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Freedom to speak

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Congressional fellows sponsored by physics-related societies this year. From left, Elaine Ulrich, Richard Thompson, Maggie Walser, Robert Saunders, and Amit Mistry.

was piqued after witnessing a decline in federal support for science research—including for her own graduate research at the University of Arizona. Ulrich, who will be working on energy issues for Sen. Ken Salazar (D-CO), says she feels "extremely patriotic" watching staff members in her office throw themselves at the "almost overwhelming amount of work that sometimes needs to be done." Ulrich's post-fellowship plan is to take what she learns about policy and apply it to business sustainability issues in the private sector.

Duke University biomedical engineer Robert Saunders, this year's OSA and SPIE congressional fellow, will work on health and business legislation for physicist Representative Rush Holt (D-NJ). Saunders says he's had a passion for science policy all along, adding that his science PhD makes him a rare breed among the lawyers and MBAs that populate the hill.

Last year's APS fellow, Matt Bowen, extended his fellowship in Sen. Harry Reid's (D-NV) office to the end of this month. He says he'd like to stay on at Congress or work in the executive branch for the new administration. Bowen, a particle physicist, says he explained nuclear-energy technical reports to staff members and Senator Reid and did background research for proposed renewable energy legislation.

Back to school

At least two of this year's fellows say their future plans may combine policy with academia. New AIP fellow Richard Thompson designed and taught a course in science and public policy as a research geoscientist at the University of Arizona and says he hopes to return to teaching science policy after his fellowship. He will work this year as an environmental legislative aide for his home-state representative Raúl Grijalva (D-AZ). Rice University bioengineer Amit Mistry taught high-school math and science for two years in New Orleans and says he may eventually return to academia to teach science policy. For now, he will work on health and education legislation for Rep. Edward Markey (D-MA) as this year's OSA and MRS fellow.

Returning to academia is biomedical engineer Audrey Ellerbee, last year's OSA and SPIE fellow. This fall she deferred joining the electrical engineering faculty at Stanford University and began postdoctoral research at Harvard University with chemist George Whitesides. She says she is doing the postdoc to regain her "agility" in the lab and to change research direction. Ellerbee's experience on the tax and banking policy team in Sen. Carl Levin's (D-MI) office included working on the bill that authorized the financial stimulus checks that most US taxpayers received this spring. She says her policy experience may come in handy in the future: "I would love to be one of those experts that [Congress] calls upon to help them understand scientific issues."

Jermey N. A. Matthews

Applications for congressional fellowships are due in early 2009. For details, visit http://fellowships.aaas.org, *which has links to the various sponsoring professional societies.*

Space debris, ITER in State Department fellow's portfolio

In September, nuclear astrophysicist Suzanne Koon began work as this year's American Institute of Physics State Department fellow. Koon is working in the space and advanced technology division of the Bureau of Oceans and International Environmental and Scientific Affairs, where her assignments include acquainting the international community with the US position on policy agreements to monitor space debris and to build ITER—the international fusion energy project. "The complexity of the agreements is pretty amazing," says Koon. "There are so many players involved, and the fact that [the State Department] can coordinate them and do so well with so many issues is pretty awesome."

TIMOTHY KOON

Koon

Koon accepted the fellowship directly after completing her PhD at the University of Tennessee, Knoxville, and says her interest in policy was sparked when a senior-year project took her to Washington, DC, to lobby Congress on behalf of a homeless shelter program. She took science journalism courses in graduate school to learn how to effectively communicate her NSF-sponsored research to the public. After her stint at State, Koon says she may pursue opportunities to write or teach about science policy, but she adds, "If I could get another year on the fellowship, I would probably try for that."

That's what Koon's predecessor is doing. AIP extended its sponsorship of particle physicist Lubna Rana so she could continue working on nuclear nonproliferation in the State Department's Bureau of International Security and Nonproliferation. During her first term, Rana and several other science fellows working on nuclear policy started a study club that later evolved into a guest lecture series and became known as "the nuclear family."

Jermey N. A. Matthews

news notes

Freedom to speak. NSF got the highest marks from a scientific watchdog group gauging the degree of freedom that scientists at 15 federal agencies have to communicate their research to the media and the public. The report card by the Union of Concerned Scientists awarded NSF an "outstanding" grade for its "supportive and professional" public affairs operation, but the foundation's lack of a formal media policy earned it a final grade of "incomplete."

The Centers for Disease Control and Prevention was the only agency to get an A for its "exemplary" communications policy, but the UCS said that the policy isn't always followed. The Nuclear Regulatory Commission received a B+, and NASA and three Department

of Commerce agencies—the National Oceanic and Atmospheric Administration, NIST, and the Bureau of the Census—each received a B grade.

