This work was originally published as Cheng, Should Judges Do Independent Research on Scientific Issues? in 90 Judicature 58 2006.
To many judges, doing independent research when confronted with new and unfamiliar material seems the most responsible and natural thing to do. To others, it represents the worst kind of overreaching and a threat to long-cherished adversarial values.

Judges today are under increasing pressure to take an active role in policing the flow of scientific and other expert evidence into the courtroom. Most famously, in *Daubert v. Merrell Dow Pharmaceuticals*,¹ the Supreme Court tasked federal judges as all-important gatekeepers who are obligated to ensure that expert testimony is both relevant and reliable. Many state courts have subsequently followed suit, whether by adopting *Daubert* explicitly or by more stringently enforcing their own scientific admissibility standards.

The dilemma for judges is that they are not necessarily well-versed in the specialized fields over which they act as gatekeepers. Indeed, even among the scientifically inclined, gatekeeping can prove extremely challenging because the sheer breadth of modern knowledge precludes any one judge from being familiar with everything.

Faced with an important question in an unfamiliar and specialized field, responsible people often do research: they read reference books, scan journal articles, even search the Internet. May judges do the same when confronted with a complicated issue of scientific admissibility? But perhaps more importantly, should they? The answer is strikingly controversial. A survey of state appellate judges and a study of current statutes and case law show significant disagreement and ambiguity on the issue. In addition, as the latter sections of this article and the judicial reactions that follow it suggest, the desirability of independent research may depend significantly on a judge’s vision of the legal system.

Appellate judges survey
To ascertain judicial attitudes on independent research, surveys were distributed to a group of 136 state appellate judges attending a law and science conference. In order to measure judicial attitudes, rather than controlling law, the survey asked participants to disregard any specific rules in their jurisdiction. Survey participants were given a scenario under which a judge faced a difficult scientific admissibility issue in a pharmaceutical products liability case. They were then presented with a variety of methods by which the hypothetical judge could obtain additional, independent information on the drug to inform his or her admissibility decision. The survey asked the judges to rate the desirability of each practice using a scale of 1 (very undesirable) to 5 (very desirable). The response rate was approximately 60 percent.

Survey results showed judges divided on most independent research methods. For example, as seen in Figure 1, on the question whether it is desirable for a judge to “[f]ind and read medical journal articles (peer-reviewed) on the drug,” 21 percent of respondents found the research to be “very desirable,” while 25 percent found it to be “very undesirable.” Respondents were similarly divided on the issue of reading medical treatises, as seen in Figure 2.

Only a few methods showed consensus among judges, and these all involved what are traditionally classified as ex parte communications. A resounding 89 percent of judges responded that informally consulting a family physician was “very undesirable,” and 88 percent agreed that informally consulting a medical school professor was to some degree undesirable. Strong judicial norms, developed through ethics rules against ex parte communications, likely played a key role in generating uniform answers in these categories.

The results carry the usual caveats that accompany surveys as well as a few additional ones. Selection effects are a particular concern here because of the response rate and the original conference sample itself. Respondents may have had more favorable views toward judicial...
research, because they had already demonstrated some interest in participating in judicial education and academic research. Conversely, ethical surveys may generally have a tendency to skew toward perceived ethical responses, since respondents may feel that they have more to lose in appearing unethical than overly cautious. Nevertheless, although these biases may have influenced the precise percentages observed, they arguably did not affect the overall conclusion that there is deep conflict on these issues within the judiciary.

Finally, it is possible that judges ignored the survey instructions and were influenced by rules from their specific jurisdictions. This problem is diminished, however, because as discussed below, few jurisdictions have definitive rules governing independent research, and no statistically significant relationship was found between a judge's state and his or her responses.

**Current legal regime**

One might expect that there would be clear and well-established rules governing independent research, but unfortunately there are not. Few cases have explicitly addressed the issue, and those that have are largely divided. A number of cases have approved of independent research, either explicitly or implicitly by engaging in it. Other courts have found the use of extra-record treatises anathema. Indeed, the Texas Court of Criminal Appeals recently displayed the tension in stark relief. In her concurrence to *Hernandez v. State,* Presiding Judge Sharon Keller wrote that the "appellate courts should never conduct their own independent research of the scientific literature," while Judge Michael Keasler in dissent argued that the court should be permitted to look at "any reliable authority it could locate" regardless of whether it was presented on the record. (Judges Keasler and Keller elaborate on their views below.)

