

ANS NEWS

A P U B L I C A T I O N O F T H E A M E R I C A N N U C L E A R S O C I E T Y

INSIDE

2

ANS endorses prospective federal appointees

3

Burchill on nuclear politics

4

ANS portfolio performance

5

Members behind the scenes

2009 ANS Annual Meeting: “Advancing Nuclear Technology for a Greater Tomorrow”

The 2009 ANS Annual Meeting will take place June 14–18 at the Hyatt Regency Atlanta Hotel in Atlanta, Ga. The meeting’s general chair is Jeffrey T. Gasser, of Southern Nuclear Operating Company, and the meeting’s theme, to be addressed in the opening plenary session as well as in several other sessions throughout the meeting, is “Advancing Nuclear Technology for a Greater Tomorrow.”

Taking place concurrently with the Annual Meeting will be an embedded topical meeting, Nuclear and Emerging Technologies for Space (NETS-2009), formerly the Space Nuclear Conference. Several workshops will also be available, including four professional development workshops: “Preparing for the Nuclear Engineering Professional Engineering Exam,” “Developing the Next Generation Safeguards Specialist,” “Fast Reactor Workshop,” and “Advanced Gas Reactor Technology Course.” In addition, the ANS Public Information Committee will offer a workshop titled “Focus on Communications—Speaking with the Media.”

Another workshop, “Alternative Financing Techniques for Emerging and Mid-sized Nuclear Companies,” presented in conjunction with Pillsbury Winthrop Shaw Pittman LLP, will also be available. The first of two on the subject planned for 2009 (the second will take place during the ANS Winter Meeting in Washington, D.C., in November), this workshop, intended for chief executive officers, chief financial officers, and other senior financial staff, will provide information on cutting-edge methods for companies to



Considered the capital of the Southeast, Atlanta has in the past two decades experienced unprecedented growth, reflected in the city’s ever-changing downtown skyline.

raise capital in order to respond to the unprecedented growth anticipated in the nuclear industry over the next decade. Financial experts will explain alternative public offerings and mini-initial public offerings and give examples of companies and industries already using such techniques.

As usual, the Annual Meeting will also feature several evening events, including the ANS President’s Reception, dinner at the Georgia Aquarium (the world’s largest aquarium), and dinner at the Fox Theatre accompanied by a presentation of the Tony Award-winning musical *Jersey Boys*, which tells the story of Frankie Valli and the Four Seasons. Also planned are the ANS Honors and Awards Luncheon and the Operations and Power Division Luncheon, as well as a technical tour of the Mixed Oxide Fuel Fabrication Facility, near Aiken, S.C. Other scheduled special events will

provide entertainment for spouses and guests of meeting attendees.

For first-time attendees, new ANS members, and students, the ANS Mentoring Program will facilitate connections with experienced professionals. The meeting will also offer a first-time attendee orientation session, as well as a student assistant program to help defray meeting-related expenses for students by allowing them to assist technical session chairs.

More information, including a list of technical sessions planned for the national meeting and the embedded topical meeting, is available in the meeting’s preliminary program, posted on the ANS Web site at www.new.ans.org/meetings/m_56. Hotel information and registration for the meetings, special events, and mentoring program are also available online. Preregistration reduced rates extend until May 12.

Congressional Fellow reports from D.C.

Since beginning his one-year term in January as the 2009 ANS Glenn T. Seaborg Science and Engineering Congressional Fellow in the Washington, D.C., office of Sen. George Voinovich (R., Ohio), Matthew D. Milazzo has assisted the senator and his staff on various energy-related initiatives and legislation.

Most notably, Milazzo has participated in the creation of the National Energy Security Act of 2009, recently introduced in Congress by Senators Voinovich and Byron Dorgan (D., N.D.). The act aims to reduce the U.S. economy’s oil

Milazzo

intensity by, among other measures, increasing the supply of domestic energy resources, including nuclear power via \$50 billion in federal loan guarantees. “It was a pleasure working on this bill, because I truly believe in the importance of what it is trying to accomplish,” said Milazzo.

Drafting this bill has also given Milazzo insight into the political

process. “I felt a sense of achievement working through the substantial give-and-take required to create a bipartisan piece of legislation,” he said, calling negotiations cordial and productive, although at times contentious. “The longer I am on the Hill, the more I appreciate the complexity of parliamentary processes and how bills move from introduction through final passage,” said Milazzo, who has tracked various amendments to the recent congressional financial bills and kept Senator Voinovich and his staff abreast of the amendments’ effects on energy issues. Milazzo has also sat in on exchanges between Senator Voinovich and several key personnel in the Obama administration, including Interior Secretary Ken Salazar and Energy Coordinator Carol Browner.

