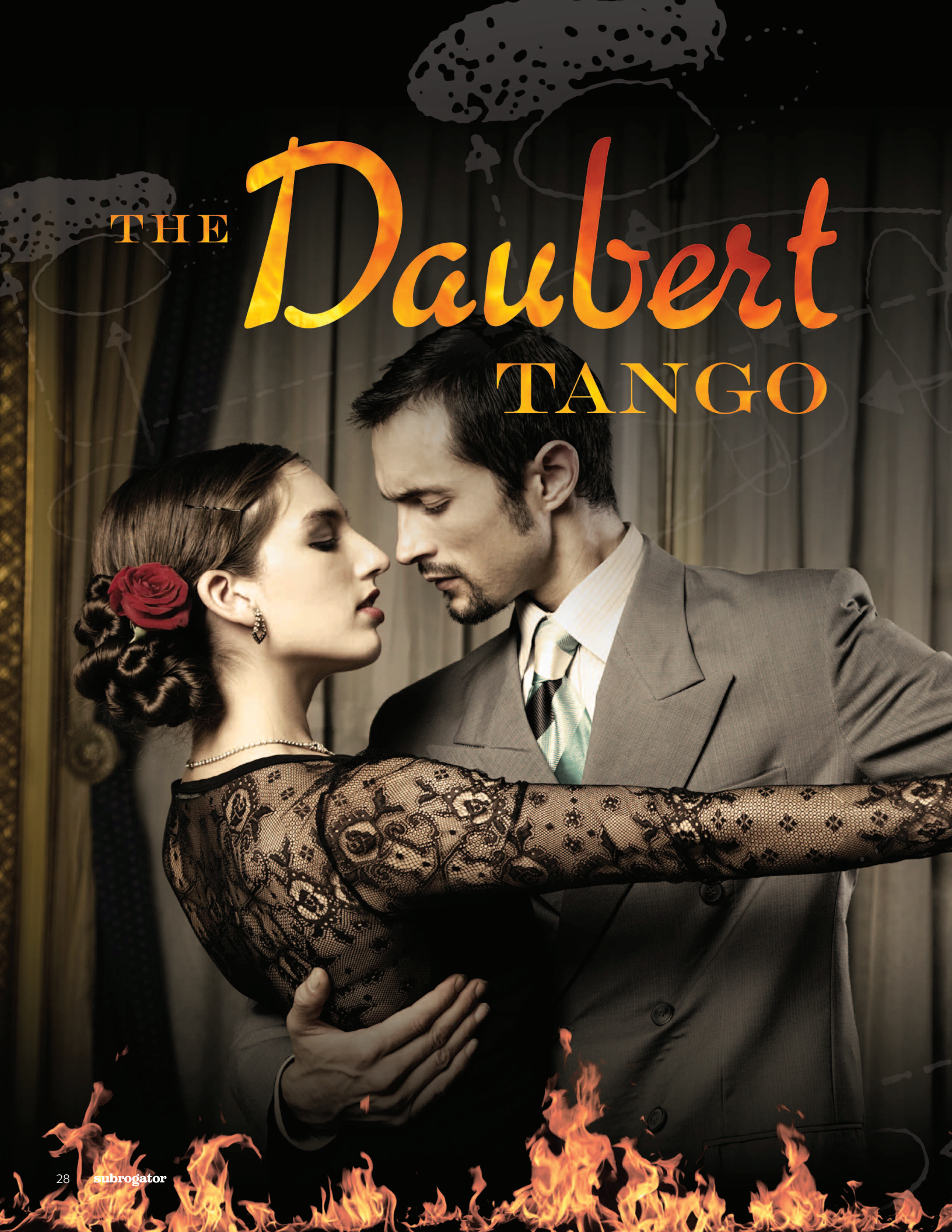
THE Daubert TANGO

Recent Developments In Fire and Explosion Litigation

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"NEVER GIVE A SWORD TO A MAN WHO CAN'T DANCE."
- CONFUCIUS

CONFUCIUS' WORDS APPLY TO SUBROGATION. BEFORE DOING THE LITIGATION DANCE COUNSEL AND EXPERTS MUST BE VERSED WITH ALL OF THE STEPS TO THE "*DAUBERT* TANGO." IN THE ISSUE OF THE FALL 2006 *SUBROGATOR*, WE PUBLISHED AN ARTICLE ENTITLED, "THE BIG *DAUBERT* HURDLES IN FIRE & EXPLOSION LITIGATION." SINCE THAT TIME, THE "*DAUBERT* DANCE" HAS CONTINUED TO EVOLVE AND THE APPLICATION OF *DAUBERT V. MERRELL DOW PHARMACEUTICALS, INC.*, 509 U.S. 579 (1993), HAS BECOME INCREASINGLY RIGID, EMPHASIZING QUANTITATIVE DATA RATHER THAN QUALITATIVE ANALYSIS.

