

STATE OF MICHIGAN
COURT OF APPEALS

PEOPLE OF THE STATE OF MICHIGAN,

Plaintiff-Appellee,

v

MALINI RAO,

Defendant-Appellant.

UNPUBLISHED
December 7, 2010

No. 289343
Oakland Circuit Court
LC No. 2008-219989-FH

Before: MURRAY, P.J., and DONOFRIO and GLEICHER, JJ.

PER CURIAM.

A jury convicted defendant of second-degree child abuse, MCL 750.136b(3). The trial court sentenced defendant to five years' probation, with 90 days of jail confinement. Defendant moved for a new trial, asserting that newly discovered, exculpatory evidence made a different result probable on retrial. The trial court denied defendant's motion, and defendant appeals as of right. We reverse and remand for an evidentiary hearing.

I. UNDERLYING FACTS AND PROCEEDINGS

In August 2006, defendant and her husband, Viswanath Seetheraman, brought 18-month-old Roshani to the United States to adopt her. Roshani's medical history in India included infection by a parasite called giardia lamblia and head-to-toe eczema. In India, Roshani had resided in an orphanage. On Roshani's arrival in the United States, her height and weight fell within the third and fifth percentiles for children her age.

In October 2007, the Department of Human Services (DHS) removed Roshani from defendant's care after Dr. Robert Cohen, an emergency room physician, opined that someone had physically abused Roshani. At trial in July 2008, the prosecution contended that defendant had committed second-degree child abuse by beating Roshani about the chest, back and face.¹

¹ Because the jury returned a general guilty verdict, it is impossible to determine whether the jury unanimously agreed that she committed second-degree child abuse by beating Roshani's face, thorax, or both.

According to the prosecution's expert witnesses, Roshani sustained multiple rib fractures and possibly an elbow fracture caused by trauma that defendant had inflicted. The defense countered that a metabolic disorder accounted for the abnormal x-ray appearance of Roshani's bones. Defense expert witnesses explained that due to disease, vitamin deficiency, inactivity and malnutrition during the first 18 months of Roshani's life in India, her bones developed abnormally, resulting in "pathological" fractures from minor trauma. Alternatively, the defense experts theorized that the apparent fractures actually constituted bone abnormalities that resulted from Roshani's preadoption nutritional and physical neglect.

Roshani's rib fractures were discovered on October 11, 2007, when Dr. Cohen ordered an x-ray called a "babygram," which Cohen described as "essentially a bone survey, X-rays from the top of the head to the bottom of the toes to assess for any fractures." Cohen's dictated summary of the babygram results stated in pertinent part: "On her 'baby gram,' it shows multiple bilateral rib fractures in different stages of healing without displacement as well as a periosteal reaction to the lateral aspect of the mid shaft of the left femur without obvious fracture which is highly suspicious for nonaccidental trauma." Cohen testified that the babygram revealed "multiple bilateral rib fractures of different ages," and explained that given the appearance of the fractures, "the injuries likely happened at different times [W]e're seeing that at different stages of healing."

In November 2007, Dr. Marcus DeGraw, an expert in pediatrics and child abuse, examined Roshani. DeGraw ordered a complete "skeletal survey," which he testified encompassed

a specific set of 18 and 19 different X-rays of every bone in the body with each of those X-rays dedicated to looking at an individual piece of the body. So each upper arm, each lower arm, each upper leg, each lower leg. It's a set of X-rays that is most often used by physicians like myself to look at the entire body to look for injuries.

DeGraw related that the radiologist who interpreted the skeletal survey had identified "old fractures involving several of the ribs, there are probably old changes seen involving right mid femur. No recent fractures are recognized." DeGraw expressed that "recent fractures" meant injuries that had occurred "[g]enerally within the previous couple of weeks at most."²

² The November 2007 radiology report, generated by a radiologist at St. John Hospital in Detroit, states in relevant part, "The chest film revealed healed fractures of the right 11th rib posteriorly. Also, deformities are seen involving the anterior aspects of the right and left 7th and 8th ribs, probably due to old injuries. . . . There is a mild cortical thickening with slight deformity seen involving the mid aspect of the *right* femur. This could be also related to old trauma. The rest of the extremities are well preserved." (Emphasis added). The babygram reported an abnormality of Roshani's *left* femur; no explanation appears in the record for this discrepancy.