Through such efforts, Milazzo has noted a “cautiously pessimistic” view of nuclear in Congress. He attributes the cautious approach to national and international attention on climate change that has discouraged lawmakers from denouncing carbon-dioxide-free nuclear power generation. Fittingly, as part of Milazzo’s involvement in creating mechanisms to enable energy research and

development collaboration between the United States and Asia-Pacific countries, he recently facilitated Senator Voinovich’s participation with Sens. Maria Cantwell (D., Wash.) and Lisa Murkowski (R., Alaska) on a letter to President Obama requesting promotion of stronger U.S. collaboration with China on climate change mitigation.

Therefore, although Milazzo is generally pessimistic about large legislative successes for nuclear energy in 2009—owing to the industry’s lack of consensus on nuclear waste management and to nuclear advocates’ reluctance to strongly endorse positions before knowing President Obama’s—Milazzo does see potential for establishing nuclear power’s importance to national emissions reduction schemes through upcoming energy and climate bills. He and Senator Voinovich’s staff plan to monitor the energy bill markups of the Senate Committee on Energy and Natural Resources, as well as the recently released draft energy bill of the House Committee on Energy and Commerce. “The opportunities for success will be uphill battles,” Milazzo predicted, “and they will require careful consideration, strong leadership, and avid support.”



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ANS endorses prospective federal appointees

BY WILLIAM E. BURCHILL,
ANS PRESIDENT

Since the ANS Board of Directors' November 2008 decision authorizing the ANS president, in consultation with the ANS Special Committee on Government Relations, to issue on behalf of the Society formal endorsements of prospective U.S. federal appointees for positions relevant to nuclear matters (*ANS News*, Nov./Dec. 2008, p. 3), the committee and I have actively responded to this authorization.

The committee's activity began with a December 5, 2008, conference call with members of the Obama transition team to discuss nuclear issues and offer ANS's support. The next day, at the request of the transition team, I sent them an e-mail that described ANS in detail, provided links to key ANS Web site locations, and contained several attachments, including a list of ANS position statements, a summary of ANS's positions on U.S. nuclear policy areas, and nine ANS position statements related to nuclear power. According to a transition team representative, the information was to be included in a briefing package for the then-unnamed incoming secretary of energy.

Two weeks after this conference call, the ANS Special Committee on Government Relations began conducting weekly teleconferences to discuss endorsements of prospective federal appointees

for the positions of Nuclear Regulatory Commission chairman and commissioners and Department of Energy assistant secretary for nuclear energy and director of the Office of Civilian Nuclear Waste Management. The committee also reviewed more than 50 recommendations of candidates for endorsement, received in response to my January 8 e-mail soliciting recommendations from all ANS members. I was grateful for members' enthusiastic participation, as evidenced by the many well-stated recommendations submitted. After discussing each of these carefully, the committee members decided by ballot which candidates to endorse.

By the conclusion of the committee's teleconferences at the end of February, I had submitted several letters of endorsement—many resulting from ANS members' recommendations—to the Obama transition team before the inauguration, to White House Director of Presidential Personnel Don Gips after the inauguration, and to Secretary of Energy Steven Chu after his confirmation.

At the time of this writing in mid-March, the Obama administration had not yet submitted to the Senate recommendations for appointment to any of the positions for which ANS endorsed prospective appointees. A report on which, if any, of these candidates have been appointed will appear in a future issue of *ANS News*.

Eastern Carolinas Section honors 25-year ANS members

On January 26, during a dinner meeting of the Eastern Carolinas Section held at North Carolina State University in Raleigh, N.C., ANS President William E. Burchill presented 25-year ANS membership certificates to three section members, all employees of Progress Energy in Raleigh, N.C.

Wayne Gurganious, director of nuclear fleet training, Howell "Hank" Stroup, nuclear shift technical advisor, and Gregory Westmoreland, lead engineer, received recognition for their

valuable contributions to ANS during 25 years of continuous service, helping ANS grow and progress toward its foundational goals.

"I am honored to receive this recognition, especially from the ANS president," Gurganious said. "I have supported the Society all of these years because I believe that the organization lives up to its mission of promoting awareness and understanding of nuclear science and technology. I am excited about the future of the industry and look forward to many more years of membership."



