FILED: October 1, 2008

IN THE COURT OF APPEALS OF THE STATE OF OREGON

THOMAS KENNEDY,

Plaintiff-Appellant,

v.

EDEN ADVANCED PEST TECHNOLOGIES,
a Washington corporation,
GLEN HOWELL,
and GREG PRATER,

Defendants-Respondents.

Clackamas County Circuit Court
CV04120346
A132638

Thomas J. Rastetter, Judge.

Argued and submitted on April 04, 2008.

Ken Dobson argued the cause for appellant. With him on the briefs was The Dobson Law Firm LLC.

Thomas W. Brown argued the cause for respondents. With him on the brief were Wendy M. Margolis and Cosgrave Vergeer Kester LLP.

Before Edmonds, Presiding Judge, and Wollheim, Judge, and Sercombe, Judge.

EDMONDS, P. J.

Reversed and remanded.

EDMONDS, P. J.

Following defendants' application of pesticides to plaintiff's house and yard, plaintiff brought this action, alleging claims for fraud, violation of the Unlawful Trade Practices Act (UTPA), negligence, intentional infliction of emotional distress, and trespass. The jury found for defendants on the fraud and UTPA claims and for plaintiff on the negligence and trespass claims.[(1)] The trial court entered judgment for plaintiff in the amount of nearly $120,000. Plaintiff appeals, raising three assignments of error. Because we agree that plaintiff's first assignment of error requires reversal, we do not address his other claims.

In the early 1990s, plaintiff began having health problems that he eventually attributed to the mercury amalgam in his dental fillings, which he had removed. At that time, according to his testimony, he was diagnosed with chemical sensitivity.[(2)] As a result, he took various

precautions to modify his house so that it would not exacerbate his health problems. For example, plaintiff installed wooden floors, a water filter, and air filters. He used organic bedclothes, and he ate almost exclusively organic foods. Plaintiff also testified that his condition made it difficult to travel and to engage in certain social activities.

In May 2004, plaintiff saw carpenter ants in his yard. In determining what to do about the ants in light of his sensitivity to chemicals, plaintiff consulted a book that provided information for healthy indoor living. Plaintiff read in the book that a chrysanthemum flower product called Tri-Die could be used to combat ant problems. Plaintiff telephoned a number of pest control companies listed in the phone book that he thought might have non-toxic products, asking each about Tri-Die. Eventually, he called defendant Eden Advanced Pest Technologies and asked if they used Tri-Die. As a result of the telephone call, in mid-June, defendant Howell, an Eden employee, came out to plaintiff's house to discuss treatment options.

Plaintiff asked Howell about Tri-Die, and Howell responded that defendants did not use Tri-Die, but that they had another product that was, according to plaintiff's testimony, "a non-toxic chrysanthemum oil product that could be used on carpenter ants." Howell told plaintiff that the product he would use, Termidor, was safe for people with chemical sensitivities. Plaintiff and Howell discussed at some length exactly where the Termidor would be placed and how it would be applied. According to plaintiff, Howell stated that he would be present for the Termidor application to make sure it was done exactly as he and plaintiff had discussed. They scheduled the application of the Termidor for June 23.

Plaintiff left the house early on the morning of June 23 for a flight to Phoenix, Arizona, where he spent the day. He testified that, as soon as he walked into the house on his return that evening, he knew he "was having a reaction." He experienced a bad taste in his mouth, he was nauseated, and he was jittery. Throughout the night, plaintiff continued to experience those and a number of additional symptoms. Plaintiff awakened several times during the night and, during one of those periods of sleeplessness, he found a document near his front door that had been left by Eden's employee. The document indicated that, in addition to Termidor, a product called Cy-Kick had been applied to plaintiff's house. In light of his symptoms and because he did not know what Cy-Kick was, plaintiff telephoned Eden in the morning and then defendant Howell directly. In response to plaintiff's inquiry, Howell investigated and reported to plaintiff that the person who had applied the pesticides had run out of Termidor and had substituted Cy-Kick for the remainder of the application. Howell also told plaintiff that, although he, Howell, had met the person applying the pesticides at the house, he had been unable to stay for the application because of other obligations.

Plaintiff testified that, in the following weeks and months, he continued to experience severe symptoms. Eden, for its part, made attempts to remedy the situation by providing an ozone generator (with the goal of neutralizing the pesticide in the house) and applying Neutrasol, a neutralizing agent. According to plaintiff, neither attempt to remedy the problem appeared to help his physical condition, and he eventually incurred thousands of dollars in expenses for the removal of soil, substitute housing, and medical treatment.

As part of his efforts to obtain a diagnosis and treatment for his condition, plaintiff went to Texas in November 2004 to see Dr. William Rea. Rea, who founded the Environmental Health Center in Dallas, diagnosed plaintiff with chemical sensitivity, toxic encephalopathy, toxic effects of pesticides, allergic gastroenteritis, chronic fatigue, malabsorption, hormone imbalance, muscle pain, hypogammaglobulinemia, acute rhinosinusitis, and abdominal pain.