Dr. Wilbur Smith, an expert in pediatrics, radiology, pediatric radiology and child abuse, supplied the trial's most comprehensive testimony about Roshani's fractures. Smith identified three fracture sites: Roshani's pelvis, left elbow and ribs. Notably, and as discussed in greater detail, *infra*, Smith did not mention the radiographic findings concerning Roshani's femurs. Smith's review of Roshani's medical records revealed that in February 2007, six months before her removal from defendant's care, Roshani sustained a fracture of her left elbow. Smith characterized this injury as a "common fracture," usually seen "after a fall on an outstretched arm." The medical records document that defendant or her husband advised Roshani's physicians that Roshani had fallen down some stairs, and that Roshani received treatment shortly after the reported fall. Roshani's elbow was x-rayed and treated at Children's Hospital of Michigan. Smith explained that elbow fractures such as Roshani's

occur less commonly with wrenching and twisting of the arm, but certainly can occur with that. But in and of itself, if that's the only fracture you've got and you've got a good history of a fall, it's probably accidental. So if this was sent to me with just this, I would say it's probably an accident.

The elbow fracture was the sole injury to Roshani for which a reasonable explanation potentially existed, and which appeared in contemporaneous x-rays. Importantly, none of the subsequent x-rays taken in this case identified any lingering evidence of the elbow fracture. In other words, the elbow fracture apparently healed.³

Dr. Smith also noted that the bones of Roshani's pelvis appeared "very odd," consistent with "a very old fracture" that had healed with "the bones set at different levels." In Smith's opinion, the pelvic abnormality "could date way back, I mean, like a year" prior to Roshani's adoption. During Smith's testimony, he neither mentioned nor was questioned about the femur abnormality identified in both the October 2007 babygram and the November 2007 skeletal survey. None of the prosecution witnesses offered opinions supporting that defendant had caused the femur or pelvic abnormalities visible on Roshani's x-rays.

Dr. Smith testified that the October 2007 babygram evidenced the presence of seven rib fractures of differing ages. Smith calculated the age of the fractures by "estim[at]ing by the degree of healing and so on and so forth, and that coupled with the child's age lets you give an estimated value." Smith asserted "unequivocally" that the fractures were of different ages because they displayed different amounts of healing.⁴ He emphasized that the multiple rib

³ As discussed in greater detail, *infra*, this fact enhances the importance of the second skeletal survey, which revealed the continuing presence of bone abnormalities identified as fractures by the prosecution witnesses. The disappearance of radiologic evidence of the elbow fracture dramatically demonstrates that, as the prosecution experts insisted, fractures heal.

⁴ Defense counsel never challenged the scientific merit to the prosecution's theory that fractures in children can be accurately dated by x-ray examination. MRE 702 "requires trial judges to act as gatekeepers who must exclude unreliable expert testimony. See *Daubert v Merrell Dow Pharmaceuticals, Inc.*, 509 US 579; 113 S Ct 2786; 125 L Ed 2d 469 (1993), and *Kumho Tire Co.*

fractures “importantly” were of different ages, which supported that they were caused by repetitive acts of physical abuse. Smith opined that all of the rib fractures were traumatic in origin, and probably caused by direct blows to Roshani’s body.

In painstaking detail, Dr. Smith catalogued the location and age of the seven rib fractures. The following chart summarizes Smith’s identification of the rib fractures:

Table of Findings	
Left	Right
Anterior 8 Relatively new, zero to seven days old, no healing evident. 9 Approximately two weeks old.	Anterior 6 New, “no evidence of healing”; occurred around a week before Roshani’s removal from defendant’s care. 7 A “little older” than the fracture of rib six, and exhibiting “attempted healing”; approximately two to three weeks of age. 8 Relatively new, same age as the fracture of rib seven. 9 New, zero to seven days old (same as rib six).
Posterior	Posterior 11 Six to seven weeks old.

