

Beyond Devils and Angels: The National Conference of Lawyers and Scientists

When Jules Hallum, director of the National Institutes of Health's beleaguered Office of Scientific Integrity (OSI), was asked recently why he wanted a scientific advisory panel to help OSI establish warmer ties with the nation's researchers, he replied, "I'm getting too much lawyer's advice. It's clouding our connection to scientists."

That image of the devil lawyer on one shoulder whispering advice inimical to the interests of the angel scientist on the other is common in the scientific community. And it's an image members of the National Conference of Lawyers and Scientists (NCLS) are working to change.

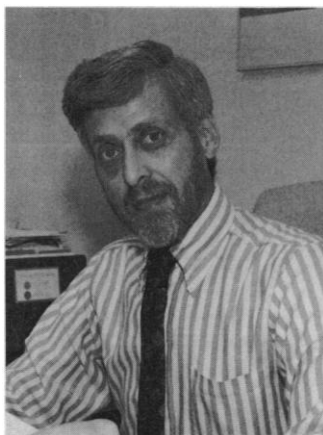
The NCLS, a joint venture of the American Association for the Advancement of Science (AAAS) and the American Bar Association (ABA), has for 17 years worked to bridge the gap between the legal and scientific communities, and in the process is addressing some of the more wrenching problems of our time.

For example, just out this month is a report by a NCLS task force offering general recommendations for, as the title states, "Enhancing the Availability of Reliable and Impartial Scientific and Technical Expertise to the Federal Courts." At a NCLS-co-sponsored conference outside Boston in November, key players in the ongoing debate over scientific fraud and misconduct met to compare notes on the definition and investigation of misconduct, and the treatment of whistle-blowers.

This spring, NCLS will hold the second of three conferences on the ethical and legal implications of genetic testing, focus-

ing on studies that trace genetic diseases through families. And the group is writing a proposal for a series of conferences on unwanted intrusions into computer networks (e.g., viruses).

"Legal and scientific issues are so intertwined at this point," says Mark Frankel, AAAS staff



officer for NCLS. "It just makes sense for the two disciplines to join forces in a way that will promote the public welfare."

Founded in 1974, the NCLS consists of 14 members, half appointed by AAAS and half by the ABA, who meet several times each year.

Frankel says there's a kind of culture clash that often makes it hard for scientists and lawyers to appreciate each other's point of view. "Scientists are reluctant to expose themselves to the adversarial cross-examination that takes place during a trial," he says. "Science is based on probabilities, and the search for truth is an ongoing process. Lawyers and judges are sometimes frustrated when scientists are unwilling to testify with absolute certainty."

At the same time, he says,

"scientists and engineers need to understand the important role the law plays in resolving disputes involving complex technical matters."

That may be true more than ever these days, as the Public Health Service (PHS) struggles to develop policies and procedures for the investigation of scientific fraud and misconduct that don't infringe the scientist's right

"Lawyers are sometimes frustrated when scientists are unwilling to testify with absolute certainty."

—Mark Frankel
AAAS Staff Officer

to due process or unduly inhibit scientific research. NCLS "was ahead of Congress in perceiving this as an issue," says current NCLS co-chair Richard Meserve, a Washington, D.C. lawyer who also holds a Ph.D. in applied physics. Starting in 1987, the NCLS sponsored a series of three workshops on scientific fraud and misconduct, the proceedings of which continue to be sought by those working to establish policies of their own.

The NCLS misconduct conference in November was attended by members of a PHS advisory committee who had arranged to meet at the same hotel the next day, in part to consider revising their recommended definition of scientific misconduct. "Our work in this area is seen as credible because we involve everyone from working scientists

and judges, to university administrators and congressional staff members," says Meserve.

The new NCLS report on science in the courts, funded by the Carnegie Commission on Science, Technology, and Government, includes eight recommendations. The report's authors urge professional societies to fill the void between scientists and the legal system.

"Societies could play a valuable role in educating their members as to what happens in a courtroom," say the authors, and "acknowledge such efforts as important public and professional service [with] appropriate incentives and recognition..."

