IN THE COURT OF COMMON PLEAS, CUYAHOGA COUNTY, OHIO
CRIMINAL DIVISION

STATE OF OHIO,	:	
Plaintiff,	:	Case No. CR-00-387760-ZA
vs.	:	
ANGELA GARCIA,	:	JUDGE MICHAEL ASTRAB
Defendant.	:	

DEFENDANT ANGELA GARCIA'S MOTION FOR A NEW TRIAL BASED ON NEWLY DISCOVERED EVIDENCE

Angela Garcia moves this Court pursuant to Criminal Rule 33(A)(1) and (A)(6) for relief in the form of a new trial based upon insufficient evidence (conviction based on unreliable "science") and newly discovered evidence (new scientific evidence). Since Ms. Garcia's conviction in 2001, fire science has evolved and it is now known that the methodology used and conclusions reached by the State's witnesses were not supported by objective scientific principles. This new fire science proves that the fire in Ms. Garcia's home was accidental and that she is in fact innocent.

Ms. Garcia's constitutional rights were violated when she was convicted by insufficient evidence that has now been demonstrated as unreliable. *See, e.g.*, *Han Tak Lee v. Glunt*, 667 F.3d 397 (3rd Cir. 2012).

A supporting memorandum follows.

Respectfully submitted,

OFFICE OF THE OHIO PUBLIC DEFENDER

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MEMORANDUM IN SUPPORT

Introduction and Issue Presented.

On the evening of November 20, 1999, a fire broke out in Angela Garcia's family home. Ms. Garcia attempted to locate and save her two young daughters, Nijah and Nyeemah, from the fire. After several unsuccessful attempts, Ms. Garcia escaped from the home and sought outside assistance. Unfortunately, despite rescue efforts, neither of her daughters survived the fire.

After careful review of the scene and an accelerant-detecting canine's failure to detect any accelerant, members of the Cleveland Fire Department Fire Investigation Unit (FIU) determined that the fire was accidental. Ex. A at 3; Trial 3 Tr., Vol. 6 at 1549. For safety purposes, the house was razed on November 22, 1999, foreclosing the possibility of further analysis of the fire scene. Trial 3 Tr., Vol. 6 at 1386-88. In the weeks following the fire, the FIU learned that Ms. Garcia had overvalued the contents of her home on her renter's insurance paperwork following the fire. *Id*. at 1740-46. Subsequently, the cause of the fire was changed from "accidental" to "incendiary" and Ms. Garcia was arrested. *Id.* at 1736.

Ms. Garcia was tried three times. The first two trials resulted in mistrials due to the juries' inability to reach a verdict.[1] In the third trial, Ms. Garcia was convicted of two counts of

1 In the first trial, the jury returned a verdict of guilty on only one charge, a count of insurance fraud. That charge is not a part of this Motion.

Aggravated Murder, two counts of Murder, and three counts of Aggravated Arson. Ms. Garcia was sentenced to life in prison, with parole eligibility after forty-nine and a half years.

Since Ms. Garcia's conviction, arson science and fire investigation has evolved such that it is now known that the reasoning and conclusions of the State's arson experts were wrong. A review of Ms. Garcia's case using the dictates of modern fire science shows that the conclusions of the original fire investigators as to the cause and origin of the fire were based upon flawed and outdated assumptions that were not tested by the scientific process, and that numerous potential accidental causes, including the home's electrical system, were not properly considered or eliminated before the fire was deemed to be incendiary. *See* Exs. B and C.

The question presented in this Motion for New Trial is as follows:

> Does a Defendant deserve a new trial when post-trial investigation reveals that modern scientific developments prove that the expert evidence at trial was based on unreliable methods and outdated heuristics and was substantively wrong?

As will be laid out below, the answer must be yes.

II. Legal Standard.

Ohio Rule of Criminal Procedure 33(A)(6) provides that a defendant is entitled to a new trial "[w]hen new evidence material to the defense is discovered, which the defendant could not with reasonable diligence have discovered and produced at the trial." Criminal Rule 33(A)(1) provides that a new trial may be granted due to "[i]rregularity in the proceedings, or in any order or ruling of the court, or abuse of discretion by the court, because of which the defendant was prevented from having a fair trial." Criminal Rule 33(B) states that a motion for new trial on the basis of newly discovered evidence must be made within 120 days from the date on which the verdict was rendered, unless a defendant can demonstrate, by clear and convincing evidence, that he was unavoidably prevented from discovering the evidence within that time frame.

III. Factual and Legal Background.

A. The Fire and Investigation

On the evening of November 20, 1999, a single family home at 9618 Harvard Avenue, Cleveland, Ohio, was the scene of a devastating fire. Trial 3 Tr., Vol. 3 at 724. The residence was rented and occupied by Defendant Angela Garcia and her two young daughters, Nyeemah and Nijah. The home was owned by Ms. Garcia's stepfather. Trial 3 Tr., Vol. 7 at 1964-65.

Just prior to the fire, Ms. Garcia was speaking on the phone with her mother and sister while playing cards in the dining room on the first floor of her home. Trial 3 Tr., Vol. 6 at 1730-31. She had several candles lit in both her dining and living rooms. Trial 3 Tr., Vol. 5 at 1330. Her daughters were upstairs in the playroom. *Id*. at 1333-34. Shortly after her telephone call ended, Ms. Garcia proceeded upstairs to use the restroom. She was in the restroom for several minutes and during that time, began coughing. She could hear her daughters coughing outside the door as well. *Id.* at 1333-37. Upon exiting the bathroom, Ms. Garcia looked into the bedroom and saw the television go blank. The floor began to fill with smoke and Ms. Garcia noticed smoke traveling up the stairs. *Id*. at 1338-39. She hastily gathered her children into her bedroom, realizing that the only way to escape was to exit out a window. While breaking through the bedroom window, she lost her children in the smoke. *Id*. at 1339-40. After unsuccessful efforts to find Nyeemah and Nijah, Ms. Garcia exited through the window, slid down the roof over her front porch, and rushed to her neighbor's home to get help. *Id.* at 1344.

The neighbor whose home Ms. Garcia went to was Ms. Shirley Brandon. Trial 3 Tr., Vol. 3, at 563. Ms. Garcia banged loudly on Ms. Brandon's door. *Id*. at 562-63. Upon answering, Ms. Brandon found Ms. Garcia yelling for help and with tears in her eyes. *Id.* at 566. Ms. Garcia had soot on her clothing and, as a result of her knocking, left soot and blood on the door. *Id.* at 579-

80. Ms. Garcia frantically told Ms. Brandon that her home was on fire. *Id.* at 566. Ms. Brandon called 911. Both women then ran back to Ms. Garcia's home. Trial 3 Tr., Vol. 3 at 567. Ms. Garcia yelled several times that her "babies" were in the house and that she needed help to save them. *Id.* at 570. While waiting for emergency responders to arrive, she appeared to be in a trance and sat on the ground near her house, rocking back and forth and crying. *Id.* at 605.

The Cleveland Fire Department arrived within minutes of receiving calls regarding the fire. *Id.* at 723-24. Responders attempted to extinguish the fire and rescue the children. *Id.* at 727-28. When firemen entered the house, the back was heavily involved in fire and visibility was zero, such that a person would be unable to see his hand in front of his face. Trial 3 Tr., Vol. 3 at 730, 732. Firemen went to the second floor and felt around for the children, knowing that in fires, children often hide. *Id.* at 733. Eventually, the children were found and taken to awaiting EMS paramedics. *Id*. at 733, 737-38. Unfortunately, both Nijah and Nyeemah died of carbon monoxide poisoning as a result of the fire. Trial 3 Tr., Vol. 5 at 1246, 1258.

