZKEY: Let's go off the record.
(Discussion off the record.)
MR. BRANDT: We can go back on the record.
We have a glossy of 17 that I don't know if it's better or not, you can answer that question. And then you're going to explain what that shows compared to the copy you looked at.
THE WITNESS: Okay.
MR. BRANDT: Is that fair?

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THE WITNESS: Fair.
MR. BRANDT: Okay.
THE WITNESS: So Exhibit 17 is an intraoperative fluoroscopic image, and the top line is the intertrochanteric line before I started the surgery.
BY MR. GINZKEY:
Q. Okay. What would the bottom horizontal line then be, or is the top the femoral neck?
A. The bottom is something in the picture that -- it's probably the Bovie cord. It's nothing.
Q. Gotcha.
MR. BRANDT: Would that be artifact?
THE WITNESS: Yeah, artifact.
Q. I follow.
A. I took this to demonstrate a previous leg length discrepancy.
Q. That was my next question. So you've already answered that.
Is that something you attempt to correct during your surgery, the leg length discrepancy?

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MR. BRANDT: Go back to your report, please. It's Exhibit 15. You can use that.
I think I can find it for you, if you want. Take your time and read that through before you answer.
A. So speaking with the patient preoperatively, if they have a leg length discrepancy which bothers them, it can be corrected with a total hip replacement within reason.
BY MR. GINZKEY:
Q. Was that attempted with respect to Wes Johnson?
A. Yes.
Q. Those are my only questions on that Exhibit 17.
If we can go to 18, and, again, it's poor quality. I can hand you mine. All that I want to know is, what is depicted in Exhibit 18?
A. Exhibit 18 is insertion of the acetabular shell into the pelvis.
Q. What are the instruments that are depicted?
A. There is an insertion handle and a retractor.
Q. And then Exhibit 19. And just, for the record,

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these fluoroscopic images are in chronological order. So Exhibit 19 is a subsequent. Does that show just the retractor?

A. And the implanted acetabular component.

Q. Okay. Sure.

20 shows the implant, correct?

MR. BRANDT: This is much better.

If you don't understand the question, you can ask him to rephrase it.

THE WITNESS: No.

Due to the quality, I am uncertain if it's the broach or the implant and actually what time in the surgery this x-ray was taken.

BY MR. GINZKEY:

Q. There is a time; I don't know if it will help you out.

A. No. I mean, I don't know the -- I don't know.

Q. Okay.

A. I cannot say if it is the broach -- it is either the broach, the trial or the implant.

Q. Okay.

A. I think it is the implant.

MR. BRANDT: Well, if you don't

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know --

THE WITNESS: I don't know for certain.

MR. BRANDT: That's the best answer.

BY MR. GINZKEY:

Q. Okay. 21 is a similar photo, but if I'm understanding your earlier testimony correctly, we've got that straight piece of metal again to show the intertrochanteric line, correct?

A. This is the -- these both are the implants --

MR. BRANDT: So when you say "both," you mean Exhibits 20 and 21?

THE WITNESS: Excuse me. 20 and 21.

MR. BRANDT: It's okay.

THE WITNESS: These are both the implants, and I am evaluating the line across the bottom of the ischiums versus the intertrochanteric line and the --

BY MR. GINZKEY:

Q. And what's the purpose of making that determination?

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A. To evaluate for leg length discrepancy.

Q. Okay. Exhibit 22 is not a fluoroscopic image; it's a portable x-ray postop. And looking at that, Doctor, it appears to me that your acetabular shell and liner are larger than what had been implanted on the patient's right side. Would my conclusion be correct?

A. On this radiograph it does appear larger.

Q. I want you to assume that the patient's right hip implant had been performed by Dr. Chris Dangles. Do you know Dr. Dangles?

A. Yes, I do know him.

Q. Would you have reviewed any of his records concerning his right hip implant prior to your surgery?

A. I do not specifically recall. I do try and get sizes from previous surgery.

Q. Okay. If you know, does Dr. Dangles do most of his work at Gibson Area Community Hospital?

A. Yes, he does.

Q. Is there a staff member here at MCO that tries to acquire that information; in other words, again, a legal analogy would be I try to get

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similar lawsuits, but I have a paralegal or some staff member do it. Is there somebody here that tries to obtain that for you?

A. No specific person.

Q. If you obtain that information, is it kept in the patient's chart?

A. That depends.

Q. Did you, in reviewing for this deposition and going through your charting, see any of Dr. Dangles' information concerning sizing and implants that he used?

A. No, I did not.

Q. And looking at Exhibit 23 -- and let me hand you the glossy because that's the best image -- I want you to assume that this is a postop office visit here at MCO, and I believe the legend means it's from October 24 of 2016 at 11:33 in the morning, that's my understanding. In any event, so it's after that.

If you can take a look at that. Does there appear to be a difference in orientation with respect to the implants, right versus left?

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A. Yes.
Q. Why would that be?
A. There are multiple reasons why it could be.
Q. In this case what would some of those reasons be?
A. Well, the right femoral stem has subsided and it's shorter. The main reason the orientation is most likely different is intraoperative assessment and stability.
Q. Okay. Meaning as you're doing the implant you're making those assessments and trying to achieve the most stable implant, correct?
A. Correct.
Q. Okay. Moving to Exhibit 24, the acronym ASIS would refer to the anterior superior iliac spine, correct?
A. Correct.
Q. And 24 is simply a diagram of the ASIS, true?
A. It's a hemipelvis and a femur with the ASIS being the only thing labeled.
Q. Going to Exhibit 25, again, that's just a stock image of a screen shot off the internet. I've encircled in black magic marker what would be

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the greater trochanter, correct?
A. Along with the femoral neck and the lesser trochanter.
Q. Okay. I follow.
And ASIS, is that labeled appropriately with respect to the anterior superior iliac spine?
A. No, it is not.
Q. Okay. Tell me what is inaccurate.
A. The ASIS is right next to the pelvic rim -- the label is right next to the pelvic rim, and the ASIS is about halfway between the pelvic rim and the top of the acetabulum.
Q. Okay. So on this Exhibit 25, the acronym ASIS is a little bit too high?
A. I agree with that.
Q. Okay. 26 is --
THE WITNESS: Real quick, can we take a break so I can use the rest room?
MR. GINZKEY: Absolutely.
THE WITNESS: Thanks.
(Recess taken.)
BY MR. GINZKEY:

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Q. Doctor, if I can have you look at Exhibit 26. That's two pages from a DePuy brochure, and actually my only questions are with respect to the second page of this Exhibit 26, because the top photo on the second page of that exhibit shows preparation for a left hip arthroplasty, correct?
A. Correct.
Q. Now, there are marks in that top photo. Do you actually draw markings in your surgery?
MR. BRANDT: On the patient's skin you're talking about?
MR. GINZKEY: Actually there is a wrap --
MR. BRANDT: I'm sorry.
MR. GINZKEY: -- a plastic wrap --
MR. BRANDT: You're right.
MR. GINZKEY: -- an adhesive, but yes.
BY MR. GINZKEY:
Q. Did you draw on Wes Johnson's left hip where the greater trochanter was and where the ASIS was?

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A. No, I did not. I did identify them prior to the surgery, but I did not specifically mark them.
Q. And what this says, this Exhibit 26, that second page, top photo, it says, "Start the incision approximately 3 centimeters lateral and 1 centimeter distal to the ASIS, and continue in a posterior and distal direction toward the anterior border of the femur."
Do you see that?
A. I do see that.
Q. And it says, "The incision will be 8 to 9 centimeters and parallel with the fibres of the tensor fascia lata muscle." Do you see that, that statement?
A. I do check.
Q. And then the bottom picture shows the tensor fibres with respect to that fascia, correct?
A. That is what the caption says. This is a bad copy. I will assume it is correct.
Q. Yeah. I'm going to try to get a better picture.
Well, briefly look at Exhibit 27, and

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obviously this is a right leg as opposed to a left leg, but as we've talked before, as depicted in this Exhibit 27, the rectus femoris and the vastus lateralis are two of the four quadriceps muscles, true?

A. True.

Q. Then if you look at Exhibit 28, again it's a generic screen shot off the internet, but I am primarily interested in the anatomical drawing in the upper right-hand corner. There is a label for IT band, that stands for the iliotibial band, correct?

A. Correct.

Q. And the TFL stands for the tensor fascia lata, correct?

A. Correct.

Q. Does the depiction of the TFL in this Exhibit 28 accurately depict where anatomically the tensor fascia lata is?

A. Yes.

Q. And then if we look at Exhibit 29, again taken off the internet, but what I'm interested in are the photos, and that happens to be a

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depiction of a left hip, correct?

A. You can just transpose the picture, but this is depicting a left leg.

Q. Okay. And Exhibit C does show the tensor fascia, true? Actually, that's the right hip.

MR. BRANDT: It says right, yes.

BY MR. GINZKEY:

Q. Yeah, it's the right hip in Exhibit C. A is left hip, C is right hip.

A. That makes more sense.

I will say, again, poor quality. I have -- I cannot anatomically identify anything but fascia and muscle, not the exact muscle; I cannot identify that muscle --

Q. Okay.

A. -- due to the quality of the --

MR. BRANDT: Exhibit?

THE WITNESS: Yeah.

BY MR. GINZKEY:

Q. The legend under the photos for C, it says, A right hip incision is shown with -- and they misspelled the word "the" -- the fascia over the tensor split.

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Do you see that statement?

A. Yes, I do.

Q. The tensor fascia lata muscle, is it actually split during an anterior -- direct anterior approach?

A. No, it is not.

Q. Okay. Just retracted, true?

A. Correct.

Q. And in this Exhibit 29, again Photo C, which happens to be the left hip, does it appear that there are drawings marking the patient's -- excuse me. C is right hip, not left hip. C is right hip.

In that C, Photo C on Exhibit 29, does it appear as if landmarks of the femur and the ASIS are drawn?

MR. BRANDT: Object to the form. You can answer.

A. There are drawings on the patient or on the drape.

BY MR. GINZKEY:

Q. Okay.

A. I --

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MR. BRANDT: It's okay. You've answered.

BY MR. GINZKEY:

Q. The top drawing would be the ASIS, would it not?

MR. BRANDT: I'm sorry, on C you're talking about?

MR. GINZKEY: Yes.

MR. BRANDT: Okay.

A. There is a drawing, and I cannot identify -- I was not there. I didn't draw it. I'm not going to identify it.

MR. BRANDT: All right.

THE WITNESS: I'm not going to identify it.

MR. BRANDT: Thank you.

Q. All right. With reference to the top drawing, just above the retractor shown --

A. Are we still talking about C?

Q. C, yes -- if it's not the ASIS, what would it be?

MR. BRANDT: I object to form. You're asking him to guess. But you can go

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ahead.
A. Again, I mean, I would -- it is labeled as the -- I would assume it is the ASIS.
BY MR. GINZKEY:
Q. And is the drawing immediately under the retractor the femur or the greater trochanter?
A. Again, I would assume that is what they are depicting.
Q. Looking at Exhibit 30, I want you to assume that this is a photo of Wes Johnson, and that's the surgical incision that you made. That incision is much too medial, isn't it?
MR. BRANDT: Object to the form. I'm not sure what you mean. But you can answer.
A. Do you have a better quality? Because I cannot even identify the incision on my copy.
Now that I can identify the incision, could you please restate the question.
Q. Isn't the incision depicted on that Exhibit 30 much too medial?
MR. BRANDT: Same objection. I'm not sure what you mean.

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A. That depends on where his anatomy actually is.
BY MR. GINZKEY:
Q. If we compare the surgical scar that's reflected in that Exhibit 30 with Exhibit 26, the publication from DePuy, where they talk about starting the incision 3 centimeters lateral and 1 centimeter distal to the ASIS, that's not where that incision begins, is it?
A. I don't know where the ASIS is in this picture.
Q. Well, in the picture I want you to assume we had Wes put his two fingers on his hipbone, the pelvis. If that's true, that will give you some type of landmark, correct?
A. No, because it could be anywhere on the pelvic rim.
Q. Would you agree with me that what's depicted in that Exhibit 30, that incision, does not comport with the second page of Exhibit 26, the DePuy publication?
MR. BRANDT: Object to the form.
A. I do not agree, because there is no references in this Exhibit 30.
Q. Okay. Would you agree with me that in order to

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avoid neurological injury with a direct anterior approach to a THA, that the surgeon has to be in the appropriate plane?
MR. BRANDT: Object to the form. I'm not sure what you mean.
A. Plane of what?
BY MR. GINZKEY:
Q. Muscle plane.
A. That depends on what approach you're using.
Q. Well, direct anterior. I mean, regardless of what approach you're using, you're going to have to get into the right muscle plane in order to avoid injury, neurological injury, correct?
A. I would agree that staying in the intramuscular plane decreases the risk of injury.
Q. Looking at Exhibit 32, I'll hand you my copy because it's a better copy, I want you to assume that this is again the patient, Wes Johnson, and this is his right hip incision.
MR. BRANDT: This is --
MR. GINZKEY: Dr. Dangles.
THE WITNESS: 32.

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MR. BRANDT: Thank you.
BY MR. GINZKEY:
Q. You would agree with me that the incision as reflected on 32 is in a completely different position than the incision on Exhibit 30; you would agree with that, wouldn't you?
A. I would disagree that you could state that, because, again, there is no references as to where it actually is.
Q. Would you at least agree with me that the incision in Exhibit 32 is much more lateral than the incision in Exhibit 30?
A. I would disagree on the same grounds. There is no reference.
Q. You can look, Doctor, at Exhibit 31. That's it. That is an anatomical diagram of the femoral nerve, and, again, this would be in the right leg as opposed to the left, but I want you to look at the encircled muscles, the rectus femoris and the vastus lateralis. Firstly, those two encircled muscles on Exhibit 31 are the two muscles that were -- that had no motor unit activation on either of Dr.

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Carmichael's EMGs, correct?
A. Correct.
Q. And I want you to assume that the X on the nerves running to the rectus femoris and vastus lateralis, those X's were placed by Dr. Carmichael in his deposition.
Making that assumption, wouldn't those two X's lie directly under the incision that's reflected in Exhibit 30 if we superimposed those two?
A. I disagree.
Q. In this case do you have an opinion as to whether or not the nerves running to Wes Johnson's rectus femoris and vastus lateralis were transected?
A. Yes.
Q. What's your opinion?
A. They were not.
Q. Do you have an opinion in this case as to whether or not the nerves running to Wes Johnson's rectus femoris and vastus lateralis muscles were stretched by retraction?
A. I do not.

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Q. So no opinion, correct?
A. No opinion.
Q. Do you have an opinion as to whether or not those same two muscles were damaged by an electrocautery device?
A. Yes.
Q. What's your opinion?
A. They were not.
Q. Then, Doctor, if we go to Exhibit 33. That, for the record, is a report from a physical therapist, and I want you to assume that the individual authoring this Exhibit 33 is certified in vestibular rehab and certified as a brain injury specialist. Are you certified in either of these disciplines?
A. No, I'm not.
Q. On a regular basis do you treat postconcussive syndrome?
A. No, I do not.
Q. On the second page of this Exhibit 33, the author makes reference to some of the clinical findings. The first entry is smooth pursuits degraded in all planes. Do you know what that

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means?
A. I believe I do.
Q. Okay. What does that mean?
A. Your eyes can't follow a moving target without moving your head.
Q. And is that similar to the end gaze nystagmus where the finding was that he had nystagmus in the left upper quadrant?
A. Nystagmus is when you get to the end of looking in one direction and then your eye bounces.
Q. Okay. What does "Saccades: Hypometric in all planes" mean?
A. I do not know.
Q. And the only reason that I'm asking those questions is, would you have, as you sit here today, any reason to disagree with the findings reflected in Exhibit 33?
MR. BRANDT: I'll object to the form and foundation.
MR. LUNDQUIST: I'll join.
A. I have not examined the patient, so I cannot agree or disagree with these findings.
BY MR. GINZKEY:

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Q. Generally speaking, does nerve damage lead to weakness in the leg?
MR. BRANDT: Object to the form. Vague. You can answer.
A. That depends.
BY MR. GINZKEY:
Q. In this particular case if, in fact, Wes Johnson's -- two of Wes Johnson's four muscles in his left quadriceps are denervated, that would make his left leg weaker, would it not?
A. That depends.
Q. What does it depend on?
A. It depends on the severity of the neurapraxia, the palsy, as well as the compensatory muscles, how strong his compensatory muscles would be.
Q. When is the last time that you saw Wes Johnson in a clinical setting?
A. It's in my records. May I look?
Q. Sure.
MR. BRANDT: If you've got it, that's fine.
MR. GINZKEY: I don't have it.
MR. BRANDT: We've got it. Give

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us a second here.
A. That would be -- my last visit was 06/27/2017.
BY MR. GINZKEY:
Q. Would you have performed any type of neurological exam on Wes's left extremity?
A. Yes.
Q. What did it reflect?
A. Decreased strength of left knee flexion and extension.
Q. Would deep tendon reflexes have been measured on the left lower extremity?
A. Yes.
Q. What did that reflect?
A. Both lower extremities were normal.
Q. On that last office visit would you have done any clinical exam with reference to cranial nerves?
A. No.
Q. At any point during your treatment of Wes Johnson would you have tried to make a clinical determination with respect to his cranial nerves?
MR. BRANDT: Don't guess.

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A. No, I did not.
BY MR. GINZKEY:
Q. Do you agree with the statement that the femoral nerve is at risk with distal extension of an incision for a direct anterior approach?
MR. BRANDT: Object to the form. You can answer.
A. That depends.
Q. On what?
A. On multiple different things, mainly the depth of the dissection at the time.
Q. Okay. Do you agree that with respect to direct anterior approach incising the fascia over the tensor fascia lata and staying within the TFL sheath offers the best protection for the femoral nerve?
MR. BRANDT: Object to the form. You can answer.
A. I don't understand the question.
Q. Let's break it down and make it two questions. Firstly, do you agree that incising the fascia -- and, again, we're talking about a direct anterior approach for a THA. Do you

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agree that incising the fascia over the tensor fascia lata offers the best protection for the femoral nerve?
MR. BRANDT: Same objections.
A. I still do not understand the question due to there are multiple --
MR. BRANDT: That's all right. He's going to re-ask the question. If you don't understand it, don't answer it.
BY MR. GINZKEY:
Q. Again, with respect to a direct anterior approach for a THA, do you agree that staying within the TFL sheath and outside of the sartorial sheath offers the best protection for the femoral nerve?
MR. BRANDT: Object to the form. You can answer.
A. I would agree.
Q. Do you ever perform a THA using a lateral subvastus approach?
A. I do not.
Q. Do any of your partners use that approach for THA?

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A. You called it anterior subvastus?
Q. A lateral subvastus approach.
A. No, they do not.
Q. If you know, does that approach offer greater protection for the femoral nerve?
MR. BRANDT: Object to the form.
A. I do not have an opinion on that.
MR. GINZKEY: I think I'm finished. Let me go through my notes.
I think Troy has some questions.

EXAMINATION BY MR. LUNDQUIST:
Q. Good morning, Doctor.
A. Good morning, Doctor.
Q. I'm no doctor.
Do you want to take a break or are you good --
MR. GINZKEY: Doctor of Juris Prudence.
THE WITNESS: Yeah, you all are.
MR. LUNDQUIST: Supposedly, but I don't count that. Not like you guys do. You studied way longer than we have.

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Do you need a break or anything? I won't be too long.
THE WITNESS: No.
MR. BRANDT: Are you okay?
THE WITNESS: Yeah, I'm good.

BY MR. LUNDQUIST:
Q. All right. Doctor, I represent the hospital and a couple -- one nurse and one surgical tech who have been also added to this.
I've got a few questions. If anything I say doesn't make sense, please tell me, and I'll rephrase, okay.
As I understand it, the concept of a known risk in medicine means that even though the caregivers act in a reasonably careful manner and consistent with the standard of care and do everything right, there can still be certain complications that occur, correct?
A. I agree with that.
Q. In this particular case the records indicate that there were -- there were several people who assisted in the operating room in your

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procedure in various ways.
There has been depositions taken of Pam Rolf and Sarah Harden. Do you know Pam and Sarah?
A. Yes, I do.
Q. Okay. Sarah and Pam, the surgical tech and the nurse, have both described that they are there to assist you as a surgeon in any way you need.
Pam was in the role of passing you instruments, and she indicated that she was not the one that was in the surgical field for this particular procedure. Do you recall that to be true?
A. I do not recall who was helping me. In a vast majority of cases that is her role.
Q. Okay. Fair enough. And I understand some of the details like that you would defer to the records on as far as --
A. Correct.
Q. -- who was in what role, correct?
A. Correct.
Q. Fair enough.
And along those same lines, in this

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particular case Sarah Harden has described that she was the assistant who was scrubbed in, was in the surgical field and was there to assist you. Do you have any reason to disagree with that?
A. I have no reason to disagree.
Q. Okay. Both Sarah and Pam described that in general -- and I will tell you neither of them had a recollection of this procedure, okay, so they were telling us what they could based on custom and practice for a total hip like this one, okay. So that is the setup for my next questions, and I can tell you that's what they said.
Both of them testified that as a custom and practice all of the incisions would be made by the surgeon. Is that a correct statement of how the procedures would work in a total hip?
A. Correct.
Q. So, as best we can tell, any incision made in this case with respect to Mr. Johnson would have been made by you as opposed to anybody

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else in the room; is that fair?
A. Correct.
Q. After the incision is made, your operative report, which is No. 15 -- we had that earlier, I've got an extra copy, if you need it -- it refers to basically everything that -- or I shouldn't say everything, but it refers to your procedure and the steps you took, right, in a general sense? Yes?
A. Correct.
Q. Throughout Exhibit 15, your operative report, there are a number of steps referred to, some of which refer to specific instrumentation, whether it be reamers, scalpels, retractors, all things like that, right?
A. Correct.
Q. The nurses testified that, again, by way of custom and practice for a surgery like this, it would be typical for the surgeon to place an instrument where he or she wants it, and then there may be times where you as a surgeon may ask the surgical tech or the nurse to hold it there; is that how it works?

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A. Sometimes, yes, that is how it works.
Q. Okay. I guess when needed, I should say. You maybe don't always need to do that.
A. I would agree with that.
Q. Okay. So is it a fair statement that, as best you recall, with respect to Mr. Johnson's case that any placement of instruments would have initially been made by you, and then if you needed help holding something or, you know, keeping it in place, then you would ask the nurse or the surgical tech for help thereafter?
A. I would agree that is usually how it happens.
Q. Okay. Any reason to believe that that's not how it happened in this particular case?
A. No.
Q. As I said at the beginning, I talked about known risks. I guess to say this a different way, is the mere fact that a patient complains or alleges that there was an outcome that was unfortunate or unexpected, that does not mean in and of itself that anybody did anything wrong, does it?
A. I agree with that.