Both Commerce and NASA were prodded into adopting more open policies by former House Science Committee chairman Sherwood Boehlert. Accusations of political meddling in agency research programs have soared during the Bush administration; the most prominent of those involved the alleged muzzling of climate scientists. UCS gave the Environmental Protection Agency, Department of the Interior, and Consumer Product Safety Commission all Ds, and the Occupational Safety and Health Administration received a failing grade. The Department of Energy and the Department of Defense were not included in the survey. **DK**

Dosch tapped for DESY. On 1 March 2009, Helmut Dosch will take over as director of DESY, the German Electron Synchrotron in Hamburg. He will succeed Albrecht Wagner, who is retiring after a decade at the lab's helm.

Dosch will join DESY from a directorship at the Max Planck Institute for Metals Research in Stuttgart. He is best known for his research on solid-state interfaces and nanomaterials using synchrotron radiation. Although DESY started out as a particle-physics lab, it now has two storage rings and a linear accelerator used for photon science, and it is building an x-ray free electron laser (XFEL).

MPI-MF STUTTGART

Dosch

Among the challenges awaiting Dosch are to keep DESY a hub for high-energy physics, speed up the construction of the XFEL, and secure funding to keep up with the rising cost of running the lab—"I don't consider shutting down expensive high-tech facilities as a possible option," he says. He also plans to build up the in-house research in photon science and to "enhance the collaboration with CERN."

"DESY is engaged in the type of fundamental research which attracted me to physics when I was 18," says Dosch. "For me it is a big honor to lead this world-famous lab." **TF**

Telescope centennial. The 60-inch telescope at Mount Wilson Observatory in southern California turns 100 this month.

MOUNT WILSON OBSERVATORY

A celebration of the telescope's centennial in November featured appearances by Sam Hale, grandson of George Ellery Hale, who founded Mount Wilson Observatory and commissioned the telescope, and Todd and Robin Mason, producers of the PBS television documentary *Journey to Palomar*, about Hale and his quest to build the biggest telescopes of his time; the documentary premiered on 10 November.

Probably the most notable accomplishment with the telescope was Harlow Shapley's 1917 measurement of the size of the Milky Way and his discovery that the Sun is not at the galaxy's center. "The 60-inch continued the Copernican Revolution by dethroning the Sun from the center of our galaxy," says observatory director Harold McAlister.

When the telescope was built, it was the largest in the world. It was retired from active science in the mid-1990s and is now the largest telescope devoted to public outreach. **TF**

Nanophotonics roadmap in Europe. A European Commission task force has proposed a 5- to 15-year timeline for basic nanophotonics research to develop such technologies as quantum computers. The roadmap was compiled with the help of some 300 nanophotonics researchers from nearly three dozen academic, government, and industry organizations.

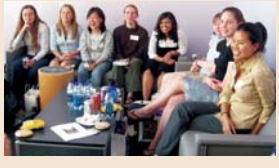
The nanophotonics roadmap was created as a resource for the participating organizations and as an advisory body for European policy makers. Roadmap chair Gonçal Badenes, a researcher at the Institute of Photonic Sciences in Barcelona, Spain, says the roadmap's purpose "is to focus and leverage mid- to long-term R&D efforts" by identifying "the difficult issues and possible roadblocks ahead."

Nanophotonics technology concepts were illustrated in a diagram (see page 4 at http://tinyurl.com/roadmap-nanophotonics) that weighed the maturity of a scientific concept against the maturity of the technology needed to develop it. For example, nanoimprint lithography fell within the 5-year projection, while nonlinear nano-optics fell in the 10- to 15-year range. Badenes says a nonprofit association is being set up to routinely update the roadmap. **JNAM** ■

web watch

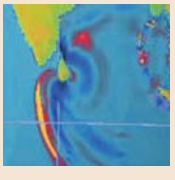
To suggest topics or sites for Web Watch, please visit http://www.physicstoday.org/suggestwebwatch.html. Compiled and edited by Charles Day

http://www.aps.org/programs/women/female-friendly



The American Physical Society's Committee on the Status of Women in Physics has sent a brief questionnaire to all the PhD-granting physics departments in the US. The survey aims to answer the question, **Is Your Graduate Department in Physics Female Friendly?**

http://serc.carleton.edu/NAGTWorkshops



On the Cutting Edge helps geoscience professors keep up to date about developments in research and teaching methods. Run by the National Association of Geoscience Teachers, the project conducts workshops and hosts an extensive website whose resources are likely to be of interest to teachers of any kind of physical science.

http://www.haverford.edu/physics/songs/carols/carols.htm

"Phrosty the Photon" and "Oh Physics Problem Set of Mine" are two of the songs available at **Physics Carols.** The webpage has a link to a larger collection of non-holiday physics songs.