

260 P.3d 857 (2011)

172 Wash.2d 593

Julie ANDERSON, individually and on behalf of the Estate of Dalton Anderson, and Darwin Anderson, individually, Appellants,

v.

AKZO NOBEL COATINGS, INC., and Keith Crockett, a Washington resident, Respondents.

No. 82264-6.

Supreme Court of Washington, En Banc.

September 8, 2011.

859 *859 Lincoln Charles Beauregard, John Robert Connelly Jr., Connelly Law Offices, Tacoma, WA, for Appellants.

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Steven P. Krafchick, Pamela Susan Van Swearingen, Krafchick Law Firm PLLC, Seattle, WA, amicus counsel for National Fibromyalgia Association.

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CHAMBERS, J.

¶ 1 The trial court in this case ruled that under Washington courts' application of *Frye v. United States*, 54 App. D.C. 46, 293 F. 1013 (1923), there must be general acceptance in the relevant scientific community that a particular type of in utero toxic exposure can cause a particular type of birth defect before expert testimony on causation is admissible. We disagree. We hold that the *Frye* test is not implicated if the theory and the methodology relied upon and used by the expert to reach an opinion on causation is generally accepted by the relevant scientific community. Additionally, we hold that Julie **Anderson** has not stated a cognizable claim for wrongful discharge in violation of public policy under this court's opinion in *Cudney v. ALSCO, Inc.*, 172 Wash.2d 524, 259 P.3d 244 (2011), and we affirm the trial judge's preliminary ruling on comparative fault. We reverse in part, affirm in part, and remand for further proceedings consistent with this opinion.

FACTS

¶ 2 As this case is here on cross-motions for summary judgment, we take the facts in the light most favorable to the nonmoving party with respect to the particular claim. **Anderson** worked for **Akzo Nobel Coatings, Inc.**, from 1998 until she filed a safety complaint with the Washington State Department of Labor and Industries (L & I) and was fired. While employed, she was promoted several times, and at the time her employment terminated she was the health, safety, and environmental coordinator at her facility. While it was not officially part of her job, **Anderson** regularly mixed paint, perhaps even daily. Employees were required by official company policy to wear respirators when mixing paint, but there is reason to believe that this policy was not rigorously enforced and may have been actively undermined by management. According to **Anderson** (but vigorously disputed by the company), she was told by her supervisor that she "did not need to wear a respirator when mixing toxic paint because the air monitoring that was conducted by **Akzo Nobel** headquarters ... had purportedly determined that there was no health threat." Clerk's Papers (CP) at 104; see also CP at 157. There was also evidence, again, vigorously disputed by the company, that the respirators were not properly maintained and that air testing

in the mixing room had purposefully not been done properly.

860 ¶ 3 **Anderson** gave birth to a son, Dalton **Anderson**, in January 2000. By 2003, it was clear Dalton suffered from "medical abnormalities." CP at 104. He was diagnosed with a neuronal migration defect, congenital hemiplegia, microcephalus, and a multicystic *860 dysplastic kidney, among other things, along with "delays in motor, communication, cognitive, and adaptive behavior." CP at 113-14, 116. **Anderson** looked hard for both appropriate treatment and for a cause. One of Dalton's doctors, Dr. Chris B. Stefenelli, concluded that Dalton's developmental malformations were likely due to his mother's paint exposure at **Akzo**. CP at 105; see also CP at 116-17 (letter from Dr. Stefenelli, referring to Dalton's "significant medical problems very likely as a result of significant exposure to organic solvents while in utero"). Dr. Sohail Khattak, who published a paper on the correlation between exposure to organic solvents in utero and birth defects while he was a fellow at the Motherisk Program, a division of Clinical Pharmacology and Toxicology at the University of Toronto, was willing to testify that Dalton's birth defects were caused by organic solvent exposure. CP at 912-17 (affidavit); CP 231-34 (excerpt from Sohail Khattak, Guiti K-Moghtader, et. al., *Pregnancy Outcome Following Gestational Exposure to Organic Solvents*, 281 JAMA 1106 (1999)).

¶ 4 Meanwhile, **Anderson** became increasingly concerned about the safety practices at **Akzo**. She made an anonymous complaint to L & I in 2003, which resulted in an inspection and citation against **Akzo** for safety violations. At that point, **Anderson** learned that the safety protocols she and the company had been following were, in her words, "all wrong." CP at 106. A year later, believing that the company had not meaningfully responded to the safety concerns, **Anderson** filed a formal complaint. This one was not anonymous. A second state inspection followed and found several safety violations, including inadequate training and inadequate safety equipment. Within days, **Anderson** was fired on the ground she had taken paint for personal use without payment. According to **Anderson**, as was customary with employees, she had purchased the paint for a friend, collected the money, and stapled the money to a form L-10, which had not yet been inventoried. According to **Akzo**, she was given an opportunity to explain why she had taken the paint without paying for it first and she failed to provide a "consistent, truthful answer." CP at 148. **Anderson** initially filed a claim for retaliatory discharge with L & I under RCW 49.17.160, but abandoned it believing it was futile.