In 1923, the Court of Appeals for the District of Columbia, affirming the exclusion of an expert witness at trial, stated:

> 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 v. United States, 293 F. 1013 (D.C. Cir. 1923) (emphasis added). This is known as the "general acceptance" or "*Frye*" standard, and has been interpreted to mean that *scientists*, and *not judges*, should determine the admissibility of expert evidence. Thus, as some courts have recognized, *Frye* focuses "primarily on counting scientists' votes, rather than on verifying the soundness of a scientific conclusion. . . ." In *re Commitment of Simons*, 213 Ill. 2d 523, 532 (2004).

Although *Daubert* was intended to "liberalize" federal evidence practice and abolish the insistence that expert opinions represent consensus views, it has created significant forensic hurdles as well as led to hard-fought battles in fire and explosion cases. This is, in part, a result of the judiciary's continued emphasis that data and quantitative results are manifest. *Daubert* held that expert testimony must be founded upon "scientific knowledge" and established a "standard of evidentiary reliability," mandating that the trial court judge act as gate-keeper, or dance-captain, to keep "junk-science" out of the courtroom and out of the litigation dance. *Daubert*, 509 U.S. at 590. *Daubert* provided four key factors for a trial court to consider when determining the admissibility of scientific evidence:

1. whether the theories and techniques employed by the scientific expert can and have been tested;
2. whether they were subjected to peer review and publication;
3. the known or expected rate of error; and,
4. whether the theory or methodology employed is generally accepted in the relevant scientific community.

In any litigation that relies heavily on expert testimony, such as fire and explosion cases, you and your counsel must ensure that your retained expert witnesses are properly positioned for a *Daubert* challenge and have thoughtfully anticipated the potential forensic challenges.

Big *Daubert* Missteps

Courts have become increasingly focused on two core areas of inquiry for *Daubert* challenges: 1) testing or failure to test; and, 2) application of the scientific method.

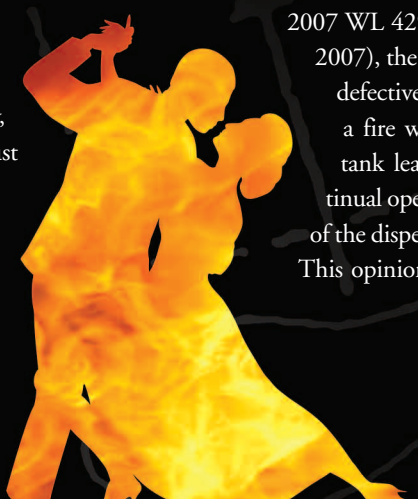
To Test Or Not To Test -- That Is The Question

The "key question" in determining whether an expert's theory should be considered reliable scientific knowledge often rests on whether the theory has been tested and independently validated or replicated. *Ruffin v. Shaw Indus.*, Inc., 149 F.3d 294, 297 (4th Cir. 1998). Courts often exclude experts when they have not conducted proper testing to support their conclusions. Without replicable testing, the expert's testimony may be based on mere opinion – *ipse dixit* type reasoning – or, as one court stated, mere "educated guesses dressed up in evening clothes." *Hall v. Baxter Healthcare Corp.*, 947 F. Supp. 1387, 1407 (D. Or. 1996).