At the same time, the evidentiary rules and the canons of judicial ethics offer little guidance to judges. Federal Rule of Evidence 201, which governs judicial notice, suggests that judges may conduct independent research of legislative facts. However, whether scientific knowledge constitutes legislative fact is unclear. Like legislative facts, scientific facts are often generally applicable and non-case-specific. However, in the scientific admissibility context, scientific facts are not used to determine or interpret legal rules.

Similarly, the ABA Model Code of Judicial Conduct, adopted in some form in an overwhelming majority of states, clearly bars ex parte communications. Unfortunately, however, the ex parte prohibitions only obliquely address the issue of library research, because their focus is arguably on informal communications that lack a citable or publicly available record.

**A proposal**

The primary reason to allow independent research is largely self-evi-
 Independent research would allow judges to obtain specific and relevant information that would help inform and guide their scientific admissibility decisions. In many ways, independent research is a natural extension of the recent trend toward judicial education programs in science. Those programs are built on the premise that if judges learn more about scientific principles and methods, they can more comfortably and competently handle scientific admissibility questions. The problem with judicial education programs is that they necessarily suffer the limitations of being broad in scope and separated in time. Independent research enables judges to refresh their memories and plug gaps in their knowledge.

Why then do some judges so adamantly oppose independent research? One major objection is that it does violence to the adversary system by requiring an active judicial role and undermining the importance of party-presented evidence. Another major fear is that judges will lack the wherewithal to conduct first-rate library research and may be duped into using outlier or discredited scientific materials.

These concerns, while valid, do not justify an absolute prohibition on the practice. First, there are reasons to sacrifice adversarial values in the scientific evidence context. The adversary system is particularly ill-suited to handling specialized knowledge, largely because the parties’ ability to prescreen and compensate expert witnesses virtually ensures conflicting and partisan testimony. At the same time, scientific facts are general truths not confined to the immediate parties. Scientific admissibility decisions therefore exert considerable influence over future cases, and erroneous decisions can be readily exposed by third parties, detracting from the legitimacy of the system. Second, the structural context of litigation guides any potential independent research, reducing the possibility of a judge reaching outlandish results. Independent research supplements, rather than replaces, the parties’ presentation of evidence, so the parties always frame the debate. In addition, because judges must write reasoned opinions, they are naturally inclined toward standard, reliable sources anyway, because the use of fringe sources risks undermining their persuasive power.

Nevertheless, the objections raised by opponents do advocate for several procedural safeguards to independent research that would promote greater accuracy and maintain many of the benefits of adversarial testing. One safeguard would be to restrict independent research only to sources that are citable and publicly available. Another is that judges should cabin their inquiry to generally applicable scientific information such as scientific principles and methods or the accuracy of a scientific technique. Finally, as generations of commentators have argued in the legislative fact context, when judges discover information critical to the decision-making process, the parties should be notified and given an opportunity to respond, enabling the parties to double-check the judge.

The future
Can independent research become a successful tool for judges facing difficult scientific admissibility decisions? Prognostication is always a perilous endeavor, but there are some grounds for optimism. Looking at the survey data, one would expect that if independent research were made explicitly permissible, significant numbers of judges would engage in it. Over 40 percent of judges are already positively disposed. That said, the survey data also suggest that a sizable number of judges will resist, even if given explicit authorization. These judges are uncomfortable with or plainly oppose that kind of active judicial role.

This predicted state of affairs of course raises a more fundamental problem of consistency. The rule of law, after all, suggests that whether a judge engages in independent research should depend on some predetermined rule, not personal preference. But to the extent that the situation is unavoidable, there is reason to believe that judge-to-judge variation is less concerning in the independent research context. In particular, independent research is not a substantive rule of law, and the decision to engage in it does not have any clear implications on outcome. The usual concern about inconsistency—the unfairness associated with having outcomes depend on judge identity—is thus attenuated.

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Judges are deeply divided about the issue of independent research, which goes to the heart of their roles and responsibilities in the legal system. To many judges, doing independent research when confronted with new and unfamiliar material seems the most responsible and natural thing to do. To others, it represents the worst kind of overreaching and a threat to long-cherished adversarial values. But whether one supports the practice or not, one thing is clear. The issue of independent research deserves far greater attention than it has so far from jurists, academics, and practitioners alike.

Further reading
George D. Marlow, From Black Robes to White Lab Coats: The Ethical Implications of a Judge’s Sua Sponte, Ex Parte Acquisition of Social and Other Scientific Evidence During the Decision-Making Process, 72 St. John’s L. Rev. 291 (1998).

EDWARD K. CHENG
is an associate professor at Brooklyn Law School.
(Edward.cheng@brooklaw.edu)