Dr. Smith categorically rejected the notion that the apparent rib fractures could have resulted from a bone abnormality caused by a nutritional or metabolic disorder. In Smith’s

Ltd v Carmichael, 526 US 137; 119 S Ct 1167; 143 L Ed 2d 238 (1999).” Staff Comment to 2004 Amendment of MRE 702. In *Gilbert v DaimlerChrysler Corp*, 470 Mich 749, 782; 685 NW2d 391 (2004), the Supreme Court elaborated that the trial court’s gatekeeper role

applies to *all stages* of expert analysis. MRE 702 mandates a searching inquiry, not just of the data underlying expert testimony, but also of the manner in which the expert interprets and extrapolates from those data. Thus, it is insufficient for the proponent of expert opinion merely to show that the opinion rests on data viewed as legitimate in the context of a particular area of expertise (such as medicine). The proponent must also show that any opinion based on those data expresses conclusions reached through reliable principles and methodology. [Emphasis in original.]

No evidence supports that Dr. Smith reached his fracture dating conclusions based on reliable principles and methodology.

estimation, if Roshani had a disease like rickets,⁵ the fractures “would heal at the same rate once you started to treat it. You wouldn’t see three different ages of fractures.” Smith also rebuffed the notion that the x-rays depicted bone anomalies: “There are anomalies, bones do grow in funny ways, but these aren’t anomalies, *these are fractures*. And there are no anomalies that occur in ribs in this area in this pattern. *Plus, anomalies don’t heal. And we’ve got three different phases of healing here, so these aren’t anomalies.*” (Emphasis added). Smith’s interpretation of the x-rays as depicting fractures of varying ages figured prominently in the prosecution’s case. Smith and the other prosecution experts repeatedly stressed that the differing ages of the fractures confirmed that defendant had physically abused Roshani.

In July 2008, a jury convicted defendant of second-degree child abuse. Subsequently, the same trial judge who presided over defendant’s trial declined to terminate defendant’s parental rights.⁶ In May 2009, before returning Roshani to defendant’s care, the trial court ordered that she undergo a second skeletal survey.⁷ The results of the second skeletal survey, performed at William Beaumont Hospital 19 months after the babygram and 18 months after the first skeletal survey, call into serious question the prosecution experts’ opinions that the rib abnormalities represented healing fractures.⁸

Regarding Roshani’s ribs, the second skeletal survey summarized, “There are irregularities of the anterior portions of the right 7th and 8th ribs as well as irregularity of the anterolateral 8th and possibly 10th ribs. The anterior portion of the left 8th rib is expanded with sclerotic edges and a somewhat lucent region centrally.” The 2007 skeletal survey did not mention any abnormality of Roshani’s 10th rib. Either the 2009 skeletal survey identification of a 10th rib irregularity represents a new finding, reflective of a development that occurred while Roshani resided in foster care, or Dr. Donald Gibson, the radiologist who authored the report on the May 2009 skeletal survey, miscounted the ribs. Gibson also offered in the report, “We would be happy to compare these to prior studies if they can be made available to us. An addendum with comparison could be dictated at that time.”

⁵ Rickets is “a condition caused by deficiency of vitamin D, especially in infancy and childhood, with disturbance of normal ossification.” Dorland’s Illustrated Medical Dictionary, 1360 (25th ed, 1974).

⁶ The record of the termination proceeding has not been provided to this Court.

⁷ Defense counsel may have requested a second skeletal survey during or before defendant’s trial. The trial court presumably denied this request.

⁸ The second survey also demonstrates the continuing presence of Roshani’s pelvic and femur abnormalities. Regarding the latter, the report stated, “There is a small amount of periosteal new bone along the lateral shaft of the mid *left* femur which is not seen on the contralateral side.” (Emphasis added). The November 2007 skeletal survey had reported “mild cortical thickening with slight deformity seen involving the mid aspect of the *right* femur.” (Emphasis added). Either Roshani had developed a new abnormality on her left femur, or one of the reports incorrectly noted the side of the femoral irregularity.

