UNREPORTED

IN THE COURT OF SPECIAL APPEALS

OF MARYLAND

No. 2241

September Term, 2014

KIMBERLY SMITH, PERSONAL REPRESENTATIVE OF THE ESTATE OF CECIL HARRIS, III

v.

KENNEDY KRIEGER INSTITUTE, INC.

Leahy,
Friedman,
Kenney, James A. III,
(Senior Judge, Specially Assigned),

JJ.

Opinion by Leahy, J.

Filed: March 22, 2017

This appeal comes to us under tragic circumstances. Cecil Harris, III, ("Cecil"), now deceased, was enrolled as a child in the "Lead-Based Paint Abatement and Repair and Maintenance Study" (the "R&M Study" or the "Study") conducted by the Kennedy Krieger Institute, Inc. ("KKI"), in the early-to-mid-1990s. The R&M Study measured the effectiveness of different tiers of lead remediation and abatement in residential housing by measuring the blood lead levels of children participating in the Study.

Cecil filed suit against KKI and several other parties[1] in the Circuit Court for Baltimore City on November 16, 2012, on multiple claims arising from his exposure to harmful levels of lead—reaching a height of 18 micrograms per deciliter on May 22, 1996—that caused irreparable injury to his brain. The trial court dismissed several claims on motion, and, following a lengthy trial, granted KKI's motion for judgment on another claim. The jury found in favor of KKI on all remaining claims. Cecil filed a timely appeal to this Court. Sadly, Cecil died during the early months of this appeal for unrelated reasons, and his mother, Kimberly Smith, formerly Kimberly Armstead, was eventually substituted as a party in this Court as the Personal Representative of the Estate.[2] The Estate presents the following questions, which we have reordered minimally:

[1] Of the original parties Cecil sued, only KKI remains as a party in the current action.

[2] A panel of this Court held oral argument for this case originally on December 7, 2015. However, it was not until January 29, 2016, that this Court learned of Cecil's death when KKI filed a notice of suggestion of death. Apparently Cecil had passed away on September 19, 2015. On February 11, 2016, Kimberly Smith, formerly Kimberly Armstead, was substituted as a party in this Court as the Personal Representative for the Estate of Cecil Harris, III ("the Estate"). On June 7, 2016, a new panel of this Court heard

1. "Was the admission of dust-lead test results produced by KKI's experimental [BRM-HVS3] vacuum sampler reversible error?"

2. "Did the trial court commit reversible error in admitting KKI[']s expert opinion on alternative sources of Plaintiff's lead exposure that lacked the sufficient factual basis required by Md. Rule 5-702?"

3. "Did the trial court err when it ruled that KKI was not an "operator" and granted judgment on Plaintiff's claims of negligence under the Baltimore City Code?"

4. "Did the question of fact concerning the substantial certainty that R&M Study children would suffer lead exposure preclude summary judgment on Plaintiff's battery claim?"

5. "Did the trial court commit legal error in granting summary judgment on Plaintiff's fraud claim on the basis [that] there was no triable question of fact concerning KKI's intent to deceive?"

6. "Did the trial court abuse its discretion by refusing to instruct the jury that the R&M Study consent form constituted a contract?"

7. "Did the trial court commit reversible error in admitting evidence of the prevalence of childhood lead poisoning in Baltimore City which was irrelevant and unfairly prejudicial?"

On the first question, we hold that the circuit court did not err in its determination, following a *Frye-Reed* hearing, that vacuum sampling is a generally accepted method for evaluating trends in levels of lead dust over time. Although we determine that the court did abuse its discretion by admitting into evidence Exhibit 84—an exhibit concerning dust-lead results that went beyond the scope established by the court's *Frye-Reed* order—we conclude the error was harmless. As to the Estate's second contention, we determine that, as evidenced by the verdict sheet, the jury never reached the issue of causation, therefore,

a second oral argument.

the alleged errors concerning expert testimony on alternative sources of causation were harmless. Next, we hold that KKI was not an "operator" of the housing at issue, and that the circuit court did not err in granting summary judgment on the battery and intentional misrepresentation claims because Cecil generated no genuine dispute of material fact as to those claims. Finally, we conclude that the circuit court did not err in admitting evidence of the prevalence of childhood lead poisoning in Baltimore City, nor do we determine that the court abused its discretion in declining to give the requested instruction pertaining to the R&M Study consent form. We affirm the judgments of the circuit court.

BACKGROUND

A. The Repair and Maintenance Study

In 1992, Congress passed the Residential Lead-Based Hazards Reduction Act ("1992 Act"). 42 U.S.C. §§ 4851 *et seq.* At the time, it was estimated that 57 million private housing units in the United States contained lead paint, and that nearly 2.5 million pre-school children had blood-lead levels that placed them at risk for adverse health effects.[3] One of the purposes of the 1992 Act was "to mobilize national resources expeditiously, through a partnership among all levels of government and the private sector, to develop the most promising, cost-effective methods for evaluating and reducing lead-based paint hazards." 42 U.S.C. § 4851a (5). The 1992 Act authorized the U.S.

[3] *See* Quality Assurance Project Plan for Kennedy-Krieger Institute Lead-Based Paint Abatement and Repair and Maintenance Study, Final Report (1992) ("Quality Assurance Project Plan"), Chapter 1, p. 1.

Department of Housing and Urban Development ("HUD") to provide grants "to evaluate and reduce lead-based paint hazards in housing." 42 U.S.C. § 4852(a). The R&M Study, conducted by KKI from 1993 to 1999, was one of those studies funded and supervised by the U.S. Environmental Protection Agency ("EPA") and HUD.[4] The Study involved research on the effectiveness of lead abatement measures on reducing lead contamination in homes, measured by the blood lead levels of minor children living in the Study homes.[5] Specifically, the stated purpose of the Study was

> to characterize and compare the short and long-term efficacy of comprehensive lead-paint abatement and less costly and potentially more cost-effective Repair and Maintenance interventions for reducing levels of lead in residential house dust which in turn should reduce lead in children's blood.

Quality Assurance Project Plan, Chapter 1, p. 1.

The homes involved in the R&M Study were first tested for eligibility. Based on dust test results, a "dwelling with an insufficient number of surfaces with elevated dust-lead levels would be disqualified." *Id*. at Chapter 2, p. 65. Eligible dwellings were then randomly classified into three groups that received levels of lead remediation that increased with ascending numerical order—"R&M Level 1," "R&M Level 2," and "R&M Level

[4] EPA Contract 68—D4—0001, "Evaluation of Efficacy of Residential Lead Based Paint Repair and Maintenance Interventions." *Grimes v. Kennedy Krieger Inst., Inc.*, 366 Md. 29, 68 (2001). The R&M Study was also performed in coordination with the Maryland Department of Housing & Community Development, the Baltimore City Health Department, and the Maryland Department of the Environment.

[5] In *Grimes*, the Court of Appeals questioned the ethics of the R&M study, observing that the "continuing presence of the children that were the subjects of the study was required in order for the study to be complete." 366 Md. at 36-37.

3,"—with R&M Level 3 receiving the highest level of remediation. *Id.* These homes were compared to two control groups—a fourth group of homes that had been completely abated of lead, and a fifth group of homes that were built after 1980 and never contained lead-based paint. According to testimony elicited by KKI in the trial in this case, before families moved into the homes, all homes passed clearance standards for abatement set at the time by the Maryland Department of the Environment ("MDE").[6]

KKI used a vacuum sampler to test various surfaces in the Study homes for lead at intervals of 2, 6, 12, 18, and 24 months, after completing the abatement or remediation work consistent with the designated tier. The vacuum used in the Study, as will be described in greater detail *infra*, is called a BRM-HVS3 ("BRM Sampler"),[7] which was a modification from the HVS3,[8] a commercially available sampling vacuum. KKI experts

[6] MDE promulgated standards for lead abatement in 1988. Pursuant to those standards, a property was deemed to be abated if the floor lead dust levels were below 200 micrograms per square foot, the windowsill lead dust levels were below 500 micrograms per square foot, and the window well lead dust levels were below 800 micrograms per square foot. 15:7 Maryland Register 902-03; 23:16 Maryland Register 16 1176-77.

At the time Cecil's family moved into the Study home in 1993, Maryland had not yet adopted remediation—as distinguished from abatement—standards, which, as we shall explain, is a significant issue in this case.

[7] "BRM" is an abbreviation for "Baltimore Repair & Maintenance." J.W. Roberts *et al.*, *Project Summary, Evaluation of Dust Samplers for Bare Floors and Upholstery*, United States Environmental Protection Agency Research and Development, March 1996, ("Roberts Study") at 1.

[8] "HVS3" is an abbreviation for "high volume small surface sampler." Roberts Study at 1.

testified in the proceedings below that the BRM Sampler used the same cyclone[9] as the HVS3, used in many studies, but that the Study modified the HVS3 so that it would be able to vacuum more difficult-to-reach surfaces, such as windowsills.

The leaders of the R&M Study, Dr. Julian Chisolm, M.D., and Dr. Mark Farfel, D.Sc. analyzed the effectiveness of various tiers of lead abatement and remediation by testing the blood of children who lived in the abated or remediated homes. At the time of the Study, researchers at KKI were aware that exposure to lead-bearing dust was particularly hazardous to children, and that the neuro-behavioral and learning deficits in young children were "long lasting, if not indeed permanent." *Id*. at p. 2.

Blood lead level is measured in micrograms per deciliter. *See* U.S. Agency for Toxic Substances and Disease Registry, The Nature and Extent of Lead Poisoning in United States: A Report to Congress (1988), at 2. In 1991, the United States Centers for Disease Control ("CDC") revised the intervention level from 25 micrograms per deciliter to 10 micrograms per deciliter, noting that "[s]ome adverse health effects have been documented at blood lead levels at least as low at 10 micrograms per deciliter[.]"[10] *See*

[9] According to the McGraw-Hill Dictionary of Scientific and Technical Terms, a "cyclone" is "[a]ny cone-shaped air-cleaning apparatus operated by centrifugal separation that is used in particle collecting and fine grinding operations." McGraw-Hill Dictionary of Scientific and Technical Terms 476 (Sybil P. Parker ed., 4th ed. 1989).

[10] According to the CDC, experts now recommend intervening at a blood lead level at 5 micrograms per deciliter. Centers for Disease Control and Prevention, Preventing Lead Poisoning in Young Children, What Do Parents Need to Know to Protect Their Children?, available at https://www.cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm [https://perma.cc/M7DV-GQHK]

Centers for Disease Control and Prevention, Preventing Lead Poisoning in Young Children, Chapter 1 (1991), *available at* https://www.cdc.gov/nceh/lead/publications/books/plpyc/chapter1.htm [https://perma.cc/6SUV-QEME]

Each household participating in the R&M Study required at least one child six months to four years of age who was "not mentally retarded or physically handicapped." To determine eligibility for the Study, KKI used questionnaires. KKI administered the questionnaire by having a KKI employee read each paragraph aloud to the interviewee and ask the interviewee whether he or she had any questions after each paragraph. Families accepted into the Study were given educational materials on lead, including materials from the EPA and the Centers for Disease Control ("CDC") warning of the risks and hazards associated with exposure to lead, along with a cleaning kit and an educational coloring book.

City Homes, Inc. ("City Homes")—which, at the time, owned and managed "approximately 200 low-income rental units in Baltimore City"—provided many of the dwellings for the R&M groups. *See* Quality Assurance Project Plan, Chapter 2, p. 1. City Homes agreed to provide houses to be used for the R&M Study and to prioritize renters with children under five years of age for participation in the Study, as detailed in a June 29, 1992 letter of agreement from Dr. Mark Farfel to Barry Mankowitz, President of City Homes. Particular emphasis was placed on finding subjects two years of age or younger. And, City Homes agreed not to "apply level III treatment to level I and level II study houses

or level II treatment to level I study houses" at tenant turnover during the R&M Study period. The June 29, 1992 letter described the undertaking as a "joint endeavor to reduce lead hazards in City Homes units and evaluate the efficacy of the hazard reduction approaches."

City Homes owned and managed 1110 Rutland Avenue, the dwelling at issue in the present litigation. 1110 Rutland Avenue had tested positive for lead-based paint before it was used in the Study. KKI categorized 1110 Rutland Avenue as R&M Level 3, the highest of the three remediation groups. KKI created a scope of work for the remediation, which Environmental Restorations, Inc. ("ERI"), a contractor, completed in the spring of 1993. City Homes spent $11,134.00, and KKI spent $6,900.00 on the work at this time. KKI verified that the work was done before approving payment for the punch list work. This was the only time ERI or KKI paid for any lead remediation work during the tenancy at issue. City Homes was responsible for general maintenance on the homes during the tenancies of the families in the Study.

B. Cecil Harris's Involvement in the R&M Study

Kimberly Armstead[11] completed a rental application for the property at 1110 Rutland Avenue on April 21, 1993. On the application she listed her three children: Cushena Armstead, age 6; Charles Armstead, age 4; and Demitres, age 2. In response to

[11] Kimberly Armstead has since changed her name to Kimberly Smith. This opinion will refer to her as "Kimberly Armstead" or "Ms. Armstead" because that was her name during the relevant period in this case.

the form question, "Reason for moving?" she stated: "House is old and my son has lead poisoning."

Ms. Armstead testified at trial that when she signed the lease on June 14, 1993, she was 23 years old and pregnant with Cecil. The lease provided that she would pay rent each month to City Homes. She said that when she met with the agent for the management company (Mr. Mankowitz of City Homes), she was told about the KKI program and

> [t]hat the home that I was getting, he said this would be a lead safe home, it was completely renovated, it is an exciting opportunity for you, the price is good . . . .

And the reason it mattered to Ms. Armstead that her next home was lead safe was because one of her children already had an elevated blood lead level. Ms. Armstead asked Mr. Mankowitz whether all of her children could participate in the R&M Study, but she was informed that only Demitres and the child she was carrying, Cecil, would qualify because the others were past the age.

Ms. Armstead testified that she did not speak with anyone from KKI until after she had executed the lease and then sat down with a case worker from KKI to sign a consent form to enroll Demitres in the R&M Study on the same day she signed the lease—June 14, 1993. The KKI "Clinical Investigation Consent Form" (the "Consent Form"), provided in relevant part that

> [a] you may know, lead poisoning in children is a problem in Baltimore City and other communities across the country. Lead in paint, house dust and outside soil are major sources of lead exposure for children. . . . [KKI] understand[s] that your house had special repairs done in order to reduce exposure to lead in paint and dust. Homes received one of two levels of

> repair on a random basis. [KKI is] interested in finding out how well the two levels of repair worked. **The repairs were not intended, or expected, to completely remove exposure to lead.**

(Emphasis added). The Consent Form also provided:

> If you agree to participate, two of us working for [KKI] would visit your home during the next 2 months to collect samples of outside soil, house dust, and drinking water. We would collect dust from bare floors, carpets, windows, air ducts, and possibly upholstered furnishings using a vacuum. . . We would repeat the testing after 2, 6, 12, 18, and 24 months provided that funding is available.
>
> Blood testing will be done at the KKI Lead Clinic by trained personnel and will take about 2 hours including travel time. Free transportation will be provided to and from the clinic. Blood sampling will involve taking blood from a vein in the arm. We will take 1/3 of a teaspoon of blood each time. There may be some discomfort but no danger is involved in this procedure. Some individuals may have some bruising around the arm vein due to leaking of blood from the vein. This can be kept to a minimum by pressing on the vein for a minute or so after the needle stick. If bruising occurs, it usually lasts only a day or two and has no permanent effects.

Ms. Armstead testified that she understood, in her meeting with Mr. Mankowitz, that she needed to sign this Consent Form in order to live in the home at 1110 Rutland Avenue. Ms. Armstead admitted that the case worker sat with her and read each paragraph of the Consent Form with her.

A few days later, on June 23, 1110 Rutland Avenue was inspected for lead, via wipe method—the method for lead testing that was associated with clearance standards and exposure limits at the time.[12] *See* Code of Maryland Regulations ("COMAR") 26.16.02.02 and 03 (setting standards for lead-contaminated dust tests that a landlord must meet to pass

[12] Maryland did not have dust-lead remediation standards during the time period in this case.

the risk reduction standard prescribed by the MDE), COMAR 26.16.05.09 (prescribing that lead dust sampling must be done using wipes). Pursuant to this inspection—and before Ms. Armstead moved in with her family—1110 Rutland Avenue passed Maryland's post-abatement clearance standards set out in footnote 6 *supra*.