Eastern Carolinas Section members Howell Stroup and Gregory Westmoreland (center, from left) received silver anniversary ANS membership certificates from section chair Tom Natale (far left) and ANS President William Burchill (far right). Not pictured is Wayne Gurganious.

The Purpose, Vision, Mission, and Goals of the American Nuclear Society

Purpose

The core purpose of ANS is to promote the awareness and understanding of the application of nuclear science and technology.

Vision

ANS will be the recognized credible advocate for advancing and promoting nuclear science and technology.

Mission and Goals

The American Nuclear Society will:

- Expand resources for professional development and knowledge exchange.
- Strengthen its recognition as a credible source of nuclear science and technology information.
- Actively contribute to and participate in nuclear science and technology public policy issues.
- Become more proactive, flexible, and responsive in governance, management, and organization.
- Strengthen its membership and partnership base.



PRESIDENT'S COLUMN

Getting the word out: What is nuclear's political cachet?

In today's world of concerns over increasing demands for energy, security of energy supply, shortages of food and fresh water, human health issues, and global warming due to anthropogenic sources, one would reasonably expect nuclear to have quite positive political cachet.

But nuclear does not have positive political cachet with President Obama. In his speech to a joint session of Congress on February 24, he did *not* mention nuclear as one of the energy options for the United States. Instead, he pledged to invest in

"technologies like wind power and solar power, advanced biofuels, clean coal." He stated that "China has launched the largest effort in history to make their economy energy efficient," but he failed to mention that the backbone of the Chinese effort is nuclear power. He uttered the word *nuclear* only once—in his list of "the challenges of the 21st century: from terrorism to nuclear proliferation."

During his presidential election campaign, however, then-Senator Obama did appear to recognize the need for nuclear power. On his Web site, www.barackobama.com, he posted a paper titled "Barack Obama and Joe Biden: New Energy for America." The paper lists "Safe and Secure Nuclear Energy" under the heading "Diversify Our Energy Sources," and states, "Nuclear power represents more than 70 percent of our non-carbon-generated electricity. It is unlikely that we can meet our aggressive climate goals if we eliminate nuclear power as an option." But the statement continues: "However, before an expansion of nuclear power is considered, key issues must be addressed, including security of nuclear fuel and waste, waste storage, and proliferation."

Still, in speeches late in the campaign, he included nuclear in his list of energy options needed for the future of the United States, likely because his opponent, Sen. John McCain (R., Ariz.), advocated building 45 new nuclear power plants by 2030 (a probable cause of the spike in positive public opinion on nuclear shown in a September 2008 poll by Bisconti Research).

Nuclear's positive political cachet, however, has waned noticeably since the election. The biggest single indicator is that a \$50-billion provision for loan guarantees in the Senate version of the economic stimulus package was defeated in the House and omitted from the final bill. This provision would have halfway closed the gap between the current appropriation totaling \$18.5

billion and applications totaling about \$127 billion. This defeat contrasts sharply with the positive political cachet that nuclear appeared to have during the past few years, illustrated most promi-



Burchill

nently by the bipartisan congressional support for nuclear in the passage of the 2005 Energy Policy Act, largely due to the leadership of Sen. Pete Domenici (R., N.M.), now retired.

A current positive political factor, however, should be the appointment of Steven Chu as secretary of energy.

After all, he was one of the Department of Energy's laboratory directors who signed the August 2008 report "A Sustainable Energy Future: The Essential Role of Nuclear Energy." Many nuclear industry members found his answers during his Senate confirma-

Nuclear's positive political cachet has waned noticeably since the election.

tion hearings quite encouraging. In response to a question from Sen. Jeff Sessions (R., Ala.) on whether Chu is committed to "restart a nuclear industry in America," he answered, "Yes, I am." In response to further questions from Senator Sessions, however, Chu was much more reserved about closing the fuel cycle and gave answers reflecting President Obama's concerns regarding proliferation.

Clearly, then, regaining nuclear's positive political cachet will be a significant challenge for the industry. Perhaps one way to do so—as advocated at the Nuclear Regulatory Commission's 2009 Regulatory Information Conference on March 10–12 by Jason Grumet, founder and president of the Bipartisan Policy Center and a member of the Obama transition team—is to promote nuclear power as the essential ingredient of the solution to climate change.