The Cleveland Fire Investigation Unit ("FIU") investigated the fire, initially arriving on the scene the night of the fire, where they surveyed the home and spoke to neighbors. Trial 3 Tr., Vol. 6 at 1411-12; Ex. A. Members of the FIU also spoke to Ms. Garcia and her family at the hospital on the night of the fire. *Id.* On November 21, 1999, just one day after the fire, the FIU determined that the origin of the fire was in the northeast corner of the first floor dining room where a large candle on a tripod stand had been burning unattended. Ex. A at 3. The FIU initially determined that the fire burned rapidly due to the large fuel load (furniture) in the home and the wall paneling. *Id*. at 1. Due to what the FIU determined to be the rapid burning of the fire and "unusual burn patterns," Bob Gartner and his accelerant-sniffing dog were asked to aid the investigation. *Id.* at 2. The dog detected no accelerants in the dining room, which was the only

area that the FIU thought it necessary for the dog to search. Trial 3 Tr., Vol. 6 at 1454-56. While passing through the living room on its way to the dining room, the dog detected no accelerants. *Id.* at 1549. No evidence was collected from the fire scene for testing or analysis. *Id.* at 1494-95. After what the reporting Lieutenant with the FIU described as a careful review of the fire scene, the fire was deemed accidental. Ex. A at 3. Per the order of Battalion Chief Corrigan, the house was demolished on November 22, 1999, precluding further investigation, evidence collection, or testing of the fire scene. Trial 3 Tr., Vol. 6 at 1386-88, 1759.

On December 15, 1999, the cause of the fire was changed to incendiary. *Id.* at 1736. Ms. Garcia was subsequently arrested.

B. The Three Trials

Ms. Garcia was tried three times. In the first two trials, the State presented evidence, detailed below, which it theorized was illustrative of Ms. Garcia's motive and guilt. In both the first and second trials, the jury found this evidence to be insufficient proof of guilt and failed to reach verdicts on any of the arson or murder charges. As will be further explained, a comparison of the distinct evidence presented at the three trials is instructive for the determination of this motion.

i. The First Trial

In Ms. Garcia's first trial, the State called Captain Richard Patton[2] from the FIU to testify regarding the investigation. Captain Patton testified that the fire was determined to be incendiary

2 There were three men named "Richard Patton" who were involved with the fire and subsequent trials. The first was involved with extinguishing the fire. Aside from this footnote, he is not referenced again in this motion. Captain Richard Patton investigated the fire and testified in the first and second trials. Hereinafter, he is referred to as "Captain Patton." The third Richard Patton did not investigate the fire or visit the scene. He formerly worked for the Cleveland Fire Department and served as a consultant and testified in the third trial. Hereinafter, he is referred to as "Richard Patton."

and that the northeast corner of the first floor dining room was where it originated. Trial 1 Tr., Vol. 7 at 2032; Trial 1 Tr., Vol. 8 at 2161-62.

To support its theory regarding motive, the State presented evidence that Ms. Garcia committed insurance fraud by overvaluing the contents of her home in order to collect more money under her renter's insurance policy. Trial 1 Tr., Vol. 5 at 1459. An insurance agent also testified that in the month before the fire, he approached Ms. Garcia at her work and she, after initially expressing reluctance, eventually obtained a family life insurance plan, which included a $5,000 rider for each child. Trial 1 Tr., Vol. 7 at 1734-36, 1741. Finally, a recruiter for the United States Navy testified that several months before the fire, Ms. Garcia met with him to discuss enlisting in the Navy, college, and career opportunities. *Id.* at 1722-24. She was told that she could not do so with dependent children, per the Navy's policy, and was directed to family court. *Id.* at 1725. The recruiter met with Ms. Garcia, along with her sister, one more time to further discuss opportunities and custody options, however, Ms. Garcia ultimately decided not to enlist. *Id*. at 1728-31.

The jury in the first trial reached a verdict on only one charge, finding Ms. Garcia guilty of one count of insurance fraud. Despite their belief that she committed fraud, the jury found the evidence was lacking with respect to the allegations of arson and murder and could not reach verdicts on any additional charges.

ii. The Second Trial

Ms. Garcia's second trial progressed largely in the same manner as her first. The most significant difference from the first trial to the second was the introduction of the testimony of State's witness Tonya Lanum, who did not testify in the first trial. Ms. Lanum testified that she was in the Cuyahoga County Jail from October 26, 2000, through December 14, 2000, for motor

vehicle theft and passing bad checks and that during that time, she met Ms. Garcia. Trial 2 Tr., Vol. 5 at 1475. She was in the same protective custody pod as Ms. Garcia because of her husband Timothy Lanum, who was facing the same charges as Ms. Lanum. Within one day of Mr. Lanum entering the Cuyahoga County Jail, a man had allegedly confessed a murder to him, and Mr. Lanum was testifying for the State in that case, potentially putting Ms. Lanum in danger. *Id.* at 1478-79, 1535-36. Mr. Lanum had served as a government informant three time before. Ex. D. Ms. Lanum claimed that on Thanksgiving Day, Ms. Garcia told her that "once the fire had started and when she went to do a second fire, she ran out of the house." *Id.* at 1487. Ms. Lanum further testified that Ms. Garcia told her that "she missed her kids," that it "wasn't supposed to go that way," and later that "it was supposed to be an insurance thing." *Id.* at 1487-90. Ms. Lanum did not tell anyone about the alleged admissions for over a month until she finally told her husband, who was also incarcerated. He then contacted the police. *Id*. at 1493-94.

As with the jury in the first trial, the jury in the second trial found this evidence to be insufficient proof of arson and murder and could not reach a verdict on any of the charges.

iii. The Third Trial and Appeals

There were several differences between Ms. Garcia's first two trials and her third. Though Ms. Garcia had already been convicted of insurance fraud in her first trial, the State called a number of witnesses who had not testified before in order to demonstrate that Ms. Garcia had, on her insurance paperwork, listed items as lost in the fire that she had not owned. Trial 3 Tr., Vol. 6 at 1699-1716; Trial 3 Tr., Vol. 9 at 2418-23. Similarly, the State called witnesses to testify to prior car insurance claims made by Ms. Garcia, her friends, and her family. Trial 3 Tr., Vol. 7 at 1896-1921. In an effort to summarize Ms. Garcia's potential financial motive, the State called Ronald Saunders, a forensic auditor with the Bureau of Alcohol,

Tobacco, Firearms and Explosives (ATF). Trial 3 Tr., Vol. 8, at 2296-97. He testified that he believed Ms. Garcia had a financial motive to start the fire. *Id.* at 2342. Gregg McCrary, a former Federal Bureau of Investigation Agent, also testified that he thought the fire was consistent with an arson for profit. Trial 3 Tr., Vol. 10 at 2772.[3]

In the third trial, the State called fireman Frank Atkins, who had not testified in the first two trials. Trial 3 Tr., Vol. 3 at 816. Atkins helped to extinguish the fire at Ms. Garcia's home and testified that after putting out the last of the fire, he found a lighter amongst a significant amount of debris on the landing going toward the second floor of the house. *Id.* at 817, 820-21. The plastic lighter was mostly intact. *Id.* at 845. After finding it, Atkins allegedly put it back and did not tell anyone about it until days before his testimony. *Id.* at 824-25.