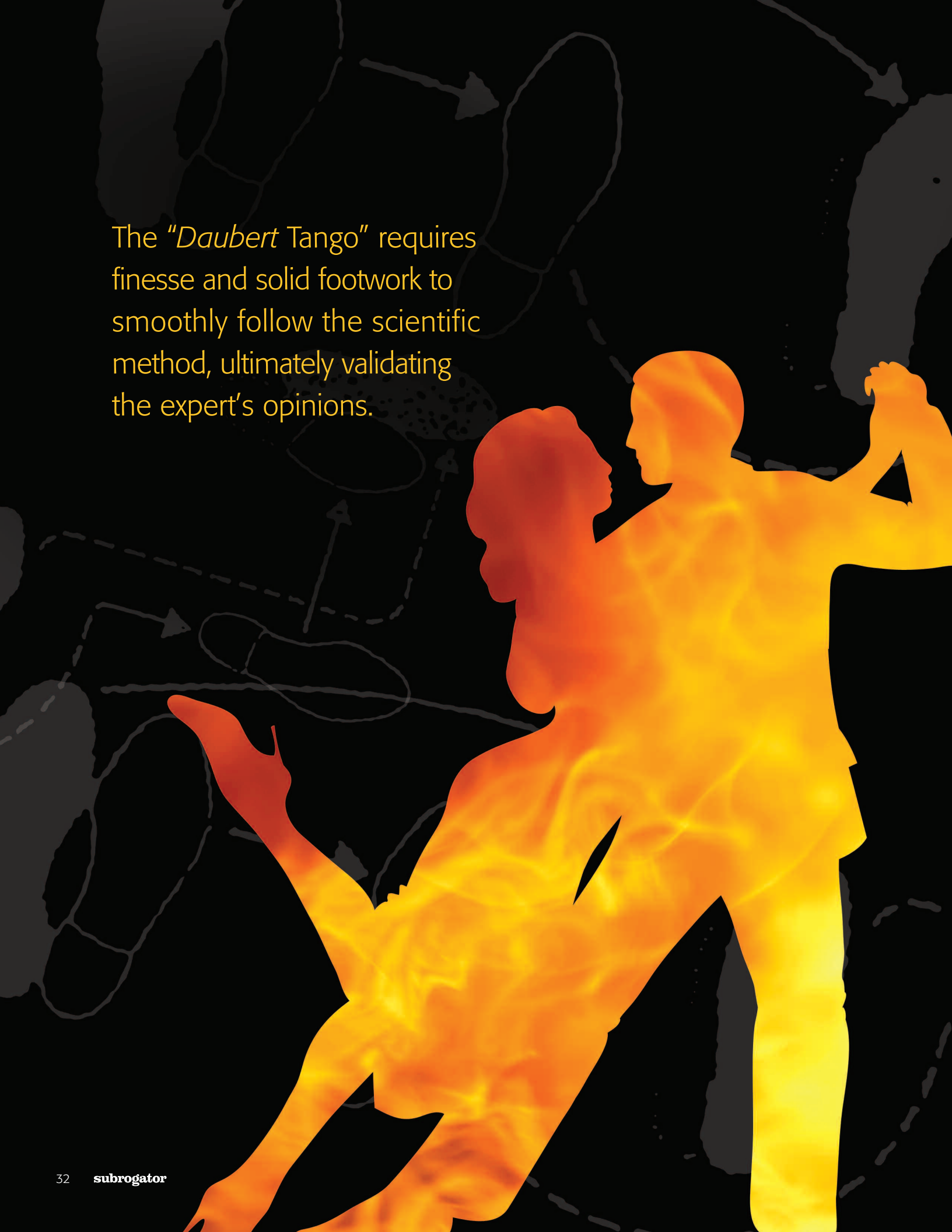
As a practical matter, testing of an expert's hypothesis should be considered in establishing the necessary reliability required by *Daubert*. Over the past two and a half years, courts involved in fire and explosion litigation have consistently upheld this requirement, finding that it adds important scientific credence to expert theories.

For example, in *Solheim Farms, Inc. v. CNH America*, LLC, 503 F. Supp. 2d 1146 (D. Minn. 2007), an expert's theory that field trash resulted in ignition and destruction of a tractor was barred, resulting in summary judgment for defendant. The court noted that "the day of the expert, who merely opines, and does so on basis of vague notions of experience, is over." *Id.* at 1150. Among the cited deficiencies in the expert's opinion were: 1) *failure to test* whether trash can accumulate dangerously inside a tractor; 2) *what amount* and type of trash was required to cause ignition; and, 3) whether sufficient air current was present to fuel a fire. The court focused on a lack of quantitative data to support the expert's opinion rather than acknowledging experience and skill-set to qualitatively analyze the situation and render expert testimony.