In June 2009, Dr. Robert Rothfeder, an expert witness who testified at trial for the defense, authored a report concerning the 2009 skeletal survey. Rothfeder opined that the survey performed at Beaumont “confirm[s] that Roshani most likely suffered from metabolic bone disease when she came to this country.” Rothfeder pointed out that he could not detect Roshani’s 2007 elbow fracture in the 2009 skeletal survey, verifying that this known fracture had healed. By contrast, Rothfeder explained that, with respect to Roshani’s ribs, the 2009 study supported that

the appearance of ribs 7 and 8 is and was an anomaly, not traumatic injury. If the findings observed in 2007 had been the result of trauma, there would have been radiologic healing in the usual fashion and the ribs would not have shown as they did in the Beaumont x-rays. The correct term is “remodeling” of the ribs. It might have been possible for those ribs to remodel over time after Vitamin D was normalized, but that didn’t happen. The conclusion that can be drawn about ribs 7 and 8 is that there is an anomaly in those ribs caused by metabolic bone disease that is continuing.

* * *

The confirmation in the Beaumont studies of the continuing anomalies of the pubis and the femur, which still exist in the form that they were observed in earlier, are further evidence of anomalies in the skeletal structure of Roshani that can be explained by metabolic bone disease.

In response to defendant’s supplemental motion for a new trial premised on the 2009 skeletal survey and Dr. Rothfeder’s report, the prosecution submitted a letter written by Dr. Gibson. The one-paragraph letter advised in relevant part, “The changes in the ribs described in my report could be accounted for on the basis of past trauma. *I did not, in my opinion, see any evidence on the films to suggest metabolic bone disease.*” (Emphasis in original). However, no record evidence supports that Gibson ever actually compared the 2009 skeletal survey to the 2007 skeletal survey films, as he had volunteered to do. Nor did Gibson’s letter address whether the findings in rib 10 were new.

II. DEFENDANT’S MOTION FOR A NEW TRIAL

In support of defendant’s motion for a new trial, she submitted to the trial court the 2009 skeletal survey, the x-ray films comprising the May 2009 skeletal survey, and Dr. Rothfeder’s report. The trial court reasoned, in pertinent part as follows, that it would deny the motion for a new trial:

The court can not find that the newly discovered evidence, specifically Exhibit J [the skeletal survey report], K [the x-rays], and L [Rothfeder’s report], is in fact newly discovered, that the evidence is not cumulative, that the evidence would likely produce a different result at trial, or that Defendant could not, using reasonable diligence, have discovered and produced said evidence at trial. . . .

Exhibits J, K and L do not support the Defendant’s argument that the evidence is non-cumulative and material. During the trial, Dr. Rothfeder testified

that although he saw no acutely broken ribs, there were findings that may have represented healing fractures, therefore when bones are healing they can be sclerotic. Dr. David Kellam, testified that additional x-rays, from the time of removal from the parents [sic] home to the present day, would only be helpful in evaluating the child if she is found to be active then developed further fractures, thereby supporting the theory that the fractures are secondary to mild trauma, like falling or running into things. The newly submitted report by Dr. Gibson indicates that the bilateral rib fractures may be due to old fractures and he found no evidence on the films to suggest a metabolic bone disease. Based on Dr. Kellam's testimony and Dr. Gibson's new report, the court does not find that Exhibits J, K and L are non-cumulative material newly discovered evidence that would make a different result probable at retrial. The expert witness testimony evidence presented by the prosecution at trial negated Defendant's theory that the injuries were accidental and ruled out all other causes for the injuries other than child abuse. Defendant's claims do not support appellate reversal of the conviction or that the verdict has resulted in a miscarriage of justice.

III. ANALYSIS

We review for an abuse of discretion a trial court's denial of a motion for a new trial. *People v Crear*, 242 Mich App 158, 167; 618 NW2d 91 (2000), overruled in part on other grounds in *People v Miller*, 482 Mich 540, 561 n 26; 759 NW2d 850 (2008). An abuse of discretion occurs when the decision results in an outcome falling outside the range of reasonable and principled outcomes. *People v Carnicom*, 272 Mich App 614, 616-617; 727 NW2d 399 (2006). De novo review applies to questions of law associated with a new trial ruling. *Kelly v Builders Square, Inc*, 465 Mich 29, 34; 632 NW2d 912 (2001). We review for clear error a trial court's factual findings. *People v Cress*, 468 Mich 678, 691; 664 NW2d 174 (2003). "Clear error exists if the reviewing court is left with a definite and firm conviction that a mistake has been made." *People v Johnson*, 466 Mich 491, 497-498; 647 NW2d 480 (2002).