With respect to the cause and origin of the fire, the State did not call upon Captain Patton to testify as he had in the first two trials, but instead called Lieutenant Albert Lugo and consultants Lance Kimmel and Richard Patton to testify. Trial 3 Tr., Vol. 5 at 1310; Trial 3 Tr., Vol. 10 at 2808, 2960. Lt. Lugo's testimony, as well as the testimony of Lance Kimmel and Richard Patton, largely mirrored Captain Patton's from the first two trials with one striking difference: based on "new" photographs, the FIU had now identified a second area of origin of the fire on the staircase. Trial 3 Tr., Vol. 5 at 1368-71. Though Captain Patton, Lt. Lugo, Lt. Cummings and Robert Gartner had spent hours at the home after the fire and had viewed many photographs in preparation for the first two trials, they had apparently been unable to identify the second area of origin until just one month before Ms. Garcia's third trial. Trial 3 Tr., Vol. 6 at 1416-21.

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3 On direct appeal, the Eighth District Court of Appeals found that the testimony of both Saunders and McCrary was improperly admitted as it improperly invaded the jury's province and was cumulative. The Court further found that though the testimony was improperly admitted, it did not rise to prejudicial error. *State v. Garcia*, 8th Dist. Cuyahoga No. 79919, 2002-Ohio-4179, ¶¶ 63-64, 68.

The defense called expert witnesses who contradicted the State's experts regarding some particularities of the fire. Trial 3 Tr., Vol. 11 at 3127; Trial 3 Tr., Vol. 12, at 3343.

Based on the above evidence, Ms. Garcia was convicted. Ms. Garcia, with the benefit of counsel, timely appealed to the Eighth District Court of Appeals. The Court of Appeals found that the testimony of Ronald Saunders and Gregg McCrary was erroneously admitted as it invaded the province of the jury and was cumulative. However, finding that the admission of the improper testimony was not prejudicial, the Court denied the appeal. *State v. Garcia*, 8th Dist. Cuyahoga No. 79919, 2002-Ohio-4179. On January 31, 2003, the Supreme Court of Ohio declined to exercise jurisdiction to hear Ms. Garcia's appeal. *State v. Garcia*, 98 Ohio St.3d 1411, 2003-Ohio-60, 781 N.E.2d 1019. Ms. Garcia filed a petition for Writ of Habeas Corpus in Case Number 1:04-cv-0612 in the United States District Court for the Northern District of Ohio on March 30, 2004. The Northern District dismissed the case on May 31, 2005. *Garcia v. Andrews*, N.D. Ohio No. 1:04CV0612, 2005 U.S. Dist. LEXIS 10267 (May 21, 2005). Ms. Garcia filed a Notice of Appeal in the United States Court of Appeals for the Sixth Circuit on June 27, 2005. The Sixth Circuit affirmed the ruling of the Northern District on May 17, 2006. *Garcia v. Andrews*, 488 F.3d 370 (6th Cir.2006). Ms. Garcia's Petition for Writ of Certiorari was denied by the United States Supreme Court on October 29, 2007. *Garcia v. Andrews*, 552 U.S. 994, 128 S. Ct. 493, 169 L. Ed. 2d 346 (2007).

C. The Wrong Methodology and "Science"

The fire at Ms. Garcia's home was primarily investigated by the Cleveland Fire Investigation Unit, specifically Lieutenant Albert Lugo, Lieutenant Charles Cummings, and Captain Patton. Trial 3 Tr., Vol. 6 at 1420. While making the cause and origin determination, there were areas of the home, including the stairs and the basement, which the FIU only briefly

observed and documented minimally. *Id.* at 1500, 1505-06, 1516-17. Potential causes of the fire, such as the ADT electrical box in the basement, were not observed or considered at all. *Id.* at 1501-02. No evidence was collected from the scene, precluding any electrical sources or appliances from being tested later as potential causes. *Id.* at 1494-95. The only further testing conducted was done at the behest of Ms. Garcia's family in order to determine if the type of candle Ms. Garcia was burning before the fire could have malfunctioned. This test was completed by burning a singular sample candle. Trial 3 Tr., Vol. 12 at 3362-63. No measurements of significant areas of the home were taken. Trial 3 Tr., Vol. 6 at 1496-1500. Despite these lapses, it was testified to at Ms. Garcia's third trial that the FIU had definitively determined that the fire originated in both the northeast corner of the dining room on the first floor and on the stairway leading to the second floor and that the cause of the fire was arson. *Id.* at 1505; Trial 3 Tr., Vol. 5 at 1375-76.

In support of that conclusion, Lt. Lugo testified that the FIU immediately identified the dining room as the origin because it was the area with the lowest and most extensive burn. Trial 3 Tr., Vol. 6 at 1505. He further explained that pour patterns are areas where an ignitable liquid was poured and ignited, allowing the area to burn longer, down to the wood. Trial 3 Tr., Vol. 5 at 1365. Though it was not written in his November 21, 1999 report, Lt. Lugo testified that on that date, he observed pour patterns on the floor in the dining room as well as saddle burns on the floor joists, which he asserted was indicative of the presence of ignitable liquid in that area. *Id.* at 1361-67; Ex. A. Further, Lt. Lugo testified that a candle could not have accidentally caused the damage. Trial 3 Tr., Vol. 5 at 1363.

With respect to the stairs, Lt. Lugo testified that just prior to the third trial, the FIU determined the stairs to be a second area of origin because there was a distinct line of

demarcation there. He found that the pattern of damage and char on the left side of stairs, with relatively little damage on the right side, was indicative of the pouring of some kind of combustible or ignitable material. *Id.* at 1368-70.

As outlined below, the conclusions reached by Lt. Lugo and the Cleveland FIU were wrong.

D. The Modern Methodology and Science

i. Arson investigation has progressed from an "art" to a "science"

Recent advances in fire science and the acceptance and reliance on the scientific method have completely dispelled the myths and misconceptions previously relied on by fire investigators, including the investigators who investigated the fire in Ms. Garcia's home and testified at her trial. While fire investigation now is largely considered to be a scientific pursuit, in the past, fire investigation was considered by many as more of an "art" than science, with investigation techniques and beliefs passed down through apprenticeship rather than scientific or academic study. *See* Marc Price Wolf, *Habeas Relief from Bad Science: Does Federal Habeas Corpus Provide Relief for Prisoners Possibly Convicted on Misunderstood Fire Science?* 10 Minn. J. L. Sci. & Tech. 213, 213-17 (2009). Conclusions were often reached by observation alone rather than application of the scientific method. *Id.*

In 1992, the National Fire Protection Association first published *NFPA 921: Guide for Fire and Explosion Investigations*, which eventually came to be regarded amongst fire investigators and courts as the standard for fire investigation methodology and interpretation. *Id.* at 218. Over the past two decades, multiple editions of NFPA 921 have been published in an effort to keep up with the continuous scientific advancements in fire investigation. *Id.* In 1999, however, NFPA 921 was not followed by a vast majority of fire investigators. *Id.* at 219. In the

1999 United States Supreme Court case *Kumho Tire Co. v. Carmichael*, 527 U.S. 137 (1999), the International Association of Arson Investigators (IAAI) went so far as to file an amicus brief objecting to the scientific classification of fire investigation and the application of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), to the profession. *Carmichael*, 527 U.S. at 140; *see* Rachel Dioso-Villa, *Scientific and Legal Developments in Fire and Arson Investigation Expertise in Texas v. Willingham*, 14 Minn. J. L. Sci. & Tech. 817, 827, fn. 46 (2013). The Court ultimately rejected the IAAI's position, finding that all expert testimony is subject to a reliability challenge under *Daubert*. 526 U.S. 137, 147 (1999).