Cecil was born on July 28, 1993. When he was about 11 months old, on June 17, 1994, Ms. Armstead signed essentially the same KKI Consent Form she signed for Demitres a year earlier, thereby enrolling Cecil in the R&M Study.

1. Cecil's Blood Tests

On June 27, 1994, Ms. Armstead received the first letter from KKI's Outreach Coordinator detailing Cecil's blood test results:

> This is to inform you that your child Cecil Harris does not have a blood lead elevation based on test results of the blood which was taken from the arm at the Kennedy Krieger Lead Clinic on 6/22/94. His/her blood lead test is **6 micrograms/deciliter**. This places your child in CDC Class I. This test result should be given to your child's primary health care provider. As you know, the test was performed as part of the special project sponsored by the [EPA].
>
> If you have any questions, please contact me at . . . .

(Emphasis added). An almost identical letter dated December 15, 1994, based on a blood test performed on December 14, 1994, stated that Cecil's blood lead level was at 9 micrograms per deciliter (up from 6 micrograms per deciliter). A July 18, 1995 letter, based on a June 21, 1995 test also revealed a 9 micrograms per deciliter blood lead level. Cecil's blood lead level remained at 9 micrograms per deciliter until December 15, 1995.

Ms. Armstead received another letter dated February 2, 1996, that was identical in form to the previous letters except that it stated:

> This is to inform you that your child, Cecil Harris, has a mild blood lead elevation based on test results of the blood which was taken from the arm at the Kennedy Krieger Lead Clinic on 12/15/95. His/her blood lead test is **13 micrograms/deciliter**. This places your child in CDC Class IIA. This test result should be given to your child's primary health care provider.

(Emphasis added). Another letter, same form, notified Ms. Armstead of the next test, conducted on May 22, 1996:

> This is to inform you that your child, Cecil Harris, has a blood lead elevation based on test results of the blood which was taken from the arm at the Kennedy Krieger Lead Clinic on 5/22/96. His/her blood lead test is **18 micrograms/deciliter.** This places your child in CDC Class IIB. This test result should be given to your child's primary health care provider.

(Emphasis added). The November 13, 1996 letter informing Ms. Armstead of the next test, conducted on October 16, 1996, stated:

> This is to inform you that your child, Cecil Harris, has a blood lead elevation based on test results of the blood which was taken from the arm at the Kennedy Krieger Lead Clinic on 10/16/96. His/her blood lead test is **17 micrograms/deciliter.** This places your child in CDC Class IIB. This test result should be given to your child's primary health care provider.

(Emphasis added). Finally, the February 2, 1997 letter informing Ms. Armstead of the next test, conducted on December 18, 1997, read:

> This is to inform you that your child, Cecil Harris, has a mild blood lead elevation based on test results of the blood which was taken from the arm at the Kennedy Krieger Lead Clinic on 12/18/96. His/her blood lead test is **12 micrograms/deciliter**. This places your child in CDC Class IIA. This test result should be given to your child's primary health care provider.

(Emphasis added). Thus, according to these letters, Cecil's blood lead level rose from 6 micrograms per deciliter at 11 months of age, to 9 micrograms per deciliter, to 13 micrograms per deciliter, to 18 micrograms per deciliter, before falling to 17 micrograms per deciliter, and then, finally, to 12 micrograms per deciliter on December 18, 1996, when Cecil was three-and-a-half years old. As stated *supra*, the CDC intervention level at the time was 10 micrograms per deciliter. Centers for Disease Control and Prevention, Preventing Lead Poisoning in Young Children, Chapter 1 (1991), *available at* https://www.cdc.gov/nceh/lead/publications/books/plpyc/chapter1.htm [https://perma.cc/6SUV-QEME]

2. The House Next Door

The 1110 Rutland Avenue house was attached to 1108 Rutland Avenue, another row house that was not part of the R&M Study. The houses were separated in the backyard by a wire fence. Ms. Armstead coincidentally lived in the house at 1108 Rutland Avenue with her family from 1990 to 1992. She testified that one of Cecil's older brothers, Charles Armstead, was lead poisoned while living at 1108 Rutland Avenue. According to Ms. Armstead, Charles's blood lead level rose to 29 micrograms per deciliter while living there.

On February 1, 1996 and May 14, 1998, the Baltimore City Housing Department issued lead-based paint violations for 1108 Rutland Avenue, ordering the owner of 1108 Rutland Avenue to abate the lead-based paint hazard. The X-Ray Fluorescence ("XRF") report that led to the violation notices stated that 11 locations on the *exterior* of the house,

including the rear exterior, had lead-based paint surfaces that were chipping.[13] Specifically, the front exterior door frames; the front exterior first floor windows; the rear exterior wall; the rear exterior first floor windows; the side exterior first floor windows; the shed door frames; the first floor front room window sashes, frames, and sills; the first floor front room door frames; first floor front baseboards; first to second floor upper stair frame; and first to second floor upper stair post all tested positive for lead in an amount higher than .7 milligrams per square centimeter,[14] with some of the tested surfaces producing readings of 10 milligrams per square centimenter—the maximum reading possible on the XRF machine.

3. Vacuum Sampling Results

From January 6, 1994 to February 3, 1997, KKI also sent letters—nine in all—to Ms. Armstead after each vacuum sampling test. These letters contained the following language:

> As you know, the dust in your home was tested for lead on [DATE] as part of the special Kennedy Krieger Institute project sponsored by the U.S. Environmental Protection Agency (EPA). The chart below will show the areas where dust was collected in your home. Remember there is no rule for how much lead is allowed in the dust from a house like yours. However, we

[13] Cecil's blood lead levels first rose above the intervention level in February 1996. The XRF report for 1108 Rutland Avenue in the record is undated, however, so it is unclear whether this XRF report led to the 1996 violation notice for 1108 Rutland Avenue or the 1998 violation notice.

[14] The Code of Maryland Regulations ("COMAR") 26.02.07.02 defines a "lead-containing substance" as "any paint, plaster or other surface coating material containing more than 0.50 percent lead by weight calculated as lead metal in the dried solid, or more than 0.7 milligrams per square centimeter by the X-ray fluorescence analyzer." *See also Hamilton v. Kirson*, 439 Md. 501, 514 n.7 (2014).

> have placed a * next to areas where the amount of lead was higher than might be found in a completely renovated house. Please give these areas special attention when you are cleaning the house, and please use the kit we brought you!

The first letter, sent on January 6, 1994, detailed the June 17, 1993 vacuum sampling test and contained no asterisks. A second letter, also sent on January 6, 1994, detailed the August 3, 1993 test and noted an asterisk next to the interior entrance of the first floor of the house. A third letter, sent on April 26, 1994, detailed a December 14, 1993 test and noted an asterisk next to the exterior entrance to the first floor. Five letters issue on the following dates noted no asterisks: (1) August 16, 1994, detailing a June 17, 1994 test; (2) February 22, 1995, detailing a December 6, 1994 test; (3) March 8, 1995, detailing a December 6, 1994 test; (4) September 5, 1995, detailing the June 15, 1995 test; and (5) February 21, 1996, detailing a December 7, 1995 test. The final letter, sent on February 3, 1997, detailing a December 17, 1997 test, noted an asterisk next to the exterior entrance.

Cecil and his family lived in the home at 1110 Rutland Avenue for several years, until February 1997.

C. Proceedings in the Circuit Court

Cecil Harris filed suit in the Circuit Court for Baltimore City on November 16, 2012, at age 20,[15] naming KKI, several City Homes entities, and various other parties as

[15] Because Cecil was a minor at the time of his alleged injury, his action was timely, pursuant to Maryland Code (1974, 2013 Repl. Vol.), Courts and Judicial Proceedings Article ("CJP"), § 5-201(a) ("(a) When a cause of action subject to a limitation . . . accrues in favor of a minor or mental incompetent, that person shall file his action within the lesser of three years or the applicable period of limitations after the date the disability is removed.").

defendants. His amended complaint, filed on April 23, 2014, named only KKI as a defendant. The amended complaint contained eleven counts, including claims for lack of informed consent, several counts of negligence (including negligence imputed because of a violation of the Baltimore City Housing Code based on KKI being an "operator" of 1110 Rutland Avenue), negligent misrepresentation, breach of contract, battery, intentional misrepresentation and concealment, and a violation of the Maryland Consumer Protection Act.

After discovery, on August 6, 2014, KKI filed a motion for summary judgment on the battery claim, arguing, *inter alia*, that (1) KKI had no control over Cecil's choice of residence; (2) KKI never intended a harmful or offensive contact; and (3) the Circuit Court for Baltimore City had previously dismissed several claims of battery against KKI on the same theory. Cecil responded on September 2, 2014, arguing that (1) there were material facts in dispute; (2) KKI set events into motion that resulted in a battery; (3) KKI could not rely on other orders from the circuit court; and (4) KKI and City Homes had engaged in a "joint endeavor."

The circuit court, in a written order on September 26, 2014, granted summary judgment for KKI on the battery claim, finding that Cecil had demonstrated no intent on the part of KKI for a harmful or offensive contact. The circuit court stated in its order:

> 6. As to . . .battery . . . [t]his Court will grant [KKI]'s Motion for Summary Judgment [] on that count and dismiss [Cecil]'s battery claim. Nothing in the protocol anticipates any unpermitted touching and traumatic contact with [Cecil] as a study participant. The protocol for the study did not

> set into motion any action or conduct intended to result in offensive, harmful contact with [Cecil].
> 7. . . . For an indirect contact to constitute a battery, "[i]t is enough that the defendant sets a force in motion which ultimately produces the result. . . ." As to the intent element, battery does not require "a specific desire to bring about a certain result, but rather a general intent to unlawfully invade another's physical well-being through a harmful or offensive contact or an apprehension of such a contact." The stated objectives of the R & M study in the . . . Protocol . . . cannot be equated to some intent to inflict a traumatic touching or poisoning, or even some indirect exposure to a traumatic weather event.

(Footnote and internal citations omitted).

The circuit court also granted summary judgment for KKI on the intentional misrepresentation and Maryland Consumer Protection Act claims. As to the intentional misrepresentation claim, the circuit court declared:

> 8. [KKI]'s Motion for Summary Judgment [] urges dismissal of Count[] . . . 8 (intentional misrepresentation, concealment). [Cecil] has not identified a dispute of material fact that [KKI] engaged in fraud or deceit (intentional conduct), and Count 8 will be dismissed. Critical to the tort of intentional misrepresentation is a showing of "actual fraud, and nothing less will sustain it." In proving this tort, a showing of "'[i]ntentional fraud, as distinguished from a mere breach of duty or the omission to use due care, is an essential factor . . . ." Mere "[m]isjudgment, however gross, or want of caution, however marked" will not satisfy the requirements of intentional misrepresentation. Based on these principles, to recover for the tort of intentional misrepresentation or deceit, a plaintiff must demonstrate, "by clear and convincing evidence: (1) that the defendant made a false representation to the plaintiff, (2) that its falsity was either known to the defendant or was made with reckless indifference to its truth, (3) that the misrepresentation was made for the purpose of defrauding the plaintiff, (4) that the plaintiff relied on the misrepresentation and had the right to rely on it, and (5) that the plaintiff suffered compensable injury resulting from the misrepresentation." [Cecil] has identified no evidence, disputed or otherwise, demonstrating that any misrepresentation was made for the purpose of defrauding [Cecil] directly or through his mother.

(Internal citations omitted).

Earlier, on July 8, 2014, Cecil had filed a motion to exclude evidence of the vacuum sampling under *Frye-Reed*,[16] arguing that evidence generated by vacuum sampling was not generally accepted in the scientific community. KKI responded on July 28, 2014, arguing that vacuum sampling was generally accepted in the scientific community, but that nonetheless, KKI would not offer such evidence to prove that "dust levels obtained by vacuum sampling [we]re 'low' or 'safe[,]'" but that "[t]he vacuum sampling results in this case are extraordinarily useful to show relative values of lead levels during the course of the Study[.]"

The circuit court heard argument and testimony on the motion on October 7 and 9, 2014. Dr. David Jacobs, Ph.D., an industrial hygienist and expert witness for KKI, testified that vacuum sampling is generally accepted in the scientific community, and Dr. Peter Lees, Ph.D., testified to the same effect. The circuit court denied Cecil's motion, stating that "vacuum dust sampling results will be permitted for the purpose of comparative significance among those results." The court in its ruling specified that KKI was prohibited from stating that levels of lead at 1110 Rutland Avenue were "low" or "safe" because of these results, and KKI agreed to this limitation. On October 13, 2014, the circuit court confirmed this in a written order, ordering (1) that Cecil's *Frye-Reed* motion was denied; (2) that KKI, as it conceded, shall not use results of vacuum sampling to show that lead

[16] In *Reed v. State*, 283 Md. 374, 389 (1978), the Court of Appeals adopted the "general acceptance" rule for the admission of expert testimony that the D.C. Circuit set forth in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923).

levels in the home were either "low" or 'safe' based on any governmental standard; and (3) that the vacuum dust sampling data at 1110 Rutland Avenue may be used to show comparative levels measured by the same means, including the magnitude of such differences.

The case proceeded to a lengthy[17] jury trial on Cecil's breach of contract, lack of informed consent, negligence, and negligent misrepresentation claims. Cecil presented the expert testimony of Dr. James M. DuBois, D.Sc., who opined that the R&M Study had ethical flaws and did not adequately protect its subjects. Dr. Adolfo Rodriguez, Ph.D., qualified as an expert in neuropsychology, testified that it in his expert opinion, Cecil read at a fourth-grade level and spelled at a sixth-grade level. He also stated that Cecil had a neuropsychological deficit and that he had an IQ of 74, placing him at the fourth percentile of his peers, and that he had a memory deficiency. Dr. Rodriguez also explained that Cecil had impaired executive function, including problems with planning, organization, reasoning, and mental flexibility.

Mark Lieberman was qualified as an expert in vocational rehabilitation. He testified that it was his expert opinion that Cecil was qualified as disabled under the Americans with Disabilities Act; specifically, that Cecil had a reading disability, and that he was cognitively disabled. He explained that people with Cecil's profile have a hard time getting a job and a hard time keeping a job, and that it was unlikely that Cecil would be able to obtain a

[17] The trial proceeded over 19 days after the jury was empaneled on October 16, 2014 until the jury rendered its verdict on November 26, 2014.

GED. Because of this, Cecil would most likely only find low skilled to unskilled jobs with low wages. Although Cecil could get a job coach to help him find a job, it would be very expensive because job coaches cost around $38.00 an hour.

On the issue of causation, Cecil called Dr. Shannon Cavaliere to testify as an expert lead risk assessor. He testified that it was his expert opinion, after reviewing records, photographs, and other evidence, that there was lead-based paint and deteriorating lead-based paint in the 1110 Rutland Avenue during Cecil's tenancy. He further testified that, to a reasonable degree of certainty, that lead-based paint at 1110 Rutland Avenue was a source of exposure to Cecil.

Dr. Steven Marcus, qualified as an expert in pediatrics and medical toxicology, testified that the time between six months and four years of age is the time when children's brains are most vulnerable to lead, and that KKI was recruiting children who were within this age bracket. He testified that Cecil's significant exposure to lead would likely cause abnormalities in brain function, and that, to a reasonable degree of medical certainty, lead exposure was a substantial contributing factor to Cecil's injury. Importantly, Dr. Marcus opined, "to a reasonable degree of medical probability that the lead in . . . 1110 Rutland Avenue, was a significant appreciable source of the lead that resulted in the child's elevated lead levels."

For the defense, Dr. Jacobs was qualified as an expert "in the areas of industrial hygiene as they specifically relate to lead risk assessment, sources of lead exposure and perhaps more generally on the prevention of lead poisoning." Dr. Jacobs explained that

the vacuum sampler data demonstrated that 1110 Rutland Avenue's lead reductions were sustained over a long period of time and that it was not a significant source of lead exposure to Cecil. His testimony (discussed in more detail *infra*) included that a source of Cecil's lead poisoning was the clothing of Cecil Harris, Jr., Cecil's father, who did demolition work. Dr. Erica Liebelt, M.D., was qualified as KKI's pediatrics and toxicology expert. She testified, along with Dr. Jacobs, that another source of Cecil's lead exposure was the 1108 Rutland Avenue property—the property adjacent to the Harris residence that had two lead paint violations in 1996 and 1998.[18]

KKI also called Dr. Gloria Morote, Ph.D., qualified to testify as an expert neuropsychologist. Dr. Morote presented her expert opinion that Cecil had the potential to learn and that he had the cognitive capacity to acquire a GED. Dr. Sheryl Ransom, Ph.D., qualified as an expert in the area of vocational rehabilitation, testified that in her opinion, if Cecil was put into an appropriate GED program and provided assistance, he could complete the GED and would be employable in the field he was most interested in, which was construction.