Rea concluded that plaintiff had been suffering from those conditions before June 2004 and that his exposure to defendants' pesticides in June 2004 exacerbated those conditions. Rea prescribed dietary restrictions, injection therapy, nutrient therapy, heat therapy, massage and exercise therapy, and immune therapy.

Plaintiff ultimately filed the complaint in this case, alleging that defendants' actions had caused him $750,000 in damages. His first claim was for fraud, based on the theory that Howell had misrepresented that Termidor was nontoxic and that he personally would be present during the pesticide application. His second claim, brought under the UTPA, ORS 646.605 to 646.656, was that Howell and Eden had made or conspired to make false or misleading representations concerning the "characteristics, ingredients, and qualities of Termidor and the proposed pesticide application." Plaintiff's third claim was a negligence claim, based on the theory that defendants had made misrepresentations about Termidor, had failed to disclose their planned use of Cy-Kick, had misrepresented that the employee applying the pesticides would be properly supervised, and had negligently performed the actual application. Plaintiff's fourth claim was against Eden and was based on a theory of trespass. Finally, plaintiff included claims for intentional infliction of emotional distress and for declaratory relief.

The jury returned a verdict finding that Howell made false representations to plaintiff and that defendants violated the UTPA, but that plaintiff suffered no damages as a result of defendants' conduct. The jury also found that defendants were negligent, but that plaintiff was also 40 percent negligent. Finally, the jury found that defendants Prater and Eden had trespassed on plaintiff's property. Based on the jury's verdicts, the trial court entered judgment in favor of plaintiff on the negligence and trespass claims, and dismissed the UTPA and fraud claims. Plaintiff appeals.

As noted, plaintiff raises three assignments of error on appeal. First, he argues, the trial court erred in excluding the testimony of Rea, plaintiff's treating physician and a purported expert in the area of chemical sensitivity. In his second assignment of error, plaintiff asserts that the trial court erred in excluding other expert testimony regarding chemical sensitivity. Finally, in his third assignment of error, plaintiff contends that the trial court erred in denying his motion to amend his complaint to plead entitlement to punitive damages. For the reasons explained below, we agree that the trial court erred in excluding Rea's testimony.

Pretrial, defendants moved to exclude Rea's testimony and requested a hearing under OEC 104(1), which provides:

> "Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege or the admissibility of evidence shall be determined by the court, subject to the provisions of subsection (2) of this section. In making its determination the court is not bound by the rules of evidence except those with respect to privileges."

Specifically, defendants moved to exclude "(1) all testimony of plaintiff's proposed expert Dr. William J. Rea, including testimony as to his diagnoses, opinions of causation, and recommended treatment for plaintiff; and (2) the testimony of any other witness that relies on Dr. Rea's work or opinions."

Following a hearing at which both plaintiff's and defendants' experts (but not Rea) testified, the trial court ruled that Rea would not be allowed to testify:

> "The burden of proof is on the plaintiff to prove by a preponderance of the evidence that the proffered testimony is scientifically valid. And while there's some evidence to suggest that it is a legitimate diagnosis, I cannot find by a preponderance of the evidence that it is a--legitimate diagnosis.
>
> "The greater weight of the evidence is to the contrary, that it is not. So I will find that the proffered testimony does not meet the *Daubert* standard,[(3)] and it will not be admissible, * * * nor will any derivative evidence that relies on it. So I will adopt the findings that are stated in Defendant's memorandum on that issue. That will be the order of the Court."

In its written order, the trial court concluded that

> "plaintiff has failed to establish by a preponderance of the evidence that the proffered 'scientific' evidence concerning the diagnosis, cause, and/or treatment of chemical sensitivity and related chemical injuries satisfies the standard for scientific evidence as set forth in *State v. O'Key*, [321 Or 285, 899 P2d 663 (1995)], and its progeny."

On appeal, plaintiff argues that Rea's testimony was admissible as scientific evidence under the tests set out in the seminal cases of *State v. Brown*, 297 Or 404, 687 P2d 751 (1984), *State v. O'Key*, 321 Or 285, 899 P2d 663 (1995), and *Jennings v. Baxter Healthcare Corp.*, 331 Or 285, 14 P3d 596 (2000). Defendants respond:

> "The trial court did not err in excluding the testimony of Dr. Rea regarding the diagnosis, cause, and/or treatment of 'chemical sensitivity' because plaintiff failed to establish by a preponderance of the evidence that the condition, as advocated by Dr. Rea and other practitioners of 'clinical ecology,' satisfies Oregon's standard for admissible scientific evidence. Reputable medical organizations across a wide range of disciplines repeatedly and consistently have rejected the existence of 'chemical sensitivity,' virtually every federal court that has considered the admissibility of expert testimony on the subject has excluded it as lacking scientific validity, and the underlying methodology has not progressed since those cases were decided, much less to the point of scientific knowledge capable of assisting a jury."