¶ 5 **Anderson** sued **Akzo** for negligence and wrongful discharge. Among other things, **Akzo** apparently raised comparative negligence as a defense in its answer. **Anderson** unsuccessfully moved for summary judgment striking that defense, initially on the ground that **Akzo** had submitted no evidence supporting the theory. Later, **Akzo** successfully moved in limine to strike most of **Anderson's** experts, on the ground that their proposed testimony did not meet the *Frye* standard. Based on that ruling, **Akzo** also successfully moved for summary judgment on the negligence claim because, without those experts, **Anderson** could not show that her paint exposures caused her son's injuries. Meanwhile, **Akzo** successfully moved for summary judgment on the wrongful discharge claim on the ground that the statutory remedy available under RCW 49.17.160 preempted the common law wrongful discharge claim.

¶ 6 **Anderson** sought, and we granted, direct review.

ANALYSIS

¶ 7 Questions of admissibility under *Frye* are reviewed de novo. *State v. Copeland*, 130 Wash.2d 244, 255, 922 P.2d 1304 (1996) (citing *State v. Cauthron*, 120 Wash.2d 879, 887, 846 P.2d 502 (1993)). We also review summary judgment de novo, with all inferences taken in favor of the nonmoving party. *Mulcahy v. Farmers Ins. Co.*, 152 Wash.2d 92, 98, 95 P.3d 313 (2004) (citing *Jones v. Allstate Ins. Co.*, 146 Wash.2d 291, 300, 45 P.3d 1068 (2002); *Mountain Park Homeowners Ass'n v. Tydings*, 125 Wash.2d 337, 341, 883 P.2d 1383 (1994)). As **Anderson** is the nonmoving party as to **Akzo's** summary judgment motions dismissing her negligence and wrongful discharge theories, and **Akzo** is the non-moving party as to **Anderson's** summary judgment motion on contributory negligence, the burden shifts with the issues.

CAUSATION AND FRYE

861 ¶ 8 Trial judges perform an important gate keeping function when determining the *861 admissibility of evidence. ER 104.

Courts must interpret evidence rules mindful of their purpose: "that the truth may be ascertained and proceedings justly determined." ER 102. Generally, the admissibility of expert testimony in Washington is governed by ER 702.^[1] See also Reese v. Stroh, 128 Wash.2d 300, 305, 907 P.2d 282 (1995). Expert testimony is usually admitted under ER 702 if it will be helpful to the jury in understanding matters outside the competence of ordinary lay persons. *Id.* at 308, 907 P.2d 282 (citing State v. Ciskie, 110 Wash.2d 263, 279, 751 P.2d 1165 (1988)). Unreliable evidence is not helpful to the jury, and determining whether scientific-seeming evidence is sufficiently reliable to be admissible has vexed courts at least since *Frye*, and possibly since the fourteenth century when judges first started consulting with scientists. See Lee Loevinger, *Science as Evidence*, 35 *Jurimetrics J.* 153, 154 & n. 4 (1995) (citing EDMUND MORGAN, FOREWORD, AMERICAN LAW INSTITUTE MODEL CODE OF EVIDENCE 34 (1942)). Nonetheless, novel scientific evidence, especially that still in the experimental stage, continues to present special challenges. See ROBERT H. ARONSON, THE LAW OF EVIDENCE IN WASHINGTON § 702.04[9][a] at 702-29 (4th ed. 2009).

¶ 9 There are two accepted common law approaches for determining the admissibility of novel scientific evidence. The *Frye* test was established in 1923 by the United States Court of Appeals of the District of Columbia Circuit. The *Frye* court articulated the approach as follows:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

Frye, 54 App. D.C. at 47, 293 F. 1013. Thus, under *Frye*, the court's role is to determine whether the theory has been generally accepted in the relevant scientific community. *Reese*, 128 Wash.2d at 306, 907 P.2d 282.

¶ 10 Precisely seven decades later, in *Daubert*, the United States Supreme Court rejected the *Frye* general acceptance test because Federal Rule of Evidence 702 does not expressly require general acceptance, and such a requirement is inconsistent with the thrust in the Federal Rules of Evidence's relaxation of the traditional barriers to "opinion testimony." *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 588, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). Under *Daubert*, the court must determine if the reasoning or methodology underlying the testimony is scientifically valid and can be applied to the facts at hand. *Id.* at 592-93, 113 S.Ct. 2786. These two tests, the *Frye* test and the *Daubert* test are often referred to as the "general acceptance" and "reliability" tests respectively. See, e.g., David E. Bernstein, *Frye, Frye, Again: the Past, Present, and Future of the General Acceptance Test*, 41 *JURIMETRICS J.* 385, 388-89 & n. 31 (2001) (citing CHARLES T. McCORMICK, HANDBOOK OF THE LAW OF EVIDENCE, 363 (1954); *In re "Agent Orange" Prod. Liab. Litig.*, 611 F.Supp. 1223, 1243-48 (E.D.N.Y. 1985), *aff'd on other grounds*, 818 F.2d 187 (2d Cir.1987) (additional citation omitted)).