In an effort to give context to the R&M Study, KKI called former Mayor Kurt L. Schmoke, over objection, as a fact witness to testify to the efforts of various public and private groups to reduce the problems associated with lead-based paint in Baltimore City during the 1990s. KKI also called Mayor Schmoke to testify in response to the testimony

[18] Dr. Liebelt did not present live testimony, but rather, her videotaped deposition testimony was played for the jury.

of Dr. DuBois, who had previously criticized the structure, purpose, and design of the R&M Study from a medical ethics perspective.

At the close of plaintiff's case, the circuit court denied KKI's motion for judgment as to the remaining claims, including negligence, negligence based on the Baltimore City Code, negligent misrepresentation, breach of contract, and lack of informed consent. But at the close of all evidence, the circuit court granted KKI's motion for judgment on the claim of negligence imputed by virtue of a violation of the Baltimore City Code that was premised on the theory that KKI was an "operator" of 1110 Rutland Avenue.[19] Although the court acknowledged that the evidence showed KKI was involved in determining the initial repairs to be made to 1110 Rutland and monitored the status of the house on an ongoing basis, the court found that KKI did not take over from City Homes the role of landlord or the broader role of ensuring compliance with the Baltimore Housing Code for 1110 Rutland.

Cecil requested a jury instruction on the breach of contract claim, asking the court to instruct the jury that *Grimes v. Kennedy Krieger Institute, Inc.*, 366 Md. 29 (2001), dictated that the Consent Form in this case constituted a contract. The circuit court declined to give Cecil's proposed instruction.

On November 26, 2014, the jury returned a verdict in favor of KKI on all remaining claims. As described in more detail *infra*, the jury answered in KKI's favor on all threshold

[19] The circuit court allowed the general negligence claim—not based on the Baltimore City Code—to remain for the jury to decide.

questions and did not reach the issue of causation on any claim. This timely appeal followed on December 23, 2014.

More facts will be provided as pertinent to each issue examined.

DISCUSSION

I.

Admissibility of Evidence on the Vacuum Sampler

We first address the admission of the vacuum sampling evidence, which was erroneous only in respect to the admission of Exhibit 84. As stated *supra*, the court's *Frye-Reed* order permitted vacuum sampler evidence to show comparative lead levels over time, but not to show that 1110 Rutland Avenue was "safe" or that lead levels at the property were "low."

A. Admissibility of the Vacuum Sampler Evidence Under *Frye-Reed*

The Estate argues that sampling evidence generated by the vacuum method used in the R&M Study is inadmissible under *Frye-Reed* because it was an experimental method and not generally accepted in the scientific community. The Estate points out, as it did in the *Frye-Reed* hearing, that unlike accepted abatement clearance standards based on dust wipe sampling, vacuum dust collection has not been adopted as a legal standard to measure lead dust by any jurisdiction. And, the Estate contends, to the extent the American Society for Testing and Materials ("ASTM") has prescribed standard methods for vacuum sampling in other studies, the vacuum used in the R&M Study was a modification of the vacuum covered by the ASTM standards and therefore it must fail *Frye-Reed*. The Estate

also aims at a statement that Susan McNutt, a KKI R&M contractor, made in a deposition about the vacuum sampler:

> But as an expert, I don't look at those because they don't mean anything. There is no protocol for them, there never has been, there never was. We don't measure lead dust by vacuum sampling. It's just not done in the industry. So it doesn't mean anything even if it, there were chains of custody and all those things that would all lay there and tell me.

KKI disputes the Estate's contentions and maintains that the evidence admitted at the *Frye-Reed* hearing, including the testimony of Dr. Jacobs and Dr. Lees, demonstrated that vacuum sampling results are generally accepted in the scientific community. KKI insists that the vacuum used in this Study—the BRM Sampler—has been tested, validated, and discussed in peer-reviewed articles.

We review *de novo* a trial court's determination on the admissibility of a scientific principle under *Frye-Reed*. *Wilson v. State*, 370 Md. 191, 201 n.5 (2002). Under *Frye-Reed*, "before a scientific expert opinion may be received in evidence, the basis of that opinion must be shown to be generally accepted as reliable within the expert's particular scientific field." *Id.* at 203. The *Frye-Reed* inquiry is "a serious gate-keeping function [with the purpose of] differentiating serious science from 'junk science.'" *Blackwell v. Wyeth*, 408 Md. 575, 591 (2009)). "Generally accepted methodology, therefore, must be coupled with generally accepted analysis in order to avoid the pitfalls of an 'analytical gap.'" *Id.* at 608.

Maryland Courts have yet to recognize the general acceptance of vacuum sampling for measuring lead, but has determined the same technique to be generally accepted for

measuring asbestos contamination. *U.S. Gypsum Co. v. Mayor and City Council of Baltimore*, 336 Md. 145, 182-84 (1994). Nevertheless, "the mere fact that a technique is established as reliable for one purpose does not mean that its application for an entirely different purpose escapes examination under the *Frye* test." *Keene Corp., Inc. v. Hall*, 96 Md. App. 644, 655 (1993).

Before turning to the case at hand, we repeat that, in Maryland, State-accredited lead inspectors must use dust wipes for their inspections to certify compliance with the risk reduction standard. *See* COMAR 26.16.02.03, 26.16.05.09.

1. The Motion *in Limine*

Cecil filed a motion *in limine* on July 8, 2014, requesting that the court rule that the vacuum-sampling evidence was inadmissible under *Frye-Reed*. Cecil's motion stated that he anticipated that KKI would attempt to introduce vacuum sampling evidence stating that the 1110 Rutland Avenue had "safe" or "low" lead dust levels. Cecil argued that KKI could not use vacuum sampling data to show safe or low lead levels because its use in that manner was new and novel and not generally accepted in the scientific community. Cecil further argued that vacuum sampling was not generally accepted in the scientific community because all standards are keyed to wipe sampling, not vacuum sampling. Among the exhibits attached to Cecil's motion was an excerpt from Dr. Jacobs's deposition testimony in which he stated that he was not aware of any jurisdiction that had adopted vacuum sampling as a legal standard, and admitted that "[a]ll the federal standards and the state standards that [he was] aware of are associated with wipe sampling." Cecil

also provided, *inter alia*, an excerpt from the deposition testimony of Susan McNutt, a KKI R&M contractor, in which she stated the industry did not use vacuum sampling.

In reply, KKI submitted an affidavit from Dr. Jacobs in which he stated that vacuum sampling was generally accepted in the scientific community, and in support of this contention, listed numerous EPA studies and peer-reviewed articles about vacuum sampling.[20] He explained in the affidavit that, although assessment of compliance with an exposure limit must be made with a standard sampling method, "not all standard sampling methods necessarily have an exposure limit associated with them." Dr. Jacobs explained that, in the residential setting in Maryland during the R&M Study in the 1990s, Maryland had state mandated post-abatement exposure limits, but the applicable federal guidelines were unenforceable. The enforceable Maryland post-abatement exposure limit was based on wipe sampling, not vacuum sampling. Nonetheless, Dr. Jacobs maintained that this "has no bearing on whether or not vacuum sampling is a standard well-accepted method,

[20] Dr. Jacobs, in his affidavit, sought to clarify some issues of nomenclature concerning the terms "'standard sampling method,'" "'exposure limit,'" and "'guideline,'" three "terms [that] are sometimes used interchangeably or called "'standards'" for short[.]"

Dr. Jacobs defined "'**standard sampling method**'" as "a method that has been approved by a government agency, such as the [EPA] or [HUD], or by consensus industry standard-setting bodies, such as . . . [ASTM] or the American National Standards Institute [] or the International Standards Organization [] ." (Emphasis added) (footnotes omitted).

He defined "'**exposure limit**'" as "a bioavailable amount in an environmental medium (such as settled dust, air, water, soil etc.), as determined by a specific "'standard sampling method,'" below which risks are believed to be minimal **and which are legally enforceable**." (Emphasis added) (footnote omitted).

Finally, Dr. Jacobs defined "'**guideline**'" as "a scientific consensus on an exposure limit or sampling method or other procedure, but that is not legally enforceable." (Emphasis added) (footnote omitted).

which it clearly was at the time of the R&M [S]tudy (and remains so today)." Dr. Jacobs then listed the relative attributes of both vacuum sampling and wipe sampling—explaining that vacuum sampling can provide three metrics of lead dust content: concentration, loading, and total dust loading, whereas wipe sampling can provide only one metric—dust lead loading.[21]

Finally, Dr. Jacobs asserted in his affidavit:

> [V]acuum sampling was done to evaluate trends in levels of settled lead dust over time for both concentration and load, something wipe sampling could not do. Although it is correct to state that vacuum sampling results cannot be directly compared to clearance dust lead "standards" or "exposure limits" **they can in fact be used to scientifically establish trends in dust lead concentration and loading over time** and to establish if those levels had been reduced substantially, which is exactly what the researchers in the [R&M] study did. They did not attempt to compare vacuum dust lead results directly to the wipe guidance lead dust levels, as incorrectly alleged by plaintiffs. **Indeed, wipe samples were collected in the R&M houses and the results showed that lead dust levels complied with Maryland post-abatement clearance standards that were in effect at the time.**

[21] An EPA article distinguishes lead concentration, dust loading, and lead loading in the following manner:

> The *lead concentration*, sometimes called a *mass concentration*, is usually expressed as micrograms of lead per gram of dust [] or the equivalent expression, parts per million lead by weight []. The amount of dust on a surface can be expressed as grams of dust per unit area and is usually called *dust loading* []. **The lead concentration, multiplied by the dust loading on a surface, gives a *lead loading* value** and is commonly expressed as micrograms of lead per unit area [].

Environmental Protection Agency, Final Report, Sampling House Dust for Lead, Basic Concepts and Literature Review, 2-1 (Sept. 1995), *available at* http://www2.epa.gov/sites/production/files/documents/r95-007.pdf [https://perma.cc/K9GB-SZKB] (bold emphasis added and italic emphasis in original) (footnote omitted).

(Emphasis added).[22]

2. The *Frye-Reed* Hearing

At the October 7 and 9, 2014 hearings on the *Frye-Reed* motion, Dr. Jacobs was qualified as an expert "in the area of industrial hygiene[, . . .] particularly as it relates to the vacuum dust sampling methods at issue in this case." He testified as to a number of studies authored on the use of the original HVS3 vacuum (meeting ASTM standards) and the modified BRM Sampler.[23] Dr. Jacobs further testified that vacuum sampling, rather than wipe sampling, is the best way to measure *concentration* of lead dust, stating that "you can't get concentration off of the wipe because there's no way to measure the wipe before and after you've done the wipe."

[22] In response to Dr. Jacobs's affidavit, Cecil filed an affidavit of Dr. William Shannon, Ph.D., a professor of biostatistics. Dr. Shannon testified at the subsequent *Frye-Reed* hearing, and his testimony will be explored in more detail *infra*. Generally, he affirmed, in his affidavit, that the BRM Sampler was never scientifically validated nor generally accepted within the scientific community. He stated that government standards and journal articles call for the wipe method in assessing lead levels in houses.

[23] KKI also submitted through Dr. Jacobs's testimony many journal articles discussing vacuum sampling, the BRM Sampler used in the present case, and the ASTM standard. Representative examples from the 20 articles there were admitted are: J.W. Roberts *et al.*, *Project Summary, Evaluation of Dust Samplers for Bare Floors and Upholstery*, United States Environmental Protection Agency Research and Development, March 1996; J.W. Roberts *et al.*, *A Small High Volume Surface Sampler (HVS3) for Pesticides, and Other Toxic Substances in House Dust*, Air and Waste Management Ass'n, June 1991; American Society for Testing and Materials International D5438-93, *Standard Practice for Collection of Dust from Carpeted Floors for Chemical Analysis* (1993); American Society for Testing and Materials International D5438-93, *Standard Practice for Collection of Floor Dust for Chemical Analysis* (2005); American Society for Testing and Materials International D5438-93, *Standard Practice for Collection of Floor Dust for Chemical Analysis* (2011).

According to Dr. Jacobs, the HVS3 was an upright vacuum, whereas the BRM Sampler was handheld; however, the BRM Sampler used the same cyclone as the HVS3 and the HVS2. He stated that the HVS3 was an improvement on the HVS2 in that it made it lighter, and that the BRM Sampler further improved the design in that its shape allowed the BRM Sampler to reach more surfaces and "sample window sills and window wells," and that "that's particularly important because we know that windows have more lead paint and lead dust on them compared to any other building component." He asserted the BRM Sampler was more efficient than the HVS3 for windowsills and similar surfaces, but acknowledged that it was less effective than the HVS3 at vacuuming carpet. Dr. Jacobs confirmed that the BRM Sampler's modification was validated, and KKI submitted various validation studies to the circuit court.

Dr. Jacobs discussed the various studies performed on vacuum sampling and ASTM standards for vacuum sampling. He stated that the process for establishing an ASTM standard is peer reviewed, "very rigorous," and that "[i]t has to be a unanimous vote." He informed the court that there have been ASTM standards for vacuum sampling since 1993 and that they have "withstood the test of time." He noted that the EPA uses vacuum sampling in the Superfund program, and that, "if the method wasn't validated[,] it obviously wouldn't be used[,]" and that "it's a method that's been well validated and well accepted and has been widely used and is scientifically valid."[24] Although he admitted, on

[24] Dr. Jacobs suggested that the reason that the wipe method was in more widespread use today than vacuum sampling is because the wipe method is less expensive than vacuum sampling.

cross-examination, that clearance standards for lead risk assessment are measured using the wipe method, he explained that clearance testing is different from risk assessment, as demonstrated by the fact that clearance testing and risk assessment are treated in different chapters in the HUD guidelines.

Dr. Lees, who had been involved in the modification of the HVS3 to create the BRM Sampler, also testified for KKI that the reason for the modification was to make it easier to vacuum windowsills, stating that "[i]n essence, all we did is disconnected the cyclone from the big vacuum." Dr. Lees also testified that the results of a published study of the BRM Sampler,[25] "were perfectly in line with the data that had been published relative to the recoveries from the off-the-rack HVS3."

Cecil responded by offering the testimony of Dr. William Shannon, qualified as an expert in the fields of bio-statistics and validation. His opinion was that the BRM Sampler was not properly validated and that the test results were not reliable and accurate. He took issue with the fact that one study compiled data on a vacuum sampler's measurement of sand, sediment, and talc, but not dust, and the fact that the BRM Sampler contained no gauge to measure air flow. He also posited that the BRM Sampler was a device that was different from the HVS3, and therefore, the ASTM standards did not apply to the BRM Sampler.

[25] Mark R. Farfel *et al.*, *Comparison of Two Cyclone-Based Collection Devices for the Evaluation of Lead-Containing Residential Dusts*, Applied Occupational Envtl. Hygiene 9(3) at 212-17, March 1994.

On cross examination, Dr. Shannon repeatedly stated that using the BRM Sampler in conjunction with wipe sampling would be the "gold standard" for validation. He said that the wipe method is the "current gold standard . . . because of regulatory acceptance." Dr. Shannon could not, however, explain how wipe sampling itself was validated.

In closing, KKI argued that Dr. Shannon was an excellent statistician, but that he had no experience with either wipe sampling or vacuum sampling. KKI acknowledged that there are no lead clearance standards for vacuum sampling and nothing that provided any particular level of lead measured through vacuum sampling was safe, but KKI agreed that it would not make that argument. But KKI insisted that the BRM Sampler was "almost identical" to the HVS3, which was accredited by ASTM. In conclusion, KKI argued that the use of vacuum sampling was generally accepted in the scientific community, and that the BRM Sampler was a minor modification of the HVS3, and that the modification was validated.

Cecil's counsel argued once more that the lack of a gauge on the BRM Sampler to measure air flow was problematic. She also argued that there was a difference between using a vacuum sampler to measure sand, sediment, and talc—as in the one study relied on by KKI—and to measure lead particles. However, the record reflects no clear answer to the court's inquiry into what expert or other source provided that lead dust had some special characteristic that would not allow it to be measured in this fashion.