Other recommendations are:

- that the Carnegie Commission determine how willing federal judges are to appoint scientists and engineers as independent experts;
- that organizations such as the National Academy of Sciences and the Federal Judicial Center establish programs to "provide judges and lawyers with continuing opportunities to understand the culture and methods of science and the nature of scientific evidence";
- and that courts consider "innovative and novel approaches" to the presentation of scientific evidence.

NCLS's next venture will be a hands-on workshop at the AAAS annual meeting in Chicago on 12 February concerning how best to conduct the inquiry portion of a scientific misconduct investigation.

For more information about the misconduct practicum, or any NCLS activity, contact Mark Frankel, Science & Policy Directorate, AAAS, 1333 H St., NW, Washington, DC 20005 or 202-326-6600. ♦

1992 Election Results

As the new president-elect of AAAS, Eloise E. Clark brings a "pragmatic level of experience" to the Association. Currently professor of biological sciences and vice president for academic affairs at Bowling Green State University in Ohio, Clark has a varied background in basic research and research administration, including stints at the National Science Foundation.

"Participating at multiple levels of the R&D enterprise will probably be routine expectations for scientists in the future," Clark said in her statement to the members, "and my experience may assist AAAS in addressing the needs of a changing environment."

Clark's goals as president will be to strengthen AAAS's pre-college science education efforts; improve university research environments; restore public confidence in science and engineering; and play a major role in informing public policies on matters of science.

Following are the complete 1992 election results for AAAS general and sectional offices. Terms begin 12 February 1992:

General Offices

President-elect: Eloise E. Clark (12,596 votes); Roland W. Schmitt (9,284). *Board of Directors* (two elected): Phillip A. Griffiths (9,786); Michael L. Knotek (9,488); Alan Schriesheim (10,409); Chang-Lin Tien (10,449). *Committee on Nominations:* David Korn, Julie Haynes Lutz, Gordon H. Orians, Marvalee H. Wake.

Section on Agriculture

Chair-Elect: Kenneth J. Frey. *Member-at-Large:* Eldon E. Ortman. *Electorate Nominating Committee:* Harold D. Hafs, Carol E. Windels.

Section on Anthropology

Chair-Elect: Frank Hole. *Member-at-Large:* Margaret J. Schoeninger. *Electorate Nominating Committee:* Sydel Silverman, Phillip L. Walker.

Council Delegate: George J. Arme-lagos.

Section on Astronomy

Chair-Elect: Hugh M. Van Horn. *Member-at-Large:* Martha L. Hazen. *Electorate Nominating Committee:* Jay Gallagher, Lee Anne Willson. *Council Delegate:* George R. Carruthers.

Section on Atmospheric and Hydrospheric Sciences

Chair-Elect: John Firor. *Member-at-Large:* John A. Dutton. *Electorate Nominating Committee:* Eugene W. Bierly, Carol H. Pease.

Section on Biological Sciences

Chair-Elect: Francisco J. Ayala. *Member-at-Large:* Judith S. Weiss. *Electorate Nominating Committee:* Ann Bucklin, Paul H. Yancey. *Council Delegates:* Gloria V. Callard, Susan Gottesman, Judith A. Lengyel, Nancy H. Marcus, Ann Gale Matthysse, Diane K. Stoecker, Zena Werb, Jeannette Yen.

Section on Chemistry

Chair-Elect: R. Stephen Berry. *Member-at-Large:* J. Ivan Legg. *Electorate Nominating Committee:* Edward M. Arnett, Helen M. Free. *Council Delegates:* Allen J. Bard, Kurt Mislow, John D. Roberts, Nina Matheny Roscher.

Section on Dentistry

Chair-Elect: John W. Stamm. *Member-at-Large:* Barry R. Rifkin. *Electorate Nominating Committee:* Michael L. Barnett, Roy S. Feldman.

Section on Education

Chair-Elect: Rodger W. Bybee. *Member-at-Large:* Ronald D. Anderson. *Electorate Nominating Committee:* Mary M. Atwater, Emmett L. Wright.

Section on Engineering

Chair-Elect: Irene C. Peden. *Member-at-Large:* Joseph Bordogna. *Electorate Nominating Committee:* Frank S. Barnes, Terry E. Shoup.