Initiatives such as this will require major efforts by ANS to get the word out at all levels of the political system. Each ANS member can play a role at the grassroots level by contacting congressional representatives (most effectively, when they are in their state offices) and by responding to Nuclear Advocacy Network alerts. (I urge all ANS members to join NAN if they have not already.) To arm members on key topics, I will provide information in the next issue of *ANS News* about the ANS President's Special Session at the Annual Meeting in Atlanta, Ga., in June.—William E. Burchill

Delaware Valley Section holds inaugural meeting

On January 22, the ANS Delaware Valley Section, which includes parts of southern Pennsylvania, southern New Jersey, northern Delaware, and northern Maryland, hosted a dinner meeting in Kennett Square, Pa., to mark the section's reestablishment as part of the ANS Local Sections Committee's five-year plan to revitalize inactive sections. Introduced by the section's revitalization leaders, Shikha Prasad and Donald Vanover, of ERIN Engineering and Research, the event attracted more than 40 attendees, most new to ANS, including employees ranging from recent hires to senior officials at organizations such as Exelon, Public Service Enterprise Group, the Nuclear Regulatory Commission, and Holtec International.

Also in attendance was ANS Executive Director John Tuohy Jr., who delivered the meeting's keynote address,

"Nuclear Technology: A Case of Unintended Consequences." While acknowledging the nuclear industry's efforts to provide a safe technology for the public, Tuohy explained the public's resulting erroneous perception that nuclear technology must be extremely dangerous if it warrants such stringent regulation. He emphasized the need to bridge this communication gap between the industry and the public, and inspired section members to begin their outreach about the safety of nuclear power plants by speaking with family and friends.

Tuohy's comments corresponded with the announcement of the Delaware Valley Section's first outreach activity, scheduled in conjunction with National Engineers Week, February 15–21. Prasad and Vanover also outlined plans for future section meetings, offered details on the section's first election cycle, and encouraged member participation in meeting and activity planning for 2009.



More than 40 people (pictured above) attended the January 22 inaugural meeting of the revitalized ANS Delaware Valley Section.

ANS selects WISE interns

For the 2009 Washington Internships for Students of Engineering (WISE) program, to be held June 9–August 8 in Washington, D.C., the American Nuclear Society will sponsor two students: John P. Hanson, who is in his fourth year of a five-year program at Ohio State University, majoring in mechanical engineering and economics and minoring in nuclear engineering, and Daniel G. Kreis, a first-year graduate student at the Missouri University of Science and Technology, who is pursuing a master's degree in nuclear engineering after receiving a bachelor's degree in physics from Truman State University.

During the WISE summer program, Hanson and Kreis will learn about the intersection of engineering and public policy by working under the guidance of the WISE faculty-member-in-residence and interacting with leaders of government, industry, and prominent nongovernmental organizations.

"I am excited to get a close-up look at the political process and become part of it," said Kreis. "I have been considering a career in government or industry lobbying, and am happy to have this opportunity to sample the



Hanson



Kreis

waters before plunging in."

Hanson also anticipates gaining direction for the future. "I am interested in learning about how public policy affects technology and, in particular, nuclear energy, because I am interested in being a part of the future of nuclear energy in the United States. The WISE program offers me an opportunity to determine where to focus my efforts to achieve this goal."

Hanson's and Kreis's internships mark the 28th year of ANS's participation in the WISE program. Seven other engineering societies, including the Institute of Electrical and Electronics Engineers, the American Institute of Chemical Engineers, and the American Society of Mechanical Engineers, also sponsor students in the WISE program.



TREASURY NOTES

An overview of ANS's investment portfolio

BY ERIC P. LOEWEN,
ANS TREASURER

The American Nuclear Society's investment portfolio, whose returns account for about 5 percent of the Society's operating budget, remains favorably



Loewen

positioned for the long term despite a 20 percent decline in the portfolio's market value, from \$14,780,973 on January 31, 2008, to \$11,874,561 as of January 31, 2009. The general portfolio performance is shown below in a table provided by ANS's investment advisor, J.P. Morgan.

In today's difficult financial environment, J.P. Morgan has firmly grounded ANS's balanced, ultra-

moderate portfolio by investing 51 percent in fixed income, along with 43 percent in U.S. equity, 5 percent in international equity, and 1 percent in cash. This fixed-income exposure continues to provide a steady flow of revenue for ANS.