After the *Frye-Reed* hearing, the circuit court orally denied Cecil's *Frye-Reed* motion and gave the limiting instruction on the admissibility of the vacuum dust sampling results.

Dr. Jacobs's affidavit, the journal articles that KKI submitted, and Dr. Jacobs's and Dr. Lees's testimony convince us that the court did not err in its determination that vacuum sampling evidence was "'generally accepted as reliable'" within the relevant scientific field. *Blackwell*, *supra*, 408 Md. at 588 (quoting *Wilson*, *supra*, 370 Md. at 203). The evidence proved that vacuum sampling is a generally accepted method for evaluating trends in levels of lead dust over time, and we hold that the circuit court properly admitted the vacuum sampling evidence for that limited purpose. We also find persuasive Dr. Jacobs's and Dr. Lees's testimony that the BRM Sampler equated to a minor modification of the HVS, and that the modification was validated in the scientific community. However, because there were no clearance standards—or exposure limits, depending on one's preferred nomenclature—established for vacuum sampling, it was also proper for the circuit court to restrict the use of the vacuum sampling evidence to demonstrate *comparative* levels of lead, but to disallow the evidence to be used to show that 1110 Rutland Avenue was "safe" or had "low" lead levels. Accordingly, we hold that the circuit court correctly denied Cecil's *Frye-Reed* motion.

B. Trial Testimony

Over objection, Dr. Jacobs testified at trial that the house was "safe" when Ms. Armstead and her family moved in. Dr. Jacobs's opinion was based on the dust wipe

testing, not the vacuum sampling results. The following colloquy occurred at trial, over Cecil's objection:

> [KKI'S COUNSEL:] And so after the work was done by the R&M Study and then the landlord, was there testing done by dust wipes to ensure the clearance standards were passed?
>
> [DR. JACOBS:] Yes. Even though technically this wasn't an abatement project, remember clearance testing was only required for abatement back in those days, but this study basically went the extra mile and did the dust wipe testing to establish that the house really was safe before the family moved in.
>
> [KKI'S COUNSEL:] I want to show you what's been marked as Defendants' Exhibit 46.
>
> [CECIL'S COUNSEL:] What is it?
>
> [KKI'S COUNSEL:] It's the clearance standards letter.
>
> * * *
>
> Okay. So this is Defendants' Exhibit 46, and I would like you just to briefly describe to the jury what this is. They heard a little bit about it before. But in terms of you talking about lead safe and clearance standards and dust wipes, if you could kind of put it all together for us with this document.
>
> [DR. JACOBS:] Sure. These are wipe samples, so we're measuring lead loading in micrograms of lead per square foot of surface area wipe. And these are the surfaces that were wiped. And, again, the wipe was sent off to a laboratory to analyze it for lead content. So you get the lead on the wipe divided by the square foot of the surface that you wipe.
>
> And the clearance standards back in this time period for floors, for example, were 200 micrograms per square foot. So if you were below that, it meant that the home was safe.
>
> So for this first sample, for example, you see that the lead level was five, only five micrograms per square foot and in all likelihood was actually lower because N D means [] non-detected. So it was below what the laboratory could detect on the wipe sample.
>
> * * *

> And you see the same kind of pattern really for the rest of the surfaces that are measured. So the point is this house passed clearance under the standards in place at the time the study was done and, therefore, it meant it was safe for the child to move in.
>
> [KKI'S COUNSEL:] Okay. And this testing was done before the family moved in, correct?
>
> [DR. JACOBS:] Yes, correct.
>
> [KKI'S COUNSEL:] Okay. And this meant that if the house passed clearance standards, it was safe for the family to live there?
>
> [DR. JACOBS:] Yes, correct.
>
> * * *
>
> [KKI'S COUNSEL:] Doctor, do you have an opinion to a reasonable degree of scientific certainty whether 1110 Rutland Avenue was safe for Mr. Harris to live in when he moved into that property -- when he was born into that property?
>
> * * *
>
> [DR. JACOBS:] Yes, I do.
>
> [KKI'S COUNSEL:] Okay. And . . . what is that opinion?
>
> [DR. JACOBS:] The opinion is that this house was remediated. It met the acceptable standard at the time. The house was safe. So my opinion is that it represented very minimal risk to the child.
>
> [KKI'S COUNSEL:] And the house complied with the regulatory definition of lead safe?
>
> [DR. JACOBS:] Correct.

Several minutes later, KKI's counsel asked Dr. Jacobs about how the R&M Study's trigger levels were developed, and Dr. Jacobs responded that, "for wipe sampling, we have

sort of regulatory standards in place following the work. **For vacuum sampling, there hasn't been any sort of exposure limit established.**" (Emphasis added). He then testified that one purpose of the Study "was basically a method of trying to interpret the vacuum sampling results."

Dr. Jacobs then reviewed the letters sent from KKI to Ms. Armstead concerning the vacuum sampler results, described *supra*. The following testimony was offered, over Cecil's objection:

> [KKI'S COUNSEL:] Okay. So, Dr. Jacobs, based on the records that you've reviewed, the deposition testimony you reviewed, the records that we have just seen now, do you have an opinion to a reasonable degree of scientific certainty whether 1110 Rutland Avenue was a substantial source of exposure to lead for Cecil Harris?
>
> * * *
>
> [DR. JACOBS:] Yes, I do have an opinion.
>
> [KKI'S COUNSEL:] And what is that opinion?
>
> [DR. JACOBS:] And the opinion is basically that this house was remediated and was not a significant factor in Cecil's exposure to lead dust. The house was remediated. **The reductions in lead dust was sustained over a long period of time.** I think the data clearly shows that.

(Emphasis added). Thus, Dr. Jacobs explicitly relied on the vacuum sampling results to opine that 1110 Rutland Avenue was not a significant factor in Cecil's exposure to lead, and he did not use the words "safe" or "low" *when referring to the vacuum sampling results*. Dr. Jacobs also testified concerning the ASTM standard and stated that the vacuum sampling from the R&M Study was a "widely used method" and "an accepted method."

1. Admissibility of Exhibit 50

The Estate challenges the admission of Exhibit 50 into evidence. Exhibit 50 was a printout of a graphic depicting the all of the vacuum sampling data KKI collected for 1110 Rutland Avenue for the relevant time frame. Dr. Bannon, who is a chemist and was KKI's Trace Metals Laboratory supervisor during the R&M Study, sponsored the document. The trace metals laboratory conducted the initial analysis of the collected house dust and then transferred the resulting data to a data manager. The Estate contends, however, that Dr. Bannon did not conduct any further analysis and "did not do any further quality control or review" of the document itself. More specifically, the Estate alleges that "[i]t was necessary for the data manager [at the trace metals laboratory] to undertake further analysis and calculations to arrive at the numbers populating the exhibit." Thus, the Estate reasons that because Dr. Bannon did not perform this work, the document was not admissible to support his expert testimony under Maryland Rule 5-702 due to the absence of reliable methodology, or under Maryland Rule 5-602 because even as a fact witness, Dr. Bannon lacked personal knowledge. In a footnote, the Estate points out that it was never provided with the raw data underlying KKI's summary, in violation of Maryland Rule 5-1006.

KKI rejoins by clarifying that Dr. Bannon was not an expert witness and was, instead, a fact witness who explained the methodology and chain of custody for "collecting, identifying, analyzing, and tracking the lead dust vacuum samples collected from the Study homes by use of a bar code system, with the results stored in a central computer dedicated

to the R&M Study." They maintain that Exhibit 50 was admitted as a document maintained in the regular course of business for KKI.

On appellate review of a hearsay question,

> the trial court's ultimate determination of whether particular evidence is hearsay or whether it is admissible under a hearsay exception is owed no deference on appeal, but the factual findings underpinning this legal conclusion necessitate a more deferential standard of review. Accordingly, the trial court's legal conclusions are reviewed de novo, but the trial court's factual findings will not be disturbed absent clear error.

Gordon v. State, 431 Md. 527, 538 (2013) (internal citations omitted).

Business records are admitted into evidence as an exception to the hearsay rule as long as they fulfill the four requirements of Maryland Rule 5-803(b)(6):

> (6) Records of Regularly Conducted Business Activity. A memorandum, report, record, or data compilation of acts, events, conditions, opinions, or diagnoses if (A) it was made at or near the time of the act, event, or condition, or the rendition of the diagnosis, (B) it was made by a person with knowledge or from information transmitted by a person with knowledge, (C) it was made and kept in the course of a regularly conducted business activity, and (D) the regular practice of that business was to make and keep the memorandum, report, record, or data compilation. A record of this kind may be excluded if the source of information or the method or circumstances of the preparation of the record indicate that the information in the record lacks trustworthiness. In this paragraph, "business" includes business, institution, association, profession, occupation, and calling of every kind, whether or not conducted for profit.

The sponsoring witness must be someone "who possesses the necessary knowledge to establish these facts, but there is no requirement that the witness have first-hand knowledge of the matter reported or that the witness actually have prepared or observed the preparation of the report." *Dep't of Pub. Safety Corr. Servs. v. Cole*, 342 Md. 12, 29

(1996) (citing 2 McCormick on Evidence § 292, at 277)). "If this were not the case, the business records exception 'would lose much of its utility and effectiveness.'" *Bartlett v. Portfolio Recovery Assocs., LLC*, 438 Md. 255, 285 (2014) (quoting *Killen v. Houser*, 251 Md. 70, 76 (1968)). "The rationale underlying this exception is 'based on the premise that because the records are reliable enough for the running of a business . . . they are reliable enough to be admissible at trial. This is true *regardless of whether the person who actually did the recording has personal knowledge of the information recorded.*'" *Housing Auth. of Baltimore City v. Woodland*, 438 Md. 415, 444 (2014) (emphasis in *Woodland*) (quoting *Hall v. Univ. of Maryland Med. Sys. Corp.*, 398 Md. 67, 88-89 (2007)).

Here, Dr. Desmond Bannon, KKI's former trace metals laboratory supervisor, sponsored Exhibit 50 and through his testimony established the chain of custody for Exhibit 50. Dr. Bannon testified that he introduced KKI's bar code system for analyzing and keeping track of the data from the R&M Study. He explained that he developed a bar code system to track samples and data from samples, so that the process would not be chaotic. He testified that each sample had a unique bar code. He further testified that chain of custody was observed so that the samples would not be misplaced, and that this was an automated system. Dr. Bannon explained that all data was collected on a central computer managed by Brian Rooney, the data manager, who could print out reports such as these showing all data generated from a particular house. He testified that this data on each particular house was kept in the ordinary course of business on the computer system.

On direct examination he explained:

[KKI'S COUNSEL:] Would these [bar codes] be scanned into computer systems?

[DR. BANNON:] Yes. We had a reader on each analytical instrument, a little bar code pen reader that scanned in the bar code.

* * *

[KKI'S COUNSEL:] . . . once the sample arrives at the [KKI] trace metals lab, what would then be the process for the dust sample from the vacuum to move through the lab and ultimately result in data?

[DR. BANNON:] Well, briefly, the samples were logged in. There was a chain of custody for them, and they were prepped by a sample prep technician for analysis. . . . And after analysis and batching in groups of 24 . . . samples in a batch, the samples were placed in a small plastic bin, and they were transferred to the analyst, who again scanned the samples using the bar code into an instrument, a computer, and did an automated analysis. There was a robotic system for doing the analysis.

So we had a, pretty much, automated system from the beginning to the end of analysis.

[KKI'S COUNSEL:] So is this a process by which one could then say the results, data, information, numbers, matched the sample that came into the lab? Was that the purpose?

[DR. BANNON:] Yes. We were very confident because of the bar code system, the computer reading system, that the results were matched.

* * *

[KKI'S COUNSEL:] Let me show you what has been premarked as Defendant's Exhibit 50 for identification.

Have you examined these data points, if we can call it that?

[DR. BANNON:] Yes, I have.

[KKI'S COUNSEL:] About which house does this reference?

[DR. BANNON:] This also says 366.

[KKI'S COUNSEL:] So would that have been the 1110 Rutland Avenue that we just looked at?

[DR. BANNON:] I assume so.

[KKI'S COUNSEL:] Now, on these pages, do you see where it says 02 load, 06, 12 load, 18 load, 24 load? Did you see that?

[DR. BANNON:] Yes.

[KKI'S COUNSEL:] What are those?

[DR. BANNON:] They are the campaigns for the study, the periods of time when sampling was done.

[KKI'S COUNSEL:] And then there are various data points on pages Harris Gen 01 through Harris Gen 06.

Do you see those, different data points, different numbers?

[DR. BANNON:] Yes.

[KKI'S COUNSEL:] Would those have been tracked via the bar code that you described?

[DR. BANNON:] Yes, they would have been up to the point of data transfer to the data manager.

[KKI'S COUNSEL:] Would that then be linked to the campaign and then the house?

[DR. BANNON:] Yes, it would.

[KKI'S COUNSEL:] And would this be kept -- this information be kept in the regular course of business?

[DR. BANNON:] It would have been kept on a central computer, yes.

Counsel for KKI attempted to move Exhibit 50 into evidence, whereupon Cecil's counsel cross-examined Dr. Bannon on the exhibit. Dr. Bannon testified that once the

information from the computer was transferred to Brian Rooney, the data manager, Dr. Bannon did not perform any further review of the data Mr. Rooney created. Dr. Bannon confirmed that during his deposition when presented with the same document—Exhibit 50—he admitted that he had not seen that particular printout prior to the deposition, but he also pointed out at the deposition that he would have seen similar documents in the course of business. Dr. Bannon further explained that he did not have the calculations that Mr. Rooney had when he entered the data, but that he could perform those calculations himself if he had the raw data and a calculator. Counsel for Cecil then moved to exclude Exhibit 50, claiming that there was a chain of custody gap because the calculations were performed by Brian Rooney, another person.

The circuit court then admitted Exhibit 50 as a business record. The court stated:

> We're dealing with something that was done 20 years ago and what has been produced is qualified as a business record maintained from that study and it is -- it's not a summary. It's not something new prepared for trial out of information that existed.
>
> * * *
>
> The chain of custody issue would be whether the samples taken from the house were, in fact, the samples that were tested and produced a certain result. This witness has clearly covered the chain of custody, this witness and a previous witness about the samples being bar coded when they were collected. That satisfied.
>
> The issue we're talking about is not a chain of custody issue, it's the handling of the data once in the calculations that are done. This witness has clearly said that once the data goes into the computer system then it's a matter of making calculations from it and the output is a product of a business record it comes there [sic] that system, and that's what the Defendants are advancing, he didn't go through the steps of it. I take it is a calculation of converting raw test into concentrations which is arithmetic, and these are the results of those calculations.

We hold that the circuit court did not err in admitting Exhibit 50 as a business record. We have already determined that the underlying data is admissible under *Frye-Reed* earlier in this opinion,[26] and we conclude that through Dr. Bannon's testimony, KKI established that the document met the requisites of Maryland Rule 5-803(b)(6). Dr. Bannon testified that (1) the data and the reports of the data reflected on Exhibit 50 were produced

[26] In its reply brief, the Estate also asserts, relying on Maryland Rule 5-803(b)(6), that Exhibit 50 is unreliable because the underlying science that produced Exhibit 50 is inherently unreliable. To the extent that this argument is preserved—it is not argued in the Estate's opening brief and is raised for the first time in its reply brief—it is without merit. If "a record qualifies as a business record, there is a presumption of trustworthiness, and the objecting party, especially in a civil case, bears a heavy burden in order to exclude an otherwise admissible business record as untrustworthy." *Owens-Illinois, Inc. v. Armstrong*, 326 Md. 107, 116 (1992). A trial judge may analyze the following indicia in determining whether a business record should be excluded due to a lack of trustworthiness:

> 1) the purpose for which the record was prepared and any possible motive to falsify including whether the record's use in prospective litigation was a motive for its preparation, 2) how routine or non-routine the record is and how much reliance the business places on the record for business purposes, and 3) where, as in the instant case, the record contains opinions and conclusions—how valid, speculative, or conjectural the opinions or conclusions are, as well as the need for interpretation or cross-examination to prevent misleading or confusing the trier of fact.

Id. at 115 (internal citations omitted).