We review the exclusion of scientific evidence for errors of law. *Jennings*, 331 Or at 301.

"Scientific evidence" is "evidence that draws its convincing force from some principle of science, mathematics and the like." *Brown*, 297 Or at 407. Here, the parties do not dispute--and we agree--that Rea's diagnosis and related testimony constitute scientific evidence. *See State v. Sanchez-Cruz*, 177 Or App 332, 341, 33 P3d 1037 (2001), *rev den*, 333 Or 463 (2002) (stating that "a medical diagnosis is scientific evidence"). Accordingly, the issue that we must address is whether the trial court erred, as a matter of law, in excluding Rea's testimony. For the reasons explained below, we conclude that it did.

Scientific evidence is treated differently from other types of evidence. That different treatment is based on the premise that "[e]vidence perceived by lay jurors to be scientific in nature possesses an unusually high degree of persuasive power." *O'Key*, 321 Or at 291 (footnote omitted). In light of that premise, appellate courts have described the role of the trial court as that of a "gatekeeper," whose job

> "is to ensure that the persuasive appeal is legitimate. The value of proffered expert scientific testimony critically depends on the scientific validity of the general propositions utilized by the expert. Propositions that a court finds possess significantly increased potential to influence the trier of fact as scientific assertions, therefore, should be supported by the appropriate scientific validation. This approach 'ensure[s] that expert testimony does not enjoy the persuasive appeal of science without subjecting its propositions to the verification processes of science.'"

Id. at 291-92 (quoting John William Strong, *Language and Logic in Expert Testimony: Limiting Expert Testimony by Restrictions of Function, Reliability, and Form*, 71 Or L Rev 349, 361 (1992)) (citations omitted).

In *O'Key*, adopting and relying in part on the analysis applied by the United States Supreme Court in *Daubert v. Merrell Dow Pharmaceuticals*, 509 US 579, 113 S Ct 2786, 125 L Ed 2d 469 (1993), the Oregon Supreme Court reiterated its earlier statement in *Brown* that the admissibility of scientific evidence is determined by applying OEC 702 (addressing expert testimony) together with OEC 401 and 403 (addressing relevance and the balancing of probative value against the potential for unfair prejudice, respectively).[(4)] 321 Or at 297-99. "In applying OEC 401, 702, and 403, the court must identify and evaluate the probative value of the proffered scientific evidence, consider how that evidence might impair rather than help the trier of fact, and decide whether truthfinding is better served by admission or exclusion." *Id.* at 299 (footnote omitted).

To help the court perform that function, the Supreme Court in *Brown* identified seven factors that "are to be considered as guidelines":

> "(1) The technique's general acceptance in the field;
>
> "(2) The expert's qualifications and stature;
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> "(3) The use which has been made of the technique;
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> "(4) The potential rate of error;
>
> "(5) The existence of specialized literature;
>
> "(6) The novelty of the invention; and
>
> "(7) The extent to which the technique relies on the subjective interpretation of the expert."

297 Or at 417.[(5)] But, the court cautioned,

> "[t]he existence or nonexistence of these factors may all enter into the court's final decision on admissibility of the novel scientific evidence, but need not necessarily do so. What is important is not lockstep affirmative findings as to each factor, but analysis of each factor by the court in reaching its decision on the probative value of the evidence * * *."

Id. at 417-18 (footnotes omitted).

We turn to the evidence adduced at the pretrial hearing on defendants' motion to exclude Rea's testimony. The record reveals the following facts.[6] Rea received his medical degree from Ohio State University in 1962. Following additional training, Rea became board certified in general surgery and cardiovascular surgery. In addition, Rea testified that he is "board certified" in environmental medicine, a statement that will be discussed in more detail below. Rea testified at his deposition that he has authored "four definitive textbooks" on chemical sensitivity, as well as a number of other books and book chapters, and "about 140 peer reviewed or scientific articles on vascular disease in the environment." Rea has practiced environmental medicine for about 40 years, treating over 30,000 patients. He is a Fellow of--among others--the American College of Surgeons, the American Academy of Environmental Medicine, the American College of Allergists, and the American College of Preventative Medicine. He belongs to a number of medical associations, has held a number of teaching posts, and has received a number of honors.