In addition, the Society's portfolio seems well positioned to take full advantage of a potential rebound in the equity markets upon the economy's eventual turnaround. J.P. Morgan estimates that equities are currently undervalued compared with fixed income; on the other hand, because of the economy's present uncertainties, it does not recommend overweighting equity immediately.

With such challenges in the financial markets apparently extending into the foreseeable future, the ANS Finance Committee will continue to evaluate J.P. Morgan's proposals for tactical changes as further opportunities arise.

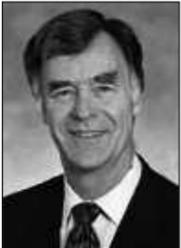
ANS portfolio performance (as of January 31, 2009)

	Jan. 2009	3 months	1 year	3 years	5 years
Portfolio performance	-4.01%	-4.43 %	-19.67 %	-3.00 %	0.49 %
ANS custom benchmark ¹	-4.64	-4.22	-20.13	-3.48	0.19

¹The custom benchmark is a composite return of the following indices: Barclays Aggregate (55 percent), S&P 500 (40 percent), and Morgan Stanley Capital International Europe, Australasia, Far East (5 percent) before July 2006, and Barclays Aggregate (50 percent) and Russell 3000 (50 percent) since July 2006.

ANS Past President Alan Waltar planning delegation to India

From November 4 to 15, ANS Past President Alan Waltar (1994–1995) will lead a Nuclear Science and Technology Delegation to India, coordinated by People to People



Waltar

Citizen Ambassador Programs, an organization founded by President Dwight D. Eisenhower in 1956.

The rare opportunity to join this delegation is expected to elicit strong interest, given the Indian nuclear program's well-recognized importance to the rapidly growing global nuclear network. "I am pleased to be involved in this exciting opportunity and hope ANS members will strongly consider participating in the delegation," Waltar said.

Participants will travel to Mumbai, the site of the famous Bhabha Atomic Research Center; Chennai, the location of the Kalpakkam advanced reactor complex; and Delhi, the seat of the federal programs. "Ending our journey in Agra, home to the Taj Mahal, will provide frosting on the cake," Waltar said. In addition, a parallel program focused on India's culture will be provided for participants' travel companions.

Waltar anticipates an experience in India similar to that of a 2007 nuclear

delegation to China that he led. China opened several key nuclear facilities to ANS members of the delegation and welcomed them as the first Western delegation within the country's new fast reactor complex. In addition, Waltar noted, "the logistics and content arranged by People to People provided fantastic venues to enhance strong cultural interaction."

The upcoming India exchange is expected to cost \$7,000 to \$8,000, including airfare, group transportation, meetings and cultural activities, accommodations, most meals, and all other associated costs after departure from the United States. The itinerary has been especially designed to allow ANS members, upon return to the United States, to go directly to the ANS Winter Meeting, being held November 15–19 in Washington, D.C.

More information about the delegation is available by contacting Gina Schumacher at People to People Citizen Ambassador Programs headquarters at 877/787-2000, ext. 7920, or asia@peopletopeople.com. Information regarding the delegation's technical aspects is available by contacting Alan Waltar at 509/548-5272 or alan.waltar@pnl.gov. To ensure a place in the delegation, prompt application is important and can be completed online at www.peopletopeople.com/citizenapply.

Trinity Section hosts speaker series on nuclear renaissance

At its 2008–2009 quarterly meetings, the ANS Trinity Section, based in Albuquerque, N.M., has presented a speaker series on the unique role that New Mexico can play in realizing the nuclear renaissance.

The series began on September 19, 2008, with ANS President William Burchill as speaker. In his presentation, "The U.S. Nuclear Renaissance and the Challenges It Presents," Burchill gave an overview of New Mexico's vital contributions to all aspects of the nuclear fuel cycle, from mining to disposal.

The series' second event, cohosted on November 14, 2008, by the ANS Trinity Section and the Southwest Regional Chapter of the Institute of Nuclear Materials Management, featured speaker Harrison Schmitt, former astronaut at the National Aeronautics and Space Administration and former U.S. senator (R., N.M.). Schmitt's presentation, "Return to the Moon," focused on the future possibility and financial viability of mining the surface of the moon for helium-3, an ideal fuel for fusion power due to the lack of radioactive by-products. Although

Schmitt pointed out the challenges of helium-3 fusion, he expressed confidence in the problem-solving abilities of promising young students entering the nuclear field.