862 ¶ 11 Washington courts, at least in criminal cases, have long adopted the *Frye* "general acceptance" standard. In *Copeland*, 130 Wash.2d 244, 922 P.2d 1304, we were asked to reject the *Frye* test in favor of *Daubert*. Despite the national trend toward *Daubert*, we declared our continued adherence to the more stringent *Frye* test. *Id.* at 251, 922 P.2d 1304; see also ARONSON, *supra*, at § 702.04.[9][c][ii]. In civil cases, we have neither expressly adopted *Frye* nor expressly rejected *Daubert*. In *Reese*, we concluded that it was unnecessary for the Court of *862 Appeals to have reached the issue of whether *Daubert* applied in a civil case since the opponent of the testimony "did not argue that the theory or the methodology involved... lacks acceptance in the scientific community." *Reese*, 128 Wash.2d at 307, 907 P.2d 282. Since the real challenge was whether the proffered testimony had a proper foundation, we resolved the question presented under ER 702 and 703. *Id.* at 304, 308-09, 907 P.2d 282. However, since the courts below in *Reese* considered *Frye* and *Daubert*, we reviewed their applicability.^[2] *Id.* at 305-08, 907 P.2d 282; see also generally 5B KARL B. TEGLAND, WASHINGTON PRACTICE: EVIDENCE LAW & PRACTICE § 702.19, at 88 (5th ed. 2007) ("For the moment, it seems safe to presume that *Frye* continues to apply in civil cases until the Washington Supreme Court explicitly says otherwise." (citing *Reese*)). In the case before us, the parties and lower courts assume that *Frye* is applicable, and for the purposes of this opinion, we will assume without deciding that *Frye* is the appropriate test for civil cases.

¶ 12 As we recently summarized, under *Frye*:

The primary goal is to determine "whether the evidence offered is based on established scientific methodology." *State v. Gore*, 143 Wash.2d 288, 302, 21 P.3d 262 (2001). Both the scientific theory underlying the evidence and the technique or methodology used to implement it must be generally accepted in the scientific community for evidence to be admissible under *Frye*. *Id.* "If there is a *significant* dispute among *qualified* scientists in the relevant scientific community, then the evidence may not be admitted," but scientific opinion need not be unanimous. *Id.*

State v. Gregory, 158 Wash.2d 759, 829, 147 P.3d 1201 (2006) (emphasis in original).

¶ 13 Specifically, our courts consider "(1) whether the underlying theory is generally accepted in the scientific community and (2) whether there are techniques, experiments, or studies utilizing that theory which are capable of producing reliable results and are generally accepted in the scientific community." *State v. Riker*, 123 Wash.2d 351, 359, 869 P.2d 43 (1994). "Once a methodology is accepted in the scientific community, then application of the science to a particular case is a matter of weight and admissibility under ER 702, which allows qualified expert witnesses to testify if scientific, technical, or other specialized knowledge will assist the trier of fact." *Gregory*, 158 Wash.2d at 829-30, 147 P.3d 1201 (citing ER 702). Only after novel scientific evidence is found admissible under *Frye* does the court turn to whether it is admissible under ER 702. *Cauthron*, 120 Wash.2d at 889-90, 846 P.2d 502.

¶ 14 With this background, we examine the disputed evidence and proposed expert testimony in this case. **Anderson** relied heavily upon the expert opinion of Dr. Khattak, who was prepared to testify "within a reasonable degree of medical certainty, as to the cause of Dalton's malformations as being in utero workplace exposure to Julie **Anderson** while employed with **Akzo Nobel**." CP at 913. He based this on Dalton's medical records (including the opinion of Dalton's cardiologist that "Dalton's significant medical problems may `very likely' be as a result of `significant exposure to organic solvents in utero'"); **Akzo's** Material Safety Data Sheets; and his own experience and training, including the work he himself did that was reported in the Journal of the American Medical Association (JAMA). CP at 912-17. The trial court summarized the JAMA article as follows:

The study matched 125 women who were exposed to organic solvents at their work places while they were pregnant, with 125 controls—expectant mothers who were not exposed to organic solvents—and then followed these women prospectively. The study found that 13 members of the exposed group gave birth to babies with "major malformations," versus only 1 member of the unexposed group. The expected rate of major malformations was 1% to 3%; thus the 10.4% rate (13 out of 125) in the *863 exposed group was considered significant. The "major malformations" the study found ranged from heart malformations to urinary tract malformations. 13 different "major malformations were listed in Table 4 of the study. One was described as a `neuronal migration defect and focal corical dysplasia heterotopias."