Exhibit 50 contains no indicia causing us to distrust it. It was produced at the time of the R&M Study for the R&M Study, and, as Dr. Bannon testified, documents such as Exhibit 50 were routinely produced. In addition, Exhibit 50 contains only data, not opinions. Thus, contrary to the Estate's assertion, the document's degree of reliability or trustworthiness is only concerned with the circumstances of the document's formation, not the substantive nature of the document or the science supporting the document. Exhibit 50 was a printout of data prepared routinely, almost 20 years before the present litigation. At the time it was created, there was no specter of litigation.

contemporaneously with the R&M Study; (2) Exhibit 50 was made by a person—Brian Rooney, the data manager—with knowledge of the Study and computer programs; (3) the data was made and kept in the course of a regularly conducted activity of the R&M Study; and (4) it was a regular practice within the R&M Study to produce and keep such data and reports. The Estate's contention that exclusion of Exhibit 50 is warranted because a data manager—not Dr. Bannon—performed the final analysis is not determinant. This is so even though Dr. Bannon could not recall ever seeing this particular document prior to his deposition. The law does not require that the witness "have first-hand knowledge of the matter reported or that the witness actually have prepared or observed the preparation of the report." *Cole*, *supra*, 342 Md. at 29 (citing 2 McCormick on Evidence § 292, at 277)).

We conclude that Exhibit 50 met the requisites of Maryland Rule 5-803(b)(6) and did not contain a degree of unreliability or untrustworthiness so as to warrant its exclusion. We affirm the circuit court's decision to admit the exhibit as a business record.[27]

[27] The Estate also argues that Exhibit 50 must be excluded—pursuant to Maryland Rule 5-1006—because Cecil "never was provided with the raw data underlying KKI's summary of the vacuum test results." Maryland Rule 5-1006 provides:

> The contents of voluminous writings, recordings, or photographs, otherwise admissible, which cannot conveniently be examined in court may be presented in the form of a chart, calculation, or other summary. The party intending to use such a summary must give timely notice to all parties of the intention to use the summary and shall make the summary and the originals or duplicates from which the summary is compiled available for inspection and copying by other parties at a reasonable time and place. The court may order that they be produced in court.

Pursuant to Dr. Bannon's testimony, Exhibit 50 was not a summary of voluminous writings; it was a printout of the data itself. Thus, Maryland Rule 5-1006 is not applicable

2. Admissibility of Exhibit 84

The Estate asserts Exhibit 84 should not have been admitted because it violated Maryland Rule 5-702's requirement that expert testimony "assist the trier of fact." We agree.

Exhibit 84—created and sponsored by Dr. Jacobs—is a graphical representation of the dust levels that were collected by KKI's vacuum sampler inside 1110 Rutland Avenue, set against a graphical representation of Cecil's blood lead level results.[28] The Estate contends that, despite the fact that there are no lead-safe clearance standards for vacuum dust collection, the graph creates an association between dust-lead levels and blood lead levels. The Estate asserts that "there is no metric that permits vacuum dust sampling results to be characterized as "low" or "safe" or "minimal risk," and there was "no accepted basis upon which to assign a specific risk of harm to a comparatively lower level of lead-dust produced by KKI's Dirt Devil vacuum sampler." Exhibit 84, therefore, "was extraordinarily misleading, yet undoubtedly persuasive."

In riposte, KKI argues that Exhibit 84 is simply a graphic depiction of evidence that was properly admitted during trial: actual dust lead and actual blood lead levels over time.

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in the present context and does not warrant Exhibit 50's exclusion.

[28] The underlying data for both constituent elements of Defense Exhibit 84 had been admitted previously. Cecil's blood lead levels were admitted as Plaintiff's Exhibits 8 and 56—the KKI letters and a chart of the Cecil's blood lead levels during the relevant time period. The lead dust vacuum data was admitted as Defense Exhibit 50, and we have already determined that the admission of Exhibit 50 was proper.

"While Exhibit 84 admittedly shows drastic reductions in dust lead loadings during the same time that there were increases in Appellant's blood lead levels, the Exhibit was nothing more than a graphic depiction of the **evidence**." (Emphasis added).

The admissibility of expert opinion is subject to an abuse of discretion standard of review. *Roy v. Dackman*, 445 Md. 23, 38-39 (2015). Rule 5-702 provides:

> **Expert testimony may be admitted, in the form of an opinion or otherwise, if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue.** In making that determination, the court shall determine (1) whether the witness is qualified as an expert by knowledge, skill, experience, training, or education, (2) the appropriateness of the expert testimony on the particular subject, and (3) whether a sufficient factual basis exists to support the expert testimony.

(Emphasis added). "Testimony by experts is admissible only if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue[.]" *State v. Smullen*, 380 Md. 233, 268 (2004) (citing Md. Rule 5-702). The decision to admit or exclude expert testimony will not be reversed absent an abuse of discretion. *Shemondy v. State*, 147 Md. App. 602, 611-12 (2002).

At the threshold, we note that the very few Maryland cases that address a similar issue support the principle that a court must ascertain whether the proposed expert testimony and exhibits would assist the jury in understanding the evidence. In *Shemondy*, this Court concluded that the circuit court did not abuse its discretion when it permitted a police sergeant to provide the jury an expert opinion concerning the meaning of numerical data obtained from the criminal defendant's pager. *Id.* The sergeant, who testified that he

had learned the pager codes that drug dealers had been using while he had been undercover, testified as to "special knowledge." *Id.* at 612. This Court stated that,

> [b]ecause this knowledge is not within a juror's everyday experience, his testimony would have assisted the jury in understanding the evidence. Therefore, we conclude that the voir dire examination of [the police sergeant] supported the trial court's conclusion that he was qualified to render this opinion.

Id.

In *Billman v. State of Maryland Deposit Insurance Fund Corporation*, the circuit court held another very lengthy trial, lasting over sixty days. 88 Md. App. 79, 86, 117 (1991). In that case, the receiver (the Maryland Deposit Insurance Fund Corporation) of a savings and loans corporation, (Community Savings and Loans or "CSL") brought suit against the officers and directors of the corporation for breaches of duty and loyalty. *Id.* at 86-89. On the 39th day of trial, Buckford Ashby Wallingford II was qualified as a defense expert in economics and banking. *Id.* at 116. He provided proper testimony on these subjects and testified through the use of several demonstrative exhibits that were put into evidence. *Id.*

Mr. Wallingford also prepared two other exhibits: (1) a comparison of the percentage decline in regulatory net worth and end-of-period regulatory net worth as a percentage of savings balances between CSL and *all other federally insured institutions*, and (2) a line graph displaying net worth as a percentage of savings for CSL and for *all other associations insured by the Federal Savings and Loans Insurance Corporation*. *Id.* at 116-17. The circuit court did not admit these exhibits, stating that they were "'going so

far afield from what is really necessary in this case.'" The court also "thought that the comparisons *were somewhat confusing and would not help the jury*." *Id.* at 117 (emphasis added). The circuit court did not think it was appropriate to expand the scope of the trial from the financial institutions actually at issue in the case to all savings and loans institutions in existence over the same time frame. *Id.* Billman challenged the court's decision not to admit the exhibits, and on appeal, this Court concluded that "[t]here was no abuse of discretion in declining to enlarge the scope of this already lengthy trial to embrace comparisons, and the rebuttals they might incite, to all federally insured associations over a period of years." *Id.*

In the case *sub judice*, the record reflects the following dialogue and testimony that followed Cecil's objection to the admission of Exhibit 84 as outside the limitation imposed by the circuit court's *Frye-Reed* order:

> [CECIL'S COUNSEL:] Well, it's getting through the back door what you can't get through the front. Attempting to correlate the blood lead levels with the dust lead levels by putting the blood lead levels on the same chart as the dust lead levels.
>
> THE COURT: Well, that depends on what opinion he offers about that. It's coordinating information, and that's what the jury has to do from different sources.
>
> [CECIL'S COUNSEL:] Can we get a proffer what his opinion will be in reference to this document?
>
> THE COURT: I don't even have the foundation that he would like for the -- for the document. So I'll take objections as it goes along for it.
>
> * * *

[KKI'S COUNSEL:] Dr. Jacobs, you just testified about the lead dust levels at 1110 Rutland Avenue before the remediation and then during the course of the time that Mr. Harris lived in the house, correct?

[DR. JACOBS:] Correct.

[KKI'S COUNSEL:] And also you are familiar with Mr. Harris's blood lead levels that were obtained while he was in the study?

[DR. JACOBS:] Correct.

[KKI'S COUNSEL:] I want to show you what's been marked as Defendant's Exhibit 84 and ask you to identify that, what that is. Just identify what it is.

[DR. JACOBS:] It's a graphical depiction of the dust lead and blood lead levels over time.

[KKI'S COUNSEL:] And is this a document that you prepared based on the information that you reviewed in this case?

[DR. JACOBS:] Yes.

[KKI'S COUNSEL:] And does the information in Exhibit 84 accurately represent the lead dust levels at 1110 Rutland Avenue and Mr. Harris's blood lead levels during that time?

[DR. JACOBS:] Correct, yes.

[KKI'S COUNSEL:] Your Honor, I'd like to move Defendant's Exhibit Number 84 into evidence.

[CECIL'S COUNSEL:] Objection.

THE COURT: All right. Over objection, it's admitted simply as representing the data.

After Exhibit 84 was admitted, Dr. Jacobs proceeded to explain the data depicted on Exhibit 84:

[DR. JACOBS:] Okay. So we spent awhile going over the tables, and this is basically a graphical depiction of what you've already heard about in the tables.

So I know there's a lot kind of going on here, but [] on the horizontal axis, we have the date. On this side of the Y axis, we have lead dust levels, micrograms of lead per square foot, and this axis basically refers to these lines here.

And then on the right axis here on the Y, the vertical axis here, this is micrograms of -- per deciliter. This is his blood lead level, and that's associated with this red line. []

[KKI'S COUNSEL]: And so when you [] look at this, and you plotted out the lead dust test results throughout the course of Mr. Harris's residency at 1110 Rutland Avenue, and the red line is the blood lead levels, what does this, if anything, indicate to you?

[CECIL'S COUNSEL]: Objection.

THE COURT: Sustained.

[KKI'S COUNSEL:] All right, Doctor -- well can you explain to the members of the jury what this is --

[DR. JACOBS:] Right.

[KKI'S COUNSEL:] -- why it's significant.

[DR. JACOBS:] So --

[CECIL'S COUNSEL]: Objection, Your Honor.

THE COURT: **He can explain in terms of the dust levels.**

[DR. JACOBS:] So, so essentially what we have here is these high -- I couldn't get the -- these very high levels initially to be on the same scale, so they'd actually be up -- up here somewhere, but they're very high. They come down, and -- as we said, right after the work is done, and then you see this sort of slight rebound effect associated with opening of the windows, people moving in and the like, and then this sort of long-term, over the sampling campaigns, sustained reduction in dust lead levels over time.

So basically coming way down, slight rebound after they move back in, and then a long-term sustained reduction. . . .

And then -- but you see, basically, that as the dust lead levels come down over time --

[CECIL'S COUNSEL]: Objection.

[CECIL'S COUNSEL]: Objection.

THE COURT: Stop there, doctor.

(Emphasis added).

We hold that the circuit court abused its discretion in admitting Exhibit 84. As discussed *supra*, the underlying vacuum sampler data is admissible under *Frye-Reed* only for evaluating trends in levels of lead dust over time. Exhibit 84, however, went beyond the permissible use of vacuum sampling evidence under *Frye-Reed* and the court's own order. An otherwise qualified expert may not use demonstrative exhibits to venture beyond the permissible scope of his testimony and use a demonstrative exhibit to opine in a manner otherwise impermissible, and this is particularly the case when the exhibit ventures into territory previously ruled—and conceded as—inadmissible. *Cf. Billman*, 88 Md. App. at 116-17. As Dr. Jacobs himself conceded, there were no exposure limits set for vacuum sampling results. *See* COMAR 26.16.02.03, 26.16.05.09 (stating that, in Maryland, inspectors must measure compliance with the risk-reduction standards using dust wipe sampling, not vacuum sampling). Without exposure limits or clearance standards set for vacuum sampling results, one cannot correlate the vacuum sampling data with blood lead levels in the manner suggested by Exhibit 84. Yet, the graph clearly implied that such a

correlation existed, allowing a jury member to draw the inference that 1110 Rutland Avenue was "lead safe" where the graph showed Cecil's high blood-lead level against a low lead dust level from a vacuum sampler from the same period of time. Such an inference was impermissible because no exposure limits had been established for vacuum sampling. The judge's instruction to Dr. Jacobs to testify "in terms of the dust levels" could not remedy the fact that Dr. Jacobs was testifying from an exhibit that showed the blood lead levels measured against the dust lead levels. As a result, Exhibit 84 was misleading and could not "assist the trier of fact to understand the evidence or to determine a fact in issue." Md. Rule 5-702.

In this case, the circuit court did not explain its reasons, over objection of counsel, for allowing Exhibit 84 into evidence, especially where it is clear that the court understood the exhibit's potential to run afoul of the *Frye-Reed* order when it directed "he can explain in terms of the dust levels." In *BEKA Industries, Inc. v. Worcester Cnty. Bd. of Educ.*, the trial court granted BEKA's motion in limine to exclude evidence of the Worcester County Board of Education's backcharges for the purpose of a recoupment claim or defense. 419 Md. 194, 231-32 (2011). The motion was based on allegations that the Board had violated unspecified discovery rules. *Id.* at 232. The judge did not provide any rationale on the record for the court's grant of the motion, and the Court of Appeals was unable to discern definitively what the rationale was. *Id.* at 233. In ruling that it was an abuse of discretion to grant the motion, the Court of Appeals stated that the "trial judge should have engaged in some factual and legal analysis regarding" the recoupment claim. *Id.* at 234. Similarly,

in the case at bar, the circuit court should have analyzed whether Exhibit 84 conflicted with its earlier *Frye-Reed* order. *Cf. Whittlesey v. State*, 340 Md. 30, 71 (1995) (abuse of discretion where the circuit court failed to consider whether individual proffered letters were reliable and instead excluded all letters *en masse* as hearsay).

In the present case, the underlying vacuum sampling results would normally be beyond the understanding of a lay juror, and analysis from an expert would certainly assist the juror in understanding the meaning of those results. But while both sets of data—the vacuum sampling results and Cecil's blood lead levels—were independently admitted into evidence, to present those results correlated in graphical form was a step too far.[29] While vacuum sampling may be a perfectly good tool to use to measure comparative lead levels

[29] We note that the researchers in this case, as in *Grimes*, *supra*,

> had completed a prior study on abatement and partial abatement methods that indicated that **lead dust remained and/or returned to abated houses over a period of time.** In an article reporting on that study, the very same researchers said: 'Exposure to lead-bearing dust is particularly hazardous for children because hand—to—mouth activity is recognized as a major route of entry of lead into the body and because absorption of lead is inversely related to particle size.' Mark R. Farfel & Julian Chisolm, *Health and Environmental Outcomes of Traditional and Modified Practices for Abatement of Residential Lead—Based Paint, 80 American Journal of Public Health—1240, 1243 (1990).*

366 Md. at 37-38 (emphasis added). Thus, because lead was not fully removed from 1110 Rutland Avenue, the researchers knew that lead dust could remain or return over a period of time. The empirical problem in this case was that KKI only performed the wipe test once right after the partial remediation was performed before Cecil's family moved in. Because KKI did not continue collecting wipe samples, the only data KKI had concerning *comparative* levels of lead dust levels in the home was the data from the vacuum samples, but that data could not be used to show that 1110 Rutland Avenue was "safe" or had "low" lead levels.

over time, all state clearance standards to measure whether a residence is safe are based on wipe sampling. *See* COMAR 26.16.02.02-03 and 26.16.05.09. Rather than assist the trier of fact in understanding the permissible evidentiary inferences from the vacuum sampling data as compared to Cecil's blood lead levels, Exhibit 84 is a document that had the potential to mislead the jury by directly making a scientifically unsupported correlation, and, as such, the circuit court abused its discretion in admitting Exhibit 84.