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Q. Okay. And I'm assuming that, to the best of your knowledge, in this particular case the procedure went as expected, and you were able to achieve all of the goals and in the fashion that you wanted them to be achieved with respect to Mr. Johnson; is that a correct statement?
A. I agree with that statement.
Q. And I've reviewed Exhibit 15, your operative report. I don't see any reference to a nurse doing something or a surgical tech doing something that was unexpected or doing something you did not want them to do.
Am I reading it correctly that there is no such reference in the operative report?
A. I agree there is no reference to something of that nature.
Q. And am I correct that if something like that had occurred, that would be something that, based on your custom and practice, you would chart in your operative report if there had been something done by somebody else that was unexpected or not what you wanted, something like that, you would make note of it, right?
A. I would.
Q. So, I guess, to connect those two dots then, the fact that we do not see anything like that in your operative report, is it fair to say that, to the best of your knowledge, the surgical tech, the nurses, did not do anything that was unexpected or anything other than what you wanted them to do or directed them to do; is that fair?
A. I agree with that statement.
MR. LUNDQUIST: Do I need to ask about agency?
MR. GINZKEY: It's up to you. Well, I haven't alleged agency.
MR. LUNDQUIST: You haven't alleged but --
MR. GINZKEY: And I'm not going to.
MR. LUNDQUIST: Okay. If we stipulate it's not going to be raised. I mean, I can ask.
BY MR. LUNDQUIST:

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Q. Doctor, you're not employed by the hospital, are you, Advocate BroMenn?
MR. BRANDT: At the time?
MR. LUNDQUIST: At the time.
A. No, sir.
BY MR. LUNDQUIST:
Q. And am I correct that your employer or employment status would be with McLean County Orthopedics at the time of this procedure?
A. Correct.
Q. And all of your care decisions with regard to Mr. Johnson would have been the result of your own independent and clinical judgment; is that correct?
A. Correct.
Q. And we haven't talked a lot about your records, but there was reference, I believe, to one at least preoperative visit that you had with Mr. Johnson before the day of the surgery, I think that was June 27.
MR. BRANDT: Yes.
Q. Would that have been here at the building we're sitting at now, McLean County Orthopedics?

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A. June of 2016?
MR. BRANDT: He's talking about this preop visit.
BY MR. LUNDQUIST:
Q. The preoperative visit. I'm on to something else now.
MR. BRANDT: So his question is, did the visit take place here or someplace else?
Q. Yeah, that's what I'm asking.
A. Well, it took place within McLean County Orthopedics, whether that be in this building or 2502; I have forgotten when we moved.
Q. Okay. Fair enough. But it would have been at the McLean County Orthopedics office?
A. Correct.
Q. Okay. As opposed to Advocate BroMenn Hospital here in town?
A. It was not at BroMenn Hospital.
Q. And, Doctor, are you on staff -- you're obviously on staff at BroMenn. Were you on staff at any other hospitals here in town back in '16?

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A. Yes.
Q. And would you do surgery at any of the other hospitals, other than BroMenn, on occasion?
A. Yes, I do.
Q. Okay. In this particular case with Mr. Johnson, did you opt -- you made the decision and opted to do this procedure, recommended it be done at BroMenn; is that correct?
A. I do not recall if it was my preference, the patient preference or both.
MR. LUNDQUIST: Okay. Fair enough.
All right. Thank you, Doctor. That's all the questions I have.
MR. GINZKEY: Nothing further.
MR. BRANDT: Let me take a break here, and we'll be back. I may have a couple questions.
(Recess taken.)

EXAMINATION BY MR. BRANDT:
Q. I think some of this may have been covered, but

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to that extent, I apologize to you, Doctor. Your care in this case, having reviewed the records from your surgery in the preop and postop, was it appropriate, did it meet the standards of care, and did you act as a careful orthopaedic surgeon in performing Mr. Johnson's surgery?
A. Yes.
Q. Okay. You were asked regarding whether Mr. Johnson's lower extremity muscles were --
MR. GINZKEY: Denervated.
MR. BRANDT: Denervated, thank you.
Q. -- denervated. The last time you saw him was two years ago; is that right?
A. Yes. I think it was June --
Q. I think it was June of 2017.
A. June 27, I think, specifically.
Q. Okay.
A. 6/27/2017, 10:00 a.m.
Q. Okay. And so regarding his condition today, you don't have a basis for an opinion because you haven't seen him and you haven't looked at

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records from June 27 of 2017; am I correct about that?
A. Correct.
Q. Okay. The literature that you were shown, Exhibit 8, this was an abstract of an article by Dr. Gorab, G-o-r-a-b, and Dr. Matta. Would you agree with me that whether that article, since you don't have it in its entirety, whether it's reasonably reliable or not, you don't have an opinion; would that be a fair statement?
A. I do not have an opinion, because I have not read the entirety of the article.
Q. Okay. Regardless of whether Dr. Matta has written a lot of publications regarding the anterior approach to total hip replacement, would it be a fair statement that you may or may not agree with everything he's written or said?
A. Correct.
Q. Okay. In other words, there may be some things that he's written that you agree with, and there may be some things that he's written that

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you disagree with; would that be true?
A. True.
Q. How many total hip replacement procedures have you performed in your career, using the anterior approach?
A. I do not know that data exactly.
Q. How many total hip replacement procedures have you performed regardless of the approach?
A. Again, I do not know. I can estimate.
Q. What would be your best estimate?
A. Approximately 400.
Q. Okay. You were asked -- let me just ask one more question about that. Do you perform the total hip procedure using an approach other than the direct anterior approach that you used with Mr. Johnson?
A. Yes.
Q. Was the approach that you used for Mr. Johnson appropriate as opposed to a different approach?
A. Yes.
Q. Okay. You were asked about whether you discussed with Mr. Johnson the proposition of permanent nerve damage as a part of the

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consent. Do you remember those questions?
A. Yes, I do.
Q. When you had the discussion with Mr. Johnson about the risk of nerve injury during this procedure on January -- I'm sorry -- on June 27, 2016, were you aware at that time with -- or apprized that the patient had dysplasia of the left hip?
A. Let me just look at my note.
Q. Sure.
A. Yes, I was.
Q. Okay. You were asked questions about Exhibit 9, which was the -- let me refer to it as the Advocate BroMenn stock or appliance/prosthetic list, okay, and then you were also asked about Exhibit 10 -- pardon me -- about Exhibit 14, which was your preference card, okay?
A. Yes, I was.
Q. Your preference card made no mention of the anterior approach broach, which was a -- a photograph of which was Exhibit 13. Why? Why was that broach not mentioned, if you know, in your preference card?

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A. The preference card does not need to state everything.
Q. Okay.
A. It's understood that that needs to be there.
Q. Is the preference card -- strike that.
Is the purpose of the preference card to list those things that you prefer to have present at surgery that are not otherwise there or provided?
A. That is correct.
Q. You were asked questions about the Anterior Hip Foundation. An orthopaedic surgeon who preforms anterior hip surgery, is there a requirement that you be a member of that foundation to perform anterior hip surgery?
A. No.
Q. Okay. You were asked questions about Dr. Dangles' records. I think you indicated that you try and get those or obtain those prior surgery records before you proceed with surgery.
My question is, does the standard of care require that you obtain in this case Dr.

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Dangles' records from the right hip surgery that he performed before you perform surgery on the left?
A. No.
Q. What is the purpose then -- what would then be the purpose for obtaining Dr. Dangles' records? Is there anything you're going to learn?
A. Strictly for preoperative planning.
Q. Okay. There was a -- Exhibit 23 was a postop plain film, 10/24/16 was the film. There is a difference in the orientation of the right and the left. My question is, is that concerning to you?
A. No.
Q. Why not?
A. There is a range of orientation that are acceptable, and they are both within that range.
Q. Exhibit 26 was the DePuy brochure. It talks about the proposition or makes reference to the proposition of drawing on either the skin or the film that's covering the skin at the time of the preop prep for the patient.

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Did the standard of care require such a drawing on the patient's skin or the film covering the skin?
A. No.
Q. What does the standard of care require with respect to identifying the anatomy, you know, I guess, without drawing on the patient's skin or the covering? In other words -- it was a poor question.
Does the standard of care require that you identify the various anatomy prior to doing surgery; is that required?
A. I am unaware of any requirement. I always do that.
Q. Okay. And can it be done without actually drawing on the patient's skin or a film covering the skin within the standard of care?
A. Yes.
Q. You were asked questions about the location of Mr. Johnson's incisions, and you were shown Exhibit 30, which is a photograph, an actual photograph, I'm not sure when it was taken, but it was a photograph of his left hip and his

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right hip; I think it was 32 or 33.
The location of the incision in this case, did it increase his risk of injury to the femoral nerve branches in your opinion?
A. No.
Q. Okay. When you made the incision and began the surgery, did you make an incision and proceed within the appropriate muscle planes in your opinion?
A. Yes.
Q. Do you have an opinion, to a reasonable degree of medical certainty, whether the incision that you made caused injury to the branches of the femoral nerve for this patient?
A. Yes, I do not agree the incision caused the damage to the branches.
Q. Okay. From your education, training, experience and knowledge, can femoral neuropathy or neurapraxia occur during the procedure that you performed for Mr. Johnson even when the care is appropriate and meets the standard of care?
A. Yes, it can.

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Q. And when it does, can the cause of the neurapraxia or injury to the branches of the femoral nerve be brought about in several different fashions or modalities?
A. Yes, it can.
Q. Okay. And does your knowledge of the literature support the proposition that there is a list of different mechanisms by which femoral neuropathy or injury to the branches of the femoral nerve can occur even when the procedure is performed appropriately, using the anterior approach?
A. Yes.
Q. Okay.
A. Yes. Excuse me.
Q. You were asked questions about whether the retractor -- a retractor caused injury to the branches of the femoral nerve.
When you looked at the report and reviewed what you had dictated in terms of your performance of this procedure, was there a retractor placed in proximity to the femoral nerve branches that we've been talking about

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here today so as to cause injury?
A. No.
MR. BRANDT: Okay.
MR. GINZKEY: My only statement on the record, I mislabeled Dr. Armstrong's CV as Exhibit 36. It should be Exhibit 34 so that it is in sequence.
MR. BRANDT: Okay. He's going to review and sign.
(Discussion off the record.)
(Exhibit No. 35 marked.)
FURTHER DEPONENT SAITH NOT.

STATE OF ILLINOIS)
)
COUNTY OF TAZEWELL)

C E R T I F I C A T E

I, Gina Fick, CRR, RMR, CSR, DO HEREBY CERTIFY that, pursuant to notice, there came before me on the 15th day of October, 2019, at McLean County Orthopedics, 1111 Trinity Lane, Suite 111, in the City of Bloomington, County of McLean, and State of Illinois, the following named person, to wit:

LUCAS ARMSTRONG, MD,

who was by me first duly sworn to testify to the truth and nothing but the truth of his knowledge touching and concerning the matters in controversy in this cause and that he was thereupon carefully examined upon his oath and his examination immediately reduced to shorthand by means of stenotype by me.

I ALSO CERTIFY that the deposition is a true record of the testimony given by the witness and that the necessity of calling the court reporter at

time of trial for the purpose of authenticating said transcript was also waived.

I FURTHER CERTIFY THAT I am neither attorney or counsel for, nor related to or employed by, any of the parties to the action in which this deposition is taken, and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in the action.

IN WITNESS WHEREOF, I have hereunto set my hand this 25th day of October, 2019.

GINA FICK, CRR, CSR, RMR

STATE OF ILLINOIS)
)
COUNTY OF TAZEWELL)
IN THE CIRCUIT COURT OF THE NINTH JUDICIAL CIRCUIT OF ILLINOIS, MCLEAN COUNTY

WILLIAM "WES" JOHNSON v. LUCAS ARMSTRONG, et al.
ILLINOIS RULE 207 (a) STATEMENT BY WITNESS:
SIGNATURE PAGE

I hereby state that I have read the foregoing transcript of my deposition given at the time and place aforesaid and I do again subscribe and make oath that the same is a true, correct, and complete transcript of my deposition given as aforesaid, with corrections based on the reporter's errors in reporting or transcribing the answer or answers involved, if any, as they appear on the attached, signed correction sheet.

_____ Correction sheet(s) attached.

Dated this _____ day of _____, A.D., 2019.

SIGNED _____
LUCAS ARMSTRONG

CORRECTION SHEET
WILLIAM "WES" JOHNSON v. LUCAS ARMSTRONG, et al.

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Deposition of

Sarah Harden

October 7, 2019

William "Wes" Johnson v. Lucas Armstrong, et al.

Gina Fick
RMR, CSR
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Phone: (309) 264-0565 • fickrmr@yahoo.com

IN THE CIRCUIT COURT OF THE ELEVENTH
JUDICIAL CIRCUIT OF ILLINOIS
MCLEAN COUNTY

WILLIAM "WES" JOHNSON,
Plaintiff,
-vs-) No. 2018 L 0000126
LUCAS ARMSTRONG, MCLEAN COUNTY ORTHOPEDICS, LTD., SARAH HARDEN, PAMELA ROLF, and ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER,
Defendants,
and
BRIAN STENGER and JORDAN PROSSER,
Respondents In Discovery.)

THE DISCOVERY DEPOSITION OF SARAH HARDEN, a witness, called by the Plaintiff, for examination pursuant to notice, taken before Gina Fick, Illinois CSR 084-003872, CRR, RMR, on Monday, the 7th day of October, 2019, commencing at the hour of 11:00 a.m., at Advocate Bromenn Medical Center, 1304 Franklin Avenue, QRM CR #2, in the City of Normal, County of McLean, and State of Illinois.

PRESENT:
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for Sarah Harden, Pamela Rolf and Advocate Health and Hospitals;

INDEX OF EXAMINATIONS

SARAH HARDEN,
having been first duly sworn, was examined and testified as follows:

EXAMINATION BY MR. GINZKEY:

Q. Will you please state your name for our court reporter, and spell both your first and last name for her.

A. Sarah, S-a-r-a-h, Harden, H-a-r-d-e-n.

Q. You are an RN?

A. I am a scrub tech.

Q. Scrub tech?

A. Surgical technologist.

Q. How long have you been with Advocate BroMenn?

A. Just over three years.

Q. And where had you practiced prior to coming to Advocate BroMenn?

A. Nowhere.

Q. Okay. When did you obtain your certification as a scrub technician?

A. July of '16.

Q. May I call you Sarah?

A. You may.

Q. Sarah, what we have in front of us are some exhibits that I have marked. Exhibit No. 1 is a copy of certain pages from the Surgical Case Record.

My first question is, with respect to this type of form, you're familiar with this form, are you not?

A. I don't normally see these, no.

Q. Okay. And I understand that.

This happens to be a total hip arthroplasty performed by Dr. Lucas Armstrong. Do you know Dr. Armstrong?

A. I do.

Q. Have you talked to him about this Wes Johnson case at all?

A. No.

Q. Have you talked with Pamela Rolf about this case at all?

A. No.

Q. Or anybody, other than your attorney or hospital staff, such as Janet Sutter?

A. No.

Q. Do you have any independent recollection of

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this procedure?
A. No.
Q. Okay. On Page 1 of this Exhibit 1, both you and Pam Rolf are listed as having scrubbed in, correct?
A. Correct.
Q. And scrubbing in means obviously you did scrub, and you were within the surgical field, correct, the sterile field?
A. Correct.
Q. Now, I've got highlighted the circulator, an x-ray tech by the name of Jonathan Simmons --
A. Uh-huh.
Q. -- and then two other individuals who happen to be sales reps from DePuy.
A. Uh-huh.
Q. Would I be correct in assuming that the circulator, the x-ray tech and the two DePuy individuals are not within the surgical field?
A. Correct.
Q. They don't scrub in, and they're not within the sterile field, correct?
A. Correct.

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Q. And none of those individuals handle any of the surgical instrumentation or the implants, correct?
A. Correct. After they're opened, correct.
Q. Right.
A. Yes.
Q. And if we can go to what would be Page 4 of that Exhibit 1, I've highlighted the section called Implants.
A. Uh-huh.
Q. Now, we've already deposed Pam Rolf, and she indicated to me that she was not the first assistant, that you were, is that correct, the first scrub?
A. No.
MR. LUNDQUIST: The other way around.
BY MR. GINZKEY:
Q. It's the other way around, yeah.
Looking at my notes, Pam Rolf was what is designated first scrub?
A. Correct.
Q. Do you have a designation? Are you called

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second scrub?
A. Second scrub.
Q. Okay. It makes sense to me.
Generally, not specifically with reference to this particular surgery, but generally what does the second scrub do?
A. What the doctor tells her to do.
Q. Okay. Would I be correct in assuming that the first scrub is the individual who is handing the surgical instrumentation to the doctor as he's performing the surgery?
A. Correct.
Q. Would I be correct in assuming that with respect to the implants that I've got highlighted on the fourth page of this Exhibit 1, you would be the one opening the sterile packages?
A. No.
Q. That would still be the first scrub?
A. Opening -- well, they are opened -- the packages are opened to the sterile field in a sterile package, and then those would be opened normally by the first scrub or the doctor.

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Q. Okay. And you've said you do whatever the doctor tells you to do. Tell me just generally what a second scrub does.
A. A second scrub will hold a retractor wherever it is placed by the doctor, and that is pretty much it.
Q. So, to the best of your recollection, that would have been your role in this particular surgical procedure, correct?
A. Correct.
Q. All right. So if I understand your testimony correctly, in this particular case with Wes Johnson, you would have been holding retractors that would have been placed by somebody other than yourself, true?
MR. LUNDQUIST: And just let me interject real quick. She doesn't have a memory of that. But I'll let you answer.
A. Okay. He places them. I hold them, yes.
BY MR. GINZKEY:
Q. You wouldn't be placing them, correct?
A. Correct.
Q. You wouldn't be repositioning them, correct?

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A. Correct.
Q. Everything that you do with respect to the retractors is at the specific direction of the doctor, correct?
A. Correct.
Q. With respect to the implants that are listed on this Page 4 of Exhibit 1, we've got the acetabular shell, the bone screws, the liners, the femoral stem, femoral head. Would you be placing any of those with respect to the patient himself?
A. No, I would not.
Q. And if custom and habit would obtain in this case, would it be Pam Rolf that would be handing these implants to the doctor as he's about to put them into the patient?
A. Yes.
Q. Exhibit 2 is basically again some of the implants that were used.
A. Uh-huh.
Q. Would you have placed any of those implants into the patient?
A. No.

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Q. Then we've got instruments listed on Exhibit 3, starting at the bottom and going through to Page 2 of this Exhibit 3.
A. Uh-huh.
Q. And I need to know if you would have been using any of those instruments that are listed on this preference card, if you would have been using any of those directly on the patient?
MR. LUNDQUIST: Let me just quickly interject. I have an objection to the word "using," because I think it can be interpreted different ways. But you can answer.
A. I don't use anything. I hold things.
BY MR. GINZKEY:
Q. Okay.
A. I hold what I'm told to hold -- whatever the doctor tells me to do, I do.
Q. You would not have been using any of the instruments that we've got listed on this Exhibit 3 and highlighted directly on the patient, correct?
A. Correct.

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Q. And then if I can have you, Sarah, look at what I've marked as Exhibit 4, and specifically look at the highlighted areas. Exhibit 4, for the record, is Dr. Armstrong's four-page op note.
A. Uh-huh.
Q. And what I've tried to do is highlight the instruments and the implants that were used. And, again, my question simply is, would you have been inserting those, applying those directly on or into the patient?
A. No.
Q. And go ahead and take a minute and just look through that --
A. Okay.
Q. -- just to make sure your answer is correct.
A. I really wouldn't have to look through it because I don't place anything.
Q. Okay. Is it customary to do a timeout before the procedure actually begins?
A. Correct.
Q. Who calls the timeout and who directs it?
A. Normally the circulator, the RN.
Q. In this case Elizabeth Riddle?

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A. Uh-huh.
Q. You'll have to say yes.
A. I'm sorry. Yes.
MR. LUNDQUIST: You caught it before --
THE WITNESS: Yes.
BY MR. GINZKEY:
Q. Tell me what that entails. Based upon your experience, not particularly in this case, because you have no independent recollection, but tell me what occurs in a timeout.
A. Timeout verifies a patient's name, date of birth, operative site, any fire hazards, any allergies, any current medications, the doctor performing the surgery.
Q. And that's done verbally just before the procedure starts, correct?
A. Correct.
Q. Is it before anesthesia is induced, if you know? Is the patient conscious, or is it typically done after the patient is asleep?
A. Typically after the patient is asleep.
Q. Okay. And that's custom and habit here at

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Advocate BroMenn, correct?
A. Yes.
MR. LUNDQUIST: I'll just object --
THE WITNESS: I'm sorry.
MR. LUNDQUIST: -- because I don't know if it's broad as to everything; but you can answer, that's fine.
A. Yes, in the cases I've done, as far as I know, every case here has that procedure.
BY MR. GINZKEY:
Q. What type of cases do you actually participate in, Sarah?
A. This would be an ortho case, general cases, gyne, eyes, ENT.
Q. The whole gamut?
A. Yeah. Jack of all trades, I guess.
Q. If there is a standstill -- firstly, if I use that phrase, do you know what that means?
A. No.
Q. Okay. Have you ever been involved in a procedure where there is a concern and everybody stands down just for a minute to

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double check what's going on?
A. I --
MR. LUNDQUIST: I'd just object to form, but you can answer.
A. I don't believe so. That's why we have our timeouts. I mean, we stop everything and listen to the timeout. So that would be a standstill to me.
As far as during a procedure?
BY MR. GINZKEY:
Q. During a procedure.
A. Not to my knowledge, no.
Q. Okay. You've never been in a procedure where, for instance, the patient's blood pressure drops to critical levels and everybody stands still? You've never witnessed one of those?
A. Yes.
Q. Okay.
A. Yes.
Q. How is that charted, if you know?
A. I do not know. I don't do any charting.
Q. Okay. Is it charted, if you know?
A. I do not know.

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Q. Would you have had any interaction with this patient after the surgery itself?
A. No.
MR. GINZKEY: Those are the only questions I have. Thank you, ma'am.
MR. BRANDT: Thanks, Sarah. I don't have any questions. Thank you.

EXAMINATION BY MR. LUNDQUIST:
Q. I just have a couple questions that might sound somewhat repetitive.
A. Okay.
Q. First of all, Sarah, you've already answered all of Mr. Ginzkey's questions about your role in this procedure, and I know that you have no memory about it at all --
A. Uh-huh.
Q. -- but is it fair to say that as it pertains to you, based on your knowledge of the custom and practice for any surgery like this that you would do, that you would not be in control of any of the instrumentation even if you were asked to hold something, true?