As noted above, Rea diagnosed plaintiff as suffering from chemical sensitivity and related conditions. Rea testified that the "foundation" of his diagnoses was plaintiff's medical history, including his history of exposure to mercury and the more recent exposure to pesticides. Rea also testified that his physical examination of plaintiff supported his diagnoses. Rea examined plaintiff's eyes, ears, nose, throat, heart, lungs, skeletal muscles, and blood vessels. He also determined, using a "tandem Romberg" test and a "stress Romberg" test, that plaintiff could not walk a straight line and that he could not stand on his toes. Rea also ordered a SPECT scan in diagnosing plaintiff's condition.[7] Rea testified that a SPECT scan is used to "rule out things like schizophrenia and depression, things like that." Rea also sent plaintiff to Dr. Didriksen, a psychologist, for evaluation. Rea testified that he performed a differential diagnosis in reaching his conclusion about plaintiff's condition.[8]

Rea ordered or performed a number of laboratory tests. Those tests included a plasma cholinesterase test that suggested that plaintiff had been exposed to an insecticide. Rea also ordered a "T&B lymphocyte" test, the result of which, in his view, supported his conclusion that plaintiff had suffered a chemical exposure. In addition, a "CMI, or cell mediated immunity" test was performed, which also revealed an abnormal result, suggesting that plaintiff had been exposed to toxic chemicals. Rea also performed "skin tests" by injecting various substances into plaintiff's skin and measuring the reaction to those substances; Rea concluded that those tests showed "multiple abnormalities." He also ordered a stool culture, which showed abnormal growth of candida, a fungus. Rea stated that such an abnormal growth is seen "frequently in chemical injury." In addition, Rea performed two autonomic nervous system tests, the heart rate variability test and the pupillography test; he concluded that the results of both tests were abnormal. Finally, Rea performed a thermography test, which revealed "multiple organ dysfunction involving inflammation, toxicity of various organs."

Rea testified that each of the techniques and tests he employed in diagnosing plaintiff's condition was an accepted diagnostic tool. As noted above, based on plaintiff's history, his physical examination, and the laboratory tests, Rea stated that he believed, to a reasonable degree of medical certainty, that plaintiff's exposure to pesticides in June 2004 exacerbated his preexisting conditions.

In addition to Rea's deposition testimony (which defendants had submitted as an exhibit), plaintiff called Dr. Lipsey, an expert in toxicology who earned his doctorate in toxicology in 1972. Lipsey testified that he was familiar with the condition known as chemical sensitivity

and that he had spoken on the subject to the American Academy of Environmental Medicine (AAEM), an organization that was composed of medical doctors, nurses, and others. Lipsey stated that many outside of the AAEM recognize chemical sensitivity as a diagnosable condition, including the Canadian government, which recognizes chemical sensitivity as a disability. Lipsey also testified that Rea is "highly respected in the American Academy of Environmental Medicine."

At the OEC 104 hearing, defendants challenged Rea's qualifications and methods through their expert, Dr. Burton, a physician specializing in occupational and environmental toxicology. Burton disagreed with virtually every aspect of Rea's deposition testimony, testifying that the tests Rea performed and the research he relied on either did not support his diagnoses or were inappropriate in determining the existence of chemical sensitivity. For example, Burton stated, "If you're asking me can dental fillings cause mercury poisoning, the answer, of course, is no." Burton testified that the heart rate variability test and pupillography are "novel tests * * * published in obscure journals for which we don't know anything about peer review or other aspects of the testing procedure." Burton testified that many of the journal articles on which Rea relied in fact contradicted his conclusions. Burton stated that the SPECT scan "has no utility. It's not a test that a medical toxicologist would ever use to diagnose a toxic illness." Pupillography, Burton testified, is a test that "is no better than reading a palm." According to Burton, "a stool culture has nothing to do with toxicology."

Underlying Burton's testimony was the belief that there is no such condition as "chemical sensitivity." As Burton explained,

> "The--the concept of chemical sensitivity or multiple chemical sensitivity, which has gone through a few name changes, was--was first proposed by--by a physician who called himself a clinical ecologist back in the 1940s. * * * He--he formed a belief and found followers that something in the environment--he wouldn't say what it was--but something caused people to develop a variety of symptoms. And the symptoms could be just about anything you could imagine.
>
> "And Dr. Rea became one of his disciples and published extensively in a journal called Clinical Ecology, and he became the mouthpiece, so to speak, for the clinical ecology movement. But the--the difficulty with--with this concept is that it's never had any scientific underpinnings. One cannot demonstrate exposure to any particular substance of a--of any duration or intensity that can cause human disease, nor can the condition be defined in such a way that anybody can properly diagnose it.
>
> "* * * * *
>
> "And so as--as of today, we continue to see a number of physicians who have that kind of practice that use diagnostic tests that are not validated. They continue to make the diagnosis of multiple chemical sensitiv[ity], or MCS, or chemical sensitivity or sometimes it's been renamed to idiopathic environmental intolerance. None of these are legitimate diagnosable medical conditions for which criteria exist."

Burton testified that, after the practice of clinical ecology "was reviewed and multiple publications came out repudiating the practice and the diagnostic techniques," its adherents

started calling themselves practitioners of environmental medicine. According to Burton, " [n]o medical toxicologist subscribes to this sort of nonsense."