Despite the Court's ruling in *Kumho Tire v. Carmichael*, NFPA 921 and like sources that focus on the scientific underpinnings of fire investigation were not immediately accepted by the fire investigation profession. Studies conducted by ATF showed that even the most experienced fire investigators still made grave mistakes, especially in post-flashover fires. *See* Steven W. Carman, *Improving the Understanding of Post-Flashover Fire Behavior*, International Symposium on Fire Investigation Science and Technology 221, 222 (2008), available at http://www.nacdl.org/uploadedFiles/files/resource_center/topics/post_conviction/ATF_SA_Carman_Post_Flashover_Fires_ISFI_08.pdf (accessed Nov. 14, 2013). Flashover occurs when, as with the fire in Ms. Garcia's home, the fire spreads rapidly to all exposed combustible materials and progresses to full room involvement. *See* Ex. B at 8, 15 (citing National Fire Protection Association, *NFPA 921: Guide for Fire & Explosion Investigations* 6.3.7.11.1 (2011 Ed.)). In 2005, a training exercise was conducted by the ATF in which two identical cells were burned to the point of flashover and fifty-three fire investigators were asked to determine in which quadrant of each cell the fire started. For each cell, only three of the fifty-three investigators correctly identified the quadrant of origin, a rate of 5.7%. *See* Carman, *supra*, at 221. General

analysis of the fire investigation profession further showed that many investigators continued to treat fire investigation as an "art." In 2009, the National Academy of Sciences, in a landmark report addressing several forensic sciences, acknowledged that a number of fire investigators continued to make determinations regarding the intentional setting of a fire using "rules of thumb" that had been discredited. It was recommended that further experimentation was needed "to put arson investigations on a more solid scientific footing." *Strengthening Forensic Science in the United States: A Path Forward*, The National Academy of Sciences, 173 (2009).

Gradually, however, the treatment of fire investigation as a science has come to pass. Following *Kumho Tire v. Carmichael*, the International Association of Arson Investigators endorsed NFPA 921 and in 2013, the IAAI issued a position statement acknowledging that NFPA 921 is an "authoritative guide for the fire investigation profession." International Association of Arson Investigators, *NFPA 921/1033: IAAI Position Statement*, http://firearson.com/nfpa-921/1033 (accessed Nov. 14, 2013). Further, the U.S. Department of Justice issued a research report recognizing NFPA 921 as a "benchmark" for the training of those who make cause and origin determinations. *Wolf*, *supra* at 218 (citing U.S. Dep't of Justice, Fire and Arson Scene Evidence: A Guide for Public Safety Personnel 6 (2000)). Many courts, too, began to recognize NFPA 921 as the national standard of care for fire investigation. *See Ind. Ins. Co. v. Gen. Elec. Co.*, 326 F. Supp. 2d 844, 849-50 (D. Ohio 2004); *Tunnell v. Ford Motor Co.*, 330 F. Supp. 2d 707, 725 (W.D. Va. 2004); *McCoy v. Whirlpool Corp.*, 214 F.R.D. 646, 653 (D. Kan. 2003); *Royal Ins. Co. of Am. v. Joseph Daniel Constr., Inc.*, 208 F. Supp. 2d 423, 426 (S.D.N.Y. 2002); *Abon, Ltd. v. Transcontinental Ins.*, No. 2004-CA-0029, 2005 LEXIS 2847, at *30 (Ohio App. June 16, 2005).

The fire investigation paradigm truly shifted in recent years as many convictions have been overturned based upon modern fire science. *See* The National Registry of Exonerations, *Browse Cases*, www.law.umich.edu/special/exoneration/Pages/detaillist.aspx (cases of Joseph Awe, Kristine Bunch, David Lee Gavitt, James Hebshie, and Ernest Willis); *see also* Sharon Gribsy, *Edward Graf to get new trial*, dallasmorningviewsblog.dallasnews.com/2013/01/edward-graf-to-get-new-trial.html/ (accessed Nov. 13, 2013) (Ed Graf case, Texas); Chris Lamphere, *Man's sentence vacated after serving 4 years on arson conviction*, www.cadillacnews.com/news_story/?story_id=1810720&issue=20130703&year=2013 (accessed Nov. 13, 2013) (Victor Caminata case, Michigan). Some states have taken steps to address the number of wrongful arson convictions, most notably Texas, which has developed a Science Advisory Workgroup to review previous arson cases and has passed a law that provides a procedure for challenging wrongful arson convictions. *See* Texas Dept. of Insurance, *Texas State Fire Marshal's Office and the Texas Forensic Science Commission*, www.tdi.texas.gov/fire/fmfsc.html (accessed November 12, 2013); Tex. Code Crim. Proc. Ann. art. 11.073 (West 2013).

ii. The methodology used and conclusions reached by the arson investigators in Ms. Garcia's case did not comport with modern science

Dr. John D. DeHaan, a fire expert and author of one of the leading texts on fire investigation, has reviewed the investigation conducted by the FIU of the fire at Ms. Garcia's home and has determined that their original conclusions "were not founded on defensible scientific knowledge and that the fire . . . should be considered to be undetermined as to both its

origin and cause." Ex. B at 1; *see* Ex. E (Dr. DeHaan's curriculum vitae).[4] Dr. DeHaan summarizes his findings as such:

> In making their determination, the original investigators relied on fire patterns that are now known to be produced by ventilation effects of a post-flashover fire in a compartment. During their examination, they failed to consider concepts of fuel loads, ventilation and fire/smoke movement that are much better understood today. Factors such as variables in the speed and nature of smoke movement in a multi-story structure are better understood as a result of published research since 2001. Furthermore, the analytical procedures used by the original investigators are outdated and contradicted by guidelines of good professional practice as outlined in the three leading expert treatises in the field: *NFPA 921 (2011 Edition), Kirk's Fire Investigation (7th Edition) and Forensic Fire Scene Reconstruction (3rd Edition).*

Ex. B at 1.

The FIU determined that the origin of the fire was in the northeast corner of the dining room. That finding was "apparently entirely based on the large hole burned through the wood floor at that location (and the large metal candle stand which Ms. Garcia said bore a large 3-wick wax candle, lighted at the time)." *Id*. at 7. Dr. DeHaan explains that reliance on patterns to determine an area of origin or that a fire was incendiary is improper and no longer acceptable according to current professional standards, as accidental fires often cause the same patterns:

> With regard to fire patterns in the dining room, it is now recognized that "saddle burns" on the floor joists are not solely indicators of ignitable liquid fire but are expected when any wood floor burns from above, particularly in an intense, post-flashover condition (see NFPA 921 2011 ed., 6.3.7.12, p. 63). It seems that all of the original investigators concluded that the fire originated in the NE corner of the dining room because of the irregular burn through of the floor in that area. These conclusions today are cautioned against in *Kirk's Fire Investigation 7th Ed.* (pp. 276-278) and *NFPA 921* (17.4.1.3).
>
> It is also acknowledged today that holes in floors are not proof of an area of origin or the presence of ignitable liquid (see NFPA 921, 2011 ed., 6.3.3.2.5) and that irregular fire patterns on floors cannot be identified as proof that an ignitable liquid based on shape alone (NFPA 921, 2011 ed., 6.3.7.8).
>
> Non-accelerated post-flashover fires in rooms have been shown to be able to produce deeply charred floor patterns (*Kirk's Fire Investigation, 7th Ed.*, p. 299), and irregular

4 Dr. DeHaan's curriculum vitae includes five appendices. Only the first is included here. The remainder are available upon request.

> penetrations similar to those observed here (*Forensic Fire Scene Reconstruction*, 2nd Ed., Fig. 3026, 2009). Conversely, the use of an ignitable liquid has not been observed to produce extensive (widespread) penetrations of wood floors. (*Kirk's Fire Investigation, 7th ed.*, pp. 273-278, 300; also *Forensic Fire Scene Reconstruction, 2nd Ed.*, 2009, p. 163). Recent work by Carman has demonstrated the relationship between ventilation and post-fire patterns in flashover fires (Carman, 2009).