Because the study stated that 13 of the children born to mothers who had been exposed to organic solvents had "major malformations" and listed 13 different "major malformations", the implication is that *only one* of the children born to the mothers in the exposed group showed a neuronal migration defect. Dr. Khattak acknowledged at his deposition that PMG is found in at least of 1 out of every 2,500 births, even in populations with no known organic solvent exposures.

CP at 785-86 (footnotes omitted) (citing Khattak, *supra*, at 1106).

¶ 15 **Akzo's** expert, Dr. Gideon Koren (a coauthor on the JAMA article), was prepared to testify that the JAMA article does not establish the existence of a causal relation between exposure to organic solvents and birth defects.^[3] It appears the relevant scientific community has yet to seriously research whether exposure to the specific type of organic solvents present in **Akzo's** auto paint can cause the specific type of birth defects at issue. **Akzo** asserts that Dr. Khattak tacitly acknowledged that there was no general consensus on any causal connection when he said that "we don't have enough research, you're absolutely right" and when he characterized the state of scientific knowledge as "evolving." CP at 635, 659. **Akzo** contends that it is not enough "to argue, therefore, that expert opinion testimony is admissible solely because it

is based on accepted scientific techniques. Not only the technique used to accumulate scientific data or information, but also the theory of causation arrived at, must be "generally accepted" in the scientific community." Resp'ts' Br. at 21-22. The trial court agreed that under Washington common law there must be consensus of scientific opinion on the issue of specific causation and granted the motion in limine excluding Dr. Khattak's testimony. We disagree.

¶ 16 This court has never considered whether, as a threshold matter, there must be scientific consensus that a specific type of exposure causes a specific type of injury before expert testimony is admissible under *Frye*. The trial court relied heavily upon, and likely felt bound by, two Court of Appeals cases, *Grant v. Boccia*, 133 Wash.App. 176, 137 P.3d 20 (2006), and *Ruff v. Dep't of Labor & Indus.*, 107 Wash.App. 289, 28 P.3d 1 (2001). In *Grant*, the Court of Appeals affirmed a trial court's decision under *Frye* to exclude an expert who would have testified that the plaintiff's condition was caused by an automobile accident. *Grant*, 133 Wash.App. at 181-82, 137 P.3d 20. The court concluded that the relevant scientific community was divided on the causal relationship between trauma and fibromyalgia. *Id.* at 181-83, 137 P.3d 20. In *Ruff*, based upon largely normal test results that, in their view, excluded alternative diagnoses, several experts opined that Ruff suffered from porphyria resulting from workplace exposures to chemicals. *Ruff*, 107 Wash.App. at 293-94, 302, 28 P.3d 1. Additionally, one expert had relied upon a blood enzyme test whose efficacy had not been substantiated by control group testing or peer review. *Id.* at 302, 28 P.3d 1. The Court of Appeals held the experts' testimony did not satisfy *Frye*'s clear requirement of acceptance in the relevant scientific community. *Id.*

864 ¶ 17 Again, the trial court, in its gate keeping role, must decide if evidence is admissible. ER 102; ER 104(a). To satisfy the pursuit of truth, evidence must meet certain criteria. Evidence must be probative, relevant, and meet the appropriate standard of probability. ER 102; ER 401; ER 402; ER 403; see, e.g., *State v. Riker*, 123 Wash.2d 351, 359, 869 P.2d 43 (1994). Expert testimony, in addition, must be helpful. ER 702. Evidentiary rules provide significant protection against unreliable, untested, or junk science. 5B TEGLAND, *supra*, § 702.18, at 81. The *Frye* test is an additional tool used by judges when proffered evidence *864 is based upon novel theories and novel techniques or methods. *Reese*, 128 Wash.2d at 306, 907 P.2d 282. In our courts, scientific evidence must satisfy the *Frye* requirement that the theory and technique or methodology relied upon are generally accepted in the relevant scientific community. *State v. Martin*, 101 Wash.2d 713, 719, 684 P.2d 651 (1984). Having satisfied *Frye*, the evidence must still meet the other significant standards of admissibility. For example, persons performing experiments and interpreting results must be qualified. ER 702 and ER 703 mandate the evidence must be relevant and helpful.^[4] Expert medical testimony must meet the standard of reasonable medical certainty or reasonable medical probability. See, e.g., *Ritzschke v. Dep't of Labor & Indus.*, 76 Wash.2d 29, 30, 454 P.2d 850 (1969); *O'Donoghue v. Riggs*, 73 Wash.2d 814, 822-23, 440 P.2d 823 (1968); see also RESTATEMENT (THIRD) OF TORTS: LIABILITY OF PHYSICAL AND EMOTIONAL HARM § 28 cmt. c(5); BLACK'S LAW DICTIONARY 1380 (9th ed. 2009) (noting that reasonable medical probability and reasonable medical certainty are used interchangeably). Finally, evidence is tested by the adversarial process within the crucible of cross-examination, and adverse parties are permitted to present other challenging evidence. See *Daubert*, 509 U.S. at 596, 113 S.Ct. 2786 ("Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." (citing *Rock v. Arkansas*, 483 U.S. 44, 61, 107 S.Ct. 2704, 97 L.Ed.2d 37 (1987))).