Burton also challenged Rea's credentials. He testified that, in contrast to the subspecialty of preventative medicine, the American Board of Medical Specialties does not recognize "environmental medicine" as a specialty; an exhibit submitted by defendants supports that statement. Burton testified that Rea "certainly doesn't have the background, training, expertise, [or] board certification that would be required of a medical toxicologist to diagnose--to evaluate or diagnose toxic illness." According to Burton, Rea is "practicing something that is not mainstream medicine, for sure. That, I can tell you."

In response to defense counsel's questions about each of the seven *Brown/O'Key* factors, Burton testified that Rea's diagnosis and proposed testimony failed to meet each of the factors. He denied that the "theory or techniques applied by Dr. Rea [have] been tested and shown to have scientific validity." As noted, he essentially scoffed at the question whether Rea's "qualifications and stature" were adequate. Burton testified that, although Rea's "approach * * * has been subject to generally recognized peer review and publication," that review had universally rejected Rea's views on chemical sensitivity. Defense counsel asked, "What is the general degree of acceptance of Dr. Rea's approach * * * within the medical--recognized medical community?" Burton responded, "Oh, not at all in the recognized medical community." Burton, in response to a question about potential error rates, responded, "Well, I--I would regard the error rate as a hundred percent, because it hasn't been substantiated as--as--as a scientific method." When counsel asked whether Rea's approach involves subjective interpretation, Burton responded, "Well, it's all his subjective interpretation." Counsel concluded by pointing out that a number of other courts had rejected Rea's testimony, a point that we return to later.

On cross-examination, Burton took the position that no physician had diagnosed plaintiff with chemical sensitivity, because there is no such condition: "They may have thought they did, but they did not."[(9)] Burton also admitted that he "did not spend a great deal of time reviewing the literature cited by Dr. Rea because it--it's not really worthy of much review." Finally, Burton conceded that a SPECT scan is an appropriate technique by which to diagnose brain injuries.

In support of their motion to exclude Rea's testimony, defendants submitted several documentary exhibits, including portions of witnesses' depositions and other documents. Among other documents, they submitted a 2002 "Statement on Dental Amalgam" by the American Dental Association. According to that statement, which addressed the safety of the material plaintiff believes to have caused his initial chemical sensitivity, "[d]ental amalgam has been studied and reviewed extensively, and has established a record of safety and effectiveness. * * * [N]o valid scientific evidence has ever shown that amalgams cause harm to patients." (Internal quotation marks and citations omitted.)

Defendants also submitted a 1992 report by the American Medical Association (AMA) Council on Scientific Affairs that discussed both the discipline of clinical ecology and multiple chemical sensitivity. That report stated:

> "No evidence based on well-controlled clinical trials is available that supports a cause-and-effect relationship between exposure to very low levels of substances and the myriad symptoms purported by clinical ecologists to result from such exposure. Several articles and books are available that seek to provide a

> scientific basis for such an association. Such publications, while thought provoking and interesting, fail to provide proof based on well-controlled clinical studies."

(Footnotes omitted.) Also, defendants submitted a 1999 position statement on idiopathic environmental intolerances (IEI) by the American Academy of Allergy, Asthma and Immunology (AAAAI). The AAAAI equated idiopathic environmental intolerances with multiple chemical sensitivity and noted that

> "[t]he diagnosis of IEI is typically made on the basis of the patient's history, without any defining criteria. There are no diagnostic symptoms, and there are no diagnostic objective physical signs. Many different tests and procedures have been proposed, but no single test or combination of tests has been validated as diagnostic."

"Studies to date," the AAAAI report stated, "have failed to confirm that any immunologic tests are diagnostic for chemically induced symptomology. The diagnostic validity of the other procedures has yet to be tested." (Footnotes omitted.) The American College of Occupational and Environmental Medicine (ACOEM) issued a 1999 position paper expressing similar sentiments. Among other things, the ACOEM concluded, "ACOEM concurs with many prominent medical organizations that evidence does not yet exist to define MCS as a distinct entity."[(10)]

In light of the record before the trial court, we return to the gatekeeping function of trial courts in determining whether to allow a jury to consider proffered scientific evidence. We are mindful that each case presenting such an issue must necessarily be decided on its own facts in light of the guiding principle that scientific evidence should be excluded only when it is so unhelpful or so potentially confusing or prejudicial that any probative value is substantially outweighed. Our approach to that issue is informed by the Oregon Supreme Court's admonishment that a difference of opinion in a scientific community alone is insufficient to exclude evidence from the jury's consideration:

> "[C]ontroversy within the scientific community is not necessarily a ground for exclusion of scientific evidence. In deciding whether to admit scientific evidence, a court need not resolve disputes between reputable experts; the evidence may be admissible even though a dispute exists. * * * [T]he witness who testifies to an expert opinion is subject to cross-examination concerning how he or she arrived at that opinion, and the cross-examiner is to be given 'great latitude' in eliciting testimony to vitiate the opinion."