Id. at 8. Further, under today's professional standards, it is improper to not only determine a fire was incendiary, but to further claim that ignitable liquids were used to set a fire when there was no proof of such:

> For an investigator to conclude that a fire was set with ignitable liquids, far more than irregular patterns of burn damage must exist, especially in multiple rooms where prolonged flashover burning has occurred. There must be a qualified laboratory result demonstrating such a liquid being detected in a sample from the fire scene (also excluding possible contributions from household products normal to the scene). In this case, not only were there no canine alerts at all, there were no positive findings of an ignitable liquid of any kind. Claiming that a badly documented "unusual" burn on the stairs was proof of an ignitable liquid trail was only speculation and under today's professional guidelines, it should never have been offered in court (NFPA 921, 6.3.7.8). Further, there [sic] no indications of any "non-fire" activities that could support the intentional fire hypothesis. There were no unusual fuels or re-arrangement of expected fuels; there were no provable indications of separate fires; no proof of indicators of trailers; no flash burns on Ms. Garcia (indicating close proximity to ignitable vapors); and no lab identification of ignitable liquids (and no containers for same found at the scene).

Id. at 10.

Without laboratory confirmation of the presence of ignitable liquids, it was improper for the FIU to claim they were used. Even the "science" the FIU did rely on in 1999—an accelerant-sniffing canine—failed to detect any accelerant. Based on that alone, it was improper to claim ignitable liquids were used. Today, the lack of a canine alert and lack of any laboratory confirmation would make the FIU's claim that ignitable liquids were present contrary to widely accepted professional standards and likely inadmissible in court.

Dr. DeHaan found further problems with the State's witnesses' determination in the third trial that there was a second area of origin on the stairway. Dr. DeHaan explains that the pattern

observed on the stairs was a natural artifact of fire and that reliance on it as proof of an incendiary fire was misplaced:

> Evaluation of scene photos revealed that the carpet on the left side of the lower stairs (above the foyer) was burned away, leaving the carpet on the right side still intact. The failure to detect what was theorized to be a substantial trail of ignitable liquid up the stairs by a well-trained and highly experienced accelerant canine team should strongly indicate that the alleged burn pattern on the left side of the lower stairs was not the result of ignitable liquid (See Figures 2 and 3). Cognitive testing should have led to the conclusion that had enough ignitable liquid been used on the stairs there should have been a canine alert. The investigators failed to consider the dynamics of the fire in the foyer as spread up the stairs. The foyer was well involved in the fire according to arriving firefighters and other witnesses. The railing on the foyer stairs (left) side was an open wooden banister with a gap between the bottom rail and the stairs (State Exhibit 4-24, photo #000171 and Figures 3 and 4). This gap exposed the carpet to radiant heat and direct flame from the foyer side. The right side was a solid lath and plaster wall. Plaster falling from this wall during the fire would protect the nearest carpet from radiant heat as the fire extended and burned up the stairs. Charring to the stair tread sides of base boards on both sides of the upper stair case appears equal (States Exhibit 4-22, See Figure 5)). The investigators erroneously concluded this partially burned carpet was the result of deliberate ignition of an ignitable liquid. There was no physical evidence of an ignitable liquid. Reliance on a burn pattern to "prove" use of an ignitable liquid amidst generalized severe burn damage is excluded by current practices (NFPA 921, 2011, 6.3.7.8).

Id. at 4-5; *see also* Ex. C at 2-3.

In addition to an improper reliance on patterns to determine the areas of origin on the stairway and the northeast corner of the dining room, the FIU investigators failed to consider evidence which tended to demonstrate that the dining room was not the area of origin. Dr. DeHaan explains that "the fire plume damage above the south window [sic] dining room is much less than that above the east windows of the living room and dining room." Ex. B at 7; Ex. C at 5. Had the fire began in the dining room as opined by the State's witnesses, equal damage would be expected. Ex. B at 7. Dr. DeHaan went so far as to examine the wind conditions at the time of the fire and found that the difference in damage above the windows would not have been caused by wind. *Id.* Additionally, there was much less damage in the kitchen than the living room, both rooms that were adjacent to the dining room. Had the fire started in the northeast corner of the

dining room as speculated, it would be "expected to produce more equal fire spread into both adjacent spaces." *Id.* The FIU's failure to conduct a fire spread analysis contributed to the misconceptions regarding the behavior of the fire and the area of origin. *Id.*

Dr. DeHaan further explains that the State's witnesses failed to consider the role of ventilation and the structural elements of the home when determining the area of origin, both factors that NFPA 921 now states are essential components to an origin determination:

> It should be pointed out that the [sic] there were several smaller areas of fire penetration of the floor in the living room and dining room that should have indicated that ventilation effects in post-flashover room fires were responsible. These patterns occurred most under the large windows of the living and dining room or along the path that a flow of entrained fresh (oxygen-rich) air would take between the windows and open doorways of the dining and living rooms. These ventilation effects are cited today in NFPA 921, 2011 ed., 6.3.22, and 17.4.1.4; also *Kirk's Fire Investigation, 7th Ed.*, pp. 296-297. The openings in the northeast corner tend to follow the direction (E-W) of the floor joists (Figure 11). If a fire starts above a floor, it has no "reason" to progress in an east-west direction. If a fire starts below a floor, the channels of the joist structure will direct the fire travel. The role of structural elements is described in NFPA 921, 6.3.5.3. This observation supports a hypothesis that the fire began below the northeast corner. With the presence of irregular house wiring, the original investigators could not have eliminated that hypothesis.

Ex. B at 8-9. Further supporting the hypothesis that ventilation caused the patterns observed in the dining room is the observation that the floor penetrations "were most extensive between the east window and large door opening to the living room but also appear inside the large south window." *Id.* at 10.

The original investigators also failed to consider and eliminate all potential accidental ignition sources before determining that the fire was incendiary, in violation of currently accepted practices. *Id.* at 11. Most significant was the original investigators' failure to adequately consider, test, and eliminate the electrical system as an alternative cause:

> The electrical system was never properly examined (only the breakers and the fixed household receptacles – neither of which often bears proof of a fire ignition failure). Arc fault mapping is part of the recommended practice for origin determination today and that was rarely done in 1999. (NFPA 921, 2011 ed., 17.1.2)

> The building was demolished by authorities two days after the fire, denying any subsequent investigators the opportunity to collect and analyze additional data.

Id. at 10. Eliminating electrical causes is imperative, as recent statistics demonstrate how often electrical failures or malfunctions cause fires in homes; from 2007 through 2011, 13% of home structure fires were caused by electrical failure or malfunction. John R. Hall, Jr., *Electrical*¸ National Fire Protection Association, http://www.nfpa.org/research/reports-and-statistics/fire-causes/electrical (accessed December 16, 2013). Home electrical fires caused 18% of fire-related civilian deaths during the same time period. *Id.* Dr. DeHaan's description of the electrical system in Ms. Garcia's home further illustrates how crucial proper consideration of the electrical system as an ignition source was:

> Photographs of the underside of the floor structure in the vicinity of the dining room burn-through show the effects of a sustained low-energy fire in the floor joist immediately beneath the metal candle stand. In this area were many loose electrical wires and an uncovered electrical junction box (Figures 12A/B). The wiring in this area (and in other areas of the building) shows it to be un-systematic mix of insulated wires, Romex, BX (flexible steel cable) and original knob-and-tube wiring. None of these methods alone pose a special fire risk if they are installed according to NEC methods. It is when they are present as random and irregular open junctions that they pose a fire risk. It should be noted that this house was over a century old and was of balloon-frame construction. This would allow a fire ignited by the wiring in this location to spread into the void space of the nearby wall (which shows extensive fire damage) and rapidly involve the interiors of the outer walls all the way to the attic and roof before being noticed by the occupants (Figure 13). The original investigators failed to consider and eliminate these critical accidental ignition hypotheses.