In *Cress*, 468 Mich at 692, the Supreme Court reaffirmed that a motion for new trial premised on newly discovered evidence requires a showing that: (1) the evidence itself, not merely its materiality, was newly discovered; (2) the newly discovered evidence was not cumulative; (3) the party could not, using reasonable diligence, have discovered and produced the evidence at trial; and (4) the new evidence makes a different result probable on retrial. Defendant contends that the bone conditions reflected in Roshani's 2009 skeletal survey meet these criteria.

A. THE NEWLY DISCOVERED CONDITION OF ROSHANI'S RIBS

In the written opinion denying defendant's new trial motion, the trial court concluded that it "can not find that the newly discovered evidence, specifically Exhibit J [the skeletal survey report], K [the x-rays], and L [Rothfeder's report], is in fact newly discovered." The trial court offered no further explanation for this factual finding. The prosecutor's brief on appeal does not contest that the 2009 evidence qualifies as "newly discovered."

In *People v LoPresto*, 9 Mich App 318, 321-324; 156 NW2d 586 (1967), the defendant submitted “five separate items of evidence,” claiming that they were newly discovered and warranted a new trial. This Court explained that the requirement of “newness in discovery” was satisfied because “[a]t the time of the trial, defendant and his lawyer were not aware of any of the five items of [new] evidence.” *Id.* at 324-325. Subsequently, in *People v Burton*, 74 Mich App 215, 222-223; 253 NW2d 710 (1977), this Court reiterated, “[E]vidence is newly discovered if it can be shown to have been unknown to the defendant or his counsel at the time of trial.” In this case, at the time of the July 2008 trial defendant and her counsel undeniably lacked any awareness of the current x-ray appearance of Roshani’s ribs. The prosecution’s experts grounded their testimony about the condition of Roshani’s bones on x-rays obtained approximately nine months earlier. Furthermore, the parties agree that by the time of defendant’s trial Roshani had been placed in the custody of the Department of Human Services, thus precluding defendant and her counsel from having the ability to obtain current radiologic evidence. Because defendant and her counsel could not have known the condition of Roshani’s ribs at the time of the trial, we conclude that the 2009 evidence amounts to newly discovered evidence. The trial court clearly erred to the extent that it found otherwise.

The dissent asserts that “evidence created after trial does not constitute ‘newly discovered evidence’ for purposes of a motion for new trial, because the evidence did not exist at the time of trial.” *Post* at 3. In support of this contention, the dissent cites several federal and out-of-state cases. We find the dissent’s argument unpersuasive and the cited case law readily distinguishable.⁹ Roshani’s ribs indisputably “existed” at the time of the trial, just as a genetic deoxyribonucleic acid (DNA) identification code exists within untested blood, saliva and semen evidence samples. Although unperformed forensic testing may have not unlocked the code contained within a DNA strand, or depicted the shadows cast by the passage of an x-ray beam, this evidence unquestionably exists; only its image, contours, and significance remain unknown. The unappreciated condition of Roshani’s ribs simply bears no similarity to evidence concerning “(e)vents and transactions occurring after the trial,” at issue in *United States v Hall*, 324 F3d 720, 723 (CA DC, 2003) (the postconviction discovery of an ineffective assistance of counsel claim), *United States v Bolden*, 355 F2d 453, 461 (CA 7, 1965) (the government witness’s posttrial conviction of counterfeiting), *State v Faulkner*, 1 Haw App 651, 656-657; 624 P2d 940 (1981) (the postconviction arrest and beating of the defendant by an officer who had testified at the defendant’s trial), and *State v Sanchez*, 200 Ariz 163, 166-167; 24 P3d 610 (2001) (a Tucson crime laboratory’s change in blood alcohol testing procedures).¹⁰

⁹ Moreover, no Michigan case law supports that newly discovered evidence must have been in existence at the time of the trial.