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A. Correct. Yes.
Q. The exclusive control of all instrumentation, whether it be clamps, retractors, scalpels, anything at all, is always with the surgeon, correct?
A. Correct.
Q. And even in an instance, hypothetically, where you may be asked to hold something, it's still under the direct control of the surgeon because you only do exactly what he tells you to do?
A. Correct.
Q. And you have no knowledge whatsoever that would indicate that that concept was deviated from in any way in this case, do you?
A. No.
Q. I have asked you to review the operative record that counsel marked as Exhibit 1 and the materials we have here.
A. Uh-huh.
Q. I know you have no memory of this case, but based on your review of everything, and all of that, to the best of your knowledge, was all of your care and conduct and involvement in this

case consistent with the standard of care for a surgical scrub tech? And what I mean by that is, to the best of your knowledge, did you act as a reasonably careful surgical scrub tech at all times?

A. Yes.

MR. LUNDQUIST: Thank you.

MR. GINZKEY: No other questions.

MR. BRANDT: I have no other questions.

MR. GINZKEY: Signature?

MR. LUNDQUIST: Let's show signature reserved, just because I always do it, it's not that we don't trust you. You can handle that through me, and I'll take care of it.

FURTHER DEPONENT SAITH NOT.

STATE OF ILLINOIS)
)
COUNTY OF TAZEWELL)

C E R T I F I C A T E

I, Gina Fick, CRR, RMR, CSR, DO HEREBY CERTIFY that, pursuant to notice, there came before me on the 7th day of October, 2019, at 1304 Franklin Avenue, QRM CR #2, in the City of Normal, County of McLean, and State of Illinois, the following named person, to wit:

SARAH HARDEN,

who was by me first duly sworn to testify to the truth and nothing but the truth of her knowledge touching and concerning the matters in controversy in this cause and that she was thereupon carefully examined upon her oath and her examination immediately reduced to shorthand by means of stenotype by me.

I ALSO CERTIFY that the deposition is a true record of the testimony given by the witness and that the necessity of calling the court reporter at

time of trial for the purpose of authenticating said transcript was also waived.

I FURTHER CERTIFY THAT I am neither attorney or counsel for, nor related to or employed by, any of the parties to the action in which this deposition is taken, and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, or financially interested in the action.

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of October, 2019.

GINA FICK, CRR, RMR, CSR

STATE OF ILLINOIS)
)
COUNTY OF TAZEWELL)
IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT OF ILLINOIS, MCLEAN COUNTY

WILLIAM "WES" JOHNSON v. LUCAS ARMSTRONG, et al.
ILLINOIS RULE 207 (a) STATEMENT BY WITNESS:
SIGNATURE PAGE

I hereby state that I have read the foregoing transcript of my deposition given at the time and place aforesaid and I do again subscribe and make oath that the same is a true, correct, and complete transcript of my deposition given as aforesaid, with corrections based on the reporter's errors in reporting or transcribing the answer or answers involved, if any, as they appear on the attached, signed correction sheet.

_____ Correction sheet(s) attached.

Dated this _____ day of _____, A.D., 2019.

SIGNED _____
SARAH HARDEN

CORRECTION SHEET

WILLIAM "WES" JOHNSON v. LUCAS ARMSTRONG, et al.

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Gina Fick, RMR, CSR (309) 264-0565

STATE OF ILLINOIS
IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
COUNTY OF MCLEAN

WILLIAM "WES" JOHNSON,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 2018L0000126
	)	
LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD, SARAH HARDEN, PAMELA ROLF, AND ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER,	)	
	)	
Defendants.	)	

VIDEOCONFERENCE DEPOSITION OF

SONNY BAL, MD, MBA, JD, PHD

TAKEN ON BEHALF OF THE DEFENDANTS

JUNE 29th, 2020

INDEX OF EXAMINATION

INDEX OF EXHIBITS

EXHIBITS:

Reporter's Note: The original exhibits were attached to the original transcript.

STATE OF ILLINOIS
IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
COUNTY OF MCLEAN

WILLIAM "WES" JOHNSON, Plaintiff,	)
vs.	) Case No. 2018L0000126
LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD, SARAH HARDEN, PAMELA ROLF, AND ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER, Defendants.	)

VIDEOCONFERENCE DEPOSITION OF SONNY BAL, MD, MBA, JD, PHD, produced, sworn, and examined on the 29th day of June, 2020, between the hours of nine o'clock in the morning and eleven o'clock in the morning of that date at the offices of ALARIS LITIGATION SERVICES, 2511 Broadway Bluffs, Suite 201, Columbia, Missouri, before LISA BALLALATAK, a Certified Court Reporter within and for the State of Missouri, in a certain cause now pending STATE OF ILLINOIS, IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT, COUNTY OF MCLEAN, wherein WILLIAM "WES" JOHNSON is the Plaintiff and LUCAS ARMSTRONG, et al., are the Defendants.

APPEARANCES

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Also present:

Dr. Lucas Armstrong (Telephonically)

The Court Reporter:

MS. LISA BALLALATAK, CCR
Kansas CSR No. 1670
Missouri CCR No. 1336
ALARIS LITIGATION SERVICES
2511 Broadway Bluffs, Suite 201
Columbia, Missouri 65201

(The deposition commenced at 9:04 a.m.)

SONNY BAL, MD, MBA, JD, PHD,

of lawful age, being produced, sworn, and examined on behalf of the defendants, deposes and says:

EXAMINATION

BY MR. BRANDT:

Q. Dr. Bal, good morning.

A. Good morning.

Q. My name is Peter Brandt. I represent the defendant, Dr. Armstrong and McLean County Orthopedics, LTD. We're here to take your deposition in Columbia, Missouri. This is taken pursuant to notice under the applicable Illinois Supreme Court Rules.

You've given a deposition before?

A. Yes.

Q. One or two. And so I'll dispense with going through the rules. We have here marked as Exhibit 2 a notice of the deposition, and it directed that you bring certain items to the deposition.

A. Right.

Q. Take a look at that. Did you bring your file with you?

A. Yes.

Q. Okay. Is it on that thumb drive?
A. It's on the thumb drive.
Q. Is that a thumb drive I can have?
A. Yeah, you can have it.
Q. Let me ask you, did you prepare any notes with respect to the case?
A. No.
Q. Okay. Did you write on any of the deposition transcripts?
A. No.
Q. Okay. Did you write any letters to Mr. Ginzkey with your thoughts or opinions?
A. No.
Q. Okay. Do you know any of the parties in the case? In other words, do you know Dr. Armstrong?
A. No.
Q. Okay. Look over the exhibit and see if there is anything in that list that's not on the thumb drive.
A. Number 6, list of publications.
Q. Okay. Is that in your CV?
A. That will be in the CV, though.
Q. Okay.
A. And I can get you a recent copy.

Q. Okay.

A. I don't know if I copied it.

Q. Did you make a copy of the thumb drive for Mr. Ginzkey? I just need to know so I can make a copy for him, if I need to.

A. No, I haven't made it, so ...

Q. Okay. All right. Let me just take this now so I don't forget it, because I could easily walk out of here without it.

We've marked as Exhibit 3 what we call 213(f)(3) disclosures, which is basically a listing of your opinions in the case, and then attached to it is a CV dated February 10, 2019. Let me hand you that.

With respect to -- we'll go the CV, since you brought that up. Is that CV relatively current?

A. Yes.

Q. Is there a more current version?

A. Yes.

Q. Okay. Can you send me or Mr. Ginzkey a current version?

A. Yes.

Q. Okay. And what's changed, just generally? I know that you've retired from the practice, but that was 2017.

A. Yeah. More publications.

Q. Okay.

A. That's it.

Q. And have -- if you know, do any of the publications deal with total hip replacement?

A. No, they don't.

Q. What have you written on since February?

A. Mostly on the biochemistry of silicon nitride ceramics.

Q. Okay. All right. I want to give you my card, and then if you can send me a copy of the CV --

A. Sure.

Q. -- and you can send one to Mr. Ginzkey, that'd be great.

A. Okay.

Q. This -- while we're on Exhibit 2 there, it has what Mr. Ginzkey prepared as your opinions in the case. Take a look at that and see if it's accurate.

A. Exhibit 3?

Q. Exhibit 3. Sorry.

A. Okay.

Q. All right. Have you seen that document?

A. Yes.

Q. All right. Did you prepare any drafts of that document for Mr. Ginzkey?

A. I don't remember. No, I don't think so.

Q. Okay. Do you know if he sent you a draft that you've edited?

A. I don't remember that, either.

Q. Okay. If you had such a document, would it be on the thumb drive?

A. Yes.

Q. Okay. Are the correspondence that you exchanged with Mr. Ginzkey or his office, the email, are those on the thumb drive, also?

A. They are.

Q. Okay. Did you send any literature or reference any literature to Mr. Ginzkey or his office?

A. No, I don't think I sent him anything.

Q. Okay.

A. But there's literature on the thumb drive.

Q. Okay. And the literature that you cited, do you have any recollection of what you cited to him?

A. Yes.

Q. Can you tell me?

A. There's an article from Missouri Medicine

by a surgeon in St. Louis from 2008 that generally described the surgical technique of anterior hip replacement that is relevant to this case. There is one case report of a late onset of a femoral nerve palsy from a small bleed in the psoas muscle, and there are two general review articles dealing with femoral nerve palsy and anterior hip replacement; one from Japan and the other, I believe, is a United States series.

Q. Okay. Does any of the literature that you get -- is that comprehensive, what you just gave me?

A. Yeah.

Q. Does any of the literature that you gave Mr. Ginzkey suggest or make any reference to the location of the incision as a cause of femoral nerve injury or neuropathy?

A. One -- the Missouri Medicine article describes a proper placement of the incision, but it doesn't say that more medial placement would put the femoral nerve at risk.

Q. Okay. Would it be a true statement that you don't know of any literature that suggests that the location of the incision -- the skin incision -- is a cause or increases the risk of femoral nerve

injury?

A. No. That would not be true, because based on my own experience and -- well --

Q. And my question was literature -- whether you could point to any literature that supports the proposition that the location of the incision would put the patient at risk for a femoral nerve injury.

A. No. Sitting here, I cannot, but in fairness, I haven't looked for that literature.

Q. Okay. Your bills for the services that you've rendered in this case, they're on the thumb drive, also?

A. They are.

Q. Okay. And what's -- do you have an understanding of what your rate is for review, deposition, and trial testimony?

A. Yes. $660 per hour, and for trial, it's $6,000 per day.

Q. Okay. Do you know how much you've billed Mr. Ginzkey up until this morning?

A. 1,500.

Q. Okay. Do you have on this thumb drive the documents that you reviewed? In other words, the discovery that you looked at in this case?

A. Yes.

Q. If you look at the exhibit in front of you, Exhibit 3. I think on the third page there's a listing of the documents that were sent to you -- maybe 2 -- maybe page 2.

A. Yes.

Q. Okay. Is that a complete list of everything that you've looked at?

MR. GINZKEY: Other than the literature?

Q. (By Mr. Brandt) I'm sorry. Other -- and I'm just limiting my question to discovery in the case.

A. Yes, that's what I've looked at.

Q. Okay. Did you look at any images?

A. Yes. He sent me a CD with imaging that's also on the drive.

Q. Okay. And do you remember what images you looked at?

A. The MARS MRI of 9/30/2019.

Q. Okay. Anything else? Any other imaging?

A. No.

Q. Okay. You've retired from practice -- active practice as of November 2017?

A. Correct.

Q. And do you hold any positions with the university?

A. No.

Q. Okay. How do you spend your days now, now that you've retired from practice?

A. I run a company calls SINTX, S-I-N-T-X, Technologies out of Salt Lake City. It's a full-line manufacturing of silicon nitride ceramics that are used in industry and also used to manufacture spine implants.

Q. Okay. And do you spend time in Salt Lake City?

A. Yes.

Q. How many days a year might you be in Salt Lake City?

A. Oh, I might make five or six trips in a year, but a lot more Zoom conferences and telephone calls.

Q. Okay. You were associated with a law firm in South Carolina at one point in time; is that right?

A. Yes.

Q. That association has dissolved?

A. Yes.

Q. Okay. Do you practice law?

A. No.

Q. Okay. Have you ever practiced law?

A. No.

Q. Okay. Do you -- when you were associated with the firm in South Carolina -- South Carolina; right?

A. Yes.

Q. Did you practice law through that firm at all?

A. Never.

Q. In other words, did you see clients?

A. No.

Q. Okay. Do you advertise your services as an expert?

A. No.

Q. Are you associated with any services?

A. Not voluntarily, no.

Q. Okay. To the extent that you're not voluntarily associated, what services might have your name, if you know?

A. One comes to mind called AMFS. I don't know where they got my name.

Q. Okay. Did they send you cases to review?

A. They have one or two times.

Q. Okay. How many depositions did you give last year in medical/legal matters?

A. Oh -- I don't remember. I have -- and I

can forward you the four-year records for trial and deposition testimony.

Q. Okay. Give me your best estimate. Did you give one deposition a year -- I'm sorry -- a month last year or ...

A. Last year, maybe seven.

Q. How many files in your file drawer?

A. At this time, maybe six.

Q. Okay. So to speak. I understand it's electronic, but ...

A. Right.

Q. So are you doing more expert work now that you have retired from the active practice or less?

A. Less.

Q. Okay. Any other groups that you're associated with, even involuntarily, that send -- basically put lawyers together with expert witnesses?

A. No.

Q. Okay. What was your income from expert witness work last year?

A. I don't even know.

Q. Can you give me your best estimate?

A. No. I wouldn't know. I don't draw an income, I -- well, I do draw an income through an

entity called Bal Consulting, but it's mixed in with income from royalties on some products and clinical advisory roles for a spine implant company.

Q. Okay. And so if you had six cases last year, what would be the average that you would -- you might bill in a particular case through deposition? Six-, 7,000 bucks?

A. 3,500 bucks.

Q. $3,500? Okay. Bal Consulting is still an active corporation?

A. Yes.

Q. And it's incorporated in Missouri?

A. Yes.

Q. Okay. Do you -- let me ask it this way:

The fees that you receive for expert witness work, do they go to Bal Consulting?

A. Yes.

Q. At one time they went to a foundation for a seat at the university. That foundation has dissolved; is that right?

A. No. It's still there.

Q. Oh, okay. Do you still fund it?

A. Yes.

Q. Okay. And do you fund it from fees on your expert witness work?

A. Yes.

Q. So approximately how much have you contributed, let's say, last year in the foundation?

A. Last year I gave $10,000.

Q. Okay. And is that the Bal chair? Is that what they call it?

A. No. It's just an orthopedic endowment.

Q. Do you remember the name of it?

A. It's Dana and Sonny Bal Orthopedic Endowment.

Q. Dana is your wife?

A. Yes.

Q. Do you do any teaching currently?

A. No.

Q. Do you have privileges anywhere?

A. No.

Q. You've been sued before as an orthopedic surgeon?

A. Yes.

Q. How many times?

A. Four.

Q. Okay. Any of those involve total hip?

A. Yes.

Q. Okay. How many?

A. Two.

Q. Okay. Those cases go to trial?

A. No. They both got dismissed.

Q. Okay. Have you paid any settlements in any cases where you've been named a defendant?

A. The first two, some 25 years ago. The insurance company went bankrupt, and there was some state fund that wanted to settle them.

Q. Okay. So two of them got settled?

A. Yeah.

Q. Okay. Before you retired, is it accurate you were doing about 100 to 200 hips a year?

A. Yes.

Q. And by that I mean THAs.

A. Yes.

Q. Okay. And those were all at the University Hospital?

A. All at the university.

Q. What's the name of the University Hospital that you worked at? I just don't know it.

A. The -- it's called the Missouri Orthopaedic Institute.

Q. Okay. And did you do those -- you did your surgeries at the hospital or a surgery center or both?

A. The Missouri Orthopaedic Institute is the

surgery center for orthopedic procedures.

Q. Okay.

A. It belongs to the university.

Q. Okay. The Bal Research Foundation, that's the one I was thinking of earlier. Has that been closed?

A. Yes.

Q. Okay. I think I know the answer to this, but have you ever been disciplined by any state in which you hold a license?

A. No. I still have an active license.

Q. Okay. Never been suspended?

A. Never been suspended.

Q. Privileges ever revoked or diminished?

A. No.

Q. Okay. It looked to me that about at least 70 percent of the time when you're asked to look at cases, you're testifying on behalf of the plaintiff.

A. Yes.

Q. Does that sound right?

A. Correct.

Q. We have a -- marked as Exhibit 1, this is a four-year record of trial testimony. Is this what you were referring to earlier?

A. Yes.

Q. Okay. I'm going to hand you that, and I'm just going to ask you if that's complete.

A. Yes, it's complete.

Q. Okay. Looking at that list, are there any cases where you believe you testified about a femoral nerve injury?

A. No.

Q. Okay. You have testified in cases where there was a femoral nerve injury as part of the complaint; true?

A. Yes.

Q. All right. And give me your best estimate as to the approximate number of times. I mean, I can find out, but I just want to get your thoughts about that.

A. Two, maybe three.

Q. Okay. Do you think it's more than that?

A. Don't know.

Q. Okay. Have you testified in other cases where you've had some criticism of the location of the incision or that the testimony amounted to a statement that the incision was too medial?

A. I don't remember.

Q. Okay. Do you think you may have?

A. I may have.

Q. Okay. In those cases where you may have testified where you believe the incision was too medial, do you know if those cases ever went to trial?

A. No. I don't know.

Q. Okay. You were barred from testifying in the federal courts on two occasions, 2014 and 2017?

A. One, to my knowledge.

Q. Just one, to your knowledge?

A. Yes.

Q. And this was the Nexium product liability case?

A. Correct. Correct.

Q. And in that case, you were contacted by the defense attorneys or the plaintiff's attorneys? Do you remember?

A. Plaintiffs.

Q. Okay. And, clearly, you were barred because you were giving testimony that was outside of your specialty; true?

A. No.

Q. Okay. Did you testify in that case?

A. In a deposition, yes.

Q. Okay. Your trial testimony was later barred; is that right?

A. We never went to trial.

Q. Okay. Have you testified in other cases that your testimony was barred?

A. Not to my knowledge.

Q. Okay. Do you know if it was barred? In other words, if there was an order entered?

A. No. I don't know.

Q. Okay. If there was an order entered barring your testimony, you'd have no disagreement with that, if those are the facts; true?

A. If those are the facts, then I wouldn't disagree with them.

Q. The case involved epidemiology and gastroenterology?

A. The Nexium, yes.

Q. And those aren't areas of your expertise; true?

A. Correct.

Q. You don't have any expertise in bone biology?

A. I do have expertise in bone biology, because that's part of what orthopedic surgeons study.

Q. Have you ever testified that you have no experience in bone biology?

A. Don't know.

Q. You don't have any experience in vitamin or mineral metabolism; true?

A. To the extent that orthopedic surgeons know about vitamin D and vitamin A and the pathways and we're tested on that, I have that expertise, but not to the extent that an epidemiologist may have.

Q. Okay. Have you ever seen the opinion from the district court disqualifying you as a witness in the case?

A. No.

Q. Have you ever testified that you're not an expert in vitamin or mineral metabolism?

A. Don't know.

Q. Okay. The reason that you were asked to look at the Nexium cases is because of a problem with bone breakdown fractures?

A. Yes.

Q. Okay. Is it important as an expert witness to be experienced in the science in which you have practice before rendering an opinion?

A. Yes.

Q. Okay. Is there a standard by the American College of Orthopedic Surgery on expert testimony?

A. Yes.

Q. Are you -- do you follow those standards?
A. Yes.
Q. Okay. Is it important to give unbiased opinion testimony?
A. It is.
Q. You've spoken with Mr. Ginzkey this morning?
A. Yes.
Q. And I assume you've spoken to him on the phone; is that right?
A. That is correct.
Q. Can you give me the gist of your conversations with him?
A. Oh, just -- we went over the files and my USB drive and the documents that you see in front of us.
Q. Okay. Have you worked on any other cases for Mr. Ginzkey?
A. I don't think so.
Q. How did he find you?
A. I do not know.
Q. Okay. Did he reference a colleague or another lawyer that had retained you?
A. No.
Q. Okay. Do you have any other cases that

you're looking at for Mr. Ginzkey?

A. No.

Q. Okay. Is it -- Dr. Bal, is it an accurate statement that nerve palsies are a recognized complication of hip replacement surgery?

A. As a general proposition, yes.

Q. Did you see the consent reference that Dr. Armstrong made in his clinic note before the surgery?

A. Yes.

Q. And you saw that he advised Mr. Johnson that the -- that nerve injury was one of the risks of the procedures; right?

A. Right.

Q. And that would be appropriate for him to make that statement and advise Dr. -- or Mr. Johnson that femoral nerve injuries are a risk of this procedure; true?

A. True.

Q. Okay. You saw Mr. Johnson's deposition testimony; right?

A. Yeah.

Q. You read that; true?

A. Correct.

Q. All right. And Mr. Johnson, I think,

testified, if can I paraphrase him, that he had already had one hip replacement surgery and that he already knew about the risks, generally, going into this surgery. Is that how you read it?

A. Yes.

Q. Okay. The plaintiff in this case signed a consent indicating that he had been given an informed consent; true?

A. Correct.

Q. Is that right?

A. Yes.

Q. Okay. The approach that Dr. Armstrong used, which is an anterior femoral approach -- I'm sorry -- it's an anterior approach -- let me start over.

The approach that he used -- that Dr. Armstrong used is an anterior approach; true?

A. Yes.

Q. Is that an approach that you use?

A. Yes.

Q. You've actually written on that topic; true?

A. Yes.

Q. Is it the preferred approach today?

A. Some surgeons prefer it; some don't.

Q. Okay. All right. There's a lateral approach, also; is that right?

A. Yes.

Q. Is that -- is the anterior approach preferred over the lateral approach?

A. Both have advantages and disadvantages.

Q. And some use a posterior approach; is that right?

A. Yes.

Q. Have you used all three?

A. Yes.

Q. Most commonly when you were doing 200-plus hips a year, would you most commonly do an anterior approach?

A. Yes.

Q. Okay. Let me just make sure I'm clear up front. You're not here to give an opinion that because a femoral nerve injury occurs, that it's a breach in the standard of care; true?

A. As a general proposition, true. I would need more data.

Q. Okay. And a femoral nerve injury with the approach used by Dr. Armstrong here does not automatically equal negligence or breach in the standard of care; true?

