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Winning trial strategies: top tips for defendants in presenting complex scientific principles to a jury

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You've toiled for years developing and litigating defenses for your client, a defendant in a product liability or toxic tort case involving complex scientific concepts. After all the discovery and briefing, you've finally made it to trial. You've mastered countless documents, prepared your fact and expert witnesses, and you know the science is on your side.

You rise to present your opening statement and explain to the jury how the science supports your client's case — and you see their eyes start to glaze over and lids get heavy the moment you first mention "micrograms per meter cubed" or "standardized incidence ratio" or "differential etiology." The key scientific issues — the very ones that should win your case — are going over the jury's head!

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The scenario outlined above grows increasingly common and more challenging in a world where science evolves and impacts our daily lives by leaps and bounds at a breakneck speed, and where jurors obtain their news in tweets and headlines and 90-second online videos.

Complex scientific issues, however, are frequently outcome determinative for the defendant in a variety of personal injury cases and often key to winning a case. Effective use of the following strategies, among others, will help you make your key scientific arguments in a persuasive and accessible manner, and also avoid juror confusion and malaise.

I. Effective use of demonstratives

Studies show that after a 12-hour period, individuals recall about 10% of information presented orally. Presumably, that number diminishes over the days and weeks it can take before a jury actually deliberates, and even more so when the information is complex and difficult to decipher.

Research also indicates that confusion and feelings of intellectual inferiority are psychologically uncomfortable, meaning that some jurors may feel uneasy and annoyed by complex scientific topics they do not immediately understand (and may take that out on you, your client, or your witnesses).

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For example, simply stating that the amount of an alleged air pollutant emitted by a defendant was "one part per billion" will mean nothing to a juror in the abstract, but using an impactful demonstrative exhibit depicting this number as one-inch per 16,000 miles or as one single dot in a sea of dots can help drive home your key point about the lack of exposure to that chemical a plaintiff actually encountered. The jury need not understand exactly what one part per billion means, but need only understand that it is very very small.

Note that analogies can be risky, so they should be well tested ahead of time. Further, demonstratives are only useful if they are actually effective in helping to elucidate a difficult to understand concept — a demonstrative that is simply a slide full of text is unlikely to be very helpful. Additionally, you need to be mindful of how your images may be flipped or used on cross-examination.

Although it is important to keep the above potential issues in mind, demonstratives are still a necessity for any attorney presenting abstract scientific and mathematical concepts to a jury. The effective use of persuasive and accessible demonstrative exhibits should be a focus at your trial, and development of those demonstratives should begin — typically with the aid of a trial demonstrative vendor — the minute the case lands on your desk.

II. Reiterate the burden of proof and the standard of causation

How the burden of proof is framed at trial matters. By definition, the burden of proof is something plaintiff must demonstrate in order to succeed at trial. Because the burden of proof is something plaintiff must satisfy, the plaintiff's counsel will necessarily seek to minimize this burden.

Specifically, to the extent legally permissible, plaintiffs will argue that they can meet the burden of proof simply by showing that defendant's conduct is in some way associated with the injury, even if it was not the only cause of the injury, or even the last or nearest cause.

This "straw that broke the camel's back" theory is one of the greatest challenges for any defendant to overcome at trial — but particularly so in complex medical cases where difficult scientific concepts may lead jurors to simply assume that defendant's actions may have caused plaintiff's injury, and that "may have caused" is enough.

Fortunately, there are several methods to employ in helping combat this burden of proof issue — and specifically tactics that may be helpful in complex scientific cases. First, you must refute whatever distortion of the burden of proof plaintiffs have articulated.

If possible, provide an alternative causation explanation. Although the defendant does not have the legal burden to prove an alternative cause, jurors typically want to hear one.

For example, if proximate cause is the applicable standard, ensure the jury understands the defendant's conduct must reach a certain level to satisfy the standard (perhaps the caselaw dictates it must be a substantial factor) and not, simply, as plaintiffs are sure to put it, any contribution to the injury whatsoever.

Once you have distilled the appropriate standard, reiterate it at every possible opportunity at trial. Plaintiff brought the lawsuit, now *she* must prove her injury would not have occurred but for your client's product and/or conduct.

Second, if possible, provide an alternative causation explanation. Although the defendant does not have the legal burden to prove an alternative cause, jurors typically want to hear one — particularly in situations where the injured party is young and seemingly healthy.

If there's a credible alternative explanation, it is advisable to present evidence of that other cause for the jury to feel more comfortable holding plaintiff to her burden. In establishing this alternative causation, practicing medical professionals in the relevant field — who treat patients like plaintiff day-in and day-out — can be incredibly effective expert witnesses.

