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NAS Awards

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At a gala on Monday night (April 28), recipients of 2002 National Academy of Sciences (NAS) Awardswere honored for their achievements and influence. NAS president Bruce Alberts, who presided over the black tie ceremony that took place during 140th annual NAS meeting in Washington, D.C., noted the twin themes of basic research and science education running through the evening.

In the life sciences, Andrew Z. Fire of the Carnegie Institution of Washington and Craig C. Mello of the University of Massachusetts Medical School were awarded the NAS Award in Molecular Biology for their discovery of RNA interference in the nematode *Caenorhabditis elegans*. During a symposium earlier in the day, their basic finding had been called one of the most important in recent years by Nobel Laureate Philip Sharp. Mello and Fire paid tribute to their predecessors, who had discussed the phenomenon in plants two decades prior, and to the researchers who continue to employ RNA interference techniques in groundbreaking studies. "It's really been amazing seeing all the discoveries that have come out of it," said Mello.

Stanley Falkow of Stanford University received the Selman A. Waksman Award in Microbiology. In presenting the award, R. John Collier of Harvard University exclaimed that Falkow "can be said to have shaped the modern field of molecular pathogenesis." Falkow explained the passion that drove his work. "Most of you don't think as I do that you're invaded by microbes from the moment you are born." They inevitably consume everybody, he said, but some in different ways.

Passionate too, was Carol Greider, who received the Richard Lounsbery Award. Greider was honored for her work with NAS member Elizabeth Blackburn discovering telomerase, the enzyme that regulates the chromosome's protective ends. Though the molecule has since taken on a prominent role in cancer research, Greider, now at Johns Hopkins University, said she saw the award as an honor for curiosity-driven, investigator-initiated work. The next day, Greider herself was elected into the NAS with 71 other new members.

Standing NAS member Harry B. Gray of the California Institute of Technology received the NAS Award in Chemical Sciences for his work on electron tunneling in proteins. He thanked funding agencies, including the National Institutes of Health and the National Science Foundation, for having faith in his ideas even without preliminary results. Urging the support of young people with bold ideas, Gray said, "Let's do that before they get in a rut and publish a bazillion uninteresting papers." Alberts seized upon this enthusiasm and informally named Gray committee chair on the topic.

The NAS Award for Scientific Reviewing, established by *Annual Reviews*, the Institute for Scientific Information, and *The Scientist*, was presented to Stuart H. Hurlbert of San Diego State University. He thanked the numerous editors over the years who sent back his submissions saying, "This manuscript seems to have something important to say, but it's filled with sophomoric humor, satire, and tactless criticism," but who inevitably stood by him when he failed to change much. He also thanked his wife, Irene, who advised him to cut back on the tactless criticism.

Because of advanced symptoms of multiple sclerosis, Sarah P. Gibbs of McGill University was unable to attend the ceremony to accept the Gilbert Morgan Smith Medal for her work that provided a foundation for understanding the chloroplast's endosymbiotic origin.

Paul S. Anderson of Bristol-Myers Squibb received the NAS Award for Chemistry in Service to Society for his leadership in developing two approved classes of AIDS treatments.

The Troland Research Awards were given to David C. Plaut of Carnegie Mellon University and Michael J. Tarr of Brown University for their computational and empirical analyses of cognition and brain organization.

The J. Lawrence Smith Medal, honoring "meritorious investigations of meteoric bodies," went to John T. Wasson of the University of California (UC) Los Angeles. The Mary Clark Thompson Medal for important services to geology and paleontology went to Frederik J. Hilgen of the University of Utrecht. The Gibbs Brothers Medal in recognition of outstanding contributions in the field of naval architecture and marine engineering went to Alfred C. Malchiodi of Electric Boat Corporation. David R. Karger received the NAS Award for Initiatives in Research for designing algorithms for such problems as network flow, graph coloring, finding minimum trees, and finding minimum cuts. Karger, of UC Berkeley, thanked his family and especially his wife who was, "supportive despite the fact that it made no sense at all."

Walter Enders of the University of Alabama and Todd M. Sandler of the Universtiy of Southern California were awarded the NAS Award in Behavioral Research Relevant to the Prevention of Nuclear War. In 14 joint papers, the collaborators used quantitative analysis and game theory to study the cycle and predictability of terrorist attacks. The two lamented that sturdy scientific theory such as theirs is underused and undervalued in the US government's plans for eradicating terrorism.

For instilling a greater sense of scientific understanding and appreciation in the next generation of scientists, Shirley M. Malcomof the American Association for the Advancement of Science received the highest honors of the evening, the NAS Public Welfare Medal. Malcom warned against growing anti–affirmative-action sentiments and complacency about whether women in science are reaching their full potential. But she also looked forward with hope to a time in which a liberally educated young adult will also be, by definition, numerate and scientifically literate.

Also looking to the future was UC Berkeley statistician David A. Freedman, who received the John J. Carty Award for the Advancement of Science. Honored for building the foundations for Bayesian influence and for his analysis of census adjustment, he reminded attendees that 2010 is just around the corner. Freedman offered two pieces of advice: First, be sure to mail in the census form when it is received to avoid having a visitor at the door; second, "only one form per household."

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