Our conclusion that the court erred in admitting Exhibit 84 does not end our inquiry. "It has long been the policy in this State that [an appellate court] will not reverse a lower court judgment if the error is harmless[,]" and "[t]he burden is on the complaining party to show prejudice as well as error." *Flores v. Bell*, 398 Md. 27, 33 (2007) (footnote omitted) (citing *Greenbriar v. Brooks*, 387 Md. 683, 740 (2005), *Crane v. Dunn*, 382 Md. 83, 91 (2004), and *Beahm v. Shortall*, 279 Md. 321, 330 (1977). Maryland Rule 5-103(a) provides, in pertinent part that "[e]rror may not be predicated upon a ruling that admits or excludes evidence unless the party is prejudiced by the ruling. . . ." Therefore, "even if 'manifestly wrong,' [an appellate court] will not disturb an evidentiary ruling by a trial court if the error was harmless." *Brown v. Daniel Realty Co.*, 409 Md. 565, 584 (2009) (quoting *Crane v. Dunn*, 382 Md. 83, 91-92 (2004). The party complaining of error bears the burden of demonstrating "that the error complained of 'likely . . . affected the verdict below.'" *Id.* (quoting *Crane*, 382 Md. at 91-92) (alteration in *Brown*). "It is not the possibility, *but the probability*, of prejudice which is the object of the appellate inquiry." *State of Maryland Deposit Ins. Fund Corp. v. Billman*, 321 Md. 3, 17 (1990) (citing

Harford Sands, Inc. v. Groft, 320 Md. 136, 148 (1990)) (emphasis added). "An appellate court will only reverse upon finding that the trial judge's determination was "both manifestly wrong and *substantially injurious*." *Lomax v. Comptroller of Treasury*, 88 Md. App. 50, 54 (1991) (quoting *Paige v. Manuzak*, 57 Md. App. 621, 633 (1984)) (other citation omitted); accord *Hance v. State Roads Comm'n of Maryland*, 221 Md. 164, 176 (1959) ("Courts and reluctant to set aside verdicts for errors in the admission or exclusion of evidence unless they cause substantial injustice.")

Applying these precepts to this case, we are not persuaded that a different outcome would have resulted had the circuit court excluded Exhibit 84. In the context of the entire case, we cannot conclude that, in a nineteen-day jury trial lasting over a month between empaneling of the jury to verdict, the admission of a single graph containing data from other properly admitted sources was substantially injurious. The jury had the ability to compare the same data from two different charts already admitted into evidence. Moreover, the jury was alerted to the limitation on comparing vacuum sample results to blood lead levels by the objections of Cecil's able counsel and the court's limiting instruction (although we have determined that this did not cure the court's abuse of discretion in admitting the chart in violation of its *Frye-Reed* order). Ultimately, the appellant has not demonstrated that the admission of this document was "substantially injurious," *Lomax*, 88 Md. App. at 54, in the context of the voluminous proceedings at trial. Because of the high burden an appellant bears on this issue—demonstrating that an

evidentiary error likely affected the outcome of this case—we cannot conclude that the admission of Exhibit 84 likely affected the verdict below. *See Brown*, 409 Md. at 605-06.

II.

Admissibility of KKI Expert Opinion on Alternative Sources

The Estate challenges, under Maryland Rule 5-702, the factual basis upon which KKI's expert witnesses, Drs. Jacobs and Liebelt, opined that Cecil was exposed to two alternative sources of lead contamination. The Estate contends that these experts did not have reliable facts concerning Cecil's exposure to 1108 Rutland Avenue or whether 1108 Rutland Avenue had lead-contaminated soil. The Estate also insists that the experts did not have a sufficient factual basis to opine on Cecil's father's allegedly lead-laden clothes because they just assumed his clothes were contaminated by lead since his job involved the demolition of housing in Baltimore City. The Estate adds that the experts failed to explain their methodology.

KKI argues that because the jury did not reach causation in any of the four claims submitted to the jury (lack of informed consent, breach of contract, negligent

misrepresentation, and negligence), any evidentiary error concerning alternative sources of lead exposure was harmless.[30] KKI is correct.[31]

The verdict sheet reads, in pertinent part, as follows:

VERDICT SHEET

Claim 1: Lack of Informed Consent

1. Do you find that Plaintiff Cecil Harris's mother could not consent to his participation in the R&M Study because the Study provided no benefit to him and posed more than a minimal risk of harm to him? . . .
   YES _____ NO _____✓_____

   Proceed to Question 2 no matter what your answer is to Question 1.

2. Do you find that Defendant Kennedy Krieger Institute, Inc. failed to obtain Plaintiff Cecil Harris's informed consent through his mother to participate in the R&M Study?

   YES _____ NO _____✓_____

   If you answer YES to *either* Question 1 or Question 2, proceed to Question 3. If you answer NO to *both* Question 1 and 2, skip Question 3 and proceed to Question 4.

[30] On the merits, KKI maintains that the trial court correctly found that KKI's experts had a sufficient factual basis to testify that 1110 Rutland Avenue was not the source of Cecil's lead exposure and that Cecil's lead exposure was due to 1108 Rutland Avenue and his father's work clothes. KKI points out that any uncertainty in KKI's experts' testimony goes to weight and not to admissibility.

[31] In its reply brief, the Estate argues, without citing any case law, that any erroneous admission of expert testimony regarding alternative sources of lead was an issue that permeated the entire case and that the circuit court's error was inevitably harmful. This argument can be summarized as "there must have been prejudice because KKI experts spent a lot of time talking about alternative sources." It is the Estate's burden to demonstrate prejudice, *Flores*, 398 Md. at 33, and we do not find this argument persuasive.

3. Do you find that the lack of informed consent based on either Question 1 or Question 2 was a substantial factor in causing injury to Plaintiff Cecil Harris?

   YES _____ NO _____

   Proceed to Question 4.

   Claim 2: Breach of Contract

4. Do you find that a contract existed between Plaintiff Cecil Harris and Defendant Kennedy Krieger Institute, Inc. and that Defendant breached that contract?

   YES _____ NO _____✓____

   If you answer YES to Question 4, proceed to Question 5. If you answer NO to Question 4, skip Question 5 and proceed to Question 6.

5. Do you find that Defendant's breach of contract was a substantial factor in causing injury to Plaintiff Cecil Harris?

   YES _____ NO _____

   Claim 3: Negligent Misrepresentation

6. Do you find that Defendant Kennedy Krieger Institute, Inc. negligently misrepresented a material fact to Plaintiff Cecil Harris through his mother and that Plaintiff Cecil Harris, through his mother, reasonably relied on that negligent misrepresentation?

   YES _____ NO _____✓_____

   If you answer YES to Question 6, proceed to Question 7. If you answer NO to Question 6, skip Question 7 and proceed to Question 8.

7. Do you find that Defendant's negligent misrepresentation was a substantial factor in causing injury to Plaintiff Cecil Harris?

YES _____ NO _____

Claim 4: Negligence

8. Do you find that Defendant Kennedy Krieger, Inc. owed a duty of ordinary care as a researcher to Plaintiff Cecil Harris and breached that duty by acting negligently?

   YES _____ NO ____✓____

   If you answer YES to Question 8, proceed to Question 9. If you answer NO to Question 8, skip Question 9 and proceed to Question 10.

9. Do you find that Defendant's negligence was a substantial factor in causing injury to Plaintiff Cecil Harris?

   YES _____ NO _____

As this reproduction demonstrates, the jury never reached causation on any of the surviving claims, and, therefore, never made a determination on causation. Consequently, Dr. Jacobs's and Dr. Liebelt's testimony on alternative sources of causation could not "have affected the verdict below[,]" *see Brown*, 409 Md. at 584 (citation and quotation marks omitted) because the jury never reached the issue of causation on any claim. There can be no prejudice when the finder of fact did not reach the issue to which the alleged error goes. *Cf. Harris v. Housing Authority of Baltimore City*, 227 Md. App. 617, 644 (2016) (concluding, in a Local Government Tort Claims Act case, that alleged hearsay was not relevant to the ground upon which summary judgment was granted—good cause—and was relevant only to prejudice—an issue not reached by the trial court—therefore not requiring review on appeal). In this circumstance, the Estate has not demonstrated how any alleged

error regarding expert testimony on alternative sources of causation—the error of which the Estate complains—could have affected the outcome, when the jury did not reach the issue to which the Estate assigns error. Therefore, without determining whether there was error, we conclude that the Estate cannot demonstrate prejudice.

III.

Negligence Based on the Baltimore City Housing Code

The Estate next argues that the court erred in granting judgment on the issue of whether KKI was an "operator" of 1110 Rutland Avenue and therefore bound by the provisions pertaining to an "operator" as contained in and defined by the Baltimore City Code. In this count, the Estate seeks to establish negligence through a violation of the Baltimore City Code, but, in order to do so, it must demonstrate that KKI was an "operator," thereby subject to the Baltimore City Code. The Estate maintains that the Code contemplates that multiple parties can manage a property at the same time, and therefore, it is possible that a property has multiple operators. The Estate refers to the evidence establishing that KKI determined the work to be done in the remediation of 1110 Rutland Avenue, approved payment for the work, and thereafter monitored dust-lead levels in the house for many years. Accordingly, the Estate contends, a rational trier of fact could have found that, by virtue of the decision-making authority, power, and influence that KKI exercised over 1110 Rutland Avenue, KKI was an "operator" of the property as defined by the Baltimore City Code.

KKI responds that the circuit court correctly found that KKI was not an owner or operator of the 1110 Rutland Avenue property as a matter of law because Maryland Courts have only interpreted "operator" in this context to apply to landlords or property managers. KKI's sole involvement with the property was the remediation—which took place before Ms. Armstead's execution of the lease—and its periodic testing of the lead levels in the property. KKI also stresses that (1) that KKI was not the landlord; (2) that Ms. Armstead paid rent to and requested repairs from City Homes; and (3) that KKI had to obtain authorization from City Homes before KKI could enter the property to perform an assessment. Therefore, KKI contends, it did not have control or authority to act over the property and that City Homes "retain[ed] ultimate decision-making authority and the right of control over the property." Finally, KKI maintains that "[m]onitoring lead dust levels is not an act of charge, care, or control and does not place [KKI] on par with an owner or operator."

Because the statutorily-based negligence count was dismissed by the court on KKI's motion for judgment, we review the sufficiency of the evidence *de novo,* and draw reasonable inferences from the evidence in the light most favorable to the Estate. *White v. Kennedy Krieger Inst., Inc.*, 221 Md. App. 601, 645 (2015); *Thomas v. Panco Mgmt. of Maryland, LLC*, 423 Md. 387, 394 (2011) (citations omitted). We must conduct the same analysis the trial court conducted, *District of Columbia v. Singleton*, 425 Md. 398, 406-07 (2012) (citing *Thomas*, 423 Md. at 394)), and if there is any evidence "'legally sufficient

to grant a jury question,'" then we must hold the grant of the motion improper. *Thomas*, 423 Md. at 394 (quoting *C & M Builders, LLC v. Strub*, 420 Md. 268, 290 (2011)).

Turning to our analysis, we start with the relevant provisions of Article 13 of the Baltimore City Code (1983 Repl. Vol.) (in force during the relevant time at issue), which stated in Section 103, that the purpose of the Code was to "establish and maintain basic minimum requirements, standards and conditions essential for the protection of the health, safety, morals and general welfare of the public and of the owners and occupants of dwellings in" Baltimore City. Section 703(2)(c)(3) of Article 13 provided that "[a]ll walls, ceilings, woodwork, doors and windows shall be kept clean and free of any flaking, loose or peeling paint and paper." The Baltimore City Code placed responsibility for compliance with its provisions on "owners and operators." Art. 13 § 310. An "operator" was defined as

> **[a]ny person who has charge, care or control of a building**, or part thereof, in which dwelling units or rooming units are left or offered for occupancy, and shall include a lessee, sub-lessee, any vendee in possession, or any other person otherwise managing or operating such building, or part thereof.

Art. 13 § 110 (Emphasis added). The issue before us is whether the circuit court properly found that KKI was not an "operator" within the ambit of Article 13.

We rely upon the rules of statutory interpretation, beginning with the "cardinal rule[,]" which is to ascertain and effectuate the intention of the legislature. *Employees' Ret. Sys. of City of Baltimore v. Dorsey*, 430 Md. 100, 112 (2013); *Johnson v. Mayor & City Council of Baltimore City*, 387 Md. 1, 11 (2005); *O'Connor v. Baltimore County*, 382

Md. 102, 113 (2004). "We may neither add nor delete language to reflect an intent not evidenced in the unambiguous language of a statute, nor may we construe the statute with forced or subtle interpretations that limit or extend its application." *Toliver v. Waicker*, 210 Md. App. 52, 64 (2013) (citing *Dyer v. Otis Warren Real Estate Co.*, 371 Md. 576, 581 (2002)).

Applying these rules, this Court, in *Toliver*, interpreted the meaning of "operator" contained in Article 13 § 110 of the Baltimore City Code. 210 Md. App. at 64-69. We analyzed whether the president and sole shareholder of a property management corporation was an "operator" of a property. The defendant and appellee, Waicker, was the president and sole shareholder of a Maryland corporation, Investment Realty Specialists, Inc. ("IRS"), which was in the business of managing residential properties for the owners. *Id.* at 57. Former tenants sued Waicker, alleging that as a result of Waicker's tortious conduct, they were exposed to lead-based paint that caused irreparable injuries while they lived in one of the properties IRS managed. *Id.* at 55-56.

Waicker's role in the administration of IRS was to hire employees, who then managed the properties and oversaw inspections, maintenance, and repairs. *Id.* at 57. Waicker also hired employees to rent the properties, maintain records, collect rent, distribute keys, and answer phones. *Id.* Waicker did not tell Mosley—property manager for the IRS property appellants lived in—what Mosley's specific duties were; instead he gave Mosley "'marching orders'" to ensure that the properties were maintained in compliance with the Baltimore City Code. *Id.* at 58. Waicker did not verify whether

Mosley kept the properties in compliance, and IRS received no notices that the properties were not compliant with the Baltimore City Code. *Id.* The owners of the properties that IRS managed, as well as city officials and inspectors, had the authority to give orders directly to Mosley concerning those properties. *Id.*

We noted in *Toliver*, that the property management contract was between the property owner and IRS, not between the owner and Waicker. *Id.* We then determined that:

> Mr. Waicker had no knowledge or information about the condition of the Property while it was being managed by the IRS, nor was he personally involved in any way with, or informed or consulted about, the rental or maintenance of the Property. Mr. Waicker was not involved in the management of the Property, he did not act, direct or participate in any decisions with regard to the rental or maintenance of the Property, nor did he have any ownership interest in, or title to, the Property.

Id. at 58-59.

We reviewed the circuit court's grant of summary judgment on the basis that Waicker was not an "operator" pursuant to the terms of the Baltimore City Code, and concluded that the court was correct. *Id.* at 59-60, 66. We noted that the property management entity, not Waicker, was a party to the contract with the owner. *Id.* And, although Waicker hired another person, Mosley, to make necessary repairs, Waicker was not involved in the "day-to-day operations of the property," did not take an active role in managing the property, and "did not have 'charge, care or control' of the [p]roperty.'" *Id.* We ruled that "[t]o be found to have 'charge, care or control' over property, a person must have some involvement in the decision making regarding the operation of the property."

Id. at 69.[32] The parties have cited no Maryland case—and our independent research has revealed none—interpreting an "operator" to be anything other than a property manager or a landlord.

Returning to the present case, Ms. Armstead's lease was with City Homes, not KKI, and she paid $275.00 in rent per month to City Homes. She further testified in a deposition that she paid rent to City Homes and that, if she needed maintenance on the property, she called City Homes, not KKI, for repairs. KKI's only involvement with 1110 Rutland Avenue *after* the remediation was done and Ms. Armstead occupied the premises was limited to monitoring lead at 1110 Rutland Avenue by measuring the lead on various surfaces with the vacuum sampler at periods of 2, 6, 12, 18, and 24 months following the remediation.

The June 29, 1992 agreement letter between KKI and City Homes describes a "joint endeavor to reduce lead hazards in City Homes units and evaluate the efficacy of the hazard reduction approaches." This letter stated that City Homes would make available dwellings for the R&M Study and would give priority to children under five years of age. As stated in the letter,

> City Homes agrees not to apply level III treatment to level I and level II study houses or level II treatment to level I study houses at turnover during the two year period of study follow-up in each dwelling, unless level I and/or level II is found to be ineffective. **[KKI] understands that certain repairs need to**

[32] Although the Court of Appeals did not discuss the definition of "operator" in *Allen v. Dackman*, 413 Md. 132 (2010), the Court stated that the term "control" "'carries with it a requirement that the entity in question have an ability to change or affect the' interest being controlled." *Id.* at 149 (quoting *Dyer v. Criegler*, 142 Md. App. 109, 117 (2002)).