A. Correct.

Q. You've had patients that have developed a femoral nerve palsy or injury; true?

A. Yes.

Q. And was that with the anterior approach?

A. With the anterior approach, yes.

Q. Okay. Tell me, if you know, what you believe caused the femoral nerve injury in the two patients that you had -- two or three.

A. One was a bleed --

Q. Okay.

A. -- right after surgery. The other one, I never knew.

Q. Okay. Did you have a suspicion one way or the other?

A. No.

Q. And so that would be consistent with a lot of femoral nerve injuries, and that is that the actual cause of the femoral nerve injury is unknown; true?

A. Correct.

Q. Okay. And in this case, there's no evidence -- you can't point to any evidence or anything that you saw that would indicate the actual cause of a femoral nerve injury in this case; true?

A. I have an opinion, but I didn't see anything in the factual data, aside from the medial incision, which, in my opinion, will increase a risk of a femoral nerve palsy.

Q. Okay. The median -- the incision that Dr. Armstrong made, in your opinion, will increase the risk. I understand that's your opinion, but there isn't evidence in this case that you found that would support an opinion as to the actual cause; true?

A. True.

Q. Okay. So the literature that I've looked at, and certainly, I think, you've testified in the past and in your own circumstance, many times the actual cause is unknown; true?

A. Correct.

Q. Okay. We know, because you have had femoral nerve injury as a result of total hip surgery and total hip arthroplasty, that it can occur without negligence; true?

A. True.

Q. In other words, in the circumstance that you had a patient with a total hip arthroplasty where they develop postoperative femoral neuropathy, and you couldn't identify the cause, you'd agree

with me that your care was not negligent; true?

A. Yes.

Q. Okay. You mentioned a moment ago when we started the deposition that you -- in the thumb drive that you gave me, you were kind enough to bring here today, that you made reference to a -- I think it was a case report where there was a femoral nerve due to a psoas bleed.

A. Correct.

Q. Do you remember that?

A. Yes.

Q. Do you believe a psoas bleed or a bleed was the cause of the femoral nerve injury in this case?

A. No.

Q. Okay. A femoral nerve palsy can occur from a competently performed hip replacement surgery. I think that's what you're saying; true?

A. Right.

Q. You looked at Dr. Armstrong's operative note?

A. Yes.

Q. And would you agree with me that from the operate note, it appeared that he competently performed the hip replacement surgery for

Mr. Johnson?

A. Yes.

Q. Okay. You're not here to offer an opinion that surgery itself or the placement of the prosthesis itself in this case was done below the standard of care? Is that true?

A. Yes.

Q. Okay. Would you agree with me that there's nothing in this case that would indicate that but for the negligence of the surgeon, the injury would not have happened?

MR. GINZKEY: I'm going to object. That's a very vague and ambiguous question.

MR. BRANDT: Okay. I'll rephrase it.

Q. (By Mr. Brandt) You have a law degree; right?

A. Yes.

Q. Okay. You understand the concept of res ipsa loquitur?

A. Correct.

Q. Right? You studied it; right?

A. Right.

Q. You've testified about it; right?

A. Yes.

Q. You understand the concept of but for,

right, in the concept of res ipsa loquitur; true?

A. True.

Q. Okay. And you would agree with me that there's nothing in this case that would support the proposition that but for the negligence of Dr. Armstrong, the injury would have occurred; right?

A. I'm still not clear what you're --

Q. Okay. That's my fault, then. I'll ask a better question.

There's an allegation in the complaint, and the allegation -- let me just read it to you.

The allegation -- well, the concept of res ipsa loquitur, would, you'd agree with me, is that this injury that this patient had could not have occurred without negligence; true?

A. True.

Q. And we haven't identified anything -- you haven't identified anything -- you haven't identified anything that you think is the actual cause or mechanism of injury; true?

A. Not true. My opinion is that this injury was most likely caused by a retractor.

Q. And that's not contained in anything that you have disclosed to Mr. Ginzkey or in any of the

documents we've looked at; true?

A. True.

Q. Okay.

MR. GINZKEY: Let me pose an objection. The disclosure does specifically mention the instrumentation, generically; so I think that's a complete mischaracterization of the disclosure, and I object on that basis.

Q. (By Mr. Brandt) There's no evidence from what you've looked at, however, as to how a retractor came in contact with these two branches of the femoral nerve; true?

A. I'm not sure I understand the question.

Q. Well, I guess my question, Dr. Bal, is this: There's no evidence in this case -- and I think you've told me that you can't point to anything in particular that you believe or that there is evidence of direct injury to the femoral nerve; true?

A. No, that's not true. There's evidence of direct injury to the nerve based on the EMG findings.

Q. I understand. But in terms of the actual performance of the surgery, you can't point to anything, by way of evidence in this case, that

supports that a retractor or any other instrumentation came in contact with the nerve; true?

MR. GINZKEY: So is the question Dr. Armstrong didn't put that in his op note? Is that the question?

MR. BRANDT: I'm just asking him -- he --

Q. (By Mr. Brandt) Can you point to any evidence in this case -- looking at the discovery in case, the medical records, is there any evidence that a retractor caused this injury, based upon the documents that you've reviewed?

A. Yes. The documents I reviewed show misplacement too far medial of the incision, and then twice in the operative record, the doctor documents the placement of the anterior retractor. While documentation does not say that the retractor was up against the femoral nerve, that is my opinion, based on my reading of the records.

Q. Is that your opinion, based upon the fact that postoperatively, the patient had a femoral neuropathy?

A. In part, and in part on the EMG findings.

Q. Okay. Anything else?

A. No.

Q. Okay. There's nothing in his operative note that he placed a retractor in proximity to the rectus femoris or the -- the branches -- the two branches of the femoral nerve that we've been talking about -- that are talked about in this case; right?

A. Well, that's not right. He does mention placing the retractor up against the rectus femoris muscle, which is where it should be placed, and then moving it to an intracapsular location when he repositioned it once during the operation.

Q. Okay. Nothing inappropriate about that; true?

A. As it's stated, no, nothing inappropriate about that.

Q. All right. And, in fact, if we look at the entirety of the medical record -- and I'm talking about his operative note -- I'll be happy to mark this. Now, this has my highlighting on it, so you don't have to necessarily pay attention to that -- you can look at anything you want to look at -- but take a look at that, and I want you to tell me if there's anything that operative note that you find to be inappropriate in the way in which he approached the surgery.

A. No.

(Deposition Exhibit No. 4 was marked for identification.)

Q. (By Mr. Brandt) Okay. The -- I want to talk to you a little bit about this incision.

The -- I believe your opinion is, is that the incision is too medial, and I want to make sure I understand what is it about the incision that you believe is inappropriate, just so I understand. And I think I have a photograph here -- bear with me, because I'm not -- I was digging through this stuff yesterday, and I think this is Mr. Johnson.

(Deposition Exhibit No. 5 was marked for identification.)

MR. GINZKEY: I can't identify that.

MR. BRANDT: I can't tell you, either. Let me hand it to the witness and see if --

Q. (By Mr. Brandt) Is that the incision or is that a photograph of the incision that brought you to the conclusion that the incision was too medial, if you know?

A. No. I haven't seen this before.

Q. Okay. Why don't you give me this back. I'll make it part of the record, but we'll establish that we not -- or I'll state for the record that we

haven't established that this is Mr. Johnson. Okay?

A. Okay.

Q. So I won't hit you with that later. All right?

A. Uh-huh.

Q. So maybe the easiest thing for you to do is maybe you can draw for me, if you're willing to do it, how the incision went and how you think it should go.

A. The photographs in the record of his left thigh -- of Mr. Johnson's left thigh versus right thigh.

Q. Okay.

A. And the right thigh incision is appropriately placed.

Q. Okay.

MR. GINZKEY: Yeah. And I don't have a problem with disassembling this and making these as exhibits, simply because I know these are Wes Johnson. I've never seen Exhibit 5. There are two consecutive photographs.

MR. BRANDT: Let's just take a break, and we'll have those -- as long as we're on this, and we'll cover it.

(A recess was taken.)

(Deposition Exhibit No. 6 and 7 was marked for identification.)

Q. (By Mr. Brandt) Doctor, thanks for the break. I'm going to hand you what's marked as 6 and 7. And those are different photographs, but if you can tell me what 6 shows and what 7 shows, that would be great.

A. Six shows the incision from the right hip replacement done two to three years before the left one by a different physician.

Q. Right. And 7?

A. And 7 shows the incision on the left hip replacement done by the defendant physician in this case.

Q. Okay. And so your position is that Exhibit 7 shows an incision that is too medial. If you would -- I'll hand you a pen, and maybe you can draw on there where you think it ought to be.

A. (Witness complies.)

Q. Okay. And so -- thank you, sir. And let the record reflect that Dr. Bal has done with a dotted line -- written with a dotted line on Exhibit 7 the location where you think the incision should have been; is that right?

A. Right.

Q. And the incision location in No. 7 -- not the one that you drew, but the one that is showed by the image, is that, nonetheless, within the standard of care?

A. The location of the incision?

Q. Yeah.

A. Yeah.

Q. Okay. The -- I want to ask you about the branches of the femoral nerve that were part of the injury; right?

A. Right.

Q. You read the EMG; right?

A. Correct.

Q. And the EMG talked about two branches of the femoral nerve; is that right?

A. Yes.

Q. And their course, if you will -- they branch off the femoral nerve at a location that is distal to where this incision is in Exhibit 7? Is that right?

A. It's highly variable how the femoral nerve branches out in the proximal thigh.

Q. But you know fairly typically that's going to be -- those two branches, the rectus femoris and the vastus lateralis branch off in a location distal

to that incision; true?

MR. GINZKEY: Which incision?

Q. (By Mr. Brandt) The incision that Dr. Armstrong made. I'm sorry.

A. No, not necessarily, but, yes, they can.

Q. Okay. And so I'm going to show you what I've marked as Exhibit 8.

(Deposition Exhibit No. 8 was marked for identification.)

Q. (By Mr. Brandt) So this is a drawing of the femoral nerve that I pulled off. It does show the rectus femoris and the vastus lateralis, they are both marked. Okay?

A. Uh-huh.

Q. So, first off, would this -- Exhibit No. 8 show fairly typical anatomy?

A. Yes.

Q. Okay. And it -- would the location that they've marked there as the branch of the vastus lateralis and the rectus femoris, would those be fairly typical?

A. Yes.

Q. And would you agree with me that if we look at this Exhibit 8, that the location of the incision by Dr. Armstrong would be proximal to the

branches of those nerves?

A. Yes and no. The incision location would be proximal, but these -- this is a -- this is a drawing, not an accurate cadaveric dissection specimen. And point of fact, these branches run in a sheath in the nerve bundle, and in many cases, the arborization -- the branching off of the various branches -- is at the level of the hip itself, and then the branches run in a sheath and penetrate or innervate each muscle at a variable level.

Q. Okay. And I understand what you're saying. I'm just saying that the actual branches themselves, though, are distal to where the incision was made; true?

A. Yeah. The branches representing innervation of the muscles are distal to where the incision is.

Q. Okay. Right. No one has reexplored this nerve?

A. Correct.

Q. Okay. So would you -- we know there's EMGs, but no one has reoperated on this individual to see where the location -- the actual location of the neuroma or injury might have occurred; true?

A. True.

Q. Okay. Have you any experience with the bikini incision?

A. Yes.

Q. Okay. And what is the bikini incision?

A. Kind of follows a contour that's compatible with wearing a bikini, I guess.

Q. Okay. Have you done it?

A. No.

Q. Okay. Do you -- is it substandard care to do it?

A. No.

Q. Okay. Would you agree with me that the bikini incision would be even more medial than Dr. Johnson's -- I'm sorry -- Dr. Armstrong in the Johnson case?

A. One limb of it goes more medial, but the incision itself starts lateral.

Q. Okay. And any of your colleagues at the university perform a bikini incision?

A. No.

Q. Is there a reason why you didn't do it?

A. Yes. Higher incidence of thigh numbness and a more difficult exposure.

Q. Okay. Was there a higher incidence of femoral neuropathies arising out of bikini

incisions?

A. I'm not aware of literature to that effect.

Q. Yeah, I -- the literature that I looked at said that there was no increased risk of femoral neuropathy with the bikini incision. Would you have any reason to disagree with that?

A. No.

Q. Okay. So the reason to perform a bikini incision is -- would that be more on a thinner patient, presumably, a female?

A. Yes.

Q. Okay. The -- if we look at the operative note of Dr. Armstrong -- so Dr. Armstrong made an initial -- I'm going to call it a skin incision. Do you see that?

A. Yes.

Q. Okay. I've highlighted it there.

A. Yeah.

Q. So you're looking at page 2 of his operative note, and he talks about the -- using a No. 20 blade. Do you see that?

A. Right.

Q. That's a blade that is typically used to make a skin incision; is that right?

A. That's right.

Q. Do you use a 20 -- have you used a 20 blade?

A. Yes.

Q. Okay. And would you agree with me that the femoral nerve is much deeper than the depth, if you will, of the initial skin incision?

A. Yes.

Q. Okay. In other words, the branches that we've been talking about of the femoral nerve and the femoral nerve itself are well below the fascia; true?

A. True.

Q. Okay. And these branches are also distal from the location of the incision; true?

A. True.

(Deposition Exhibit No. 9 was marked for identification.)

Q. (By Mr. Brandt) Okay. So if you look at Dr. Armstrong's operative note at the location that I just pointed you to -- and I'm looking at now an article that you wrote, and I'll mark it -- it's entitled -- we'll mark this as Exhibit No. 9. It's entitled "Total Hip Replacement With Use of Direct Anterior Approach." You wrote this with

Dr. Crist, C-r-i-s-t, and Dr. Ivie, I-v-i-e.

A. Okay.

Q. You're familiar with this, I'm sure. Is that right?

A. I'll have to look at it.

Q. Okay.

(Deposition Exhibit No. 9 was marked for identification.)

A. Okay.

Q. (By Mr. Brandt) Okay. Do you remember this article?

A. Yes.

Q. I realize it was 2014, is that right --

A. Right.

Q. -- that you wrote it?

A. Right.

Q. And so this would have been published at the time of this surgery, which took place in 2016; true?

A. True.

Q. All right. If you look at the second page, the middle column -- and I'll just read it into the record so Jim and I know where this is later. It says -- and Troy -- sorry, Troy. It says this -- and you're talking about, actually

performing this procedure within an anterior approach; right?

A. Right.

Q. And it says this is, or you wrote this:

"The skin is incised 2 to 3 centimeters posterior and 1 centimeter distal to the anterior superior iliac spine over the tensor fasciae muscle belt."

I'm going to stop right there. Okay?

A. Okay.

Q. If you look at Dr. Armstrong's operative note, he says this on page 2:

"The fascia incision was made with a No. 10 blade scalpel over the belly of the tensor fasciae."

So he made his incision that he -- that you are referred -- or that he refers to in the exact location that you said it should be in this article; true?

A. Well, semantics-wise, yes, but if you look the illustration, he made it more medial. The tensor muscle goes lateral, and that's why the incision on the right hip is appropriate, because that follows a tensor valley.

He made the incision medial, but the

incision is mobile so he can identify the tensor muscle belly through it. My point is the incision is medial and puts the femoral nerve at risk.

Q. But the incision that you described in your article is essentially the same incision that he describes in his operative note; true?

A. The description is the same, yes.

Q. Okay. All right. And I assume the way in which you described it in your article is standard of care; true?

A. Correct.

Q. Okay. Have you performed total hip arthroplasty and made an incision like the one that Dr. Armstrong made? Have you done that?

A. Not that I recall, no.

Q. You may have, you just don't recall; is that right?

MR. GINZKEY: I think that mischaracterizes the witness's testimony.

A. No, I don't -- I don't -- no, I haven't made incisions like that.

Q. (By Mr. Brandt) Do you have any opinions about the patient's current condition? I mean, in fairness to you, I don't think -- and Jim will correct me if I'm wrong, but I don't think he's had

treatment for the femoral neuropathy since 2018, but if that's the case, do you have any opinions about his current condition?

A. No. I haven't examined him as yet, and the last entry in the records I saw was, I believe, September 2019, when he had an EMG.

Q. Okay. I apologize.

Do you plan on examining him? If asked, I assume you would?

A. If asked, I will.

Q. Has he had any falls, from your understanding of the record --

A. Yes.

Q. I'm sorry. Let me just finish.

Has he had any falls, from your review of the record, since 2018?

A. I don't know.

Q. Okay. He had, prior to surgery, hip dysplasia?

A. Yes.

Q. Okay. What is hip dysplasia?

A. It's an anatomic abnormality of the hip joint.

Q. Okay.

A. In various grades of severity.

Q. Does that put a patient at greater risk for femoral neuropathy?

A. It can -- potentially can, yes.

Q. Okay. All right. I read some literature that it can increase the risk of femoral neuropathy sevenfold. Would that be something you would agree with or disagree with?

A. Depending on the X-ray, depending on the severity of it, yes, I would agree with it.

Q. Did you have an understanding of the severity of Mr. Johnson's hip dysplasia?

A. No.

Q. Okay. He had some back and spine issues?

A. Correct.

Q. Would you agree with me that that also places patients at a higher risk for femoral neuropathy?

A. As a general proposition, yes, but in a specific case, you'd have to look at the MRI of the lumbar spine. You'd have to look at a number of factors.

Q. The things that -- I understand that, but as a general proposition, spine issues can cause a problem with knee strength, tingling in the thigh, numbness, a problem with the iliotibial band; true?

A. True.

Q. Just having surgery -- this type of surgery, the THA, can also cause numbness related to the iliotibial band; true?

A. Numbness related -- numbness localized around the iliotibial band, yes.

Q. Right. You've had patients that have had postoperatively complained about that, I assume, is that right?

A. Yes. Yeah.

Q. Pretty - I won't say it's a common complaint, but it's a complaint that you see; right?

A. Yes.

Q. And does that manifest itself in numbness in the thigh?

A. Numbness over a patch of skin just lateral to the thigh.

Q. Okay. Do you -- in those patients, have you performed an iliotibial band release --

A. No.

Q. -- as a subsequent surgery?

A. No, I have not.

Q. Okay. How do you treat that?

A. The lateral thigh numbness is transient. You just wait it out, and it disappears.

Q. Okay. At least in all of your patients, huh?

A. Yes.

Q. Okay. He had, preop, both -- "he," being Mr. Johnson, had both left groin and buttock pain; is that right?

A. Yes.

Q. He also had an antalgic gait?

A. Yeah.

Q. Okay. What is an antalgic gait?

A. An antalgic gait is a gait against pain. So the patient lurches and walks against the pain.

Q. Okay. Did he have that postoperatively, do you know?

A. No. I think his hip pain disappeared.

Q. Okay. You read his deposition, and he continues to play golf?

A. Yes.

Q. Okay. No reason he can't do that?

A. Correct.

Q. And I just want to make sure that I leave here and understand. You don't have any opinions about any restrictions he has; true? I mean today -- his restrictions today.

A. No, not -- I haven't examined him, so I

don't know about restrictions today.

Q. Okay. Same answer -- or same question, I'm sorry, with respect to ADLs. You don't have any opinions about any deficits he may have with his ADLs?

A. Correct.

Q. He's not taking any medication, I don't think, at least as of the last chart that I looked at. Is that your understanding?

A. Yes.

Q. And he hasn't had any -- well, let me ask you: Do you have any opinions about whether he'll need any injections in the future?

A. In which location?

Q. Relative to these two branches of the femoral nerve.

A. No.

Q. Okay. In terms of his current functional abilities, you don't have any understanding to form an opinion. Would that be true?

A. Well, he's got permanent injury and atrophy of his muscles, so I do have an opinion, in terms of his quadriceps weakness and his flat-footed gait, which is in the record. Those are deficiencies that he has to live with.

Q. Okay. But to the extent that he may or may not have compensated for those, do you have any opinions?

A. No.

Q. Okay. And so my question is really his functional abilities. You don't really have any opinions about that; true?

A. Well, I do have an opinion, because based on the literature and my understanding of a femoral nerve palsy after a hip replacement, the dysfunction and limitations of the patient are permanent and they are significant.

Q. Okay. I get that. My question, though, really, is focused on Mr. Johnson. Okay?

A. Correct.

Q. And your understanding of his current abilities or disabilities. You really don't have an opinion about him personally, do you?

A. No. I would have to examine him.

Q. And whether he's going to need -- what future care he might need, I assume you don't have any opinion about that?

A. No, I do have an opinion about that. With quadriceps weakness, altered gait, and given his young age, his knee will get arthritic, particularly

of a flat-footed gait and the need to lock the knee in extension. That's the only way people with a quadriceps deficiency can walk, and that puts excessive stress on the knee, leading it to arthritis and treatments for that.

Q. Okay.

A. And people with an altered gait, like Mr. Johnson, will also stress their back, and so he can expect back pain and knee pain on the same side as the femoral palsy.

Q. And, again, you're basing this on a general proposition of patients with femoral neuropathy, but whether Mr. Johnson has manifestations of knee arthritis or the back issues that you talked about, you really don't know, do you?

A. Not without examining him and questioning him specifically.

Q. Okay. And whether or not he's going to need a nerve block or an EMG, NCV, or even surgery in the future, you can't say without examining him, can you?

A. That is correct.

Q. Okay. This is an article that was referenced in a deposition that you gave involving a

femoral neuropathy, and I think this was the Cohen case, and this marked as Bal Exhibit No. 2. I'm going to mark it in this deposition as Bal Exhibit 10. I'm going to put that right next to the previous sticker.

(Deposition Exhibit No. 10 was marked for identification.)

Q. (By Mr. Brandt) And so in the Cohen case, in that deposition, you offered -- you came to the deposition with this article, and you answered some questions about it. I want to ask you some questions about it.

This article deals with research by 18 fellowship-trained arthroplasty surgeons -- hip surgeons; right?

Take your time. I'm sorry.

A. Yeah, that's what it says.

Q. And they assessed post-op patients with femoral neuropathies or neuritis; true?

A. Correct.

Q. They included the anterior approach that we've been talking about here today; true?

A. Right.

Q. And they concluded that -- if you look at the first paragraph, it says this -- I'll read it

into the record.

"The etiology is often unknown, with causes including compression from retractor placement or hematoma formation, traction laceration, ischemia, or thermal damage."

Did I read that correctly?

A. Yes.

Q. Okay. And so the statement about the etiology is often unknown is a true statement; correct?

A. True.

Q. Okay. If you look under the "Discussion" section, which is page 1197 --

A. Okay.

Q. -- they talk about -- at the bottom of the page, the sentence begins -- I'll read it into the record.

"Based on our study, it appears that FNP, femoral nerve palsy, has a better prognosis for recovery than other major nerve palsies around the hip, with the majority of patients regaining motor function in the quadriceps muscle."