¶ 18 *Frye* envisioned an evolutionary process with novel scientific techniques passing through an "experimental" stage during which they would be scrutinized by the scientific community until they arrive at a "demonstrable" stage. *Frye*, 54 App. D.C. at 47, 293 F. 1013. However, science never stops evolving and the process is unending. Each scientific inquiry becomes more detailed and nuanced. As one commentator has noted, there is a "difference between the quest for truth in the courtroom and in the laboratory. Law must resolve disputes finally and quickly, whereas science may consider a multitude of hypotheses indefinitely." Loevinger, *supra*, at 153, 177.

¶ 19 Further, scientific standards and legal standards do not always fit neatly together.^[5] Generally, the degree of certainty required for general acceptance in the scientific community is much higher than the concept of probability used in civil courts. While the standard of persuasion in criminal cases is "beyond a reasonable doubt," the standard in most civil cases is a mere "preponderance." *Victor v. Nebraska*, 511 U.S. 1, 5, 114 S.Ct. 1239, 127 L.Ed.2d 583 (1994) (citing *In re Winship*, 397 U.S. 358, 90 S.Ct. 1068, 25 L.Ed.2d 368 (1970)); 14A KARL B. TEGLAND, WASHINGTON PRACTICE:

865 CIVIL PROCEDURE § 30.13, at 228 (2d ed. 2009). In order to establish a causal connection in most *865 civil matters, the standard of confidence required is a "preponderance," or more likely than not, or more than 50 percent. See Lloyd L. Wiehl, *Our Burden of Burdens*, 41 WASH. L. REV. 109, 110 & n. 4 ("The Washington court has reduced the burden to the probability factor."). By contrast, "[f]or a scientific finding to be accepted, it is customary to require a 95 percent probability that it is not due to chance alone." MARCIA ANGELL, M.D., *SCIENCE ON TRIAL: THE CLASH OF MEDICAL EVIDENCE AND THE LAW IN THE BREAST IMPLANT CASE* 114 (1996). The difference in degree of confidence to satisfy the *Frye* "general acceptance" standard and the substantially lower standard of "preponderance" required for admissibility in civil matters has been referred to as "comparing apples to oranges." *Id.* To require the exacting level of scientific certainty to support opinions on causation would, in effect, change the standard for opinion testimony in civil cases. See Reese, 128 Wash.2d at 310, 312, 907 P.2d 282 (C. Johnson, concurring).^[6]

¶ 20 This court has consistently found that if the science and methods are widely accepted in the relevant scientific community, the evidence is admissible under *Frye*, without separately requiring widespread acceptance of the plaintiff's theory of causation. See, e.g., Gregory, 158 Wash.2d at 829, 147 P.3d 1201; Copeland, 130 Wash.2d at 255, 922 P.2d 1304; Reese, 128 Wash.2d at 309, 907 P.2d 282; Cauthron, 120 Wash.2d at 887, 846 P.2d 502. Of course the evidence must also meet the other evidentiary requirements of competency, relevancy, reliability, helpfulness, and probability. As this court observed in *Reese*:

We do not find that lack of statistical support fatal to Dr. Fallat's causation opinion. Such support is required neither by ER 702, ER 703, nor by our case law. Rather, medical expert testimony must be based upon a "reasonable degree of medical certainty." McLaughlin [v. Cooke], 112 Wash.2d [829] at 836, 774 P.2d 1171 [(1989)](citing State v. Crenshaw, 98 Wash.2d 789, 802 n. 2, 659 P.2d 488 (1983)); see also 5A TEGLAND, § 291 at 396. Evidence establishing proximate cause in medical malpractice cases must rise above speculation, conjecture, or mere possibility. See McLaughlin, 112 Wash.2d at 837, 774 P.2d 1171; see also Coffman v. McFadden, 68 Wash.2d 954, 961, 416 P.2d 99 (1966).