> **be done at unit turnover in order to maintain properties in compliance with the housing code.**

(Emphasis added).[33] Thus, City Homes agreed to apply the agreed-upon remediation level for each dwelling. Aside from that provision, there is nothing in the contract that reduced City Homes's authority over any property or that ceded control over operation of the properties to KKI.

Mr. Mankowitz, President of City Homes, testified at trial that the only time ERI, KKI's lead contractor, did any work at KKI's instruction was before Ms. Armstead moved into the property on June 14, 1993. Mr. Mankowitz testified concerning City Homes's ability to do work to comply with the Baltimore City Code:

> Well, let me say this: If there was an emergency, if something had to be done we would have done it. If it was something in relation to the housing code we would have done it. And sometimes we got a tenant complaint.
>
> I took that to mean in the contract, like I said earlier yesterday, doing big things like replacing windows or something that really didn't need to be done unless it had to be done for the housing code.

Mr. Mankowitz also testified that KKI had no responsibility for making repairs after Ms. Armstead occupied the premises and stated that "[KKI] never had any responsibility for

[33] We note that 1110 Rutland Avenue—at the time Ms. Armstead moved in—complied with the only Maryland lead-based paint standards in place at the time, mentioned *supra* in footnote 6, although those standards were not strictly applicable to that dwelling. The Estate does not dispute this evidence.

In addition, the record does not suggest that houses in any of the R&M tiers were not in compliance with the Baltimore City Code's prescription that dwellings be kept "clean and free of any flaking, loose or peeling paint and paper" at tenant move-in. Baltimore City Code, Article 13 § 703(2)(c)(3). In this regard, the record supports the circuit court's determination that it didn't "see evidence that [KKI] took over from City Homes the role of landlord or the broader role of ensuring compliance with the Baltimore Housing Code for [1110 Rutland Avenue]."

maintenance of any of the property City Homes ever owned." Mr. Mankowitz also testified that City Homes did not form a partnership with KKI and that City Homes only agreed to what was in the June 29, 1992 contract. Mr. Ernest Matthews, an employee of City Homes, testified that City Homes was responsible for repairs and maintenance of 1110 Rutland Avenue, that it "owned and managed the properties," and that this was so "[e]ven for families in the R&M Study."

In these circumstances, we hold that KKI was not the "operator" of the premises because it did not have "charge, care, or control," of the property. Baltimore City Code, Art. 13 § 110; s*ee also Toliver*, 210 Md. App. at 69. Outside of determining the remediation level *before* the tenancy began, KKI did not have any "involvement in the decision making concerning the operation of the property." *See id.* Like Mr. Waicker, KKI was "not involved in the day-to-day operations" of 1110 Rutland Ave. *Id.* KKI did not collect rent, was not responsible for making necessary repairs for the property, and did not solicit prospective tenants for the property. KKI's status did not elevate to that of an "operator" under the Baltimore City Code by having only determined a remediation level before the tenancy in this case began, and then monitoring lead levels at intervals thereafter. As in *Toliver*, we hold that the circuit court's grant of judgment on the basis that KKI was not an "operator" pursuant to the terms of the Baltimore City Code was correct. *Id.* at 59-60, 66.

IV.

The Battery Claim

We review the grant of summary judgment on the battery claim *de novo* and determine "'whether the trial court was legally correct.'" *Hamilton v. Kirson*, 439 Md. 501, 522 (2014) (quoting *Beatty v. Trailmaster Products, Inc.*, 330 Md. 726, 737 (1993)). A grant of summary judgment is appropriate only if there is no genuine dispute as to a material fact and the movant is entitled to judgment as a matter of law. *Id.* at 521-22 (citing Md. Rule 2-501(e)).

The Estate contends that the circuit court erred in granting summary judgment because lead exposure to KKI's child research subjects "was an intended and inevitable consequence of KKI's design of the R&M Study." The Estate argues that it was reasonably foreseeable that the children's blood would be contaminated by lead and that KKI contemplated that some children in the Study would be exposed to lead. The Estate points us to Maryland and extra-jurisdictional cases stating that indirect contact should support a battery claim.

KKI bridles at the allegation that it intended to cause a harmful or offensive contact to any child in the Study, and insists there is no evidence to support such a claim. KKI asserts that its intent was to reduce children's exposure to lead and not to cause any harm. According to KKI, the circuit court properly granted summary judgment on the battery claim because a plaintiff must demonstrate that "a defendant must have believed that the consequences complained of were substantially certain to occur."

Maryland cases instruct that either direct contact *or indirect* contact may support a claim for battery, "but [the contact] must be intended." *Beall v. Holloway-Johnson*, 446 Md. 48, 66 (2016) (quoting *Nelson v. Carroll*, 355 Md. 593, 600-01 (1999)). The tort of battery "require[s] proof that 'one intends a harmful or offensive contact with another without that person's consent.'" *Id.* "The intent element of battery requires not a specific desire to bring about a certain result, but rather a general intent to unlawfully invade another's physical well-being through a harmful or offensive contact or an apprehension of such a contact." *Nelson*, 355 Md. at 602-03. Contact caused by accident or inadvertence does not fulfill the intent requirement, "but one will be liable for such contact if [the harmful or offensive contact] comes about as a result of the actor's volitional conduct where there is an intent to invade the other person's legally protected interests." *Id.* Meanwhile, "reckless, wanton, or willful conduct is not equivalent to intentional conduct," and will not support the intent element necessary for battery. *Id.* at 23 (citing Restatement (Second) of Torts § 500 (1965)).

In *Nelson*, 355 Md. at 596, the defendant accidentally shot the plaintiff after demanding repayment of a debt and pistol-whipping the plaintiff. According to the defendant's version of events, the defendant demanded his money back and pistol-whipped the plaintiff, and then the gun accidentally discharged, hitting the plaintiff. *Id.* at 598. The Court of Appeals held that a defendant who intended to commit a battery—the pistol-whipping—possessed the requisite intent for the second battery—the shooting—despite not specifically intending the exact same battery that occurred. *Id.* at 609. Even though

the defendant did not specifically intend to shoot the plaintiff, he still possessed the "general intent" to create harmful or offensive contact with another. *Id.* at 602-03.

In the present case, the circuit court granted summary judgment to KKI, after extensive discovery, on the battery claim on the ground that KKI did not possess the requisite intent. In support of its motion for summary judgment on the battery claim, KKI submitted, *inter alia*, (1) deposition testimony from Dr. Mark Farfel stating that the R&M Study "went beyond doing no harm" and was aimed at "providing protection" to the children; (2) a rental agreement between City Homes and Ms. Armstead, to which KKI was not a party; (3) and a copy of the Consent Form that Ms. Armstead signed entering Cecil in the Study. Along with his opposition to summary judgment, Cecil submitted to the court, *inter alia*, (1) the R&M Study questionnaire; (2) a KKI Quality Assurance Project Plan; (3) the Consent Form; (4) the clearance wipe test results; and (5) excerpts from deposition testimony.

We conclude that the evidence did not establish that KKI possessed the requisite intent to support a battery claim. Regardless of whether under Maryland law indirect contact may be sufficient to constitute a battery, *Nelson*, 355 Md. at 600, it cannot be said that KKI possessed "a general intent to unlawfully invade another's physical well-being through a harmful or offensive contact or an apprehension of such a contact." *Id.* at 602-03. In none of the documents relied on by the Estate is there evidence that KKI possessed even the *general* intent to produce a harmful or offensive contact that would sustain a battery claim. Indeed, the Quality Assurance Project Plan stated that the purpose of the

R&M Study was to reduce lead levels in children's blood, and Dr. Farfel testified that the Study was aimed at protecting children. Nor does the Estate's evidence—the R&M Study questionnaire, the KKI quality assurance plan, the Consent Form, and the clearance wipe test results—convince us otherwise. Nothing in those documents evidences that KKI intended to produce a harmful contact with the children. The questionnaire simply contains general questions regarding the habits of Ms. Armstead's family. The KKI Quality Assurance Plan and Consent Form contain no language suggesting that KKI wished for a harmful or offensive contact to befall Cecil. Furthermore, the wipe sampling results, stating that 1110 Rutland passed post-abatement clearance standards before Ms. Armstead and her family moved into the house, does not support a battery claim. The Estate's claims that KKI intended to expose children to harmful levels of lead are simply too attenuated. Therefore, we hold, under the circumstances of this case, that the circuit court properly granted KKI's motion for summary judgment on the battery claim because Cecil did not generate a question of material fact concerning KKI's intent to produce a harmful or offensive contact.

V.

Intentional Misrepresentation

The Estate also assigns error to the circuit court's grant of summary judgment on the intentional misrepresentation claim. The Estate contends that civil fraud can be predicated on either intentional misrepresentation or, when there is a duty to disclose, a concealment of fact. Here, the Estate predicates its fraud claim on both. The Estate asserts

that the Consent Form concealed the fact that the Study was designed to measure the success of the remediation measures by testing blood levels in children's blood. Quoting extensively from *Grimes*, the Estate charges KKI "failed to disclose 'that the research to be conducted was designed, at least in significant part, to measure the success of the abatement procedures by measuring the extent to which the children's blood was being contaminated.'" *Grimes*, *supra*, 366 Md. at 38, 63.

The Estate points to a few specific instances in which it alleges that KKI intentionally concealed material facts. First, according to the Estate, KKI never disclosed its lead dust test results because the letters KKI sent to Ms. Armstead did not contain explanation of their meaning and were "cryptic" and "misleading." Second, the Estate contends that the blood lead level test results, quoted at length *supra*, were concealments because they were "computer-generated form letters [that] cited only the child's blood lead level and its associated CDC class." The Estate maintains that this lack of contextual information on the two sets of notices amounts to "knowing misrepresentations and the concealment of indispensable information." And, the Estate claims that it presented sufficient evidence to generate a question of fact for the jury regarding KKI's intent to deceive, based on KKI's need for children to participate in the Study.

KKI persists that there was no evidence presented of any nefarious intent on the part of KKI—either to harm or deceive. KKI counters the Estate's allegations by stating that it informed Ms. Armstead and all Study participants that lead poisoning is a serious problem in Baltimore City, that her home was remediated for lead paint, that the purpose of the

R&M Study was to monitor the effects of the remediation, and that the repairs were not intended to remove all lead. KKI points to deposition testimony, in which Ms. Armstead admitted that she knew that the remediation would not remove all lead. In regard to the letters it sent Ms. Armstead concerning the vacuum sampling and blood lead level results, KKI maintains that those letters contained specific information about areas of concern—the blood lead level, and the CDC classification—and stated that the results should be given to Cecil's primary care provider. KKI also asserts that it provided "contextual information" in the educational materials it provided at the outset of the Study.

A claim for intentional misrepresentation has the following elements, which the plaintiff must prove:

> (1) that the defendant made a false representation to the plaintiff, (2) that its falsity was either known to the defendant or that the representation was made with reckless indifference as to its truth, (3) **that the misrepresentation was made for the purpose of defrauding the plaintiff**, (4) that the plaintiff relied on the misrepresentation and had the right to rely on it, and (5) that the plaintiff suffered compensable injury resulting from the misrepresentation.

Gourdine v. Crews, 405 Md. 722, 758-59 (2008) (emphasis supplied) (citation and quotation omitted). "Proof of scienter is critical to a successful deceit action; nothing short of actual fraud will suffice." *Miller*, 97 Md. App. at 342 (citing *Martens Chevrolet v. Seney*, 292 Md. 328 (1992). "'One who by a fraudulent misrepresentation or nondisclosure of a fact that it is his duty to disclose causes physical harm to the person . . . of another who justifiably relies upon the misrepresentation, is subject to liability to the other" for

intentional misrepresentation. *B.N. v. K.K.*, 312 Md. 135, 150 (1988) (quoting Restatement (Second) of Torts § 557A (1977)).

> A claim for fraudulent concealment has the following elements:
>
> (1) the defendant owed a duty to the plaintiff to disclose a material fact; (2) the defendant failed to disclose that fact; (3) **the defendant intended to defraud or deceive the plaintiff**; (4) the plaintiff took action in justifiable reliance on the concealment; and (5) the plaintiff suffered damages as a result of the defendant's concealment.

Green v. H & R Block, Inc., 355 Md. 488, 525 (1999) (emphasis supplied) (citing *Finch v. Hughes Aircraft Co.*, 57 Md. App. 190, 231-32 (1984)). "A fraudulent concealment claim is caused, in part, by the intentional failure to warn." *Lloyd v. Gen. Motors Corp.*, 397 Md. 108, 139 (2007). "'*To create a cause of action, concealment must have been intentional and effective—the hiding of a material fact with the attained object of creating or continuing a false impression as to that fact. The affirmative suppression of the truth must have been with intent to deceive.*'" *Rhee v. Highland Dev. Corp.*, 182 Md. App. 516, 524 (2008) (emphasis in *Rhee*) (quoting *Fegeas v. Sherrill*, 218 Md. 472, 476-77 (1958)) (fraudulent concealment in context of a sale of real property).

In this case, the circuit court, after the completion of discovery, granted summary judgment to KKI on the intentional misrepresentation claim because "[Cecil] has identified no evidence, disputed or otherwise, demonstrating that any misrepresentation was made for the purpose of defrauding [Cecil] directly or through his mother." Again we review the evidence before the court on its grant of summary judgment *de novo*, *Hamilton*, *supra*, 439 Md. at 522 (citation omitted), and conclude also that no reasonable jury could have found

that KKI intentionally made a misrepresentation of fact to Ms. Armstead, *White, supra*, 221 Md. App., at 645, or "intended to defraud or deceive" her. *Green*, 355 Md. at 525. "General allegations [] are not sufficient to forestall summary judgment." *Miller v. Fairchild Industries, Inc.*, 97 Md. App. 324, 340 (1993) (citing *Seboard Surety Co. v. Richard F. Kline, Inc.*, 91 Md. App. 236, 243 (1992)).[34]

[34] KKI also argues that any error the circuit court could have committed in granting summary judgment was harmless because there can be no prejudice under the current procedural posture. Specifically, the court granted summary judgment on the intentional misrepresentation claim and not the negligent misrepresentation claim. KKI notes that the Estate has assigned no error to the circuit court's negligent misrepresentation jury instructions to which the jury responded in the negative to the question whether "[KKI] negligently misrepresented a material fact to Plaintiff Cecil Harris through his mother and that Plaintiff Cecil Harris, through his mother, reasonably relied on that negligent misrepresentation." KKI notes that the elements for the two torts are almost the same, except that "intentional misrepresentation requires an element of specific intent to defraud and imposes a heightened 'clear and convincing' standard of proof," and that any facts and evidence supporting the two claims are the same. KKI reasons that, because Cecil failed to persuade the jury by a preponderance of the evidence on the lesser evidentiary standard of negligent misrepresentation, he could not possibly have won his intentional misrepresentation claim. Thus, KKI argues that there was no prejudice and that any alleged error was harmless.

The Estate responds that, because the jury responded "no" to this question, the jury could have been deciding that KKI did not negligently misrepresent a material fact or that Ms. Armstead that did not reasonably rely on a negligent misrepresentation.

We agree with KKI on this point and conclude that even if there were error—and we hold that there was none—it was harmless. In *White, supra*, another lead-based paint case, this Court affirmed a grant of judgment for KKI on intentional and negligent misrepresentation claims, but for reasons different than the trial court. 221 Md. App. at 635. The circuit court had granted judgment after it concluded that the plaintiff—an infant—was incapable of relying on a representation due to his infancy. *Id.* at 638. This Court disagreed and held "that parental reliance can be imputed to the infant as a form of indirect reliance when the misrepresentation is designed to cause actions by, or on behalf of, the infant." *Id.* at 640. Nonetheless, we affirmed because we concluded that the plaintiff's mother's "unilateral misunderstanding that the phrase 'lead safe' meant that it was lead free [wa]s not tantamount to a misrepresentation by KKI." *Id.* at 646 (footnote omitted). We continued, stating that "**[t]he facts** provided by White to support the

A plain reading of the Consent Form does not support the Estate's claim that the form concealed the fact that the Study was designed to measure the success of the remediation measures by testing blood levels in children's blood. Indeed, the Form states that

> We understand that your house had special repairs done in order to reduce exposure to lead in paint and dust. . . . We are interested in finding out how well the two levels of repair worked. **The repairs were not intended or expected to completely remove exposure to lead.**
>
> **We are now doing a study to learn how well different practices work for reducing exposure to lead in paint and dust.** We are asking you and over one hundred other families to allow us to test for lead in and around your homes up to 6 times over the next two years. We are also doing free blood testing of children aged 6 months to 7 years, up to 6 times over the next two years. We would also like you to respond to a short questionnaire every six months. **This study is intended to monitor the effects of the repairs and is not intended to replace the regular medical care your family obtains.**

(Emphasis supplied). KKI's statement in this letter clearly belies the Estate's fraudulent concealment argument and demonstrates a lack of intent to deceive on the part of KKI. The Estate's claims that KKI deceived Ms. Armstead about the possibility of lead exposure is likewise unsupported by the facts.