Did I read that correctly?

A. Yes.

Q. Okay. And then in the next paragraph a

little bit lower, it says this:

"Based on the results of this study" -- their study -- "motor weakness had resolved in 75 percent of the patients at a mean of 33.3 months. Those remaining patients had only mild residual weakness that typically did not require the use of a cane or a knee brace. No patient suffered major persistent motor deficits."

Did I read that correctly?

A. Yes.

Q. You know from reading Mr. Johnson's deposition that he has eschewed the use of a brace or any appliances like a walker or a cane; true?

A. True.

Q. And would you agree with me that his femoral neuropathy has basically presented in the same fashion, that he has a mild residual weakness?

MR. GINZKEY: I'm going to object that that mischaracterizes the medical chart, but the witness may answer.

A. No, I've never seen mild residual weakness. He's got a permanent palsy of the EMG. He's got clear evidence of muscle atrophy. That's what the records from Dr. Tung also document, so this description of a femoral palsy is very

different than what the plaintiff in this case has.

Q. (By Mr. Brandt) Okay. The -- I think I asked this earlier, but this is a little broader question.

From your review of the records, including those people who have performed EMGs, NCV studies, no one who has provided care to this patient has indicated in a medical record or deposition testimony the exact etiology of his femoral nerve palsy. Is that a true statement?

MR. GINZKEY: Again, I'm going to object about mischaracterization, specifically with respect to the MARS MRI, but I'm not instructing the witness not to the answer.

A. Say that again, the question, please.

Q. (By Mr. Brandt) No one who has provided care to this patient, including everybody, has indicated in a medical record or deposition testimony the exact etiology of the femoral nerve palsy; true?

A. Correct.

Q. All right. You've testified before that a femoral nerve injury can occur in the absence of negligence in a THA; true?

A. True.

Q. Okay. Nothing in this article that we've marked as Exhibit No. 10 but was No. 2 to the Cohen deposition indicate that the occurrence of a femoral neuropathy as an outcome of surgery equals breach in the standard of care; true?

A. Correct.

Q. You've indicated that you believe a retractor may have caused the injury in this case, but you'd agree with me that, in part, that's based on speculation, simply because the patient had an outcome that included a femoral neuropathy; true?

A. I didn't understand the question. Sorry.

Q. Okay. So I think you indicated earlier in the deposition that you believe -- it's your opinion that a retractor caused the femoral nerve injury in this case?

A. Yes.

Q. But you'd agree with me that based upon your review of the case, there's really no evidence that a retractor actually caused injury to the femoral nerve; true? Outside of the fact that the patient came out of surgery with a femoral neuropathy, there's no evidence that a retractor came in contact with his femoral nerve; true?

A. No. That's not quite true. The medial

placement of the incision; the fact the retractor was moved during surgery; the fact that the two branches that suffered complete injury are to the vastus lateralis and the intermedius, and those would be closer to the retractor than the branch to the medialis, which is further medial; and the fact that the article -- or Exhibit 2 that's in my hand from another case clearly states a retractor tip is strikingly close to the femoral nerve when placed near the anterior rim of acetabulum, and one study demonstrated alarmingly high pressures around the nerve during retractor placement.

Q. But you'd agree with me, Dr. Bal, that what you're talking about there is the increased risk of injury to the femoral nerve; right?

A. True.

Q. All right. And that's really the basis of your opinion that the retractor placement in this case was -- put the patient at increased risk of femoral nerve injury; true?

A. True.

Q. But whether, in fact, that's the cause, you don't have an opinion, because there's no evidence as to actually what caused any femoral neuropathy in this case; true? Because we can't say

that the retractor caused it. There's no evidence of that in any of the things that you've looked at; true?

A. The EMGs strongly suggest it because of the proximity of the branches that were injured to the retractor and the relative lack of proximity to the retractor of the one branch that was spared.

Q. But there -- aside from the EMG findings that were -- how many months later? Months later?

A. About three months later.

Q. All right. There's no other evidence that you can point to that the retractor caused the femoral neuropathy or the problems that the patient discussed after he got out of surgery -- actually, the day after surgery; true?

A. I'm sorry. What was that about the day after surgery?

Q. I'm sorry. It's my fault.

So aside from the EMG that you just referenced, there's no other evidence that you're pointing to that supports the proposition that a retractor caused the injury to the femoral nerve in this case; true?

MR. GINZKEY: Let me just interpose an objection about the EMG. There are two EMGs that

are consistent -- the findings are consistent with each other; there's a MARS MRI. The question completely excludes that evidence.

MR. BRANDT: Okay. Well --

MR. GINZKEY: The witness can certainly answer the question as posed.

Q. (By Mr. Brandt) We can include that evidence in your answer, but that's -- what we've just described, the imaging and the two EMG studies, that's the basis of your opinion in this case that a retractor caused injury to the patient?

A. And the immediate onset of the nerve injury right after surgery.

Q. And we know that any femoral neuropathy -- well, we know -- I think you've agreed with me that femoral neuropathies can occur without negligence; true?

A. True.

Q. And so it's important --

A. Let me backtrack on that answer a little bit, because I think I'm not giving a complete answer.

There are two distinct types of femoral neuropathies, and I want to make sure we're clear on the distinction.

Transient femoral neuropathy injury, neuropraxia palsy, as referenced in this paper by Andrew Fleshman that I have in my hand --

A. Right.

Q. -- occurs in the absence of negligence. It is transient; it has a good prognosis; strength returns, and the patient goes on with a temporary time period during which there is a deficit that improves rapidly, and those are what I've encountered in my practice. That palsy can occur and does occur in the absence of negligence from a variety of factors.

My testimony here is a complete injury to the femoral nerve, as occurred here, verified by repeat EMG and by subsequent treatment by a nerve specialist like Dr. Tung, does not occur absent negligence.

Q. Well, there's nothing in the article that we've been talking about, which is No. 10 to your deposition, that distinguishes between temporary nerve palsy and permanent femoral neuropathy; true?

MR. GINZKEY: But that doesn't have anything to do with his opinion. Again, I'm not instructing the witness not to answer.

A. Well, if you go to the abstract and read

it, it'll say "femoral nerve palsy" under "Conclusion," page 1. "After hip surgery remains relatively uncommon but may increase with a growing interest in anterior total hip arthroplasty exposures."

All they saw in their series was a subset of femoral neuropathy that can occur and does occur, absent negligence, such that -- and they write "a near complete recovery, with only mild motor deficits can be expected."

Q. (By Mr. Brandt) So I just want to make sure that we're talking about the same thing.

A. Yeah.

Q. So there are femoral neuropathies that can occur without negligence?

A. Yes.

Q. With a THA?

A. Correct.

Q. That don't resolve completely, that aren't temporary in nature; true?

A. No, that's not true.

Q. It's certainly what the article talks about; right?

MR. GINZKEY: Well, now, wait a minute.

MR. BRANDT: Hang on.

MR. GINZKEY: The article speaks for itself. We're not going to get into a semantic argument over the article. The article speaks for itself.

A. I --

Q. (By Mr. Brandt) Go ahead.

A. I disagree. The article speaks of complete recovery within two years with no deficits, and those deficits were sensory phenomena, even in the subset -- the last sentence of the article is:

"Patients must be counseled of the significant challenges of recovering from femoral nerve palsy."

But the article found, in a retrospective review, a small incidence of femoral nerve palsy that spontaneously recovered. It never makes a distinction between permanent motor nerve palsy.

Q. Right. And I think that's my point. I'm not trying to fence with you, okay?

A. Sure.

Q. So in the part I read, it said -- on page 197 -- "Those remaining patients had only mild residual weakness that typically did not require the use of a cane or a brace" -- I'm sorry -- "cane or knee brace."

And so my point is only that it appears from the study that some patients didn't have a complete resolution of signs and symptoms; true? Based upon that statement.

MR. GINZKEY: Again, that's your interpretation of what's written down.

MR. BRANDT: Well, I'm just asking him, Jim. He can agree or disagree.

A. No, I disagree, and I will tell you why. Because the article in the last -- second-to-last paragraph acknowledges that they just don't know. In other words, it is possible that some patients not returning for objective testing may have had more severe residual deficits. The articles -- we just don't know. These patients may have gone on and had permanent palsies, but we don't know that.

Q. (By Mr. Brandt) Okay.

A. The ones they saw all recovered.

Q. It's not part of the allegations, but I want to just cover it, just so I can leave here and know I've done it.

No issue with respect to leg length discrepancy in this case?

A. No.

Q. Is that true?

A. While the patient has a leg length discrepancy, I'm not criticizing that.

Q. Okay. It's true in the operative note of Dr. Armstrong that there's no evidence of excessive traction; true?

A. True.

Q. There's no evidence of difficulty with retraction; true?

A. That is true.

Q. Okay. There's no evidence in his operative note or in his deposition that he operated in an inappropriate muscular plane; true?

A. No evidence.

Q. Okay. There's no evidence in Dr. Armstrong's operative note or his deposition that he didn't make sure sufficient releases were done; true?

A. True.

Q. And there's no evidence in Dr. Armstrong's note that he was unaware of the location of the nerves; true?

A. That is true.

Q. Okay. Is there an obligation to directly visualize the femoral nerve?

A. No.

Q. Okay. And I mean that during the procedure.

A. Correct. There's no reason to visualize it.

Q. Okay. So Dr. Armstrong diagnosed the patient as having a femoral neuropathy, I think, either on the day of or the day after surgery; is that right?

A. Right.

Q. One of the problems with a femoral neuropathy diagnosis is that it's sometimes a delayed diagnosis; true? You've testified in a delayed diagnosis case; correct?

A. Not that I recall. I may have.

Q. Okay. But in this case, there's no issue with respect to any delay in diagnosing of the problem; true?

A. No. No.

Q. Is that right?

A. That is right.

Q. Okay. The hardware, if you will, in this case, is DePuy --

A. Yes.

Q. -- is the manufacturer. Did you use DePuy?

A. Yes.

Q. Okay. Any criticism of the use of DePuy -- the exact hardware in this case?

A. No.

Q. I don't know if you saw this -- you may have; if you didn't, that's fine. There's a discussion about a nerve transfer at St. Louis.

A. Yes.

Q. Is that a procedure you've performed?

A. No. I've assisted, but not directly performed it.

Q. Okay. Would there be a benefit to a patient like Johnson with that procedure -- if you have an opinion? If you don't, that's fine.

A. At this point, no.

Q. Okay. All right. So he also -- you read Dr. Tung's deposition and his records?

A. Yes.

Q. He also talked about a muscle transfer; right?

A. Correct.

Q. Is that something you've performed?

A. Yes, I have.

Q. Okay. And would that assist the patient?

A. It can. It's a -- there's no guarantees

that it would help, as Dr. Tung testified.

Q. Okay. What's your experience? I mean, is it like --

A. It's a long rehabilitation. The patient's muscles have to be reeducated, and there's some partial return of function with it.

Q. Okay. So from your perspective, not a great procedure?

A. No.

Q. In other words, the success rate of that procedure is not high?

A. Correct.

Q. Okay. I just want to make sure I understand this.

There's no evidence in this case that the rectus femoris or the vastus lateralis branches of the femoral nerve were transected by a scalpel or damaged by electrocautery; true?

A. True.

Q. Okay. And Dr. Armstrong's operative note describes -- well, strike that. I think we've already covered that.

Is there an obligation on the part of the surgeon to draw on the skin of the patient on the lower extremity before doing that procedure?

A. No.

Q. Okay. He did not -- Dr. Armstrong didn't obtain the records of Dr. Dangles, who was your orthopedic surgeon who performed the total hip on the right. Okay?

A. Right.

Q. Does he have an obligation under the standard of care -- "he" being Dr. Armstrong -- to obtain those records?

A. No.

MR. BRANDT: Okay. If we can take a few minutes, I'm going to go through my notes.

THE WITNESS: Okay.

MR. BRANDT: And we'll be pretty close to done.

THE WITNESS: Okay.

MR. BRANDT: Thank you.

(A recess was taken.)

Q. (By Mr. Brandt) Doctor, thanks. You've been kind to give me your time here today. I just have a couple other questions that I want to ask you.

One is -- this patient was a tobacco user?

A. Right.

Q. Does that increase his risk of femoral

neuropathy?

A. As a general proposition, it does.

Q. What is it about the smoking that causes -- is it just ischemia?

A. Ischemia.

Q. Okay. And the last area I want to ask you about is, we -- I read to you a portion of Dr. Armstrong's operative note about -- and I'll share it with you again, if you want. Just to put it in context, I guess I should.

So if we put aside, just for the sake of this question, the medial aspect of the skin incision, it appeared to me that when he describes "the fascial incision was made with a No. 10 blade scalpel over the belly of the tensor fasciae," that that is exactly how you described it in this article, No. 9. Is that right?

A. Right.

Q. Okay.

MR. BRANDT: Okay. I don't have any other questions. Jim might; I don't know if Troy does.

MR. GINZKEY: Go ahead, Troy.

MR. LUNDQUIST: Thank you, Jim.

CROSS-EXAMINATION

BY MR. LUNDQUIST:

Q. Good morning, Doctor. My name is Troy Lundquist, and I apologize I'm only here by phone, but can you hear me okay?

A. Yes.

Q. Okay. I don't have many questions. I might jump around just a bit, but if you have handy Exhibit 3, which were your opinions in the case.

A. Yes.

Q. Can I have you pull that -- all right.

Let me first ask, taking into account Exhibit 3, which were the opinions disclosed to us, and then, obviously, including the discussion that has been had this morning, does that encompass all of your opinions in this case -- those two things collectively, our discussion and the disclosure in Exhibit 3?

A. No. I have additional opinions.

Q. Okay. What I want to work off of here is just what's been disclosed to us. So as I look at Exhibit 3, I see on page 2 there is -- subparagraph B, do you see that, where it talks about -- it makes reference to a nurse Sarah Harden?

A. Okay. Yes.

Q. Okay. Doctor, I represent the hospital and the nurses in this case, so my interest is understanding any and all opinions that you may have that in any way relate to them.

So as I read Exhibit 3, the only place I see any reference to any of the nursing staff is Sarah Harden there in subparagraph B. Am I correct?

A. Correct.

Q. Okay. Now, you made some discussion earlier about the incision that was made in this case. The incision was made by Dr. Armstrong; correct?

A. Correct.

Q. Nurse Harden, nor any other nurse had any involvement whatsoever in the incision. True statement?

A. True.

Q. Now, there was also some discussion about the use of retractors. In general, for a total hip, what is the purpose of using retractors in this surgery?

A. To push tissues away so the surgeon can see.

Q. Okay. So retractors are a necessary part of a total hip replacement surgery like Mr. Johnson

had; correct?

A. Right.

Q. They're utilized to provide visualization and access, as well as for to minimize risk to injury to adjacent structures; correct?

A. Correct.

Q. Now, based on the depositions we've taken, it's my understanding that the retractors in the case -- in this case, with Mr. Johnson's surgery, that the retractors were initially placed by Dr. Armstrong where he wanted them, and then as needed, they would be held in that particular location by Nurse Harden. Is that your understanding of what occurred, based on your read of everything?

A. Yes.

Q. And am I correct that that is the typical approach, that the surgeon is the one who makes the independent judgment of where the retractors will be placed; he or she places them in that location where they want; and then they, as needed, will ask a nurse or scrub tech to hold them there in that location. Is that the normal procedure?

A. Yes.

Q. And that's -- based on your read of

everything in this case, that's what occurred here with Mr. Johnson's surgery?

A. Yes.

Q. Doctor, from your review of anything in this case, all the depositions and the records, did you find any indication that Nurse Harden did anything other than exactly what Dr. Armstrong wanted her to do?

A. No.

Q. So to place that -- to put that another way, Nurse Harden, from your review of the records -- or scrub tech Harden, I guess, actually -- from your review of the records, there's no indication that she exercised any independent judgment or did anything surprising or unexpected or anything along those lines, is there?

A. No, there's no indication.

Q. The -- hold on one second.

Now -- and this is going to sound like a dumb question, but, Doctor, have you ever practiced as a nurse or a surgical technician?

A. No.

Q. Technologist?

A. No.

Q. Okay. You're not intending to offer

standard of care for nursing practice, are you?

A. No.

Q. Now, as the surgeon, understanding that you cannot testify to the standard of care of a nurse, you do have certain expectations as a physician of the nurses that are in the surgical suite with you; true?

A. True.

Q. And among those expectations would be that the scrub nurse or surgical tech does exactly what you want them to do as the surgeon; correct?

A. Correct.

Q. Based on your review of all of the materials in this case, the depositions, Dr. Armstrong's deposition, the other people involved in the surgery, is it your understanding that Nurse Harden, and any other of the nursing staff, did exactly what Dr. Armstrong wanted them to do?

A. Yeah. That's what I gathered from the depositions.

Q. And in that sense, Nurse Harden and the others would have met the expectations from the standard of the surgeon, meaning they did exactly what the surgeon wanted them to do and nothing else;

true?

A. True.

MR. LUNDQUIST: Okay, Doctor. Thank you, sir. That's all of the questions I have.

THE WITNESS: Thank you.

MR. GINZKEY: Doctor, I do have questions.

CROSS-EXAMINATION

BY MR. GINZKEY:

Q. One of the items of evidence in this case is a MARS MRI of the patient in question from September of 2019, so September of last year. One of the findings is an interstitial tear of the left vastus intermedius/lateralis myotendinous junction. What's the significance of that, or what does that suggest to you?

A. It could be a number of things. It definitely tells you that the muscle is atrophied and injured at the location where the muscle becomes a tendon and inserts into the bone, and it's consistent with the abnormal gait and abnormal loading that I referred to earlier.

Q. That same MARS MRI finding goes on to describe an asymmetrical muscle atrophy and edema within the left rectus femoris and vastus intermedius/lateralis muscles. What does that mean

and what does it suggest?

A. Well, it's suggests and it means that three out of the four quadriceps muscles, the lateralis, the intermedius, the rectus femoris are out. And this far out, 2019, when the surgery was 2016, there is clear-cut evidence on an MRI scan that those muscles are damaged permanently.

Q. There was also discussion about the fact that with respect to this patient's left hip preoperatively, Dr. Armstrong diagnosed him with dysplasia, and you've identified what that is, but you also went on to describe the fact that there are degrees of severity of the dysplasia; correct?

A. Correct.

Q. The more severe the dysplasia is, the greater the risk of a femoral nerve injury with respect to a THA with an anterior approach?

A. Correct.

Q. Now, did you see anywhere in the records that preoperatively, Dr. Armstrong did any imaging in an attempt to quantify the severity of this patient's hip dysplasia?

A. No.

Q. Wouldn't a reasonably careful orthopedic surgeon do that in order to come to a decision as to

the degree of severity?

MR. BRANDT: Let me just object. This is an opinion that was never disclosed, and I'm not prepared to address it at this point, so ...

MR. GINZKEY: The question stands as posed.

A. If the surgeon recognized hip dysplasia and was concerned about it being a factor in the patient's risk of a femoral nerve palsy, then, yes, additional studies, such as a CAT scan, such as specialized X-ray views were available options.

Q. (By Mr. Ginzkey) And that would comply with the standard of care; correct?

A. Yes, that would comply with the standard of care.

Q. And there were a lot of questions about whether this patient's motor function was transient or permanent. What's your opinion on that?

A. Oh, it's definitely permanent, based on two EMGs. Even the very first one shows, essentially, that the lights were out, as far as the muscle innervation was concerned, and that was an EMG done only at three months from the surgery.

Q. Now, if I understand your testimony correctly, you're saying that the first EMG of

January 11th, 2017 -- so approximately three months post-op -- showed relatively significant motor dysfunction; correct?

A. Correct.

Q. Does a reasonably careful orthopedic surgeon with that finding refer the patient to a neurosurgeon at that time?

MR. BRANDT: Same objection.

A. Yes. And here is why: The patient had an immediate femoral nerve palsy. While the etiology of that in this case cannot be determined definitively, I have talked about the medial placement of the incision, the fact that the patient had hip dysplasia, such that retractor placement, more likely than not, was a causative factor in the injury, particularly in light of which branches got injured.

Now, in the postoperative period, when this patient was seen as early as five days after the surgery and then subsequent intervals, what's interesting is -- or noteworthy is that the progression of the injury is more consistent with that article from -- that counsel showed me. It appears to be transient. In fact, the doctor comments that the patient is improving. He can feel

muscle contractions, and the palsy is getting better every visit. Then he gets his EMG -- let me back up.

The assessment by Dr. Carmichael is contrary. He says this is a severe palsy, a severe weakness, and let's get the EMG, and that's a December note of 2016. In January, they get the EMG, which calls out a severe left femoral neuropathy. The lesion appears complete with no evidence of voluntary motor unit potential activation.

My concern is that this EMG and objective finding does not square with what the doctor has been documenting all along, which is that of an improving quadriceps policy. And to reconcile that discrepancy, yes, timely referral to a neurosurgeon or a nerve repair surgeon was required by the standard of care, because a nerve could have been repaired or transplanted, and the situation would have been salvaged.

MR. BRANDT: No other questions.

REDIRECT EXAMINATION

BY MR. BRANDT:

Q. So let me just ask you -- you prepared -- or Mr. Ginzkey prepared this exhibit that contained

your opinions that we've marked as -- I don't know which exhibit it is -- Exhibit 3; right?

A. Right.

Q. He did that in consultation with you, I take it; is that right?

A. Right.

Q. And there's nothing in there regarding a referral to a neurosurgeon that that document; true?

A. That's true.

Q. Okay. And you'd agree with me that there's nothing in there -- in that document that makes any reference to the proposition that additional studies were an option for the patient preoperatively; true?

A. Correct.

Q. All right. And let me just take care of these one at a time. The standard of care didn't require, in this case, preoperative imaging, did it? You said it was an option, but the standard of care didn't really require it, did it?

MR. GINZKEY: I think that misstates the doctor's testimony.

A. If the hip dysplasia seen by Dr. Armstrong in the preoperative X-rays was concerning, then the standard of care required further workup and

imaging.

Q. (By Mr. Brandt) If the hip dysplasia did not appear to Dr. Armstrong to be concerning, then the standard of care would not require preop imaging; true?

A. True.

Q. (By Mr. Brandt) And I think you've indicated to us today that you're not really sure how much hip dysplasia the patient had; true?

A. Correct.

Q. All right. With respect to the neurosurgery referral, let me just say one thing. Dr. Carmichael didn't refer the patient to a neurosurgeon; true?