Ex. B at 9; *see also* Ex. C at 6-8. In other words, the wiring in Ms. Garcia's home was in such a state that there was risk of a fire starting below the dining room; photographs show this potentially occurred. Because of the structure of the home, a fire of this nature could have smoldered for some time before being noticed by Ms. Garcia or her children.

The original investigators similarly failed to consider or test other potential accidental causes of the fire, perhaps due to an overreliance on their determination that the dining room was

the area of origin. Ex. B at 9. Specifically, there were items in the living room that had the potential to cause a fire of this magnitude, as Dr. DeHaan explains:

> The remains of a torchiere floor lamp were present in the living room. Such lamps were often fitted with high wattage lamps that can ignite nearby combustibles on contact or by radiant heat alone. There were a computer and monitor, and a television in the living room. While failures causing fires in those devices are rare, they are known to occur. Most significantly, Ms. Garcia reported she had a "heart-shaped" candle on the television that was burning prior to the fire. Unattended candles have become a major cause of accidental residential fire (12,800 in 2002 per CPSC and 18,000 in 2002 per NFPA). Asymmetric or 'designer' candles are especially subject to failure – from an unplanned release of wax and exposure of wick causing an unsafe increase in flame size to heating and even ignition of containers, or decorative inclusions. Even small candles in metal dishes have been known to heat the dish to the point it can melt through thermoplastics such as television or radio cabinets and ignite the components within. Such failure history would cause today's investigator to carefully consider and test a candle ignition hypothesis for the living room.

Id.; *see also* Ex. C at 4. To have any confidence in the determination that the fire was incendiary, it was necessary for proper consideration, testing, and elimination to be conducted regarding the electrical system, floor lamp, all of the candles, and all other potential accidental causes. Having failed to do so, it was improper for the FIU to deem the fire in Ms. Garcia's home incendiary.

The investigators' failure to fully understand fire and smoke dynamics did not only affect their cause and origin determinations, but also caused them to doubt Ms. Garcia's account of what occurred the night of the fire. At trial, great emphasis was placed on observations that Ms. Garcia did not appear to be covered with soot or suffer extensive symptoms of smoke inhalation, and witnesses expressed skepticism that she escaped the fire as she claimed. Ms. Garcia's condition and escape, however, were consistent with known principles of smoke and hot gas movement. Dr. DeHaan explains:

> It must be remembered that smoke/hot gas movement is buoyancy driven, filling the ceiling space before spilling under door headers to fill the next space. A fire starting in the living room furniture would require some time to produce a smoke layer deep enough to flow beneath the header or soffit of the doorway between the living room and foyer. Even more time would be required for smoke to cross the foyer and flow up the ceiling

> of the stairwell. While no dimensions were recorded of the house, the photographs verify the ceilings on the main floor were 8 ½ - 9 feet high (as typical of large houses built in the Victorian period). The doorways appear to have been approximately 7' tall. Smoke fills rooms from the ceiling downward (in the absence of forced air circulation or other mechanical means). With the high ceilings in these rooms, the smoke would accumulate to considerable depth before reaching nose height on an adult standing in that room (see Fig 7-1, *Forensic Fire Scene Reconstruction 2nd ed*., p. 307). The smoke layer obscures light coming from overhead light fixtures, causing rapid loss of visibility inside (note the fire is occurring at 7:30PM on a day where sunset was recorded at 5:04PM per Weather Underground). Smoke also causes confusion and disorientation, especially in dark conditions (*Forensic Fire Scene Reconstruction 2nd ed*., pp.307-308, 322-325). With the reported loss of room lights (and the television), it would be expected that Ms. Garcia would have difficulty keeping track of two frightened, small children well before she was exposed to severe smoke conditions.

Id. at 5-6. In short, the testimony provided at trial that Ms. Garcia's condition or escape were not consistent with her story or with an accidental fire is not supported by modern science.

Based on the dictates of modern science, Dr. DeHaan concluded that the original investigation did not meet current professional guidelines and that the conclusions "are unreliable and unsupportable." *Id*. at 11. The determination that the fire originated both on the stairs and in the dining room was based on outdated heuristics and was made without consideration of modern principles of ventilation in post-flashover fires and flame and smoke spread. The erroneous origin determination led to unfounded assumptions as to the cause of the fire and the elimination of other potential causes without proper scientific testing. There is no reliable evidence that the fire started in either the dining room or on the stairs and no reliable evidence that it was incendiary in nature or caused by the use of ignitable fluids. Several potential accidental causes have been identified, most notably an electrical failure, which is supported by photographs and analysis of the wiring in the home. Without any proof that the fire was incendiary, it is evident that Ms. Garcia has been telling the truth for fourteen years—she did not start the fire that destroyed her home and she did not murder her children.

IV. Newly Discovered Evidence Law and Argument.

The standard for granting a new trial based on newly discovered evidence is articulated in *State v. Petro*, 148 Ohio St. 3d 505 (1947). In *Petro*, the Ohio Supreme Court states that a new trial is necessary if newly discovered evidence:

> (1) discloses a strong probability that it will change the result if a new trial is granted; (2) has been discovered since the trial; (3) is such that it could not in the exercise of due diligence have been discovered before the trial; (4) is material to the issues; (5) is not merely cumulative to former evidence; and (6) does not merely impeach or contradict the former evidence.

See Petro, 148 Ohio St. 3d at syllabus; *see also State v. Hawkins*, 66 Ohio St. 3d 339, 350 (1993). The newly discovered evidence meets the standard set forth in *Petro* and thus warrants a new trial in this case.

A. The newly discovered evidence discloses a strong probability that it will change the result if a new trial is granted

The standard for granting a new trial motion based on newly discovered evidence calls on courts to speculate as to what a jury would do if deliberating with the new evidence being presented in the defendant's new trial motion. *Petro*, 148 Ohio St. 3d at syllabus. In Ms. Garcia's case, speculation is unnecessary; the juries' inability to reach verdicts in the first two trials demonstrates what a reasonable jury would do if it were to deliberate with the benefit of the modern fire science and methodology presented here.

As illustrated above, the most significant difference between Ms. Garcia's first two trials and her third was the introduction by the State of evidence of a second area of origin of the fire. The alleged second area of origin was significant as it purportedly showed that there were two distinct fires, thereby precluding the possibility that the fire started accidentally. Trial 3 Tr., Vol. 5 at 1370-71, 1376; Trial 3 Tr., Vol. 10 at 2862; Trial 3 Tr., Vol. 11 at 3046-47. The theories upon which the State's witnesses relied to identify the second area of origin have now been wholly

discredited. The concepts of modern fire science, as explained by Dr. DeHaan, show that what was identified as a second area of origin on the stairway was actually a natural artifact common in fires similar to the one that occurred in Ms. Garcia's home.

Similarly, each of the additional methods used by the original investigators to determine that the fire was arson, particularly the reading of the burn patterns and saddle burns, has been scientifically discredited. The changes in fire science have been so remarkable and have now been so widely accepted within the scientific community that it is certain the opinions expressed by the original fire investigators would no longer pass muster under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and would thus be inadmissible. If Ms. Garcia were to be retried, there would be no "battle of the experts" as there was at her trial, as there is now only one scientifically acceptable standard of fire investigation. Without hearing the contradictory and scientifically unreliable testimony presented by the State's witnesses, there is a strong probability that a jury would not convict Ms. Garcia. Even if the opinions of the original investigators were to be admitted in a new trial, the scientific footing of the new evidence and its widespread acceptance would heavily influence the jury such that it would reach a different result.