We agree with the Court of Appeals that Dr. Fallat's proposed testimony, based on the information known to the medical profession at the time of Plaintiff's treatment, "is the type of information jurors and their physicians rely on in their everyday lives to make decisions about health care. There is nothing mystical about it, and jurors are perfectly capable of determining what weight to give this kind of expert testimony." *Reese*, 74 Wash.App. at 565, 874 P.2d 200. A jury can certainly evaluate the foundation for Dr. Fallat's opinion that the failure to prescribe Prolastin therapy caused a preventable worsening of the Plaintiff's condition. Furthermore, the jury can evaluate the Defendant's reasons for failing to apply Prolastin as well as the lack of substantial statistical support concerning the therapy's efficacy.

Reese, 128 Wash.2d at 309, 907 P.2d 282. The absence of "a statistically significant basis" for the expert's opinion that the plaintiff would have benefited from the Prolastin therapy neither implicated *Frye* nor rendered the proffered testimony inadmissible. Reese, 128 Wash.2d at 305, 307, 907 P.2d 282. Many expert medical opinions are pure opinions and are based on experience and training rather than scientific data. We only require that "medical expert testimony ... be based upon `a reasonable degree of medical certainty'" or probability. McLaughlin v. Cooke, 112 Wash.2d 829, 836, 774 P.2d 1171 (1989) (citing State v. Crenshaw, 98 Wash.2d 789, 802 n. 2, 659 P.2d 488 (1983)); SEE ALSO 5B TEGLAND *supra*, at 122-23; BLACK'S LAW DICTIONARY 1380 (9th ed. 2009). *866 Many medical opinions on causation are based upon differential diagnoses. A physician or other qualified expert may base a conclusion about causation through a process of ruling out potential causes with due consideration to temporal factors, such as events and the onset of symptoms. *E.g.* Reese, 128 Wash.2d at 307, 309, 907 P.2d 282; Marsh v. Valyou, 977 So.2d 543, 548 (Fla.2007).^[7]

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¶ 21 In the case before us, the plaintiff presented evidence that tended to show it is generally accepted by the scientific community that toxic solvents like the ones to which **Anderson** was exposed are fat soluble, pass easily through the placenta and dissolve into the amniotic fluid inside the uterus, and may damage the developing brain of a fetus within the uterus.^[8] **Anderson** contends that Dalton suffers from a malformation/encephalopathy referred to as a neuronal migration disorder caused by in utero organic solvent exposure, among other things. **Akzo's** expert concluded that Dalton did not

have a neuronal migration defect, but instead "has a birth defect known as polymicrogyria" (also known as PMG).^[9] CP at 895. According to **Akzo's** evermore nuanced argument, to satisfy *Frye*, **Anderson** must establish that the specific causal connection between the specific toxic organic solvents to which she was exposed and the specific polymicrogyria birth defect is generally accepted in the scientific community. If we were to accept **Akzo's** argument and require "general acceptance" of each discrete and evermore specific part of an expert opinion, virtually all opinions based upon scientific data could be argued to be within some part of the scientific twilight zone.

¶ 22 The *Frye* test is only implicated where the opinion offered is based upon novel science. Reese, 128 Wash.2d at 306, 907 P.2d 282. It applies where either the theory and technique or method of arriving at the data relied upon is so novel that it is not generally accepted by the relevant scientific community. There is nothing novel about the theory that organic solvent exposure may cause brain damage and encephalopathy. See, e.g., Berry v. CSX Transp., Inc., 709 So.2d 552, 568 & n. 12, 571-72 (Fla. Dist. Ct.App.1998) (surveying medical literature). Nor does it appear that there is anything novel about the methods of the study about which Dr. Khattak wrote. Khattak, *supra*, at 1106. *Frye* does not require that the specific conclusions drawn from the scientific data upon which Dr. Khattak relied be generally accepted in the scientific community. *Frye* does not require every deduction drawn from generally accepted theories to be generally accepted. Other evidentiary requirements provide additional protections from deductions that are mere speculation. E.g., ER 104(a); ER 401; ER 403. Because Dr. Khattak's testimony was not based upon novel science, *Frye* was not implicated in this case. Other evidentiary standards properly balance the parties' right to advance their theories of the case. To the extent that the Court of Appeals opinions in Grant, 133 Wash.App. 176, 137 P.3d 20, and Ruff, 107 Wash.App. 289, 28 P.3d 1, are inconsistent with this opinion, they are overruled.^[10]

COMPARATIVE NEGLIGENCE

867 ¶ 23 **Anderson** argues that the trial court erred by refusing to grant her motion for partial summary judgment dismissing **Akzo's** *867 comparative negligence defense.^[11] We disagree.