State v. Lyons, 324 Or 256, 278-79, 924 P2d 802 (1996) (quoting *Bales v. SAIF*, 294 Or 224, 235 n 4, 656 P2d 300 (1982)). Focusing on the applicable evidence code sections--as the Supreme Court has instructed--we conclude that Rea's testimony is relevant to plaintiff's claims of injury, that it would have assisted the jury in determining a fact in issue (whether, and to what extent, plaintiff's injuries were caused by defendants' conduct), and that, had it been admitted, it was unlikely to have caused confusion or have misled the jury.

On appeal, defendants address each of the seven *Brown/O'Key* factors, arguing that each of the factors supports the trial court's decision to exclude Rea's testimony. But defendants' analysis fails to give adequate attention to plaintiff's evidence, both in the form of Rea's deposition testimony and the testimony of Lipsey. When that evidence is considered, the

most that can be said is that there is a controversy in the medical community about whether chemical sensitivity or MCS is a valid diagnosis.[(11)]

We briefly discuss the *Brown/O'Key* factors to explain why we have reached the above conclusion. The first question is whether Rea's diagnostic methodology is generally accepted "in the field." In a broad sense, Rea's diagnostic techniques--that is, the taking of a patient's history, the examination of the patient, and the performance or ordering of tests of the patient's functions--are the very foundation of medical diagnosis.[(12)] To be sure, defendants' expert disagreed with Rea's choice of tests and their applicability to diagnosing chemical sensitivity (a diagnosis that defendants' expert denied exists), but Rea testified that the tests he uses are generally accepted as diagnostic tools. Thus, defendants' evidence demonstrates only that other experts on toxicology disagree with the use of those tests to diagnose chemical sensitivity.

In a related argument, defendants point out that Rea could not explain the physical mechanism by which patients become chemically sensitive. Although that fact is relevant to the inquiry, we note the Supreme Court's statement in *Jennings*, 331 Or at 309, that "[t]here are many generally accepted hypotheses in science for which the mechanism of cause and effect is not understood fully. [The expert's] inability to explain the mechanism of plaintiff's condition goes to weight, not to admissibility."[(13)] In this case, Rea appears to have based his diagnosis in part on his clinical experience of treating numerous patients over many years with symptoms similar to plaintiff's, not unlike what occurred in *Jennings*.

Rea's qualification to make such a diagnosis similarly was contested by defendants. Nonetheless--and despite Burton's statement that Rea does not have the background, training, or expertise to diagnose or evaluate toxic illness--plaintiff's evidence established that Rea is a medical doctor who has practiced for a long period of time, belongs to relevant professional organizations, and has examined over 30,000 patients. Although the American Board of Medical Specialties does not recognize "environmental medicine" as a specialty, the American Academy of Environmental Medicine does. Again, the implication from those facts is that there exists a legitimate debate within the scientific community between two groups of scientists. For example, Rea testified that his technique for determining the existence of chemical sensitivity in a patient is commonly used in the medical community to which he belongs. In contrast, Burton suggested that only "fringe" medical practitioners would diagnose for toxic illness in the manner that Rea does. In our view, the trial court, in performing its gatekeeping function, need not keep from the jury evidence that demonstrates only such a conflict among professionals.

Moreover, we observe that the evidence is in conflict about the "potential rate of error" of Rea's diagnostic technique. Burton testified that the error rate is 100 percent, a statement that follows ineluctably from his view that chemical sensitivity does not exist. But a jury might not have been persuaded of that premise in light of Rea's qualifications and clinical experience, particularly when considered together with Lipsey's testimony and the other evidence presented by defendants. *See Sanchez-Cruz*, 177 Or App at 342 ("Defendant * * * principally objects to the potential rate of error for this diagnosis and to the extent to which it relies upon an expert's subjective interpretation. Both objections, however, may be said of many recognized medical diagnoses."). Again, those kinds of conflicts between qualified experts go to the weight to be given to plaintiff's evidence and not its admissibility.

There can be no doubt that specialized literature exists on the subject of chemical sensitivity.

To be sure, some of the literature--such as the documentary evidence submitted by defendants--argues against chemical sensitivity as a valid diagnosis. However, some of that literature is dated and the evidence demonstrates that the scientific community is engaged in an ongoing investigation and debate about MCS. That some of the literature rejects conclusions reached regarding chemical sensitivity does not make the methodology used in arriving at those conclusions any less scientific. *See* *State v. Sampson*, 167 Or App 489, 508, 6 P3d 543, *rev den*, 331 Or 361 (2000) ("The difficulty with defendant's argument is that it attacks the credibility of the literature bolstering the reliability of the DRE protocol, not its existence."). Indeed, even defendants' expert agreed that chemical sensitivity is not a new or previously unheard of diagnosis, having been first proposed in 1940.