Without the evidence of the second area of origin and the similarly unreliable fire "science" offered by the State's witnesses, the jury would be left with largely the same evidence that the juries heard in the first two trials and rejected as proof that Ms. Garcia committed arson and murder. A large portion of the third trial was dedicated to showing that Ms. Garcia had motive to set her house on fire and kill her children, specifically that she stood to benefit financially from the crime. As demonstrated above, this motive was presented in Ms. Garcia's first and second trials. In fact, Ms. Garcia did not contest the fraud and was found guilty of

insurance fraud in the first trial. Regardless, the juries did not find the alleged motive to be sufficient proof of the arson and murder charges and Ms. Garcia was not convicted of those offenses. In the third trial, the State did present additional witnesses and evidence to support the financial motive. Trial 3 Tr., Vol. 6 at 1699-1716; Trial 3 Tr., Vol. 9 at 2418-23. However, the substance of the testimony of those witnesses was the same as what was presented in the first two trials: it showed that Ms. Garcia claimed items on insurance paperwork that she did not in fact own. *Id*.; Trial 1 Tr., Vol. 5 at 1459. Two additional witnesses, Gregg McCrary and Ronald Saunders, testified to Ms. Garcia's financial status, her family and friends' history of insurance claims, and their opinion that Ms. Garcia had a financial motive to start the fire. Trial 3 Tr., Vol. 8 at 2296-97; Trial 3 Tr., Vol. 10 at 2772. Saunders testified that based on her debt and potential insurance claims, Ms. Garcia potentially could have profited $41,786 from the fire. However, if there were to be a retrial, this testimony would be inadmissible. *State v. Garcia*, 8th Dist. Cuyahoga No. 79919, 2002-Ohio-4179, ¶¶ 63-64, 68. Furthermore, on cross-examination, defense counsel demonstrated that Saunders and McCrary had no knowledge of whether Ms. Garcia had been paid on several past insurance claims and did not take into account her amount of loss or deductibles on each of the claims when conducting their analyses. Trial 3 Tr., Vol. 8 at 2355-61; Trial 3 Tr., Vol. 10 at 2787-88. When calculating Ms. Garcia's potential profit, Saunders did not consider the cost of replacing her property and belongings. Trial 3 Tr., Vol. 8 at 2371.

The State's theory of a financial motive makes little sense. On direct, Saunders testified that at the time of the fire, Ms. Garcia's debt was $7,987. *Id.* at 2336. If, as the State alleges, Ms. Garcia's plan was to burn down her home for financial gain, she could have done so at a time when her children were not in the house. Ms. Garcia's daughters were not in the home most days, as they were looked after by Ms. Garcia's boyfriend's aunt, Vernadine Terry. It is absurd to think

that someone would kill her children for $40,000; as it is, given her debt and the cost of replacing her home and belongings, Ms. Garcia would not have profited from the fire. In reality, this was an accidental fire. Overvaluing the contents of the home was a mistake made by Ms. Garcia and her family after the fire and was done during a time of extreme stress and grief. In addition to evidence regarding motive, in the third trial the State presented evidence of Ms. Garcia's condition the night of the fire, specifically that she had minimal soot on her and did not suffer significant injuries due to her escape from the fire or smoke inhalation. Trial 3 Tr., Vol. 5 at 1195-99. This category of evidence was also presented in the first and second trials and was rejected by the juries as proof of the arson and murder charges. Trial 1 Tr., Vol. 8 at 2128-29; Trial 2 Tr., Vol. 3 at 936-939. As Dr. DeHaan has explained, modern dictates of fire science and flame spread explain how a person could be in a house fire such as this one and suffer minimal or no injury or smoke inhalation. Ex. E at 5-6. Significantly, there *was* evidence that Ms. Garcia did, in fact, have soot on her and was injured, so much so that she left both soot and blood on her neighbor's door when she sought help. Trial 3 Tr., Vol. 3 at 579-80.

Finally, in the third trial, the State presented the testimony of Tonya Lanum. She testified that she was in jail with Ms. Garcia and that Ms. Garcia told her that there had been two fires and that when Ms. Garcia went to start the second one, the first had gotten out of control so she left. Trial 3 Tr., Vol. 9 at 2580. Ms. Lanum further alleged that Ms. Garcia told her that it was an "insurance thing." *Id*. at 2581-82. Ms. Lanum did not reach out to authorities on her own, but only did so through her husband, who was also incarcerated and had served as a government informant many times. Ex. D. Significantly, Ms. Lanum testified similarly in Ms. Garcia's second trial as she did in the third. Trial 2 Tr., Vol. 5 at 1478-79, 1487-1490. The jury in the second trial could not reach verdicts on the murder and arson charges, despite Ms. Lanum's

testimony. Informant testimony of this nature should be viewed with skepticism as it has long been found to be unreliable. *See* Brandon L. Garrett, Convicting the Innocent 124 (2011) (finding that informant testimony was used to convict 21% of the first 250 DNA exonerees). Accordingly, Ms. Lanum's testimony alone is insufficient to support Ms. Garcia's conviction.

The most significant difference between the first two trials and the third was the introduction of the alleged second area of origin in the third trial, thereby showing that the fire was not accidental. The new evidence now shows that there was no second area of origin. Without this evidence or any of the now discredited evidence presented by the State's witnesses in the third trial, there is no longer any scientifically reliable evidence that the fire was incendiary. Further, Dr. DeHaan's report identifies several potential accidental causes of the fire that were not adequately considered by the original investigators. Absent actual proof of arson and in light of the potential alternative causes, no reasonable jury would convict Ms. Garica of arson and murder. All that remains now is circumstantial evidence that was already rejected by two reasonable juries as proof of the charges of murder and arson. Thus, if a new trial were to be granted, there is a strong probability that Ms. Garcia would not be convicted.

B. The new evidence was discovered subsequent to the trial and could not, in the exercise of due diligence, have been discovered before trial

The new evidence was not available at the time of Ms. Garcia's trial and was discovered subsequent to the jury rendering its verdict. Ms. Garcia was convicted in 2001. As demonstrated above, while some of the concepts regarding fire science and fire investigation methodology explained in Dr. DeHaan's report were known in 2001, many fire investigators, including the witnesses at Ms. Garcia's trial, did not accept them or incorporate them into their investigations or testimony. It has only been in recent years that the scientific underpinnings of fire science have been widely accepted by arson investigators, the government, and the courts.

Furthermore, as explained by Dr. DeHaan, published research in the years since Ms. Garcia's trial has led to increased understanding of fuel loads, ventilation and fire and smoke movement, all concepts which provide a better understanding of what occurred in the fire in Ms. Garcia's home. Ex. B at 1. Similarly, the methodology for proper fire investigation has evolved significantly since Ms. Garcia's trial. *Id.* Before these scientific advancements occurred, they could not be discovered or applied to Ms. Garcia's case. Due to her incarceration, Ms. Garcia lacked the resources and ability to discover the dramatic shifts taking place in the fire science and investigation fields.

Even had she been in a position to learn of the recent shift, as an indigent inmate, Ms. Garcia could not afford to hire an independent arson investigator to apply the modern science to her case. Fortunately, the Wrongful Conviction Project at the Office of the Ohio Public Defender received a federal grant from the United States Department of Justice in the Autumn of 2012, which included funds specifically earmarked for an expert review of Ms. Garcia's case. *See* Ex. F. After receiving the grant, Dr. DeHaan was promptly retained and able to review the case using modern scientific principles rather than outdated rules of thumb, ultimately finding no proof that Ms. Garcia set the fire that killed her children. The new evidence was not truly discovered until Dr. DeHaan was able to apply the concepts of modern fire science and investigation methodology to Ms. Garcia's case.