Similarly, the letters from KKI concerning the vacuum sampling informed Ms.

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aforementioned claims of **misrepresentation are insufficient under the clear and convincing standard required in fraud claims, and also fail under the less stringent preponderance of the evidence standard for negligent misrepresentations**." *Id.* at 647 (emphasis added).

Similarly, we need not address reliance in the case. The jury found for KKI on a claim that required a less stringent standard or proof—negligent misrepresentation—than KKI's intentional misrepresentation claim, and the facts necessary to prove both claims were the same. In addition, we do not divine how the intent or lack of intent necessary to prove intentional misrepresentation is relevant to the reliance inquiry.

Armstead of the areas in the dwelling in which "the amount of lead was higher than might be found in a completely renovated home." Indeed, Ms. Armstead stated that she "understood what it meant, . . . it's not going to completely remove the lead from wherever you're living . . . ." Thus, Ms. Armstead herself knew that the R&M Study was not intended to remove all lead-based paint from the house.

Finally, the letters from KKI concerning Cecil's blood lead results informed Ms. Armstead of his blood lead levels, his CDC classification, and directed that "[t]his test result should be given to your child's primary health care provider." All evidence demonstrated that KKI informed Ms. Armstead when Cecil's blood lead levels were elevated and also informed her of areas in the home at 1110 Rutland Avenue that—according to the information available to KKI—had elevated levels of lead dust. We understand that the Estate does not accept that KKI did enough to warn Ms. Armstead of the dangers of Cecil's raised blood lead levels, but we are not empaneled to review whether KKI could have done a better job. What we can determine is that there was simply no evidence of any misrepresentation by KKI, or of any intent to deceive or conceal generated by the evidence before the circuit court. The Estate's allegations based on intentional misrepresentation and fraudulent concealment must fail as a matter of law, and so we affirm the circuit court's grant of summary judgment on these claims.

VI.

The Circuit Court's Instructions to the Jury Concerning Whether the R&M Study Consent Form Constituted a Contract

We next address the Estate's contention regarding jury instructions. As discussed *supra*, Cecil requested that the court instruct the jury that the Consent Form constituted a contract, relying on *Grimes*, *supra*, 366 Md. at 29, and the court declined. Based on its reading of *Grimes*, 366 Md. at 88-90, the Estate argues that the circuit court abused its discretion by refusing to read its requested jury instructions concerning the fact that the Consent Form was a binding contract. The Estate maintains that the Court of Appeals analyzed the exact same contract in *Grimes* and held that it was a contract. KKI, on the other hand, argues that the language that the Estate cites from *Grimes* is dicta, especially read in light of this Court's discussion of *Grimes* in *White*, *supra*, 221 Md. App. at 622.

The standard of review for the denial of a proposed jury instruction is "the highly deferential abuse of discretion standard." *Id.* at 623 (citing *Wood v. State*, 436 Md. 276, 292 (2013)). "There are 'three components that must be met to include a proposed jury instruction in the ultimate charge to the jury: (1) the instruction is a correct statement of law; (2) the instruction is applicable to the facts of the case; and (3) the content of the instruction was not fairly covered elsewhere in instructions actually given.'" *Id.* at 622-23 (quoting *Wood*, 436 Md. at 293) (some internal quotations omitted).

The Court of Appeals, in *Grimes*, 366 Md. at 88-89, analyzed the same form document at issue in this case and stated:

> Both sets of appellants signed a similar Consent Form prepared by KKI in which KKI expressly promised to: (1) financially compensate (however minimally) appellants for their participation in the study; (2) collect lead dust samples from appellants' homes, analyze the samples, discuss the results with appellants, and discuss steps that could be taken, which could reduce exposure to lead; and (3) collect blood samples from children in the household and provide appellants with the results of the blood tests. In return, appellants agreed to participate in the study, by: (1) allowing KKI into appellants' homes to collect dust samples; (2) periodically filling out questionnaires; and (3) allowing the children's blood to be drawn, tested, and utilized in the study. If consent agreements contain such provisions, and the trial court did not find otherwise, and we hold from our own examination of the record that such provisions were so contained, mutual assent, offer, acceptance, and consideration existed, all of which created contractual relationships imposing duties by reason of the consent agreement themselves (as well, as we discuss elsewhere, by the very nature of such relationships).

(Footnote omitted). In the Court's denial of the motion for reconsideration of that case, the Court significantly narrowed its holding, explaining:

> **Although we discussed the various issues and arguments in considerable detail, the only conclusion that we reached as a matter of law was that, on the record currently before us, summary judgment was improperly granted—that sufficient evidence was presented in both cases which, if taken in a light most favorable to the plaintiffs and believed by a jury, would suffice to justify verdicts in favor of the plaintiffs.** Thus, the cases were remanded for further proceedings in the Circuit Court. **Every issue bearing on liability or damages remains open for further factual development, and any relevant evidence not otherwise precluded under our rules of evidence is admissible.**

Id. at 119 (emphasis supplied). Thus, despite the broad language concerning this Consent Form's status as a contract in the opinion, the denial of the motion for reconsideration explains that the Court of Appeals did not hold that this Consent Form constituted a contract.

This Court, in its recent examination of *Grimes*, stated the same. *See White*, 221 Md. App. at 622 ("In light of the Court of Appeals's pointed effort to specifically limit its holding, we are constrained to hold fast to the narrow parameters set out by the Court of Appeals in its denial of the motion for reconsideration"). We explained that "the only enduring holding in [*Grimes*] was that on the facts of the case before it, the trial court's grant of summary judgment was inappropriate." *Id.* at 625. Thus, although pre-reconsideration *Grimes* might have held that this specific document was a contract, *see* 366 Md. at 88-89, this is clearly not the case after *Grimes's* denial of reconsideration, *id.* at 119, and *White*, 221 Md. App. at 625.

In the present case, Cecil asked the circuit court for a jury instruction stating that *Grimes* held that this Consent Form was a contract. The proposed instruction would have removed the question from the jury, and allowed the jury to proceed directly to the breach issue. The following colloquy between the circuit court and Cecil's counsel occurred at trial:

> [CECIL'S COUNSEL]: . . . Is that the breach of contract?
>
> THE COURT: Yes.
>
> [CECIL'S COUNSEL]: Yes. I think Grimes rules on the exact issue that is currently the subject of this discussion, the subject of this instruction. And the Court said it is a contract. Same document that you were asking the jury to make a finding about whether or not is a contract.
>
> THE COURT: Grimes didn't make any factual finding.
>
> [CECIL'S COUNSEL]: No, I'm not talking about factual finding. I agree. Appellate Courts don't make factual findings.

> THE COURT: Okay.
>
> [CECIL'S COUNSEL]: What they do is make rulings on the facts that are before them, not factual findings, but legal rulings based on the facts before them. They ruled that this identical contract was, in fact, a contract.
>
> And so that question is settled by the Court of Appeals. It can't be reopened by a jury saying, no, we don't agree with Court of Appeals because that's basically what the result would be.
>
> And so the remedy for that, Judge, is to say I direct – I instruct you that this is a contract because that is the only way you're going to prevent the jury from coming up with a different result than the Court of Appeals on the identical contract.
>
> THE COURT: All right. I'm going to put the issue to them to decide both whether a contract existed and what the terms were and whether it was breached.

Thus, the circuit court declined to give Cecil's counsel's proposed instruction. The jury subsequently returned a verdict for KKI on the breach of contract claim.

We hold that the circuit court's refusal to give Cecil's proposed jury instruction did not constitute an abuse of discretion because the proposed instruction did not meet the first of the three requirements for acceptance of a proposed jury instruction: that the proposed jury instruction be "a correct statement of law." *Id.* at 622. Given that the denial of the motion for reconsideration in *Grimes* stated that *Grimes's* narrow holding was that summary judgment was not appropriate in that case, 366 Md. 119, it is not a correct statement of law that *Grimes* holds that the Consent Form in the instant case is a contract. This Court made that clear in *White*. 221 Md. App. at 625. Thus, the circuit court did not abuse its discretion in declining to give Cecil's proposed jury instructions.

VII.

Admissibility of Mayor Kurt L. Schmoke's Testimony

Finally, we arrive at the Estate's last contention. As stated *supra*, KKI called Kurt Schmoke, the former mayor of Baltimore City, to testify concerning the lead-based paint dilemma Baltimore City faced in the 1990s. The Estate argues that Mayor Schmoke's testimony concerning lead poisoning in Baltimore is irrelevant because he had no knowledge of the R&M Study or Cecil. The Estate also contends that Mayor Schmoke's testimony was unfairly prejudicial because it was a "transparent attempt to cast [KKI] as the community's champion and to emphasize an urgency that vindicated its research."

In response, KKI argues that Mayor Schmoke's testimony was properly admitted because he merely "provide[d] the jury with the context in which the Study was designed and structured as a minimal risk study." KKI contends that Mayor Schmoke's testimony was relevant because it responded directly to the Estate's criticisms of the R&M Study. KKI maintains that the purpose of the testimony was to respond directly to the testimony of a witness for Cecil, Dr. James M. DuBois, D.Sc., Ph.D., who criticized the R&M Study, arguing essentially that Dr. DuBois "opened the door" to Mayor Schmoke's testimony. KKI further states that Mayor Schmoke had personal knowledge of housing conditions in Baltimore City and the risk of lead exposure to children due to the housing conditions.

When reviewing a trial court's decision to admit evidence, we first consider the legal relevance of the evidence under a *de novo* standard. *Smith v. State*, 218 Md. App. 689, 704 (2014) (quoting *Brethren Mut. Ins. Co. v. Suchoza*, 212 Md. App. 43, 52 (2013)). "To

qualify as relevant, evidence must tend 'to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.'" *Id.* (quoting Md. Rule 5-401). The trial court has no discretion to admit irrelevant evidence. *Id.* (citing Md. Rule 5-402; *State v. Simms*, 420 Md. 705, 724 (2011)). "After determining whether the evidence in question is relevant, we look to whether the court 'abused its discretion by admitting relevant evidence which should have been excluded' as unfairly prejudicial." *Id.* (quoting *Brethren Mut. Ins. Co.*, 212 Md. App. at 52).

Maryland Rule 5-401 defines "relevant evidence" as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Maryland Rule 5-402 provides that, "[e]xcept as otherwise provided by constitutions, statutes, or these rules, or by decisional law not inconsistent with these rules, all relevant evidence is admissible. Evidence that is not relevant is not admissible." Maryland Rule 5-403 states that, "[a]lthough relevant, evidence may be excluded if its probative value is *substantially outweighed* by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." (Emphasis added).

Professor McLain has stated that "[t]he reasons for the exclusion of irrelevant evidence are obvious: by definition, the evidence would not further the search for truth in the matter, but would serve only to waste the court's time, confuse the fact-finder, and

possibility to prejudice one or both parties in the fact-finder's eyes." 5 Lynn McLain, Maryland Evidence State and Federal, § 402.1 (3rd ed. 2013).

During the October 7 evidentiary motions hearing in the present case, the parties presented their contentions as to whether the court should allow Mayor Schmoke to testify. KKI argued that Mayor Schmoke's testimony concerning a lead-based paint task force and efforts to combat a lead-based paint problem was necessary to respond to Dr. DuBois's testimony that the Study shouldn't have been conducted. KKI contended that "context" for the Study was needed. Cecil argued that Mayor Schmoke's testimony would not be relevant, regardless of whether he testified as a fact witness or an expert witness. The circuit court ruled that Mayor Schmoke's testimony was relevant because Cecil "put the structure of the study at issue." The court stated:

> You can't have it both ways. You can't expect to try to a jury, you know, saying there's this horrible study structured in a way that's inappropriate and harmed my client without letting the people who did the study say here's why we structured it this way and then let the jury decide. And I can tell the jury a number of times we are focused here on the experience of Cecil Harris, but you're going to hear context in order to understand what happened with him.

Dr. DuBois testified to the problems inherent in the R&M Study, placing the Study itself at issue. Dr. Dubois testified "to a reasonable degree of certainty in the field of research ethics," "[t]hat the principal investigator did not adequately protect the subjects" in the R&M Study. Dr. DuBois also opined that the Consent Form was missing two key elements: (1) "a very clear statement of what the purpose of the study is" and (2) "a statement of the most significant risks of the study." He testified that the Consent Form

should have been written in simpler English to explain better the risks associated with the Study and that the blood lead levels sent to Miss Armstead were "missing key information." Dr. DuBois also asserted that the R&M Study "did not have a clear or adequate plan" to monitor the safety of the children in the Study. Dr. DuBois also testified that expedited review—which the Study received from the Johns Hopkins institutional review board—was not appropriate for non-minimum risk studies, which Dr. DuBois claimed the Study was, and, further, that the Study provided no benefit to Cecil.

Later in the trial, Mayor Schmoke testified that he "was very involved with [the Health Department and the Baltimore City Housing Department] in dealing with the problem of lead poisoning in the city." He stated that he was active on a policy level with combatting lead poisoning, but not in day-to-day operations and "during that period, 1987 to '99, [he] did not have knowledge of the specifics of the R&M Study." He testified that he did not know Cecil or his family.

Nonetheless, Mayor Schmoke testified that lead poisoning was "a very significant problem" and he used a map to show which areas in Baltimore City had the highest concentrations of lead poisoning. He further testified that a policy issue during his administration was trying to find an economical way to fix the lead-based paint problem and to give landlords an incentive to actually do so, and that, because of the City's limited financial resources, his administration tried to find "partners in the non-profit sector, charitable organizations, other non-profit groups and also tried to get federal and state grants." He stated that KKI was "one of the partners that we dealt with in the non-profit

area," and stated that "there was a long history of [KKI]'s involvement with the city in trying to address this problem." Mayor Schmoke testified that he created a task force of "citizens, landlords, elected officials, health officials to try to come together in some kind of partnership to deal with the problem" and that "this task force was important in getting everybody to sit down at the table and try to come up with some solutions including legislative solutions." Mayor Schmoke testified concerning a meeting of this task force and that members of KKI attended, including Dr. Chisolm and Dr. Farfel.

At the outset, we conclude that the ethics of the R&M Study was relevant, and the evidence that both parties presented addressed either the ethics of the R&M Study or its context. Plus, as stated *supra*, KKI contends that Mayor Schmoke's testimony was elicited to respond to Dr. DuBois's testimony as to the ethically controversial aspects of the R&M Study.

The Court of Appeals has explained:

> The "opening the door" doctrine is really a rule of expanded relevancy and authorizes admitting evidence which otherwise would have been irrelevant in order to respond to (1) admissible evidence which generates an issue, or (2) inadmissible evidence admitted by the court over objection. **Generally, "opening the door" is simply a contention that competent evidence which was previously irrelevant is now relevant through the opponent's admission of other evidence on the same issue.**

Clark v. State, 332 Md. 77, 84-85 (1993) (emphasis added).

We conclude that Dr. DuBois's testimony concerning whether the R&M Study complied with medical ethics standards opened the door to Mayor Schmoke's testimony. The two witnesses testified on "the same issue," *see Clark*, 332 Md. at 85. Cecil placed

the R&M Study itself at issue. It was then relevant for KKI to provide context for the Study, through Mayor Schmoke's testimony concerning the prevalence of lead poisoning in Baltimore City, and the genesis of the R&M Study and other efforts to combat the lead poisoning scourge. As the Court of Appeals has said, the opening the door doctrine is a rule of "expanded relevancy," *Clark*, 332 Md. at 84-85, and Mayor Schmoke's testimony was relevant because it provided context to the Study, after Dr. DuBois put the Study at issue.[35] In these circumstances, we hold that the circuit court did not err or abuse its discretion in admitting Mayor Schmoke's testimony.

JUDGMENTS OF THE CIRCUIT COURT FOR BALTIMORE CITY AFFIRMED.

COSTS TO BE DIVIDED.

[35] Having passed the more demanding hurdle of our *de novo* review on relevancy, we also determine that the probative value of Mayor Schmoke's testimony was not "substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." Maryland Rule 5-403.