Moreover, evidence adduced at the hearing indicated that many legitimate entities view MCS as a legitimate diagnosis. For example, the Canadian government recognizes chemical sensitivity as a disability. And the "ICD-9" (International Classification of Diseases, Ninth Revision), which is maintained by the National Center for Health Statistics, includes chemical sensitivity as a diagnosis. Testimony at the OEC 104 hearing also demonstrated that the State of Washington maintains a registry for those with chemical sensitivities, and that the United States Housing Authority recognizes the diagnosis. S*ee also SAIF Corp. v. Scott*, 111 Or App 99, 102-03, 824 P2d 1188, *rev den*, 313 Or 300 (1992) (concluding that substantial evidence supported the board's determination that the claimant's employment was the major contributing cause of his multiple chemical sensitivities). Also, the United States Social Security Administration recognizes MCS as a medically determinable impairment for Social Security disability income purposes. *Creamer v. Callahan*, 981 F Supp 703, 705 (D Mass 1997).

The evidence that there are competing schools of scientific thought about whether MCS is a legitimate diagnosis and whether plaintiff's injuries were caused by his exposure to defendants' pesticides demonstrates why the trial court erred in exercising its gatekeeping function. As the Supreme Court explained in *Marcum v. Adventist Health System/West*, ___ Or ___, ___ - ___, ___ P3d ___ (September 16, 2008) (slip op at 11-13),

> "Even if the expert is not able to eliminate *all* alternative causes, the testimony nevertheless may be reliable and admissible if sufficient potential causes are eliminated for the expert to identify one particular cause as the likely cause of the condition. * * * [W]hen 'ruling in' potential causes of a condition or injury for purposes of differential diagnosis, a trial court should insist that the causation theory be 'biologically plausible,' that is, that the exposure *could* have caused plaintiff's injury. For that reason, a particular possible cause should not necessarily be excluded on the grounds that the expert cannot describe the precise mechanism of causation or point to statistical studies of cause and effect."

(Emphasis in original; citations omitted.) Here, according to plaintiff's evidence, MCS is a biologically plausible diagnosis--that is, plaintiff's diagnosis is based on a scientific methodology (an interpretation of plaintiff's history and the scientific tests that were performed) from which plaintiff's expert, who is qualified to draw such conclusions, concluded that the exposure could have caused plaintiff's injuries. Although defendants' experts reject the methodology and the conclusions reached by plaintiff's expert, the competing views between the two schools of scientific thought did not authorize the trial court in its gatekeeping function to exclude plaintiff's evidence. That is so because each school of thought reaches a conclusion that is "biologically plausible," as that phrase was

used by the Supreme Court in *Marcum*.

We conclude by addressing defendants' assertion that "virtually all courts that have considered the issue have refused to allow expert testimony--including Drs. Rea and [his associate] Johnson--on the diagnosis of chemical sensitivity." Defendants' survey of the law in other jurisdictions is correct. The court in *McNeel v. Union Pacific Railroad Company*, 276 Neb 143, 753 NW2d 321 (2008), recently described the state of the law in most jurisdictions:

> "A number of courts have determined that toxic encephalopathy, also known as multiple chemical sensitivity or idiopathic environmental intolerance, is a controversial diagnosis unsupported by sound scientific reasoning or methodology. Some courts have specifically rejected or discredited the opinions of Rea and Didriksen on this subject."

Id. at 153-54, 753 NW2d at 331 (footnotes omitted);[(14)] *see also Coffey v. County of Hennepin*, 23 F Supp 2d 1081, 1086 (D Minn 1998) ("[F]ederal courts do not consider environmental illness or MCS a scientifically valid diagnosis.").

Under Oregon law, however, the proper inquiry is not whether MCS or chemical sensitivity is a "valid" diagnosis or is recognized by other jurisdictions; rather, we must, on the record in this case, "decide whether truthfinding is better served by admission or exclusion." *O'Key*, 321 Or at 299.[(15)] Regardless of what other courts have held, we have an obligation to independently construe the relevant provisions of the Oregon Evidence Code. Even though OEC 702 has as its origin the federal evidence code, the commentary to OEC 702 emphasizes that "[w]hether the situation is a proper one for the use of expert testimony is to be determined on the basis of assisting the trier of fact." Legislative Commentary to OEC 702, *reprinted in* Laird C. Kirkpatrick, *Oregon Evidence* § 702.02 (5th ed 2007). Here, given the Oregon legislature's strong policy to aid the trier of fact to understand the evidence presented at trial in the context of the parties' theory of the case, we believe that the legislature intended controversial evidence like Rea's testimony to be presented to the jury.

We conclude on this record that plaintiff has carried his burden of showing that Rea's testimony is relevant, that it will assist the trier of fact to understand why plaintiff reacted as he did to the pesticides that defendants applied, and that it is not unfairly prejudicial, misleading, or confusing. When qualified experts disagree about the validity of medical diagnoses or other scientific evidence, judges are in no better position to resolve that dispute than are juries. Rather, the usual techniques for truthfinding--cross-examination, presentation of contrary evidence, and instruction on the burden of proof--should be applied. In Oregon, we trust juries to be able to find the truth in the classic "battle of the experts." *See Stoeger v. Burlington Northern Railroad Co.*, 323 Or 569, 577, 919 P2d 39 (1996) ("[I]t is the role of a jury--not a judge acting pretrial--to determine where the truth lies."). The circumstances of this case present such an issue.[(16)]

Reversed and remanded.