¹⁰ The dissent asserts that the 2009 x-rays do not qualify as newly discovered evidence because they “do not reflect facts in existence at the time of trial. Instead, they reflect the condition of the victim’s ribs some ten months *after* the trial. Nothing within the 2009 exhibits reveals the condition of the ribs at the time of

The prosecution experts relied on two 2007 x-ray studies of Roshani's ribs, performed within a month of each other, to conclude that the differing stages of bone healing reflected in the x-rays supported that trauma had caused the fractures. Dr. Smith emphasized on multiple occasions, "[A]nomalies don't heal." Given the 2009 x-ray results, x-rays taken at the time of defendant's trial likely would have demonstrated no additional bone healing. This finding would have substantially weakened the prosecution experts' positions that "fractures heal," that Roshani's ribs exhibited fractures "of different ages," and that the condition of Roshani's ribs could not be explained as anomalous. Because evidence concerning the contemporaneous condition of Roshani's ribs was available yet unknown to the defense at trial, it meets the first prong of the newly discovered evidence inquiry. *Cress*, 468 Mich at 692.

B. THE NONCUMULATIVE NATURE OF THE 2009 SKELETAL SURVEY

The second element of the *Cress* analysis mandates a showing that the newly discovered evidence was not cumulative. *Cress*, 468 Mich at 692. Black's Law Dictionary (9th ed), p 636, defines "cumulative evidence" as "[a]dditional evidence that supports a fact established by the existing evidence (esp. that which does not need further support)." The trial court found that the 2009 reports prepared by Drs. Rothfeder and Gibson were cumulative of the trial evidence, noting in particular Rothfeder's testimony that Roshani suffered from a bone abnormality, and that his 2009 report merely reiterated this conclusion.

Dr. Rothfeder's 2009 report contains the same opinions as those he expressed at defendant's trial. But the newly discovered evidence consists of the condition of Roshani's ribs as revealed in the 2009 skeletal survey, not Rothfeder's report. Although Dr. Gibson's x-ray report contains many of the same findings as the prior radiology reports, the evidence of the 2009 condition of Roshani's ribs is not cumulative for the simple reason that the appearance of her ribs did *not* change over the course of two years.

Drs. DeGraw and Smith interpreted the 2007 x-rays as substantiating *fractures* in different stages of *healing*. The prosecution's case against defendant rested on opinion testimony that the rib abnormalities constituted fractures, instead of bone anomalies or abnormalities. The prosecution experts grounded their opinions on a single strand of circumstantial evidence to conclude that the x-rays depicted fractures: according to the experts, Roshani's rib bones appeared to be in different stages of healing. Smith insisted that "anomalies don't heal. And we've got three different phases of healing here, so these aren't anomalies." Dr. Cohen opined that the "broken bones" of Roshani's ribcage were of "different ages," suggesting that "the injuries likely happened at different times" and were seen on the films "at different stages of healing." DeGraw testified that he had relied on both the number of rib fractures and

trial." *Post* at 5. This argument misses the scientific point. Had rib x-rays been performed at the time of the trial, they would have demonstrated that the areas identified as fractures had not healed. The presence of nonhealing and potentially unchanged ribs nine months after the original films would have eliminated the foundation for the prosecution experts' testimony that "fractures heal."

their differing ages in rendering his opinion that the x-ray findings represented nonaccidental trauma.

The 2009 skeletal survey reveals that “irregularities” in the seventh and eighth ribs remained two years after they appeared to Dr. Smith as in the early stages of healing. Taking into account the fact that the fracture of Roshani’s elbow had completely healed, the 2009 study strongly suggests that the rib irregularities were incapable of healing because they were not fractures. And the 2009 films additionally demonstrate either that a new “fracture” developed at rib 10, or that the 11th rib fracture also remained unattended. Furthermore, Roshani’s femur continued to exhibit irregularities. If the left femur’s “periosteal reaction” seen in the 2007 babygram stemmed from a fractured bone, no explanation exists for the 2009 presence of “a small amount of periosteal *new* bone along the lateral shaft of the mid left femur.” (Emphasis added).