¶ 24 **Anderson** contends that the comparative fault of a mother for her son's birth defects occurring in utero is neither factually nor legally permissible. Certainly, this court has never recognized a cause of action by a child against a mother for negligent prenatal injury. Nor are we asked to recognize a duty of a mother to a child in utero in this case. Thus, **Anderson** is correct that she cannot under our law be a party whose fault caused injury or damage to Dalton. However, it appears she also makes a claim independent of Dalton's for injuries and damages she suffered as a result of chemical exposures at **Akzo**. It is unclear because we were not provided with the complaint nor are either party's contentions surrounding this issue clearly articulated. The record also suggests that **Akzo** alleges **Anderson** was negligent for smoking during pregnancy, thereby negligently injuring Dalton. **Anderson** is correct that she had no legally enforceable duty not to smoke, and therefore she cannot be contributory negligent under such a theory.^[12]

¶ 25 But **Anderson** contends that **Akzo** was negligent for exposing her to organic solvents. To the extent that **Anderson** was aware of the risk and voluntarily exposed herself to solvents that caused her harm and gave rise to her independent injury, she may be comparatively at fault. Implied unreasonable assumption of the risk is comparative negligence under our comparative fault system. Scott v. Pac. W. Mountain Resort, 119 Wash.2d 484, 498-99, 834 P.2d 6 (1992). As we noted in *Scott*:

implied reasonable and unreasonable assumption of risk arise where the plaintiff is aware of a risk that already has been created by the negligence of the defendant, yet chooses voluntarily to encounter it. In such a case, plaintiff's conduct is not truly consensual, but is a form of contributory negligence, in which the negligence consists of making the wrong choice and voluntarily encountering a known unreasonable risk.

Id. at 499, 834 P.2d 6 (quoting Levendecker v. Cousins, 53 Wash.App. 769, 773-74, 770 P.2d 675 (1989)). On the record and argument before us, **Akzo's** viable allegations of comparative fault are limited to its claim that **Anderson** knew the hazards of exposure to solvents and voluntarily and unreasonably exposed herself to them. Taking the evidence most favorable to **Akzo** as the nonmoving party, there was evidence that **Anderson** disregarded official policy to wear a

respirator.^[13] Given that this is a pretrial motion made before the close of the discovery period, and that the burden is on **Anderson**, we cannot say that the judge erred by denying the motion for partial summary judgment.

868 ¶ 26 **Anderson** also argues that allowing **Akzo** to attribute any fault to her would violate Washington's Law Against Discrimination (WLAD), chapter 49.60 RCW. Both the Human Rights Commission and this *868 court have recognized that WLAD forbids discrimination based on pregnancy. *Hegwine v. Longview Fibre Co.*, 162 Wash.2d 340, 362, 172 P.3d 688 (2007); WAC 162-30-020. Among other things, "[i]t is an unfair practice for an employer, because of pregnancy... to ... [i]mpose different terms and conditions of employment on a woman." WAC 162-30-020(3)(a)(ii).

¶ 27 However, we are unpersuaded that **Anderson** has shown, as a matter of law, that **Akzo** did impose different terms on her because of her pregnancy. She submitted evidence that she was told to wear a respirator while pregnant and that other employees were not, there are also facts from which the jury could find that every employee was required to wear a respirator, regardless of pregnancy. Further, we are skeptical, given the record before us, that requiring special precautions for pregnant employees would necessarily be considered discrimination in violation of the WLAD. There may or may not remain factual or legal issues regarding discrimination under the WLAD but, on the record and argument before us, we are unprepared to rule that summary judgment was improperly denied. Should the comparative negligence claim proceed to trial, careful consideration must be given to how the jury is instructed and the argument limited. See, e.g., RCW 4.22.020 (negligence of the parent may not be imputed to the child).

WRONGFUL DISCHARGE

¶ 28 **Anderson** contends she was wrongfully discharged in violation of public policy for making a Washington Insurance Safety and Health Act of 1973 (WISHA), chapter 49.17 RCW, complaint about workplace conditions. In *Cudney v. ALSCO, Inc.*, 172 Wash.2d 524, 259 P.3d 244 (2011), this court concluded that a common law wrongful discharge in violation of public policy claim may not be predicated on an employer's alleged retaliation against an employee for making such a complaint to the Washington State Department of Labor and Industries. Accordingly, we affirm the trial court's ruling on this issue.

CONCLUSION

¶ 29 We hold that the *Frye* test is not implicated if the theory and the methodology relied upon and used by the expert to reach an opinion on causation is generally accepted by the relevant scientific community. We affirm the trial court's rulings on comparative fault and wrongful discharge. We reverse in part, affirm in part, and remand to the trial court for further proceedings consistent with this opinion.

WE CONCUR: BARBARA A. MADSEN, Chief Justice, CHARLES W. JOHNSON, GERRY L. ALEXANDER, SUSAN OWENS, MARY E. FAIRHURST, JAMES M. JOHNSON, DEBRA L. STEPHENS, Justices and RICHARD B. SANDERS, Justice Pro Tem.

[1] "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." ER 702.

[2] In *Reese*, the concurrence suggested that the *Daubert* test was the appropriate test to apply in a civil case given the different burden of proof required in a civil proceeding. See *Reese*, 128 Wash.2d at 310, 312, 907 P.2d 282 (C. Johnson, concurring).