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1. The record does not reveal the disposition of the intentional infliction of emotional distress claim, but it appears that it was dismissed.

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2. For purposes of this opinion, we treat the term "chemical sensitivity" as synonymous with "multiple chemical sensitivity" or "MCS."

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3. *Daubert v. Merrell Dow Pharmaceuticals*, 509 US 579, 113 S Ct 2786, 125 L Ed 2d 469 (1993).

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4. OEC 702 provides:

> "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."

OEC 401 provides:

> "'Relevant evidence' means 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."

OEC 403 provides:

> "Although 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 or needless presentation of cumulative evidence."

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5. In *Marcum v. Adventist System/West*, __ Or __, __ n 7, __ P3d __ (September 16, 2008) (slip op at 6 n 7), the Supreme Court noted that, in *Brown*, it had "joined 11 additional considerations" to the seven listed factors.

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6. As noted, Rea did not testify at the OEC 104 hearing. Portions of Rea's deposition testimony, his curriculum vitae, and a number of other documents were submitted by the parties for the court to consider in connection with defendants' motion to exclude Rea's testimony.

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7. "SPECT" stands for "Single Photon Emission Computed Tomography." It is a type of

brain scan that is used primarily to view how blood flows through arteries and veins in the brain.

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8. Differential diagnosis is "the determination of which of two or more diseases with similar symptoms is the one from which the patient is suffering, by a systematic comparison and contrasting of clinical findings." *Stedman's Medical Dictionary* 492 (27th ed 2000). For a discussion of the use of differential diagnoses generally, see *Marcum*, __ Or at __ - __ (slip op at 9-13).

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9. Dr. Green, a medical doctor, also diagnosed plaintiff with chemical sensitivity.

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10. *See generally* Bernard D. Goldstein and Mary Sue Henifin, *Reference Guide on Toxicology*, in *Reference Manual on Scientific Evidence* 416 n 43 (Federal Judicial Center, 2d ed 2000) (explaining lack of acceptance of MCS and clinical ecology).

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11. Indeed, the trial court appeared to recognize that "there's some evidence to suggest that [MCS] is a legitimate diagnosis[.]"

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12. "The patient history is one of the primary and most useful tools in the practice of clinical medicine. * * * Even in this era of sophisticated medical testing protocols, it is estimated that 70% of significant patient problems can be identified, although not necessarily confirmed, by a thorough patient history." Mary Sue Henifin *et al.*, *Reference Guide on Medical Testimony*, in *Reference Manual on Scientific Evidence* 452-53 (Federal Judicial Center, 2d ed 2000).

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13. This court made the same point in its opinion in *Jennings*:

> "[P]laintiff does not have to meet every *Brown* factor, nor does [the expert] have to understand the mechanism of how the silicone causes the conditions or symptoms as predicate to the admissibility of his conclusion. There are many generally accepted hypotheses in science where the mechanism of cause and effect is not understood."

Jennings v. Baxter Healthcare Corp., 152 Or App 421, 430, 954 P2d 829 (1998).

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14. In the omitted footnotes, the *McNeel* court cited the following cases: *Summers v. Missouri Pacific R.R. System*, 132 F3d 599 (10th Cir 1997); *Bradley v. Brown*, 42 F3d 434 (7th Cir 1994); *Brown v. Shalala*, 15 F3d 97 (8th Cir 1994); *Coffey v. County of Hennepin*, 23 F Supp 2d 1081 (D Minn 1998); *Frank v. State of New York*, 972 F Supp 130 (NDNY1997); *Sanderson v. IFF*, 950 F Supp 981 (CD Cal 1996); *Myhre v. Workers Compensation Bureau*, 653 NW 2d 705 (ND 2002); *Jones v. Ruskin Mfg.*, 834 So2d 1126 (La App 2002).

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15. On appeal, plaintiff argues that the trial court improperly ruled on Rea's ultimate opinion, rather than on his methodology. Although the trial court's ruling is unclear in that respect, we agree that, to the extent that the trial court focused on the "legitimacy" of Rea's diagnosis and not on his methodology, that focus was incorrect.

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16. In *Jennings*, the Supreme Court explained that, "[i]n the past, this court has stated that a published decision affirming the admissibility of certain forms of scientific evidence will mean that the proponent of the evidence need not lay a scientific foundation for it again." 331 Or at 310. The court nonetheless chose not to apply that general rule in *Jennings*. In this case, although we conclude that, on this record, the trial court erred in excluding Rea's testimony, we do not hold that testimony about chemical sensitivity will, as a matter of law, always be admissible.

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