A. True.

Q. You don't know what the window of time period is for any reoperation on the nerve; true?

A. Yes. The earlier, the better. And the -- we know that by July of 2018, according to Dr. Thomas Tung, it was way too late. The window had long since closed. The three-month interval is still sufficiently within the window in which a nerve repair can be attempted, and if the nerve ends have retracted, a nerve transplant can be done.

Q. Okay. We don't know if the nerve ends

retracted at that point in time; true?

A. No. He never got the benefit of exploration of the injury.

Q. Right. And Dr. Carmichael saw the patient within that time window; true?

A. Correct.

Q. Dr. Carmichael's specialty or his area of expertise has to do with EMG and NCV studies; true?

A. True.

Q. That's what he did for McLean County Orthopedics; true?

A. Right.

Q. And he didn't find that there was a reason to send the patient to a neurosurgery -- for a neurosurgery consult; true?

MR. GINZKEY: Well, that depends on whether or not Dr. Carmichael --

MR. BRANDT: Hang on.

MR. GINZKEY: -- was in the position to make that and whether it was his obligation.

MR. BRANDT: Okay. I'm going to object to the speaking objection.

Q. (By Mr. Brandt) And my question is factual in nature, Doctor.

Dr. Carmichael didn't make a referral to

neurosurgery for this patient within the time window that you've talked about; true?

A. That is true.

Q. And Dr. Carmichael is seeing the patient for a nerve injury; true? I mean, that's the purpose for which he's seeing the patient; true?

A. Yes.

Q. Okay. And he didn't make a referral -- he didn't make a statement to Dr. Armstrong that Dr. Armstrong should consider sending the patient to neurosurgery for consult?

MR. GINZKEY: I'm sorry. I have to completely object. That misstates the record. If you look at Dr. Carmichael's concluding statement, he states, "Consideration might be given for consultation at a tertiary care center, such as at Susan McKenna and at Barnes."

Do you see that, Doctor?

THE WITNESS: Yeah, I remember seeing it.

Q. (By Mr. Brandt) All right. And so the window of opportunity for -- well, first off -- let me back up here.

The time period for which a nerve repair can take place is what? What's that window?

MR. GINZKEY: Objection. Ambiguous,

vague.

MR. BRANDT: He made reference to it, Jim.

A. Three to six months following -- immediately following the injury is best.

Q. (By Mr. Brandt) Okay.

A. But --

Q. Up to a year, usually, is what the literature talks about?

A. Usually, yes.

Q. And in this case, we have no evidence that the two branches of the nerve affected were actually transected; true?

A. Correct.

Q. And so a neurosurgeon could easily, like Dr. McKenna, examine the patient and determine that there is no surgical treatment; true? Within that one-year window.

A. No. That's not true. With a nerve injury, the nerve transplants are well established as a treatment. So whether there's a crush injury in a neuroma or whether it's a frank laceration, there are conduit nerve graphs that can be done.

Q. One of the treatments that Dr. McKenna might suggest or recommend for the patient is nonoperative care; true?

A. It's an option, yes.

Q. All right.

MR. BRANDT: Okay. I mean, for the record, I'm going to preserve my right to come back, to the extent that I need to, because you've offered up opinions here that were never disclosed, so I'm going put that on the record.

I don't have anything else at this point in time, but I reserve the right to ask more questions about it. Okay?

MR. GINZKEY: That's understood.

RECROSS-EXAMINATION

BY MR. GINZKEY:

Q. Doctor, do you have any other opinions you want to express here today while we've got this opportunity.

MR. BRANDT: Same objection.

A. No. But as I testified, the patient doesn't live that far away, and if you want me to examine him, I'd be happy to do it and give you any supplementary opinions, prior to trial.

MR. GINZKEY: In all likelihood, we'll have that done prior to trial.

MR. BRANDT: Okay.

MR. GINZKEY: We'd like to do that

probably in time for you to take a supplemental deposition.

MR. BRANDT: Yeah. We'll need that. Okay.

Thank you, sir.

THE WITNESS: Thanks, guys.

MR. BRANDT: What do you want to do about signature?

MR. GINZKEY: Do you want to read and make corrections?

THE WITNESS: Whatever you recommend.

MR. GINZKEY: Let's go ahead and read it.

(The deposition concluded at 11:02 a.m.)

CERTIFICATE OF REPORTER

I, Lisa Ballalatak, a Certified Court Reporter for the State of Missouri, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me; the testimony of said witness was taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken, and further that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.

_____

Lisa Ballalatak
Missouri Supreme Court
Certified Court Reporter

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July 13th, 2020

MR. JAMES GINZKEY
GINZKEY LAW OFFICE
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WILLIAM "WES" JOHNSON v. LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD, SARAH HARDEN, PAMELA ROLF, AND ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER

Dear Mr. Ginzkey:

Please find enclosed your copy of the deposition of Sonny Bal, MD, MBA, JD, PhD, taken on June 29th, 2020, in the above-referenced case. Also enclosed is the original signature page and errata sheet.

Please have the witness read your copy of the transcript, indicate any changes and/or corrections desired on the errata sheet, and sign the signature page before a notary public.

Please return the executed signature page and errata sheet to the Alaris Litigation production department within 30 days after receiving the transcript.

Thank you for your attention to this matter.

Sincerely,

Lisa Ballalatak

cc: Mr. Brandt

ERRATA SHEET

Witness: Sonny Bal, MD, MBA, JD, PhD

WILLIAM "WES" JOHNSON v. LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD, et al.

Date Taken: June 29th, 2020

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Reason for change: _____

Witness Signature: _____

STATE OF)
)
COUNTY OF)

I, Sonny Bal, MD, MBA, JD, PhD, do hereby certify:

That I have read the foregoing deposition;

That I have made such changes in form and/or substance to the within deposition as might be necessary to render the same true and correct;

That having made such changes thereon, I hereby subscribe my name to the deposition.

I declare, under penalty of perjury, that the foregoing is true and correct.

Executed this ____ day of _____, 20___, at _____.

_____
Notary Public

My commission expires: _____

_____
Sonny Bal, MD, MBA, JD, PhD

IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
MCLEAN COUNTY, ILLINOIS

WILLIAM "WES" JOHNSON,	)	
	)	
Plaintiff,	)	
vs.	)	2018 L 0000126
	)	
LUCAS ARMSTRONG, McLEAN COUNTY ORTHOPEDICS, LTD., SARAH HARDEN, and ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER,	)	
	)	
Defendants.	)	

ORDER

It having come on for hearing upon the oral motion of defendant Lucas Armstrong, and over objection of plaintiff, ~~the Court finds that the retractors in question can no longer be demonstrated to be within the exclusive control of defendant, Lucas Armstrong~~; rsf 12-22-20

It is hereby ordered, adjudged, and decreed that:

1. Defendant, Lucas Armstrong's, motion for summary judgment on Count III *(res ipsa loquitur)* is hereby granted and judgment is entered in favor of defendant, Lucas Armstrong, and against plaintiff, William "Wes" Johnson;

2. This Court further finds that there is no just reason for delaying enforcement or appeal of this judgment order pursuant to Illinois Supreme Court Rule 304a;

3. All remaining litigation between plaintiff and defendants, Lucas Armstrong and McLean County Orthopedics, Ltd., is hereby stayed pending resolution of the issues going up on

appeal.

Entered this 22nd day of December, 2020.

Judge Presiding

James P. Ginzkey
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18934/Order re MSJ

IN THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT OF ILLINOS
MCLEAN COUNTY

William "Wes" Johnson, Plaintiff,	)	
v.	)	Case No. 2018 L 126
Lucas Armstrong, McLean County Orthopedics, Ltd., Sarah Harden, and Advocate Health and Hospitals Corporation, d/b/a Advocate BroMenn Medical Center, Defendants.	)	

ORDER

This matter having come to be heard on Defendants, SARAH HARDEN and ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER, Motion for Summary Judgment, the issues being fully briefed herein, evidence presented, and arguments of counsel having been heard, due notice having been given, and with the Court being fully advised:

IT IS HEREBY ORDERED:

1) Defendants Motion for Summary Judgment is GRANTED, and judgment is hereby entered in favor of SARAH HARDEN and ADVOCATE HEALTH AND HOSPITALS CORPORATION d/b/a ADVOCATE BROMENN MEDICAL CENTER and against Plaintiff, WILLIAM "WES" JOHNSON.

2) The Court further specifically finds that there is no just reason for delaying enforcement or appeal of this judgment order pursuant to Illinois Supreme Court Rule 304.

ENTERED:

Judge

1/5/2021
Date

AGREED AS TO FORM BY:

James P. Ginzkey
Ginzkey Law Office
221 E. Washington St.
Bloomington, IL 61701

/s/ Scott Schoen

Scott Schoen
Langhenry, Gillen, Lundquist &
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Princeton, IL 61356

E-FILED
Transaction ID: 4-21-0014
File Date: 3/10/2021 9:20 AM
Carla Bender, Clerk of the Court
APPELLATE COURT 4TH DISTRICT

APPEAL TO THE APPELLATE COURT OF ILLINOIS
FOURTH JUDICIAL DISTRICT
FROM THE CIRCUIT COURT OF THE ELEVENTH JUDICIAL CIRCUIT
MCLEAN COUNTY, ILLINOIS

WILLIAM "WES" JOHNSON
Plaintiff/Petitioner

Reviewing Court No: 4-21-0014
Circuit Court/Agency No: 2018L000126
Trial Judge/Hearing Officer: REBECCA FOLEY

v.

LUCAS ARMSTRONG, ET AL.
Defendant/Respondent

REPORT OF PROCEEDINGS - TABLE OF CONTENTS

IN THE CIRCUIT COURT

FOR THE ELEVENTH JUDICIAL CIRCUIT

McLEAN COUNTY, BLOOMINGTON, ILLINOIS

WILLIAM JOHNSON,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	No. 18 L 126
	)	
LUCAS ARMSTRONG, et al.,	)	
	)	
Defendants.	)	

HEARING ON PLAINTIFF'S MOTION TO COMPEL, HEARING ON DEFENDANT ADVOCATE'S MOTION FOR SUMMARY JUDGMENT, HEARING ON DEFENDANTS' MOTION FOR LEAVE TO FILE AFFIRMATIVE DEFENSES

TRANSCRIPT OF VIDEO CONFERENCE PROCEEDINGS

BE IT REMEMBERED and CERTIFIED that on, to wit: the 30th day of October, 2020, the following proceedings were held in the aforesaid cause before The Honorable REBECCA S. FOLEY, Circuit Judge.

APPEARANCES (via ZOOM):

MR. JAMES P. GINZKEY
Attorney at Law
On behalf of the Plaintiff

MR. SCOTT A. SCHOEN
Attorney at Law
On behalf of Sarah Harden and Advocate Health & Hospitals

MR. PETER W. BRANDT
Attorney at Law
On behalf of Lucas Armstrong and McLean County Orthopedics

Amy J. Jennings, RPR, CRR
Official Court Reporter
Bloomington, IL 61701
IL CSR No. 084-004135

THE COURT: This is 18 L 126, *Johnson versus Armstrong, et. al.*

The plaintiff appearing by counsel, Jim Ginzkey; the defendants, Armstrong and McLean County Orthopedics, appearing by counsel, Peter Brandt; the defendants, Harden, H-a-r-d-e-n, and Advocate Health and Hospitals, appearing by counsel, Scott Schoen.

Counsel, we've got, I think, three motions set this afternoon, and I think you each have a motion up. Plaintiff has a Motion to Compel; Advocate has a Motion for Summary Judgment; and Mr. Brandt has a Motion for Leave to File Affirmative Defenses.

Is that correct?

MR. GINZKEY: Yes, Judge.

MR. BRANDT: I think that's right, your Honor.

MR. SCHOEN: Yes. And we also filed a similar Motion for Leave to File Affirmative Defenses.

THE COURT: Okay. I didn't catch that. I'm sorry. Do we want to address those first?

MR. GINZKEY: Plaintiff has no objection to the Motions to File Affirmative Defenses by either defendant.

THE COURT: Okay. Then I'll show the Motions for Leave to File Affirmative Defenses granted. They'll have to be independently filed so they can become part of the record

with their own file stamp.

Seven or 14 days sufficient?

MR. BRANDT: Yes.

MR. SCHOEN: Yes, ma'am.

THE COURT: I'll just show 14 days just to be on the safe side.

All right. I have no preference as to what we tackle next.

MR. GINZKEY: Your Honor, with respect to Plaintiff's Motion to Compel, I didn't get Mr. Brandt's response until Wednesday afternoon, so I haven't had a chance to prepare a written reply. I'd like to be able to do that. I can do it within the same 14 days.

THE COURT: Okay. Any objection, Mr. Brandt?

MR. BRANDT: No, your Honor. That's fine.

THE COURT: Okay. All right, then we'll pick a date for that here at the conclusion of the hearing.

Then that leaves us with Mr. Schoen's Motion for Summary Judgment. And I have had an opportunity to review the motion, response and reply along with the exhibits.

So, Mr. Schoen, keeping that voice up, I'll turn it over to you whenever you're ready.

MR. SCHOEN: I'll try to, your Honor, and I'll also try and be as brief as possible. I know that you

always give due consideration to all the motions and briefs, so I'll just try to reiterate a few of the high points.

This is a case involving an alleged negligence during a surgery that was not conducted by Nurse Harden or an Advocate employee. And all the evidence in the case indicates that Nurse Harden had no control over the tools or placement of the retractors that were allegedly the cause of Plaintiff's nerve injury. To date, plaintiff has -- or I guess a deadline for plaintiff to file or disclose expert witnesses has passed. The only expert disclosed was Dr. Sonny Bal, who is an orthopedic surgeon. Plaintiff filed or disclosed no experts with regard to Nurse Harden or nursing standard of care; therefore, hasn't made a prima facie case against Nurse Harden.

Interestingly, the requirement for expert testimony is equally applicable in a basic negligence case as well as one where res ipsa loquitur is invoked. The plaintiffs still have to provide or present some expert evidence for each defendant establishing a standard of care they are alleged to have breached. Because Dr. Bal is an orthopedic surgeon, has never practiced as a nurse, he can't offer opinions as to Nurse Harden, and he admitted that in his deposition.

So, without any expert testimony with regard to

the standard of care applicable to Nurse Harden, Plaintiff, again, has failed to establish a prima facie case.

The second issue -- or second primary issue here is plaintiff is asserting res ipsa as a basis for their claim. Res ipsa -- determination of whether res ipsa applies is appropriate at a pretrial stage, and the burden is on the plaintiff to establish that res ipsa applies. The Court can make the determination here where res ipsa applies to Nurse Harden and Advocate without reaching whether that might be applicable to other defendants or present a question of fact for a jury down the road. The application here is pretty straightforward.

In essence, if you're on an airplane and the airplane crashes, you don't bring a res ipsa claim against the flight attendant. She wasn't the pilot, she wasn't in control of the airplane, which is essentially what plaintiff has done here. They've asserted a res ipsa claim against a nurse who had no control over the placement of any of the allegedly injurious instruments and made no decisions with regard to those instruments and no decisions with regard to how the procedure of the surgery would go forward and proceed. Without that, there's no basis for Plaintiff to meet the burden of establishing res ipsa would apply.

So, with that, I think it's fairly well briefed

and understood by the Court. If you have any questions, I would turn it over to the Court for questions with regard to the brief and the application.

THE COURT: All right, thank you. I have no questions. And, for my reporter, Bal is B-a-l.

Mr. Ginzkey, a response.

MR. GINZKEY: Yes, your Honor.

You may recall that -- I think it's been a couple of years ago at least -- I tried a res ipsa medical malpractice case in front of you. My client was Kristen Nesvacil who developed a rather serious spinal abscess following an epidural injection during the course of labor at Advocate Bromenn Hospital. Mike Kehart was defending the anesthesiologist. Mike Kehart out of Decatur. And, in that particular case, there was the doctor giving the injection and then the nurse assisting him. We didn't feel the nurse was part of the action, but your ruling was well, no, she was part of the procedure in which you alleged the damage occurred, and, by letting her out, you've essentially gotten rid of your res ipsa loquitur count. So you granted summary judgment on that basis with respect to the res ipsa count in that case.

So, we're frankly following the ruling that you made in the *Nesvacil* case, that because the nurse was

involved in the procedure, that if res ipsa was going to go forward, then as a player she had to be included in that count. So, we're just trying to be consistent with prior rulings of this Court on that issue.

With reference to the fact that we don't have a nursing expert, that's absolutely correct, but that's because a nursing expert cannot render an opinion on what is or is not appropriate with respect to an orthopedic surgical procedure. There is no nurse that's qualified to come in and say this part of the procedure was correct or this part of the procedure was wrong. That cannot be nursing testimony. As a matter of law, it has to be testimony from an orthopedic surgeon, and we have that here. Dr. Bal has stated unequivocally that, in his opinion, the damage do this femoral nerve was the result of the retractors. Nurse Harden was the one holding the retractors.

I think the evidence at trial will be that she held the retractors only after they were placed or moved by Dr. Armstrong, but that doesn't affect the fact that she's the one holding the retractors and that's when the damage occurred.

Based upon the testimony of Dr. Bal, when asked are the disclosures -- your 213 written disclosures, are those your opinions, he said unequivocally under oath, yes,

and those disclosed opinions specifically state the surgical instruments injuring the patients femoral nerve were under the control of Lucas Armstrong and Scrub Nurse Sarah Harden who was acting at his direction.

Secondly, in the normal course of a total hip arthroplasty, complete denervation of two of a patient's four quadriceps muscle does not happen in the absence of negligence. And he confirmed that opinion under oath at his deposition.

So, I think that under the IPI Instruction 22.01, for res ipsa loquitur, Plaintiff has evidence establishing a prima facie case and a Motion for Summary Judgment should be denied.

THE COURT: Thank you. Any reply, Mr. Schoen?

MR. SCHOEN: Yes, your Honor.

I'd first, Plaintiff's note to previous cases decided by the Court has no presidential -- or precedential value here. It's completely different factual circumstances, or may be, because I have no idea what case is. So the fact that the Court may have ruled one way in another case has no bearing here.

Second, with respect to Dr. Bal's opinion, it doesn't apply to Nurse Harden, and the fact that she was holding the retractors does not indicate that there was some

negligent act by her. Regardless of whether there was or was not negligence in the case, there has to be some evidence of a negligent act by the defendant that you're seeking to assert res ipsa against. Simply standing there and holding retractors where they were placed by the surgeon who was controlling the procedure isn't a negligent act. Even Plaintiff's own expert says she acted exactly how he would have expected a surgical nurse to act.

Doctor Armstrong, same testimony. She acted as expected and followed his directions. All the testimony says that she did exactly what was expected. So, to hold somebody negli -- or liable for the negative outcome of the procedure simply because they were there and acted as appropriate doesn't warrant -- isn't warranted, especially if they were following all the instructions and there's no evidence they had any part or conducted -- strike that -- that they performed any negligent act. So res ipsa isn't applicable. And, again, the Court is able to determine whether res ipsa is applicable to one party without determining if it's applicable to all parties. So, the Court can determine Plaintiff hasn't met its burden with regard to res ipsa as it applies to Nurse Harden and Advocate without reaching the -- without broaching the issue whether it later applies to Dr. Armstrong or some other

party. So, with that, I think the Court is in a position to make a ruling on whether res ipsa applies in the case. Clearly, it doesn't.

THE COURT: All right, thank you.

As I noted at the outset, I have considered the motion, the response, the reply, the exhibits that were attached thereto as well as the argument presented here today.

Defendants Advocate and Harden seek summary judgment as to counts three and four, which allege the theory of res ipsa loquitur. In order to take advantage of the theory of res ipsa loquitur, a plaintiff must establish he was injured; one, in an occurrence which would not ordinarily occur absent some negligence; two, by an instrumentality within the management or control of the defendants; three, under circumstances indicating the injury was not due to any voluntary act on the part of a plaintiff. The Court will cite the case of *Lynch versus Precision Machine Shop*, 93 Illinois 2d 266. And no one here has raised the issue of the third element. No one here is arguing or alleging that the injury was due to any voluntary act on the part of the plaintiff, so I'm not going to address that factor.

Prior to analyzing these elements, however, the

Court must determine if the doctrine applies as a matter of law. Pleading counts under a theory of res ipsa loquitur does not excuse establishing both duty of care, both by a defendant to plaintiff, and breach of that duty by failure to meet the applicable standard, citing the case of *Taylor v. City of Beardstown*, 142 Ill. App. 3d at 584. Plaintiffs must establish duty and breach of duty by a qualified competent witness. The injury alleged here is too complex to excuse the need for expert testimony. In other words, it is beyond the kin of an average juror.

Here, Plaintiff has disclosed only one expert, Dr. Sonny Bal. Dr. Bal acknowledged in his deposition testimony that he is not offering any opinions relative to the nursing standard of care. Even if he were, he is not qualified to do so, as, even though he possesses four degrees, he does not practice within the same school of medicine as Nurse Harden, namely nursing.

Furthermore, based upon the materials provided, there is no evidence in this record of any negligent act or omission on the part of Nurse Harden.

Plaintiff argues that case law supports the theory that a theory of res ipsa may apply to more than one defendant while there's -- where there is evidence that defendants exercise concurrent or consecutive management or

control over the instrumentality that caused the injury. Plaintiff further references the testimony of Dr. Bal that the injury was caused by a retractor, noting that both Dr. Armstrong and Nurse Harden handled that retractor.

While the proposition of law is correct, it is not applicable in this case. All witnesses testified that Defendant Armstrong, as the surgeon, placed the retractor. While Defendant Harden may have physically held the retractor upon placement, it was only at the direction of Defendant Armstrong. She did not exercise any independent control over any surgical tools, according to the testimony.

Furthermore, the witnesses agree she only acted as directed, and she did not take any actions other than those directed by Dr. Armstrong. Accordingly, the retractor was never under the exclusive control of Nurse Harden.

For all these reasons, the Motion for Summary Judgment as to count three against Nurse Harden is granted. Summary judgment will also be granted in Advocate's favor as to count four. Although count four is styled as a res ipsa loquitur count, it really alleges respondeat superior. With no liability running from Nurse Harden to Plaintiff, there can likewise be no liability running from Nurse Harden's employer, Advocate, to Plaintiff.

I have some -- I have a recollection, generally,

of the case referenced by Mr. Ginzkey. I have no independent recollection of the facts of my ruling or the res ipsa count. Whether or not if they are the same or distinguishable, I really can't say.

The basis of the Court's ruling today is upon the record in front of me, the arguments made by counsel appearing in this case. And so, for those reasons, the motion will be granted.

MR. GINZKEY: Judge, Plaintiff would ask for 304(a) language.

THE COURT: I think that was requested in Advocate's.