The dissent argues that the 2009 skeletal survey results “only reinforce[]” Dr. Rothfeder’s trial testimony. *Post* at 5. The new x-rays do lend support to the analysis Rothfeder offered at defendant’s trial, but they also constitute exculpatory evidence never considered by the jury, and therefore the 2009 x-rays do not qualify as cumulative. The prosecution’s expert witnesses opined that the rib findings reflected fractures because the films captured radiographic indicia of healing. That the abnormal ribs failed to mend, as suggested in the more recent x-rays, does not merely “support[] a fact established by the existing evidence,” Black’s Law Dictionary, it dramatically refutes that the 2007 x-rays documented fractures. By substantially undermining the foundation for the conclusions reached by the prosecution experts, the new evidence differs dramatically from the substance and the quality of the evidence available to the defense at trial. Although the defense experts did assert that the rib appearances represented anomalies or abnormalities rather than fractures, the available radiographs afforded them no opportunity to support their opinions with direct evidence. Because the 2009 skeletal survey reveals that the alleged rib and femur “fractures” never healed, as the prosecution experts contended they would, it cannot be considered cumulative.

Moreover, the new evidence not only assists the defense, it shatters the scientific cornerstone of the prosecution’s evidence that the rib abnormalities were consistent only with fractures, and not an underlying bone abnormality. Generally, MRE 702 governs the admissibility of expert testimony:

If the court determines that scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise if (1) the testimony is based on sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

“MRE 702 requires the trial court to ensure that each aspect of an expert witness’s proffered testimony—including the data underlying the expert’s theories and the methodology by which the expert draws conclusions from that data—is reliable.” *Gilbert v DaimlerChrysler Corp*, 470 Mich 749, 779; 685 NW2d 391 (2004). “[A]n expert’s opinion is objectionable where it is based

on assumptions that are not in accord with the established facts.” *Badalamenti v William Beaumont Hosp, Troy*, 237 Mich App 278, 286; 602 NW2d 854 (1999). Expert testimony is admissible “[a]s long as the basic methodology and principles employed by an expert to reach a conclusion are sound and create a trustworthy foundation for the conclusion reached.” *Nelson v American Sterilizer Co (On Remand)*, 223 Mich App 485, 492; 566 NW2d 671 (1997). In *Gilbert*, the Supreme Court emphasized that “[c]areful vetting of all aspects of expert testimony is especially important when an expert provides testimony about causation.” 470 Mich at 782.

Here, the prosecution’s expert witnesses invoked two scientific principles in support of their opinions that defendant caused Roshani’s broken ribs: (1) fractures heal, and (2) the x-rays documented rib bone in several different stages of healing. The prosecution experts believed that the differing healing stages reflected in the films signified that Roshani’s ribs had sustained trauma on multiple occasions, strongly suggesting deliberate abuse instead of bone abnormalities. Assuming that the experts correctly articulated the scientific principles on which they relied, the new x-rays undercut the foundation for the experts’ conclusions. The 2009 films demonstrate the presence of continuing, apparently unchanged deformities in Roshani’s pelvis, femur, and ribs seven and eight, as well as a possibly new, and certainly unexplained, abnormality in rib 10. The new films also prove that a known fracture of Roshani’s elbow completely healed. Because the new evidence entirely disrupts the scientific framework for the experts’ ultimate conclusions, we cannot characterize the new evidence as supportive of facts established at defendant’s trial. Consequently, we conclude that the trial court clearly erred by finding that the 2009 skeletal survey cumulated the evidence previously presented.

C. REASONABLE DILIGENCE

Neither the trial court nor the prosecution have advanced the view that defendant could have obtained x-ray access to Roshani’s skeleton at the time of the trial. Notably, prosecution witness Dr. DeGraw testified that “[t]wo x-rays of the same body part makes your lifetime risk of cancer go up six to eight times.” Given defendant’s lack of access to Roshani and the prosecution’s unwillingness to submit the child to another set of films, we conclude that, employing reasonable diligence, defendant could not have discovered and produced the recent skeletal survey at trial.

D. LIKELIHOOD OF A DIFFERENT RESULT ON RETRIAL

In light of the trial testimony by Dr. David Kellam and Dr. Gibson’s letter asserting that he noticed no evidence on the 2009 films suggestive of metabolic bone disease, the trial court found that the 2009 skeletal survey would not make a different result probable on retrial. In its brief on appeal, the prosecution contends, “The mere fact that the May 2009 skeletal survey still shows irregularities in Rashani’s [sic] ribs including sclerotic edges does not negate the previous findings and conclusion of the prosecution’s experts that the irregularities were rib fractures and not anomalies in Roshani’s skeletal structure.” We find that the trial court mistakenly concluded

that Gibson's report and Kellam's trial testimony negated the likelihood that the 2009 skeletal survey would have resulted in a different result on retrial.