Similarly, in *Hartford Ins. Co. v. General Electric Co.*, Nos. 06-362S & 07-007S, 2007 WL 4299793 (D.R.I. Dec. 7, 2007), the expert theorized that a defective water dispenser led to a fire when a damaged water tank leaked, resulting in continual operation and overheating of the dispenser's heating element. This opinion was prohibited from



Counsel and their experts must tango together in rhythm to ensure, where applicable, the necessary footwork, including investigation and testing, have been effectively achieved.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presentation to the jury. In barring the expert, the court noted the expert was not trained as an electrician, which called into doubt his ability to offer opinion testimony relating to electrical issues. Further, the expert *failed to perform* a test upon an exemplar unit that was provided during discovery to verify his theory. These failures, as well as the failure to properly disclose expert opinions, resulted in the court barring the expert testimony and granting defendant's summary judgment, as the plaintiff could no longer show the required link between the alleged product failure and the fire's ignition.

Additionally, in *Lum v. Mercedes Benz, U.S., LLC.*, Slip Copy, No. 3:05CV7191, 2007 WL 1362366 (N.D. Ohio May 7, 2007), the expert's theory that a driver suffered burns to his hand following deployment of an airbag was precluded because no *attempt was made to replicate the expert's causation theory*. Although the expert's theory was based on information, photographs, examination of the deployed airbag and reports and tests on other allegedly malfunctioned airbags, the *expert did not undertake testing on exemplar airbags* to demonstrate that his causation theory was plausible or reliable. Because *tests of the theory could have been done*, but were not, the expert's theory was found not to be sufficiently based on reliable methodology.

In *Honaker v. Innova, Inc.*, Slip Copy, No. 1:04-CV-132(M), 2007 WL 1217742 (W.D. Ky. Apr. 23, 2007), the court focused on expert's failure to test the theory that a pressure cooker exploded after a flash vaporization, precluding the testimony despite acknowledging how difficult it would be to test the theory. Failure to test or model the design or heat generation to ignition also proved fatal to the opinions of an expert in *Pro Service Automotive, L.L.C. v. Lenan Corp.*, 469 F.3d 1210 (Mo. 2006). The defendant was granted summary judgment after plaintiff's expert was barred from presenting the opinion that a hole in the wall of a waste oil heater, which did not contain a temperature limiting sensor, ignited combustible materials, leading to the destruction of a building, was a design defect.

Finally, in *Mack Trucks, Inc. v. Tamez*, 206 S.W.3d 572 (Tex. 2006), the expert's theory, that a truck driver's death from fire, which resulted after the truck suffered a roll-over due to a variety of design defects involving the truck's battery and fuel system, was excluded because the expert did not inspect truck artifacts, no reconstruction of the accident was performed, the expert failed to show a link or support for his theory based on his review of over 5,000 studies of post-collision fuel-fed fires, and the *expert failed to test the type of battery involved in the accident* to verify his theory that the battery's placement was a contributing cause of the fire. Without the expert's testimony to establish liability, summary judgment for defendant was upheld.

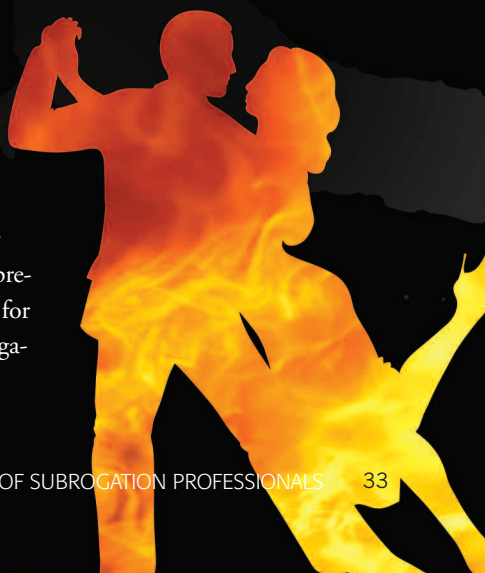
Bottom-line: Counsel and their experts must tango together in rhythm to ensure, where applicable, the necessary footwork, including investigation and testing, have been effectively achieved.

Will The Scientific Method Save The Expert From Tripping Over His Or Her Own Feet?

As fire and explosion litigation relies heavily on science, the science behind the expert's opinions should be well-established and credible. Although a fire scene and evidence may be significantly destroyed or opposing experts may differ in their view of the same evidence, if the scientific method is employed by the expert, the court is more likely to let the testimony be presented to a jury for consideration.