MR. SCHOEN: We would. And I guess, just for the record, that language would include a finding that there's no just reason for delaying the enforcement of appeal of the Court's ruling today. And we would request that we be able to submit a written order to the Court reflecting your ruling today.

MR. GINZKEY: I didn't quite hear that, Scott. You say you do want to submit a ruling? An order?

THE COURT: He does.

MR. SCHOEN: Yes.

MR. GINZKEY: That's fine. No objection.

THE COURT: Okay. Then I'll let you do that,

Mr. Schoen. I'll put you in charge of that, if you could get -- run that by Mr. Ginzkey for his approval as to form before you submit it to me.

And then anything else we need to put on the record before we look for a date on the Motion to Compel?

MR. GINZKEY: Yes, Judge. Mr. Brandt filed a Motion to Continue the trial. I think we need to address that.

THE COURT: Okay. Is there an objection?

MR. GINZKEY: Well, let me ask.

THE COURT: Well, let me ask you, are you going to take this ruling up on appeal? Because, if you do, we're not having a trial in January.

MR. GINZKEY: Well, but that would only be the appeal on the res ipsa loquitur with respect to the hospital. That wouldn't affect the causes of action against Dr. Armstrong and MCO.

THE COURT: True. Judicial economy would say they should all be tried together, but we're not talking about that right now.

Go ahead and ask your question.

MR. GINZKEY: Earlier, the disclosure date for the defense experts, the 213(f)(3) experts, was extended from July 15 to August 28. Those disclosures were made in

writing on September 1. Plaintiff had asked for deposition dates of those three experts; one on behalf of the hospital, two on behalf of Dr. Armstrong. The most critical of those witnesses is Dr. Armstrong's 213(f)(3) orthopedic expert physician by the name of Doctor -- I'm going to mispronounce it -- Domb, D-o-m-b. We haven't been given a date. So we've been asking for dates since September 1. We've got a tentative date of November 20, but the doctor is saying there's nobody allowed in the hospital or his clinical practice. Plaintiff must depose him live, because he's such a critical witness, and you can't get a sense for how the deponent is reacting through Zoom. So, we've offered to find a conference room or law firm up there or go to a conference room at the court reporter's office, but that hasn't been accommodated. And the problem that we are running into is we're now essentially into November. Plaintiff's disclosure date for rebuttals is December 7th, Pearl Harbor Day. So we are running into all kinds of problems.

I'm taking too long to ask. Is there any chance that the week of April 12, 2021, which had been scheduled for the *Lorch* trial, which just settled, any chance that that is still an open week?

THE COURT: Yes. And I don't know if you have all

noticed, when we publish the 2021 jury calendar, we have made a change or a deviation from what we've done in year's past. In prior years, we've had two week jury calendars, and the criminal division and the civil division were simultaneously conducted trials during those two weeks. Due to COVID and the fact that right now we only have two available courtrooms at any given time, what we've done is split those up so the criminal division is guaranteed a week in those two courtrooms and then the civil division is guaranteed, in theory, a week in -- for those COVID jury courtrooms. And so most of my trials scheduled for 2021, by chance, have fallen within the weeks allotted to me, so that's good news. But April 12 is a civil week under the 2021 calendar, so from both of those perspectives, that would be a positive thing if you're asking to move the trial to that date.

MR. GINZKEY: If we can move it to April 12, the week of April 12, then plaintiff does not object to Mr. Brandt's Motion to Continue.

MR. BRANDT: Judge, this is Pete Brandt. Can you hear me?

THE COURT: I can.

MR. BRANDT: Okay. That's fine. Obviously, I filed a motion. The only thing -- the only caveat -- or I

guess have one question. That April 12 date, is that one you have to share with, like, Judge Lawrence or the other judges handling civil cases? Or is that your week?

THE COURT: It would be -- we have two courtrooms, and it would be he and I.

MR. BRANDT: Okay.

THE COURT: So the likelihood of the two of us trying a case in any given month is super slim. I mean, very rarely do we have two civil cases going at once. I suppose one of us could get bumped for a criminal case with a speedy trial issue or something if we are still down to two courtrooms, but the fact that the two of us rarely try things together gives me some encouragement that we'd be okay.

MR. BRANDT: The only -- April 12 is fine for my calendar, and I'm going to put it on there. The only caveat would be if I run into a problem with getting an expert there. Or, obviously, if Mr. Ginzkey has the same problem, that would be the only caveat. That far out, I don't anticipate that being a problem.

THE COURT: Okay. Then, I will show the Motion to Continue Trial granted without objection, and we will move it to April 12. And I will vacate January 11.

MR. GINZKEY: I think that takes care of

everything today other than rescheduling another CMC.

THE COURT: Okay.

MR. BRANDT: And a hearing on the pending Motion to Compel.

MR. GINZKEY: That's true.

THE COURT: Okay. Anything else you want to put on the record? Or can I excuse Amy?

MR. GINZKEY: Excuse Amy.

THE COURT: Okay.

MR. BRANDT: Yeah. Nothing from me, your Honor. Thank you.

THE COURT: Okay.

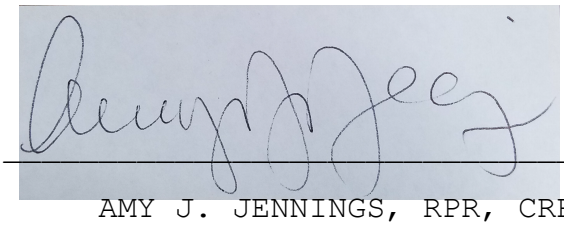
WHICH WERE ALL THE PROCEEDINGS

MADE OF RECORD IN THIS CAUSE ON SAID DATE

CERTIFICATE

I, Amy J. Jennings, Official Court Reporter in and for the County of McLean and State of Illinois, Eleventh Judicial Circuit, do hereby certify the foregoing to be a true and accurate transcript of the video conference proceedings had in the before-entitled cause on said date.

Dated this 19th day of February, 2021.



AMY J. JENNINGS, RPR, CRR
Official Court Reporter
IL CSR No. 084-004135

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Transaction ID: 4-21-0038
File Date: 4/13/2021 4:19 PM
Carla Bender, Clerk of the Court
APPELLATE COURT 4TH DISTRICT

4-21-0038

IN THE FOURTH DISTRICT APPELLATE COURT
FROM THE ELEVENTH JUDICIAL CIRCUIT
STATE OF ILLINOIS

WILLIAM "WES" JOHNSON, plaintiff/appellant, vs. LUCAS ARMSTRONG, MCLEAN COUNTY ORTHOPEDICS, LTD., SARAH HARDEN, and ADVOCATE HEALTH AND HOSPITALS CORPORATION, d/b/a ADVOCATE BROMENN MEDICAL CENTER, defendants/appellees,	)	Appeal from the Circuit Court of the Eleventh Judicial District McLean County, Illinois No.: 2018 L 0000126 Honorable Rebecca Simmons-Foley Judge Presiding

BRIEF OF APPELLANT

James P. Ginzkey
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ORAL ARGUMENT REQUESTED

POINTS & AUTHORITIES

I. *Res Ipsa Loquitur* should go to the jury in every medical malpractice case where it is shown that the injury ordinarily would not have happened had proper care been used.

II. Nurse/Technician cannot testify to proper surgical technique.

NATURE OF THE ACTION

This action was brought to recover damages occasioned by the alleged negligence of the defendants in performing a left total hip arthroplasty using a direct anterior approach. The trial court granted summary judgment to all defendants on plaintiff's *res ipsa loquitur* counts, from which this appeal is taken. No questions are raised on the pleadings.

ISSUES PRESENTED FOR REVIEW

I. Whether *res ipsa loquitur* should go to the jury in every medical malpractice case where it is shown that the injury ordinarily would not have happened had proper care been used?

II. Whether nurse/technician can testify to proper surgical technique?

III. Whether a physician may testify to standard of care for nurse on surgical team?

IV. Whether a failure to name all persons who, more probably than not, contributed to plaintiff's injuries is fatal to *res ipsa loquitur* count?

STANDARD OF REVIEW

Summary judgment should only be granted if the movant's right to judgment is clear and free from doubt. *Outboard Marine Corp. v. Liberty Mutual Insurance Co.*, 154 Ill.2d 90, 102 (1992). In determining whether the moving party is entitled to summary judgment, the court must construe the pleadings and evidentiary material strictly against the moving party. *Happel v. Wal-Mart Stores, Inc.*, 199 Ill.2d 179, 186 (2002).

This court reviews the trial court's decision to grant summary judgment *de novo*. *Palm v. 2800 Lake Shore Drive Condominium Ass'n*, 2013 IL 110505. Whether the doctrine

of *res ipsa loquitur* should apply, which is a question of law, is reviewed *de novo*. *Heastie v. Roberts*, 226 Ill.2d 515 (2007).

JURISDICTION

Summary judgment on the issue of *res ipsa loquitur* was entered in favor of defendant Armstrong and his employer on December 22, 2020. Summary judgement on the issue of *res ipsa loquitur* was entered in favor of defendant Harden and her employer and against plaintiff on January 5, 2021. Plaintiff filed his notice of appeal on January 6, 2021 appealing both rulings. Each ruling contained language whereby the trial court, "finds that there is no just reason for delaying enforcement or appeal of this judgment order pursuant to Ill. Sup. Ct. Rule 304."

STATEMENT OF FACTS

In his complaint, Plaintiff alleged:

1. At all times alleged herein defendant, LUCAS ARMSTRONG, M.D., (hereinafter, "ARMSTRONG") was a physician licensed in the State of Illinois and practicing in the field of orthopedic surgery in McLean County, Illinois.

2. On or prior to October 6, 2016 ARMSTRONG diagnosed WES JOHNSON with left hip osteoarthritis due to developmental dysplasia of the hip.

3. On October 6, 2016 ARMSTRONG performed a left total hip arthroplasty on WES JOHNSON using a direct anterior approach.

4. Following ARMSTRONG's surgery WES JOHNSON was discharged from the hospital with postoperative femoral nerve palsy.

5. At all times alleged herein ARMSTRONG had a duty to act as a reasonably careful orthopedic surgeon under the circumstances described.

6. In breach of that duty, on October 6, 2016 ARMSTRONG was guilty of the following negligent acts and omissions:

    a. Failing to properly identify, preserve, and protect WES JOHNSON'S femoral nerve;

    b. Improperly retracting WES JOHNSON's femoral nerve or improperly directing the placement of the retractors; or

    c. Directly traumatizing WES JOHNSON's femoral nerve.

7. On both January 11, 2017 and June 1, 2017 ARMSTRONG's partner, Dr. Craig Carmichael, performed an electromyogram on WES JOHNSON.

8. Both studies demonstrated a severe left femoral neuropathy that is specific to the branches to the vastus lateralis and rectus femoris muscles.

9. The lesion appears complete with no evidence of voluntary motor unit potential activation.

10. As a direct and proximate result of ARMSTRONG'S negligence, WES JOHNSON endured and continues to endure significant pain and suffering, incurred medical expenses, sustained permanent disability, and suffered loss of a normal life.

* * *

COUNT III
(*Res Ipsa loquitur*)

Plaintiff, WES JOHNSON, complains of defendants, LUCAS ARMSTRONG, SARAH HARDEN, AND PAMELA ROLF as follows:

1-9. Plaintiff repeats and realleges paragraphs 1 through 9 of Count I as and for paragraphs 1 through 9 of Count III as though fully set forth herein.

11. During the October 6, 2016 surgery ARMSTRONG was assisted by scrub nurses, SARAH HARDEN and PAMELA ROLF.

12. The injuries to WES JOHNSON's femoral nerve occurred while the retractors, scalpel, electrocautery device and other surgical instruments were under the control of ARMSTRONG, HARDEN, and ROLF.

13. In the ordinary course of events, the injuries sustained by WES JOHNSON would not have occurred if ARMSTRONG, HARDEN, and ROLF had used a reasonable standard of professional care while the retractors, scalpel, electrocautery device and other surgical instruments were under their control. (R. C 27-30)

In his Rule 213(f)(3) disclosures, plaintiff's orthopedic surgeon stated:

B. Sonny Bal, M.D.
2000 E. Broadway, #251
Columbia, MO 65201

(i) Dr. Bal will testify to the standard of care applicable to a total hip arthroplasty using an anterior approach, whether there were any deviations from that standard in the present case, and what injuries were proximately caused by any such deviations.

(ii) Dr. Bal's opinions and conclusions, and the bases therefore are as follows:

(a) In his left total hip arthroplasty of 10/6/2016 Lucas Armstrong deviated from the required standard of care in the following respects:

1) making his initial incision much too medially;

2) failing to properly identify the patient's femoral nerve;

3) failing to adequately protect the patient's femoral nerve; and

4) causing injury to the patient's left femoral nerve resulting in permanent denervation of the branches to 2 of the patient's 4 quadriceps muscles, the vastus lateralis and rectus femoris.

(b) The surgical instruments injuring the patient's femoral nerve were under the control of Lucas Armstrong and his scrub nurse, Sarah Harden, who was acting at his direction.

(c) In the normal course of a total hip arthroplasty, complete denervation of 2 of a patient's 4 quadriceps muscles does not happen in the absence of negligence.

(d) Complete denervation of 2 of the patient's 4 quadriceps muscles has caused loss of strength in the patient's left leg resulting in multiple falls and head trauma. (R. C 298-299)

In his sworn deposition testimony that same Rule 213(f)(3) witness testified:

(a) In his opinion, plaintiff's injury was most likely caused by a retractor. (R. C 659)

(b) The evidence that this injury was caused by a retractor is that defendant Armstrong's incision was too medial, that Armstrong placed an anterior retractor, and that EMG findings confirm plaintiff's injury. (R. C 660)

(c) Further evidence that plaintiffs injury was caused by a retractor are the following facts: Medial placement of the

initial incision, the fact that the retractor was moved during surgery, the fact that two branches (vastus lateralis and intermedius) of the femoral nerve would be much closer to the retractor; the retractor tip was placed strikingly close to the femoral nerve when placed near the anterior rim of the acetabulum. (R. C 666)

(d) "My testimony here is a complete (as opposed to transient) injury of the femoral nerve, as occurred here, verified by repeat EMG and by subsequent treatment by a nerve specialist like Dr. Tung, does not occur absent negligence." (R. C 664)

Nonetheless, the trial court granted summary judgment on the issue of *res ipsa loquitur* in favor of all defendants, reasoning that plaintiff needed a nursing expert to opine as to the proper surgical technique for a nurse's use of retractors, and that plaintiff's orthopedic surgeon was not qualified to testify to the proper technique of a nurse participating in the surgery.

ARGUMENT

I. *Res Ipsa Loquitur* should go to the jury in every medical malpractice case where it is shown that the injury ordinarily would not have happened had proper care been used.

The doctrine of *res ipsa loquitur* is codified at 735 ILCS 5/2-1113 (Medical malpractice - *res ipsa loquitur*) which states in pertinent part:

> ...Proof of an unusual, unexpected or untoward medical result which ordinarily does not occur in the absence of negligence will suffice in the application of the doctrine.

The doctrine of *res ipsa loquitur* is clearly applicable to the case at bar. In *Walker v. Rumer*, 72 Ill.2d 495 (1978) our Supreme Court stated:

> The requirement for the application of the doctrine of *res ipsa loquitur* is not that the surgical procedure be "commonplace" or that the "average person" be able to understand what is involved; the determination which must be made as a matter of law is whether "the occurrence is such as in the ordinary course of things would not have happened" if the party exercising control or management had exercised proper care. *Walker* at 500.

A plaintiff is not required to prove conclusively all the elements of *res ipsa loquitur*, but need only present evidence reasonably showing that the elements exist. In *Poole v. University of Chicago,* 186 Ill.App.3d 554 (1st Dist., 1989) plaintiff's expert witness testified that although vocal cord paralysis is a risk associated with thyroidectomy, **bilateral** vocal cord paralysis would not occur in the absence of a violation of the standard of care: "there was a deviation somewhere during the operation procedure (because) bilateral (vocal cord paralysis) is just too much to expect by chance." *Poole* at 556.

In his discovery deposition plaintiff's Rule 213(f)(3) expert, Dr. Sonny Bal, testified under oath that:

(a) In his opinion, plaintiff's injury was most likely caused by a retractor.

(R. C 659)

(b) The evidence that this injury was caused by a retractor is that defendant Armstrong's incision was too medial, that Armstrong placed an anterior retractor, and that EMG findings confirm plaintiff's injury. (R. C 660)

(c) Further evidence that plaintiffs injury was caused by a retractor are the following facts: Medial placement of the initial incision, the fact that the retractor was moved during surgery, the fact that two branches (vastus lateralis and intermedius) of the femoral nerve would be much closer to the retractor; the retractor tip was placed strikingly close to the femoral nerve when placed near the anterior rim of the acetabulum. (R. C 666)

(d) "My testimony here is a complete (as opposed to transient) injury of the femoral nerve, as occurred here, verified by repeat EMG and by subsequent treatment by a nerve specialist like Dr. Tung, does not occur absent negligence." (R. C 667)

(e) In her discovery deposition, defendant Harden testified under oath that she was the second scrub and that the second scrub alone holds the retractor after it is placed or repositioned by the surgeon; Harden testified that that was her role in this particular surgery. (R. C 559)

In his earlier Rule 213(f)(3) disclosures Dr. Bal stated:

(b) The surgical instruments injuring the patient's femoral nerve were under the control of Lucas Armstrong and his scrub nurse, Sarah Harden, who was acting at his direction.

(c) In the normal course of a total hip arthroplasty, complete denervation of 2 of a patient's 4 quadriceps muscles does not happen in the absence of negligence. (R. C 299)

On page 73 of his discovery deposition Dr. Bal told counsel for Harden that his Rule 213(f)(3) disclosure accurately reflected his opinions. (R. C 670)

In this case the jury will receive IPI (Civil) 22.01 which states:

> Under Count III, the plaintiff has the burden of proving each of the following propositions:

First: That the plaintiff was injured.

Second: That the injury was received from retractors which were under the control and management of defendants Armstrong and Harden.

Third: That in the normal course of events, the injury would not have occurred if the defendants had used ordinary care while the retractors were under their control and management.

If you find that each of these propositions has been proved, the law permits you to infer from them that the defendants were negligent with respect to the retractors while under their control or management.

If you do draw such an inference, and you further find that the plaintiff's injury was proximately caused by that negligence, your verdict shall be for the plaintiff under this Count. On the other hand, if you find that any of these propositions has not been proved, or if you find that the defendants used ordinary care for the safety of the plaintiff in their control and management of the retractors, or if you find that the defendants' negligence, if any, was not a proximate cause of the plaintiffs injury, then your verdict shall be for the defendants under this Count.

Plaintiff bears the burden of presenting evidence reasonably showing the existence of the elements of *res ipsa loquitur* in order to invoke the doctrine. But if plaintiff meets that burden, an inference of negligence arises which will not be taken from the jury. *Dyback v. Weber*, 114 Ill.2d 232 (1986); *Poole, supra.*

In those cases where the allegations of *res ipsa loquitur* have been dismissed, courts of review are quick to reverse. Following a jury verdict in favor of the surgeon in *Poole*, *supra*, plaintiff appealed claiming that the trial court improperly refused to let the issue of *res ipsa loquitur* go to the jury. The appellate court agreed and reversed judgment. In reaching its decision, the appellate court emphasized that a plaintiff is not required to prove

conclusively all the elements of *res ipsa loquitur*, but need only present evidence reasonably showing that the elements exist. Similarly, in *Adams v. Family Planning Associates Medical Group, Inc.*, 315 Ill.App.3d 533 (1st Dist, 2000), after presentation of the evidence the trial court refused to allow the issue of *res ipsa loquitur* to go to the jury. The trial court was reversed with the appellate court stating at page 545:

> In order to show the first element of *res ipsa loquitur*, an occurrence that ordinarily does not happen in the absence of negligence, a plaintiff is not required to show that the injury in question never happens without negligence, only that it does not ordinarily happen without negligence. *Spidle*, 79 Ill.2d at 9, 402 N.E.2d 216.
>
> If the defendant controverts the plaintiff's evidence that the injury ordinarily does not happen in the absence of negligence, that dispute does not provide grounds for taking the issue away from the jury. Factual disputes presenting credibility questions or requiring evidence to be weighed should not be decided by the trial judge as a matter of law. *Spidle,* 79 Ill.2d at 10, 402 N.E.2d 216.

One of the seminal cases concerning the doctrine of *res ipsa loquitur* in the context of a medical malpractice case came out of this Fourth District Appellate Court. In *Spidle v. Steward*, 79 Ill.2d 1 (1980) the trial court directed a verdict in favor of the defendant surgeon on the issue of *res ipsa loquitur*. That ruling was affirmed by this court but reversed by the Illinois Supreme Court which held that the plaintiff's evidence was sufficient to warrant submitting to the jury the *res ipsa loquitur* counts. The Supreme Court ruled that the *res ipsa loquitur* counts should have been submitted to the jury for decision where it was conceded that the patient was injured while under the control of the defendant surgeon and was without contributory negligence as he was completely anesthetized, and where the testimony of plaintiff's expert was such as to permit a reasonable person to conclude that plaintiff's injury

more probably than not resulted from defendant's negligence.

Case law supports the application of this doctrine against multiple defendants where the plaintiff presents evidence that the defendants exercised concurrent or consecutive management or control over the instrumentality that caused the injury. *Samansky v. Rush-Presbyterian-St. Luke's Medical Center*, 208 Ill.App.3d 377 (1st) Dist, 1990). See also, *Gatlin v. Ruder*, 137 Ill.2d 284 (1990). The mere fact that a defendant controverts plaintiff's evidence in support of the application of the doctrine of *res ipsa loquitur* does not provide grounds for taking the issue away from the jury. *Adams v. Family Planning Associates, supra.*

Here the granting of summary judgment in favor of all defendants on *res ipsa loquitur* is reversible error. This is best demonstrated by the recent Cook County case of *Willis v. Morales*, 2020 IL App (1st) 180718. Like the case at bar, the plaintiff in *Willis* awoke from surgery with nerve damage. She sued her surgeon, two anesthesiologists, and three nurse anesthetists. At the beginning of the trial the court granted defendants' motion in limine and barred all evidence on the theory of *res ipsa loquitur*. Plaintiff presented an offer of proof that her experts would testify that the injury to her median nerve occurred during the surgery in question, and that the injury would not have occurred absent negligence. A verdict in favor of defendants was reversed by the First District Appellate Court which stated:

> ¶ 36 . . . "[A] plaintiff seeking to rely on the res ipsa doctrine must plead and prove that he or she was injured (1) in an occurrence that ordinarily does not happen in the absence of negligence, (2) by an agency or instrumentality within the defendant's exclusive control. *Heastie*, 226 Ill. 2d at 531-32, 315 Ill. Dec. 735, 877 N.E.2d 1064.
>
> > "Illinois law does not require a plaintiff to show the actual force which initiated the motion or set the instrumentality in operation in order to rely on the res ipsa doctrine. To the

> contrary, if the specific and actual force which initiated the motion or set the instrumentality in operation were known unequivocally, leaving no reason for inference that some other unknown negligent act or force was responsible, the res ipsa doctrine could not even be invoked." *Heastie*, 226 Ill. 2d at 539, 315 Ill. Dec. 735, 877 N.E.2d 1064.