Dr. Kellam, a radiologist and defense expert, testified at trial that additional x-rays would "have helped as far as evaluating" Roshani "[o]nly to see if any additional fractures occurred."¹¹ The 2009 films *do* reflect a possible new fracture, at rib 10. But regardless of that finding, Kellam opined that Roshani's rib bones displayed an abnormality called "hyperostosis." He attributed this finding to Roshani's prior lengthy periods of inactivity in the Indian orphanage. Kellam expressed no uncertainty or hesitation in rendering his opinion that the x-rays showed abnormally formed bone, rather than fractures. Consequently, it makes perfect sense that he would reject the need for further studies to verify what he already believed. However, his speculation concerning the potential helpfulness of follow-up radiographs hardly qualifies as dispositive of whether the 2009 x-rays render a different result likely on retrial.

Nor does Dr. Gibson's letter supply helpful information with which to assess the likelihood of an acquittal with retrial. The trial court summarized that Gibson's report "indicate[d] that the bilateral rib fractures may be due to old fractures and he found no evidence on the films to suggest a metabolic bone disease." Gibson's letter raises far more questions than it answers. For example, did the prosecutor show Gibson the 2007 films, which he had volunteered to compare to the 2009 study? Did the prosecutor show Dr. Smith the 2009 films? How would Smith explain the apparent nonhealing of the areas he earlier identified as fractures in the course of healing? How would he and Dr. DeGraw explain the continuing presence of abnormalities in Roshani's pelvis and femur, in light of the fact that her elbow fracture has apparently healed without a trace? How do the experts explain the presence of a new abnormality in rib 10? Does the newly discovered evidence disrupt the scientific foundation for prosecution experts' prior testimony, rendering it inadmissible under MRE 702?

Defendant has set forth substantial evidence supporting her position that a jury made aware of (1) Roshani's nonhealing ribs and femur, and (2) the child's possible suffering of a new fracture of rib 10 while outside defendant's custody, would have reached a different verdict. Because important factual questions remain unanswered concerning the significance of the 2009 skeletal survey, we remand this case to the trial court for an evidentiary hearing to address whether the new evidence likely would have affected the outcome of defendant's trial. After the

¹¹ Kellam also contradicted Dr. Smith regarding an important issue in this case. Smith testified that he detected no rib fractures when he reviewed a 2006 chest x-ray performed to screen Roshani for tuberculosis when she entered the United States. Kellam testified that a routine chest x-ray is not a "dependable tool" for diagnosing rib fractures. On remand, this dispute requires the trial court to engage in its gatekeeper function and determine whether the relevant medical community regards routine chest x-rays as accurate indicators of pediatric rib fractures, and whether Roshani's chest x-ray meets relevant scientific criteria as a reliable indicator of rib fractures.

evidentiary hearing, we will review the trial court's findings and conclusions regarding the probability of a different result on retrial.

Reversed and remanded for further proceedings consistent with this opinion. We retain jurisdiction and direct the trial court to (1) commence an evidentiary hearing within 91 days after the issuance of this opinion; (2) enter an opinion and order within 112 days after the issuance of the order for remand, and (3) forward its findings to this Court with 28 days following entry of the trial court's order.

/s/ Pat M. Donofrio

/s/ Elizabeth L. Gleicher

Court of Appeals, State of Michigan

ORDER

People of the State of MI v Malini Rao

Docket No. 289343

LC No. 2008-219989-FH

Christopher M. Murray
Presiding Judge

Pat M. Donofrio

Elizabeth L. Gleicher
Judges

Pursuant to the opinion issued concurrently with this order, this case is REMANDED for further proceedings consistent with the opinion of this Court. We retain jurisdiction and direct the trial court to (1) commence an evidentiary hearing within 91 days after the issuance of this opinion; (2) enter an opinion and order within 112 days after the issuance of this order, and (3) forward its findings and transcripts of all hearings to this court within 28 days following entry of the trial court's order.



A true copy entered and certified by Sandra Schultz Mengel, Chief Clerk, on

DEC 07 2010

Date

Sandra Schultz Mengel
Chief Clerk