For example, in *Gilmore v. Village Green Management*, Nos. 90387, 90418, 2008 Ohio App. LEXIS 3850 (Ohio Ct. App. Sept. 11, 2008), an expert's opinion that faulty construction led to an electrical fire was based, in part, upon his observations of unburned areas of a building. The expert opined that the poor construction he observed in the less damaged portions of the building would have been similarly found in the fire's area of origin, which was severely destroyed. The appellate court held that the expert's opinion satisfied the requirements of NFPA 921, which is a methodical approach to systematically considering, and then eliminating, alternative possibilities to explain a fire's area of origin and cause. The expert's opinion, the Court found, met NFPA 921 requirements because the opinion was based upon the expert's observations, review of unburned areas of the building, witnesses, data, documents and the elimination of other possibilities.

This holding, however, should be viewed with caution. Although expert testimony purports to follow methods prescribed by NFPA 921, Guide for Fire and Explosion Investiga-



tions, it may not be sufficient to avoid a *Daubert* attack. In *Fireman's Fund Ins. Co. v. Canon, U.S.A., Inc.*, the Eighth Circuit affirmed exclusion of an expert's testimony, although the fire causation experts involved had subjected the copier, believed to be the source of the fire, to five detailed inspections, including visual, x-ray and electron-microscope examinations. 394 F.3d 1054 (8th Cir. 2005). The Eighth Circuit found that the trial court did not abuse its discretion in excluding the experts' testimony, based on their failure to carefully examine their hypotheses against empirical data obtained from the fire scene analysis and to conduct appropriate testing. *Id.* at 1057-58. According to the court, "not only did the experimental testing fail to produce an open flame, but the experts were unable to explain the assumed heater control circuitry malfunction in theory or replicate it in any test." *Id.* at 1058.

Employing the scientific method saved two plaintiff experts in two *Whirlpool* cases. In *Whirlpool Corp. v. Camacho*, No. 13-05-00361-CV, 2008 Tex. App. LEXIS 356 (Texas App. Jan. 17, 2008), the appellate court upheld a $14 million product liability claim based upon plaintiff's expert's opinion that lint from a dryer was ignited and embers entered the machine's drum, igniting the laundry, which then spread fire throughout a mobile home. Although the parties' experts differed as to the cause and origin of the fire, the appellate court *rejected Whirlpool's argument the plaintiff's expert's opinion was not reliable*. The appeal court found that plaintiff's expert's testimony was based on his experience in investigating hundreds of dryer fires, review of documentation, review of exemplar dryers, and elimination of alternative causes of the fire, *all part of the acceptable scientific method approach* to determining the cause and origin of a fire.

Similarly, in *McCoy v. Whirlpool Corp.*, No. 05-3337, 2007 U.S. App. LEXIS 28234 (10th Cir. 2007), after the jury awarded plaintiff a $1.7 million product liability verdict against defendant, the trial court reversed the jury's decision on the basis that plaintiff's expert did not sufficiently rebut the opposing expert's opinion. The appellate court, however, reversed the trial court's decision and reinstated the jury's verdict. The appellate panel held that plaintiff's expert's opinions met *Daubert*'s reliability requirements and that his *testing methods were generally accepted and scientifically reliable*, noting that the jury, as the trier of fact, was in the best position to decide which party's expert to believe regarding the cause and origin of the fire.

Bottom-line: The "*Daubert* Tango" requires finesse and solid footwork to smoothly follow the scientific method, ultimately validating the expert's opinions.

Preparing Your Expert For The Dance: Top Ten Practical Strategic Insights

Here's a practical checklist of ten critical strategic priorities/considerations when choosing an expert and developing the appropriate forensic investigation:

1. Retain the "right experts" who are properly qualified and whose opinions "fit" the relevant case issues.
2. Ensure that the expert's opinion and/or methodology has been subject to peer review.
3. Consider whether the expert's proffered opinion/methodology is generally accepted in the relevant scientific community.
4. If possible, have the expert conduct testing to verify his or her proffered opinion.
5. Determine if there is a known or knowable error rate?
6. Confirm the expert's ability to replicate results.
7. Make sure the expert considers all relevant evidence.
8. If possible, have the expert inspect the site and examine the artifacts.
9. Review all applicable industry standards/practices with the expert.
10. Analyze the adequacy and credibility of the evidence and data relied upon by the expert.

While testing often bolsters an expert's opinion, the test must adhere to *Daubert* guidelines; otherwise, the expert's testimony about the test and, perhaps, even the entire opinion, may be barred. No matter how deftly your expert may feel they tango under cross examination, it is imperative that the expert's opinions and underlying work are in step with the "*Daubert* dance."

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