¶ 37 If the plaintiff was unconscious at the time of the injury, and under the defendants' control, then the plaintiff has adequately shown the control element for res ipsa loquitur, even if she cannot establish the exact instrumentality that caused the injury. *Spidle v. Steward*, 79 Ill. 2d 1, 4, 7-8, 37 Ill. Dec. 326, 402 N.E.2d 216 (1980). Here, if Willis can convince a finder of fact that the injury occurred during the surgery, "it can be inferred * * * that the instrumentality of the injury was the handling" of Willis by defendants. *See, Collins v. Superior Air-Ground Ambulance Service, Inc.*, 338 Ill. App. 3d 812, 820, 273 Ill. Dec. 494, 789 N.E.2d 394 (2003).

¶ 38 Willis's experts explained that the medical records supported their conclusion that the injury occurred during the surgery on May 21, 2008. Defendants contend that they did not have exclusive control because their expert said the injury might have occurred during the hospitalization that began on May 25, 2008. "A plaintiff need not conclusively prove all the elements of res ipsa loquitur in order to invoke the doctrine. He need only present evidence reasonably showing that elements exist * * *." *Dyback v. Weber*, 114 Ill. 2d 232, 242, 102 Ill. Dec. 386, 500 N.E.2d 8 (1986). Willis presented enough evidence to raise a question for the jury as to whether defendants had exclusive control over the instrumentality that caused the injury.

¶ 39 Willis's experts also testified in their depositions that the injury to the median nerve ordinarily would not occur without negligence. None of defendants' experts disputed this conclusion.

¶ 40 The trial court disallowed the evidence on grounds that Willis's experts testified that they knew "the specific and actual force" that caused the injuries. *See, Heastie*, 226 Ill. 2d at 539, 315 Ill. Dec. 735, 877 N.E.2d 1064. While several of Willis's experts said that compression caused the injury, they noted several different possible sources for the compression. As Willis's arms gradually swelled during the lengthy surgery, the anesthesiologists and nurse anesthetists may have failed to recognize that the arm straps had tightened and put pressure on the nerve. The anesthesiologists and nurse anesthetists may have repositioned Willis's arms negligently when they changed her position for the abdominal revision. Dr. Flagg may have leaned on Willis's arms

> during the surgery. The excessive fluid administered by all the nurse anesthetists may have aggravated the effect of other pressures on the nerve. The experts testified that they could not determine from the medical records which of the possible sources of pressure caused the injuries. Defense counsel used the uncertainty in closing argument, telling the jurors that if they had unresolved questions about the cause of the injury, they must find in favor of defendants.
>
> ¶ 41 The appellate court considered the applicability of *res ipsa loquitur* in similar circumstances in *Kolakowski v. Voris*, 83 Ill. 2d 388, 397, 47 Ill. Dec. 392, 415 N.E.2d 397 (1980), where the court said:
>
> > "The defendant * * * argues that plaintiff's introduction of evidence of specific negligence extinguishes plaintiff's right to rely on the doctrine of *res ipsa loquitur*. The premise for this argument is that if a plaintiff knows in what respects the defendant was guilty of negligence and presents any specific evidence of the negligent act, the doctrine of res ipsa loquitur is inapplicable * * *. Defendant's theory would be accurate if the evidence introduced by plaintiff conclusively established the exact cause of his injuries. * * * Our appellate court has consistently permitted a plaintiff to introduce evidence of specific negligence without depriving him of his right to rely on the doctrine of *res ipsa loquitur* where such specific evidence does not conclusively establish the cause of the injury."
>
> ¶ 42 Because the experts here could not conclusively establish the cause of Willis's injury, she could rely on circumstantial evidence to establish her claim. The trial court erred by precluding Willis's experts from testifying that the injury to Willis's median nerve would not have occurred absent negligence and by refusing to instruct the jurors on *res ipsa loquitur*. *Willis v. Morales*, 2020 IL App (1st) 180718, ¶¶ 36-42

In its ruling, the trial court here found that the retractor was not within the "exclusive" control of defendant Harden. But the court's finding is inaccurate on two levels. Firstly, "exclusive" control is no longer an element under IPI 22.01. Secondly, the court's finding completely contradicts the evidence. The unrebutted deposition testimony of both Dr. Armstrong as well as defendant Harden was that Harden, and Harden alone, was holding the retractors during the surgery in question.

II. Nurse/Technician cannot testify to proper surgical technique.

In her motion for summary judgment, defendant Harden wrote:

> The plaintiff ***must*** present expert testimony to establish the proper standard of care against which the professional's conduct must be measured, a negligent failure to comply with the standard, and that the injury for which the suit is brought was proximally caused by the negligence of the defendant professional. *Saxton*, 240 Ill.App.3d at 210 (emphasis added); *see also Walski v. Tiesenga,* 72 Ill.2d 249, 257 (1978) (Illinois Supreme Court found allegations of malpractice against defendant doctor for failure to identify the left recurrent laryngeal nerve during surgery was the type of situation requiring expert testimony).

A. Plaintiff has Failed to Establish the Standard of Care Applicable to Nurse Harden.

Without expert testimony defining the standard of care against which the defendant practitioner's conduct is to be judged, there is no means by which the jury may find the defendants deviated from the standard, therefore, even looking at the evidence in the light most favorable to plaintiff, it is clear that no verdict in her favor could ever stand. *Walski*, 72 Ill.2d at 262. A plaintiff's failure to establish a standard of care by expert testimony is a fatal deficiency in a medical malpractice action. *Curtis v. Goldenstein*, 125 Ill.App.3d 562, 565 (3rd Dist. 1984). Even were a plaintiff is relying on the doctrine of res ipsa loquitur, the plaintiff is still required to establish the applicable standard of care. *Taylor v. City of Beardstown,* 142 Ill.App.3d 584, 592 (4th Dist. 1986) (discussed further infra). (R. C 529)

At the hearing, defendant Harden argued:

> To date, plaintiff has - - or I guess a deadline for plaintiff to file or disclose expert witnesses has passed. The only expert disclosed was Dr. Sonny Bal, who is an orthopedic surgeon. Plaintiff filed or disclosed no experts with regard to Nurse Harden or nursing standard of care; therefore, hasn't made a prima facie case against Nurse Harden.
>
> Interestingly, the requirement for expert testimony is equally applicable in a basic negligence case as well as one where res ipsa loquitur is invoked. The plaintiffs still have to provide or present some expert evidence for each defendant establishing a standard of care they are alleged to have breached. Because Dr. Bal is an orthopedic surgeon, has never practiced as a nurse, he can't offer opinions as to Nurse Harden, and he admitted that in his deposition. (R. 5)

So, without any expert testimony with regard to the standard of care applicable to Nurse Harden, Plaintiff, again, has failed to establish a prima facie case. (R. 6)

The trial court then ruled:

Plaintiffs (sic) must establish duty and breach of duty by a qualified competent witness. The injury alleged here is too complex to excuse the need for expert testimony. In other words, it is beyond the kin of an average juror.

Here, Plaintiff has disclosed only one expert, Dr. Sonny Bal. Dr. Bal acknowledged in his deposition testimony that he is not offering any opinions relative to the nursing standard of care. Even if he were, he is not qualified to do so, as, even though he possesses four degrees, he does not practice within the same school of medicine as Nurse Harden, namely nursing.

Furthermore, based upon the materials provided, there is no evidence in this record of any negligent act or omission on part of Nurse Harden.

Plaintiff argues that case law supports the theory that a theory of res ipsa may apply to more than one defendant while there's - - where there is evidence that defendants exercise concurrent or consecutive management or control over the instrumentality that caused the injury. Plaintiff further references that testimony of Dr. Bal that the injury was caused by a retractor, noting that both Dr. Armstrong and Nurse Harden handled that retractor.

While the proposition of law is correct, it is not applicable in this case. All witnesses testified that Defendant Armstrong, as the surgeon, placed the retractor. While Defendant Harden may have physically held the retractor upon placement, it was only at the direction of Defendant Armstrong. She did not exercise any independent control over any surgical tools, according to the testimony.

Furthermore, the witnesses agree she only acted as directed, and she did not take any actions other than those directed by Dr. Armstrong. Accordingly, the retractor was never under the exclusive control of Nurse Harden.

For all these reasons, the Motion for Summary Judgment as to count three against Nurse Harden is granted. Summary Judgment will also be granted in Advocate's favor as to count four. (R. 12-13)

Both defendant Harden and the trial court are absolutely wrong. In order to testify to proper surgical technique in a given procedure, one must be a surgeon who performs that type of procedure. *See,* 735 ILCS 5/8-2501. *See also*, *Purtill v. Hess,* 111 Ill.2d 229 (1986), and *Sullivan v. Edward Hospital,* 209 Ill.2d.100 (2004).

Furthermore, the roles of nurses and surgical technicians are circumscribed by statute. For example, a nurse (other than an Advance Practice Nurse or Physician Assistant) may not render a medical diagnosis according to § 50-10 of the Nursing Practice Act (225 ILCS 65/50-10). And under § 55 of the Registered Surgical Assistant and Registered Surgical Technologist Title Protection Act (225 ILCS 130/55), "(a) person registered under this Act shall practice under direct supervision." *See also*, 68 Adm.Code § 1485.40 (b):

> *"Direct supervision" means supervision by an operating physician, licensed podiatrist, or licensed dentist who is physically present and who personally directs delegated acts and remains available to personally respond to an emergency until the patient is released from the operating room.*

In *Iaccino v. Anderson,* 406 Ill.App.3d 397 (1st Dist. 2010) the parents of an infant who sustained brain damage during labor as a result of oxygen deprivation brought a medical malpractice action against the two doctors involved in the baby's birth. There plaintiff's nursing expert was permitted to describe what she observed on fetal monitoring strips, but was **not** allowed to testify whether those strips indicated the baby should have been delivered earlier. The appellate court affirmed the trial court's ruling on the basis that an obstetrical nurse cannot make a diagnosis or opine as to the applicable standard of care for an obstetrician/gynecologist.

At the summary judgment hearing plaintiff argued:

> With reference to the fact that we don't have a nursing expert, that's

> absolutely correct, but that's because a nursing expert cannot render an opinion on what is or is not appropriate with respect to an orthopedic surgical procedure. There is no nurse that's qualified to come in and say this part of the procedure was correct or this part of the procedure was wrong. That cannot be nursing testimony. As a matter of law, it has to be testimony from an orthopedic surgeon, and we have that here. Dr. Bal has stated unequivocally that, in his opinion, the damage to this femoral nerve was the result of the retractors. Nurse Harden was the one holding the retractors. (R. 8)

Plaintiff here was not remiss in failing to offer testimony of a nurse or surgical technician as to whether defendant Harden did or did not comply with the standard of care. This is because no such nurse or surgical technician can be allowed to testify to the proper surgical technique for a total hip arthroplasty using a direct anterior approach. That testimony **must** come from a surgeon. The trial court's ruling is clear reversible error.

III. Physician may testify to standard of care for nurse on surgical team.

In addition to committing reversible error by holding that plaintiff needed expert nursing testimony, the trial court here committed yet another reversible error by ruling that a surgeon is not qualified to testify to proper surgical nursing technique. Although, as a general rule, a physician may not testify to the nursing standard of care, physicians may, in fact, testify to proper nursing procedure depending on the issue at hand. In *Wingo v. Rockford Memorial Hospital*, 292 Ill.App.3d 896 (2nd Dist. 1997), the appellate court ruled that a physician may testify on proper nursing care when the issue involves communication to a physician. In *Wingo*, plaintiff alleged that the hospital's nurse failed to communicate to the patient's physician that the patient's condition had changed. *Wingo* at 900. Three different physician experts testified that failure to communicate this information was a deviation from

the nursing standard of care. The appellate court found that these allegations of negligence were within the testifying doctor's knowledge and experience.

The same rationale applies to nurses and technicians working on a surgical team. In the case of *Petryshyn v. Slotky*, 387 Ill.App.3d 1112 (4th Dist. 2008), this court ruled that an obstetrician was qualified as an expert to testify to the surgical nurse's standard of care. In announcing a "Providing-Medical-Care Continuum" this court stated that the "pivotal analytical issue in answering this question depends on the nature of the interaction between a physician and a nurse as they provide medical care for the same patient." This court went on to state:

> Progressing still further along the "providing-medical-care continuum" is a case like the present one, which involves the intrinsically intertwined interaction between a physician and nurse when they are members of the same surgical team. Under this scenario, which is essentially on the opposite end of the "providing-medical-care continuum" from the circumstances in *Dolan,* the physician and nurse, each responsible for their distinct and specialized responsibilities, interact as a team to substantially contemporaneously care of the same patient. *Petryshyn* at 1120.

Here Dr. Bal's testimony that the retractors under the control of Armstrong and Harden caused damage that does not ordinarily occur absent negligence, is enough to allow *res ipsa loquitur* go to the jury.

IV. A failure to name all persons who, more probably than not, contributed to plaintiff's injuries is fatal to a *res ipsa loquitur* count.

In the case at bar the trial court made exactly the opposite ruling that she had made in an earlier *res ipsa loquitur* medical malpractice case; a case that presented very similar facts. And this court affirmed the trial court's earlier ruling. This court therefore cannot affirm

the trial court's ruling in the case at bar.

Amazingly, in the case at bar plaintiff brought this to the trial court's attention, arguing:

> You may recall that - - I think it's been a couple of years ago at least - - I tried a *res ipsa* medical malpractice case in front of you. My client was Kristen Nesvacil who developed a rather serious spinal abscess following an epidural injection during the course of labor at Advocate Bromenn Hospital. Mike Kehart was defending the anesthesiologist. Mike Kehart out of Decatur. And, in that particular case, there was the doctor giving the injection and then the nurse assisting him. We didn't feel the nurse was part of the action, but your ruling was well, no, she was part of the procedure in which you alleged the damage occurred, and, by letting her out, you've essentially gotten rid of your *res ipsa loquitur* count. So you granted summary judgment on that basis with respect to the *res ipsa* count in that case.
>
> So, we're frankly following the ruling that you made in the *Nesvacil* case, that because the nurse was involved in the procedure, that if *res ipsa* was going to go forward, then as a player she had to be included in that count. So, we're just trying to be consistent with prior rulings of this court on that issue. (R. 7)

But the trial court ignored this argument and summarily granted judgment to defendant Harden, her employer, and then Dr. Armstrong and his employer on the issue of *res ipsa loquitur.* A trial court cannot make a ruling on a *res ipsa loquitur* medical malpractice case that is sustained by this court and in a subsequent and very similar case, rule exactly the opposite.

In *res ipsa loquitur* actions, parties who more likely than not contributed to plaintiff's injuries are to be joined as defendants. "This helps to preserve the identification element because liability will surely fall on the actual wrongdoer." *Smith v. Eli Lilly & Co.,* 137 Ill.2d 222, 257 (1990). The doctrine of *res ipsa loquitur* does not apply when a plaintiff fails to name all persons or entities who more likely than not caused his injuries. *Raleigh v. Alcon*

Laboratories, Inc., 403 Ill.App.3d 863, 869 (1st Dist. 2010). In *Heastie v. Roberts,* 226 Ill.2d 515 (2007), our Supreme Court stated that to establish a claim for a *res ipsa loquitur* a plaintiff must establish that he was injured (1) in an occurrence that doesn't ordinarily happen in the absence of negligence, and (2) by an agency or instrumentality within the defendants exclusive control. *Heastie* at 531. The *Heastie* court went on to state:

> In setting forth the second element, some authorities speak of "management and control" rather than "exclusive control," but the terms have come to be viewed as interchangeable. In either case, the requisite control is not a rigid standard, but a flexible one in which the key question is whether the probable cause of the plaintiff's injury was one which the defendant was under a duty to the plaintiff to anticipate or guard against. See *Jones v. Minster*, 261 Ill.App.3d 1056, 1061, 200 Ill.Dec. 22, 635 N.E.2d 123 (1994); *Darrough v. Glendale Heights Community Hospital*, 234 Ill.App.3d 1055, 1060, 175 Ill.Dec. 790, 600 N.E.2d 1248 (1992). The traditional formulation of the doctrine also included a requirement that the injury occurred under circumstances indicating that it was not due to any voluntary act or neglect on the part of the plaintiff. *Gatlin v. Ruder,* 137 Ill.2d at 295, 148 Ill.Dec. 188, 560 N.E.2d 586. Consistent with the principles of comparative fault followed in this state, however, a plaintiff is no longer required to plead and prove freedom from contributory negligence in order to make out a prima facie case under the doctrine of res ipsa loquitur. *Dyback v. Weber,*114 Ill.2d 232, 241, 102 Ill.Dec. 386, 500 N.E.2d 8 (1986). *Heastie* at 532.
>
> We note, moreover, that while reliance on the res ipsa doctrine may normally require that the injury can be traced to a specific cause for which the defendant is responsible, Illinois law also authorizes use of the doctrine where it can be shown that the defendant was responsible for all reasonable causes to which the accident could be attributed. See *Napoli v. Hinsdale Hospital*, 213 Ill.App.3d 382, 388, 157 Ill.Dec. 531, 572 N.E.2d 995 (1991); see also W. Keeton, Prosser & Keeton on Torts § 39, at 248 (5th ed. 1984). That is precisely the situation plaintiff claims to have been present here.
>
> Similarly, Illinois law does not require a plaintiff to show the actual force which initiated the motion or set the instrumentality in operation in order to rely on the res ipsa doctrine. To the contrary, if the specific and actual force which initiated the motion or set the instrumentality in operation were known unequivocally, leaving no reason for inference that some other unknown negligent act or force was responsible, the res ipsa doctrine could not even be invoked. See *Collgood, Inc. v. Sands Drug Co.*, 5 Ill.App.3d 910,

> 916, 284 N.E.2d 406 (1972); see also 65A C.J.S. Negligence § 759, at 555 (2000) ("The res ipsa loquitur rule aids to the injured party who does not know how the specific cause of the event that results in his or her injury occurs, so if he or she knows how it comes to happen, and just what causes it * * * there is no need for the presumption or inference of the defendant's negligence as afforded by the * * * rule"). *Heastie* at 538.

So here we have the inimitable reasoning of the very same trial court on the very same issue, yet supposing exactly the opposite result. As Dickens wrote, "If the law supposes that...the law is an ass - a(n) idiot."

CONCLUSION

The trial court's rulings granting summary judgment to all defendants on the issue of *res ipsa loquitur* should be summarily reversed.

Respectfully submitted

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CERTIFICATE OF COMPLIANCE

I certify that this brief conforms to the requirements of Rules 341(a) and (b). The length of this brief, excluding the pages or words contained in the Rule 341(d) cover, the Rule 341 (h)(1) table of contents and statement of points and authorities, the Rule 341(c) certificate of compliance, the certificate of service, and those matters to be appended to the brief under Rule 342(a), is 21 pages or words.

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PROOF OF SERVICE

Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that on the 13th day of April, 2021 at or before the hour of 5:00 p.m. I caused the foregoing instrument to be filed with the Clerk of the Fourth District Appellate Court using Odyssey eFile and Serve, which shall serve the parties of record as designated in the system. The following attorney(s) of record were also served by electronic mail at their primary and secondary addresses of record, as follows:

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No. 127942
Consolidated with No. 127944

IN THE SUPREME COURT OF ILLINOIS

WILLIAM "WES" JOHNSON, *Plaintiff-Appellee* v. LUCAS ARMSTRONG, M.D., SARAH HARDEN, and ADVOCATE HEALTH AND HOSPITALS CORPORATION, ADVOCATE BROMENN MEDICAL CENTER, *Defendants-Appellants*.	) On Petition for Leave to Appeal) From the Illinois Appellate Court,) Fourth District, No. 4-21-0014,)) There Heard on Appeal From The) Eleventh Judicial Circuit,) McLean County, Illinois,) Trial Court No. 2018 L 126)) The Honorable Rebecca S. Foley,) Judge Presiding)

NOTICE OF FILING

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PLEASE TAKE NOTICE that on March 2, 2022, the BRIEF and APPENDIX OF DEFENDANT-APPELLANT, LUCAS ARMSTRONG, M.D., CERTIFICATE OF

COMPLIANCE, AND CERTIFCATE OF SERVICE, is being filed electronically with the Clerk of the Supreme Court of Illinois, a copy of which is attached and served upon you.

Respectfully submitted,

LUCAS ARMSTRONG, M.D.,
Appellants-Defendants

By: LIVINGSTON, BARGER, BRANDT & SCHROEDER, LLP

By: /s/ Kevin M. Toth
One of his attorneys

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No. 127942
Consolidated with No. 127944

IN THE SUPREME COURT OF ILLINOIS

WILLIAM "WES" JOHNSON,	) On Petition for Leave to Appeal
	) From the Illinois Appellate Court,
Plaintiff-Appellee	) Fourth District, No. 4-21-0014,
	)
v.	) There Heard on Appeal From The
	) Eleventh Judicial Circuit,
LUCAS ARMSTRONG, M.D.,	) McLean County, Illinois,
SARAH HARDEN, and ADVOCATE	) Trial Court No. 2018 L 126
HEALTH AND HOSPITALS CORPORATION,	)
ADVOCATE BROMENN MEDICAL CENTER,	) The Honorable Rebecca S. Foley,
	) Judge Presiding
Defendants-Appellants.	)

CERTIFICATE OF SERVICE

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The undersigned, an attorney, on oath state I served the foregoing BRIEF and APPENDIX OF DEFENDANT-APPELLANT, LUCAS ARMSTRONG, M.D., CERTIFICATE OF COMPLIANCE, AND NOTICE OF FILING, upon counsel listed above via electronic mail on March 2, 2022.

Under penalties as provided by law pursuant to 735 ILCS 5/1-109, I certify that the statements set forth herein are true and correct.

Additionally, upon acceptance by the Court's electronic filing system, the undersigned will mail thirteen (13) copies of the BRIEF and APPENDIX OF DEFENDANT-APPELLANT, LUCAS ARMSTRONG, M.D. to the Clerk of the Supreme Court, 200 East Capitol Avenue, Springfield, Illinois 62701.

By: /s/ Kevin M. Toth

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