Faulting Ms. Garcia for failing to secure funding for an expert sooner would amount to a denial of her right to due process and equal protection as an indigent defendant. Ms. Garcia may not be denied access to the courts due to her current indigency status. *Griffin v. Illinois*, 351 U.S. 12, 18-19 (1956) (Under due process and equal protection clauses, "destitute defendants must be afforded as adequate appellate review as defendants who have money"); *Burns v. Ohio*, 360 U.S.

252, 257 (1959) (“Once the State chooses to establish appellate review in criminal cases, it may not foreclose indigents from access to any phase of that procedure because of their poverty”). This right of access extends to post-conviction proceedings. *Long v. Iowa*, 385 U.S. 192, 194 (1966) (a State which establishes post-conviction procedures “cannot condition its availability to an indigent upon any financial consideration”); *Smith v. Bennett*, 365 U.S. 708, 709 (1961) (“[T]o interpose any financial consideration between an indigent prisoner of the State and his exercise of a state right to sue for his liberty [in collateral habeas proceedings] is to deny that prisoner the equal protection of the laws”).

Ms. Garcia could not present the new evidence until now as a result of both recent scientific development and a lack of resources, neither of which can be fairly attributed to Ms. Garcia. Therefore, it would amount to a substantial denial of her rights and fundamental fairness to refuse to consider her claims.

C. The new evidence is material to the issues

The newly discovered evidence, as provided in Dr. DeHaan’s report, is material to the issues. The central issue in this case is whether the fire that occurred in Ms. Garcia’s home was incendiary or accidental. The newly discovered evidence directly speaks to that issue in two ways. First, Dr. DeHaan’s report demonstrates that the evidence used by the fire investigators to determine that the fire was incendiary was flawed and based on outdated beliefs. Second, the new evidence shows that there were numerous potential accidental causes of the fire that were supported by the evidence and were not considered by the original investigators. Undoubtedly, the jury would have weighed this information heavily in deciding the central question before it.

D. The new evidence is not merely cumulative to former evidence

Dr. DeHaan's report is not cumulative to evidence that was presented at Ms. Garcia's trial. An expert witness presented by the defense, Dr. Richard Roby, presented an alternative to the State's theory at trial, finding that the fire originated in the living room. Trial 3 Tr., Vol. 11 at 3173. Dr. Roby considered concepts of flashover and ventilation, however, as explained by Dr. DeHaan, those principles were not as well understood then as they are today and have evolved substantially. *Id.* at 3177. Thus, Dr. Roby's analysis of those concepts and application of them to Ms. Garcia's case was incomplete.

Significantly, what was absent from Dr. Roby's testimony and from Ms. Garcia's trial was evidence of the widespread acceptance of the modern science surrounding fire investigation. That is because there was no widespread acceptance at the time. As illustrated above, it was not until recently that the fire investigation profession, courts, and government accepted fire investigation as a scientific pursuit. At the time of Ms. Garcia's trial, Dr. Roby's opinion would have been considered a minority opinion among fire investigators. In fact, the State characterized his opinion as "junk science." *Id*. at 3613. However, in the years since Dr. Roby's testimony, there has been a significant shift in fire science, such that the opinions he provided have not only been accepted by the mainstream, but those espoused by the State experts are themselves now considered "junk science." While the opinions offered by Dr. DeHaan now overlap somewhat with those offered by Dr. Roby at trial, they differ in substance and quality due to the continued evolution and acceptance of fire science since Ms. Garcia's trial. *See State v. Edmunds*, 746 N.W.2d 590, 594-97 (2008) (evidence of a shift in medical opinion regarding Shaken Baby Syndrome is not cumulative to opinion given by defense expert during earlier proceeding when that opinion was a minority opinion at the time; thus defendant is entitled to new trial); *see also*

State v. Beavers, 2nd Dist. Montgomery No. 22588, 2009-Ohio-5604, ¶ 21 (finding that a new trial will not be denied simply because the newly discovered evidence is cumulative, so long as it creates a strong probability of a different result if admitted).

E. The new evidence does not merely impeach or contradict the former evidence

The newly discovered evidence does not merely impeach or contradict the former evidence presented at Ms. Garcia's trial. The modern science, as articulated by Dr. DeHaan, is not simply in disagreement with the testimony of the State's witnesses at trial; it represents a paradigm shift in the field of fire investigation. It would be fundamentally unfair to prevent a defendant from receiving a new trial when scientific advancements demonstrate that the evidence they were convicted on was invalid.

To the extent that the new evidence *does* impeach or contradict the former evidence, it should not preclude Ms. Garcia from being granted a new trial. In *State v. Beavers*, the court read *Petro* as stating that the relevant test was whether or not the newly discovered evidence would create a strong probability of a different result or whether the evidence is impeaching or contradicting to the extent that it would be insufficient to create a different result. *State v. Beavers*, 2nd Dist. Montgomery No. 22588, 2009-Ohio-5604, ¶¶ 19-20 ("In a case where the newly discovered evidence, though it is impeaching or contradicting in character, would be likely to change the outcome of the trial, we see no good reason not to grant a new trial") (citation omitted); *see State v. Richard*, 8th Dist. No. 61524, 1991 Ohio App. LEXIS 5772, *8-9 (Dec. 5, 1991); *State v. Leal*, 6th Dist. Lucas No. L-92-005, 1993 Ohio App. LEXIS 2000, *9-10 (April 9, 1993); *State v. Brown*, 9th Dist. Summit No. 26309, 2012-Ohio-5049, ¶4; *see also U.S. v. Lewis*, 338 F.3d 137, 139 (6th Cir. 1964) ("The granting or refusing of a new trial upon newly discovered evidence of an impeaching character . . . rests in the sound discretion of the trial

court; and a new trial will not be granted . . . *unless* such evidence is of a nature that, on a new trial, it would probably bring about a different result") (citation omitted) (emphasis added). As amply demonstrated above, there is a strong probability that the newly discovered evidence would bring about a different result were Ms. Garcia to be retried. Accordingly, should this Court find the new evidence to be contradictory or impeaching, fairness requires that Ms. Garcia still be granted a new trial.

V. Ms. Garcia's conviction is based on insufficient evidence.

A conviction based on unreliable expert testimony violates due process. *See, e.g., Han Tak Lee v. Glunt*, 667 F.3d 397 (3rd Cir. 2012). The primary evidence of arson presented by the State's witnesses has been thoroughly discredited by Dr. DeHaan and modern science.

VI. Conclusion.

Angela Garcia did not receive a fair trial. Her conviction was based on fire and arson heuristics that have now been widely rejected and scientifically disproven. The newly discovered evidence demonstrates that, based on today's standards and modern science, the investigation of the fire in Ms. Garcia's home was rife with gaps and mistakes. The result cannot stand. Based on the newly discovered evidence, Ms. Garcia should be granted a new trial. In the alternative, she should be granted an evidentiary hearing on her claims.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing DEFENDANT ANGELA GARCIA'S MOTION FOR A NEW TRIAL BASED ON NEWLY DISCOVERED EVIDENCE was mailed via U.S. Mail to the office of Timothy McGinty, Cuyahoga County Prosecuting Attorney, Cuyahoga County Prosecutor's Office, Justice Center Bld., Floor 8th and 9th, 1200 Ontario Street, Cleveland, Ohio 44113 on this 19th day of December, 2013.

_____

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