[3] The study was simply designed to see if there was a correlation between such in utero exposures and birth defects; the study was not designed to find cause.

[4] For example, polygraph tests have been widely excluded based not only on *Frye* but as unreliable under ER 702 and as unfairly prejudicial under ER 403. See, e.g., *United States v. Cordoba*, 194 F.3d 1053, 1062 (9th Cir.1999) (affirming trial court exclusion of polygraph under ER 702 and *Daubert*); *United States v. Kwong*, 69 F.3d 663, 668 (2d Cir.1995) (holding that the polygraph results were excludable under Rule 403); see also *United States v. Scheffer* 523 U.S. 303, 313, 118 S.Ct. 1261, 140 L.Ed.2d 413 (1998) ("By its very

nature, polygraph evidence may diminish the jury's role in making credibility determinations."). As the United States Supreme Court noted, "there is simply no consensus that polygraph evidence is reliable. To this day, the scientific community remains extremely polarized about the reliability of polygraph techniques." *Id.* at 309-10, 118 S.Ct. 1261 (citing 1 DAVID L. FAIGMAN, et al., MODERN SCIENTIFIC EVIDENCE 565, n.†, § 4-2.0, to § 14-7.0 (1997)).

[5] As was noted by another commentator:

Science and law have very different norms and very different purposes. Law attempts to resolve disputes among members of society with minimal direct conflict and animosity. Lawyers can be seen as knights who represent their kingdoms during disputes. In contrast, science involves the exploration of ideas and theories through the use of empirical research; science is more of a communal effort in the sense that discoveries are made as part of, and shared with, the whole scientific community. Forcing scientists into the courtroom on one party's side has created what has been called "adversary science."

Thomas Michael Spitaletto, *The Frye Standard Finally Fries: Has Daubert v. Merrell Dow Furthered the Use of Scientific Evidence in Our Legal System?*, 14 REV. LITIG. 315, 319-20 (1994) (footnotes omitted).

[6] As a comment to the *Restatement of Torts* notes:

Of course, the plaintiff need not prove the defendant's tortious conduct was a cause of the harm with a high degree of certainty. The civil burden of proof merely requires a preponderance of the evidence, and the existence of other, plausible causal sets that cannot be ruled out does not, by itself, preclude the plaintiff from satisfying the burden of proof on causation.

RESTATEMENT (THIRD) OF TORTS: LIABILITY OF PHYSICAL AND EMOTIONAL HARM § 28 cmt. b.

[7] For example, the Florida Supreme Court held that "[b]ecause testimony causally linking trauma to fibromyalgia is based on the experts' experience and training, it is 'pure opinion' admissible without having to satisfy *Frye*." *Marsh*, 977 So.2d at 549 (citing *State Farm Mut. Auto. Ins. Co. v. Johnson*, 880 So.2d 721, 723 (Fla. Dist. Ct. App. 2004)).

[8] We note that counsel neglected to provide a specific citation to the record for this, instead referring us to "CP 577-768 (Exhibit 23 to Declaration of Beauregard (Schultz Deposition Page 65 lines 20 to 25 to Page 26 lines 1 to 4))." Appellants Reply Br. at 5 n. 8. This was not a helpful citation. Counsel is encouraged to provide the court with a specific page citation in the record in future cases.

[9] **Anderson** disagrees that Dalton's neuronal migration disorder is a polymicrogyria defect.

[10] We do not fault **Akzo** for challenging the evidence under *Frye*, or the superior court for applying it. Given that this court had not yet spoken, it was a reasonable approach to the issues.

[11] The trial court order relevantly states:

It is hereby ORDERED that the **Anderson** family's motion for summary judgment for the dismissal of **Akzo Nobel's** comparative fault affirmative defense with respect to Dalton **Anderson** is GRANTED.

....

ORDERED that the **Anderson** family's motion for summary judgment for the dismissal of **Akzo Nobel's** comparative fault affirmative defense with respect to Julie **Anderson** is DENIED.

CP at 195. We lack the complaint and other documents, and the arguments made before us by the parties make it unclear exactly what claims, theories, or damages claims have been made. However, it appears that this order related both to Julie **Anderson's** individual claims and to claims made on behalf of her son.

[12] We are mindful that a causal issue would be raised if Dalton's numerous defects were caused by exposure to smoking instead of organic solvents, but **Akzo** raised smoking in a claim of comparative negligence; it did not, as far as we can tell from the record, suggest alternative causation.

[13] While we find summary judgment that a mother may be comparatively at fault on her own claim for damages as a result of failing to follow company safety protocols was properly denied, we do not mean to imply that in every case, or even in this one, such an issue should go to trial. We simply decline to overturn the trial judge's ruling on summary judgment based on the record before us and the argument presented. Further, again we do not mean to imply that she owed an independent duty to her unborn child.

