Fusion Research Runs into Turbulence

By Michael Lucibella

A recent Department of Energy (DOE) advisory committee report about the future of U.S. fusion research has drawn strong criticism from academic researchers feeling squeezed by a tightening fusion budget and a shift in U.S. research priorities.

The Fusion Energy Sciences Advisory Committee (FESAC) issued a report written by its Strategic Plan Panel that highlights a number of top-priority science problems to solve in the next decade. The panel identified new facilities to build, but also a number of reductions and closures at existing facilities. More than fifty scientists, including lab directors, have written to the committee expressing their concern about the directions it recommends, and criticizing how the committee arrived at its conclusions.

The report delivered by the committee offers four different potential budget scenarios ranging from “modest growth” at about 4 percent per year over ten years to no growth at all. These funding levels were mandated in a congressional charge to DOE’s Office of Science for a strategic science plan.

“[They are] not optimistic budget FUSION continued on page 6

2014 Nobel Prizes for Advances in LEDs and Microscopy

By Michael Lucibella

Physicists received this year’s Nobel Prizes for both physics and chemistry—the physics prize for the invention of efficient blue LEDs, and the chemistry prize for surpassing the resolution limit long believed to constrain optical microscopes.

The physics prize went to Isamu Akasaki of Meijo University and Nagoya University, Hiroshi Amano of Nagoya University, and Shuji Nakamura of the University of California, Santa Barbara. In announcing the award, the Nobel Committee emphasized that the work done by the physics prize winners launched a revolution in energy-efficient lighting. The chemistry award went to Eric Betzig of the Howard Hughes Medical Institute, Stefan W. Hell of the Max Planck Institute for Biophysical Chemistry, and William E. Moerner of Stanford University for their contributions to the development of “super-resolved fluorescence microscopy.”

Profiles In Versatility

Right Brain, Left Brain: Physicists as Artists

By Alaina G. Levine

The next time you saunter through a museum or gaze casually at a piece of art, ask yourself: Did a physicist make this? It seems lately that one can’t peruse a science magazine or scientific journal without encountering articles about scientists who are commissions and all of them touch science in some way. His career really took off when he partnered with a gallery owner in Idaho who began marketing his works to wealthy collectors with second homes in Austin, was first arrested at the Tehran airport in January, 2011. He was sentenced to ten years in prison without ever talking to his lawyer or being allowed testimony at his trial. His steadfast refusal to help Iran’s military, and receiving “illegitimate funds” means that the top judicial authority in Iran is not optimistic budget. Already he’s had heart palpitations and stomach pain.

Retrial Granted to Jailed Iranian Physicist

By Michael Lucibella

Imprisoned Iranian physicist Omid Kokabee will be granted a retrial after spending more than three years incarcerated in Iran. A branch of the Iranian Supreme Court has agreed to accept Kokabee’s appeal and revisit his case, possibly clearing the way for his release within a few months.

“In essence, in the face of extreme physical and psychological pressure, the retrial will demonstrate Iran’s resolve to respect international human rights obligations,” the court said.

Kokabee, a citizen of the United States, was arrested in Iran last year with the intention of securing a medical license to treat a family member’s illness. The U.S. government has asked Iran to release him and allow him to return to the United States to receive medical care. The Iranian government has denied his request and has argued that medical expenses are covered by the Iranian health care system.

Kokabee was arrested after being denied a visa to travel to the United States. The U.S. government had applied for a visa for Kokabee to travel to the United States to receive medical care for his family member. The Iranian government denied the visa, claiming that Kokabee was involved in a plot to overthrow the government.

Kokabee was convicted by Iran’s Supreme Court branch in February 2013 and sentenced to ten years in prison. The sentence was based on charges of “espionage” and “cooperation with foreign intelligence agencies.”

Kokabee’s family and supporters have argued that the charges are politically motivated and have called for his release.

The retrial will be heard by a panel of judges who will review the case and make a decision on whether to release Kokabee or keep him in prison.

In the meantime, Kokabee’s family and supporters continue to call for his release and to raise awareness about his case. They hope that the retrial will be a step toward his eventual release and return to the United States to receive medical care for his family member.
The cells are dirtier and the food quality was an issue for the students, which was one of the reasons that led to the decision of living in the yard.

Woods-Marshall continued her work on physics, and she was able to take advantage of the opportunities to work with the Institute for Nuclear Studies, which was organized by APS, the physics society.

In August 2014, Woods-Marshall was transferred from her position at the university to Brookhaven National Laboratory. She continued her research on the physics community that affects LGBT physicists. The committee grew out of LGBT physics, and it was established by Elena Long of the University of New Hampshire. She formed the committee to find resources available for LGBT individuals once they completed their academic training.

The committee started meeting at the APS March Meeting, beginning in 2010. In 2012 the APS Committee on Minorities and the Committee on the Status of Women in Physics hosted an invited session with 5 speakers to the group to present and discuss issues faced by LGBT physicists.

“APS and the LGBT+ Physicists group have worked together for a number of years,” Long said. “We’ve kind of been building this relationship with APS from the start. We’re working to make the field of physics better and more inclusive.”