Finally, to the extent jurors are uncertain about what the burden of proof is and its import, there are opportunities for education, starting as early as *voir dire*. Depending on the judge and venue, it may be permissible to query potential jurors about their willingness to apply a particular doctrine of law.

Voir dire could thus be a good chance to assess which potential jurors can (and are most likely to) accurately understand and apply the burden of proof. Other trial opportunities must be leveraged as well, including opening statement, closing argument, and jury instructions.

III. Focus on real world implications

Naturally, opposing counsel and their experts will have their own view on the scientific evidence. In toxic tort, pharmaceutical, medical device or other cases in which dosage (or level of exposure) is a key component of causation, plaintiff's counsel will, logically, try to minimize the dose that is actually required to cause injury.

In rebutting opposing counsel's arguments, one successful strategy is to focus on what their assumptions mean when applied in the real world to demonstrate they cannot possibly be correct. This "common sense" approach, if presented in the right manner, is often appreciated by jurors. For example, plaintiff may allege that a tiny exposure to a chemical compound emitted by your client caused her rare form of cancer.

However, if that same chemical compound is either ubiquitous in the ambient air from natural causes and/or biologically produced by humans themselves and/or produced by lots of sources other than your client, especially if in the same or greater amounts, a juror may rightfully question whether the real world implications of plaintiff's assumptions make any sense.

This common sense approach does not require the jurors to understand "parts per billion," but only requires them to consider what they already know and experience in everyday life.

IV. Distill your scientific points

Is it possible to distill your many and varied scientific concepts into a few key points? The answer to that question must be "yes" if you have any hope of keeping the jury engaged during trial and likely to remember them when deliberating.

To the extent you and your experts can use lay terms rather than scientific ones, without patronizing the jury, do so.

As discussed above, the jury is likely to remember fewer effective points, presented visually, rather than a myriad of complex scientific principles. Repetition is key for all of us to remember important concepts, and juries are no different.

Further, to the extent you and your experts can use lay terms rather than scientific ones, without patronizing the jury, do so. Not only will you have to explain every scientific term you use, but a slew of incomprehensible terms and concepts may alienate the jury. Ask questions using words anyone can understand, and ensure your witnesses know to make their answers simple and clear.

If your witness strays off course and starts to use terms and concepts nobody understands, ask them to rephrase or clarify their points, which can often be done with appropriate humor.

V. Use dynamic themes to tie the case together

In all cases, but particularly in complex scientific ones, strong themes that the jury can return to again and again are critical. In complex scientific cases, the jury will not only be presented with important scientific evidence, but also with substantial non-scientific "scientific" evidence.

Such evidence — sounding like scientific evidence but based on conservatism and over-protectiveness, not based on any actual science — may often be compelling, whether from plaintiff, family member, or even your own company witnesses.

Strong themes help the jury filter out information that is not relevant to causation or other scientific issues that should be determinative to the case's outcome. Providing the jury within a thematic and powerful framework into which to place what matters and what doesn't from the first day of trial until you sit down after your closing often is the difference between winning and losing.

VI. Expert credentials and manner really matter in complex scientific cases

The expert in complex scientific cases is critical in delivering hard-to-understand topics in a clear, concise, and persuasive way. When the material is especially difficult, jurors decide on which expert they trust more — yours or plaintiff's. This can become a toss-up to some jurors in the proverbial "battle of the experts." Thus, an expert's credentials and relevant experience are paramount in a complex scientific case.

However, don't get tunnel vision in always pursuing the smartest expert on a topic. If your expert is the world's leading expert in researching cancer in a laboratory and but does not see any actual patients, they may not be the right fit in a case where the plaintiff alleges your client's product caused her breast cancer.

When the material is especially difficult, jurors decide on which expert they trust more — yours or plaintiff's.

Or if your expert is the world's leading expert but cannot connect with a jury — particularly in your particular venue — she might not be the right fit. Remember, the jurors have to like and connect with your expert, no matter how accomplished she may be. The test should be if you think a juror would trust your expert if diagnosed with a serious health problem either for herself or her loved ones.

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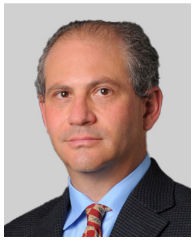
Trying a complex scientific case to a group of lay persons is certainly a daunting task, but can be done successfully when strategic thought and effort are employed. The above are examples of some of those principles that should be at the forefront of your mind when the case begins, not for the first time when you walk into court for trial itself.

About the authors



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