Section on General Interest in Science and Engineering

Chair-Elect: James W. Curlin. *Member-at-Large:* Sheila Grinell. *Electorate Nominating Committee:* Eduardo L. Feller, Jeanne V. Norberg.

Section on Geology and Geography

Chair-Elect: Jack E. Oliver. *Member-at-Large:* Charles B. Officer. *Electorate Nominating Committee:* David K. Rea, Margaret N. Rees. *Council Delegate:* George Rapp, Jr.

Section on History and Philosophy of Science

Chair-Elect: Roger H. Stuewer. *Member-at-Large:* David L. Hull. *Elec-*

torate Nominating Committee: Michele L. Aldrich, Stanley Goldberg.

Section on Industrial Science

Chair-Elect: Jordan J. Baruch. *Member-at-Large:* Paul E. Ritt. *Electorate Nominating Committee:* Ward J. Haas, Lawrence M. Kushner.

Section on Information, Computing, and Communication

Chair-Elect: Bonnie C. Carroll. *Member-at-Large:* Maureen C. Kelly. *Electorate Nominating Committee:* Shirley M. Radack, Oliver Reed Smoot.

Section on Mathematics

Chair-Elect: R.L. Graham. *Member-at-Large:* Richard Askey. *Electorate Nominating Committee:* R. Creighton Buck, Jill P. Mesirov. *Council Delegate:* Patricia J. Eberlein.

Section on Medical Sciences

Chair-Elect: Richard J. Johns. *Member-at-Large:* Philip Fialkow. *Electorate Nominating Committee:* Bernard N. Fields, Robert B. Wallace.

Section on Pharmaceutical Sciences

Chair-Elect: Gilbert S. Banker. *Member-at-Large:* I. Glenn Sipes. *Electorate Nominating Committee:* Gerald T. Miwa, Paul R. Ortiz de Montellano.

Section on Physics

Chair-Elect: Francis M. Pipkin. *Member-at-Large:* Boris W. Batterman. *Electorate Nominating Committee:* Jerome I. Friedman, Alan H. Guth. *Council Delegate:* Robert J. Birgeneau, Jill C. Bonner.

Section on Psychology

Chair-Elect: Jerome Kagan. *Member-at-Large:* Michael S. Gazzaniga. *Electorate Nominating Committee:* Frances K. Graham, Mary C. Potter.

Section on Social, Economic, and Political Sciences

Chair-Elect: Garry D. Brewer. *Member-at-Large:* Wendy Baldwin. *Electorate Nominating Committee:* Kenneth J. Arrow, Patricia A. Gwartney-Gibbs.

Section on Societal Impacts of Science and Engineering

Chair-Elect: Roberta Balstad Miller. *Member-at-Large:* J. William Futrell. *Electorate Nominating Committee:* Janet Welsh Brown, Alison G. Power.

Section on Statistics

Chair-Elect: Daniel G. Horvitz. *Member-at-Large:* Judith D. Goldberg. *Electorate Nominating Committee:* Juliet Popper Shaffer, Jessica Utts.

Science-By-Mail

Science-By-Mail is a national program of Boston's Museum of Science that links young students with pen-pal scientists. AAAS helps recruit scientists for the program, and has sent out 230 Science-By-Mail scholarships to community-based organizations and churches for the 1991-92 school year. However, the program needs more scientists willing to help foster the next generation of researchers.

The program works this way: Three science packets, containing experiments based on a theme, are mailed to children over the course of a year. After completing them, the children send their solutions to their assigned scientist, who responds to their solutions through letters.

If you want to volunteer, write AAAS Science-By-Mail, Education & Human Resources Directorate, 1333 H St. NW, Washington, DC 20005 or call the museum at 800-729-3300. ♦



Barnard Scholarship

Eric Pani, who as a 1991 AAAS/EPA Environmental Science and Engineering Fellow reviewed the data on pollution venting from the mixed layer into the free troposphere, has been awarded this year's Robert C. Barnard Environmental Science and Engineering Scholarship. Pani is a geoscientist at Northeast Louisiana University.

The \$3,000 research award is given annually to an outstanding EPA Fellow in honor of Robert C. Barnard, a distinguished attorney specializing in environmental law. ♦