The series' next speaker, Richard A. Van Horn, executive vice president and chief operating officer of Uranium Resources Inc., also addressed mining—in New Mexico. Van Horn's February 13 presentation, titled "The Uranium Industry," discussed unique challenges faced by the state's uranium miners due to the past misdeeds of mining companies previously operating in New Mexico. Van Horn explained the need for resolving these issues before tapping into New Mexico's vast uranium resources.

The series will conclude on May 8 with a presentation by ANS Vice President/President-elect Thomas Sanders. After describing the concept of the "right size reactor," Sanders will outline New Mexico's possible involvement in developing this technology and deploying it to areas of high electricity demand.

More information on the ANS Trinity Section's speaker series is available at local.ans.org/trinity/.



At the inaugural meeting of the ANS Trinity Section's 2008–2009 speaker series, ANS President William Burchill (center) and ANS Vice President/President-elect Thomas Sanders (right) posed with leaders of local nuclear organizations, including (from left) Virginia Cleary, president of the Sandia National Laboratories North American Young Generation in Nuclear Chapter; Tom Hunter, president of Sandia National Laboratories; Jackie Tonigan, president of the ANS University of New Mexico Student Section; and Charlie Harmon, chair of the ANS Trinity Section.



SIXTH-GRADE STUDENTS LEARNED ABOUT THE BASICS OF RADIATION through a course presented by Bill Wabbersen (pictured above), of the ANS Savannah River Section, and John Pullen and Amanda Bryson, of Citizens for Nuclear Technology Awareness (CNTA), at Aiken Middle School in Aiken, S.C., on January 30. Wabbersen and Raymond Tran, of CNTA, also presented the course at Stallings Island Middle School in Evans, Ga., on February 13.



Chicago Section continues support for Illinois science fairs

BY ROGER W. TILBROOK,
PUBLICATIONS STEERING
COMMITTEE CHAIR

Spring bulbs are emerging from the ground, and the ANS Chicago Section is once again participating in the Illinois science fair season. Each March and April across the state, 12 regions organized by the Illinois Junior Academy of Science (IJAS) interface with schools interested in science competition to host regional science fairs. For more than 20 years, the ANS Chicago Section has supported science fairs in northern Illinois.

Since 1992, the Chicago Section has also been one of several organizations to support awards targeting specific areas of interest at the IJAS state exposition, held each May in the Assembly Hall at the University of Illinois at Urbana-Champaign. There, regional winners of papers and more than 1,000 projects in 18 categories—ranging from aerospace and astronomy to physics and zoology—vie for the coveted title “best in state” in their categories and age groups.

The Chicago Section has also organized and sponsored a statewide essay contest under the auspices of IJAS for about the past 10 years, each year on a different nuclear topic, such as medical or industrial uses or space applications. Students who submit the best essays in the junior and senior high competitions are invited to the IJAS state exposition for oral presentations and question-and-answer sessions, conducted in cooperation with the Department of Nuclear, Plasma, and Radiological Engineering at the University of Illinois at Urbana-Champaign, in conjunction with the IJAS paper sessions.

At the project sessions, however, it is currently difficult to find many—or even any—“nuclear” projects. Therefore, the Chicago Section has widened its scope of topics considered for awards to include effects and uses of ionizing radiation, energy and conservation, environment and engineering, and basic science. Over the years, the ANS Chicago Section has awarded

prizes in all 18 categories.

The section’s awards, given to two winners at each section-sponsored regional science fair, six to eight winners at the state exposition, and the essay contest winners, total more than \$1,700 each year in checks, certificates, and books for the winners’ school or science department libraries.

The books, designed to be a resource on the peaceful uses of nuclear energy, have changed over the years, depending on availability and affordability. For the first few years of the program, students received the 1992 ANS commemorative book *Controlled Nuclear Chain Reaction: The First 50 Years*. Then, so that schools with frequent winners did not keep getting the same book, the books awarded alternated among *Bluebells and Nuclear Energy*, by Albert Reynold; *Nuclear Power: Villain or Victim?* by Max Carbon; and *Understanding Radioactive Waste*, by Raymond Murray. Most recently, winners have received *America the Powerless or Radiation and Modern Life*, both by Alan Waltar.

There is something exhilarating in hearing more than 1,000 students and supporters cheer for the state exposition winners in the Assembly Hall at the University of Illinois at Urbana-Champaign, or approximately 800 attendees cheer for the essay contest winners at the IJAS banquet the previous evening, or several hundred students, parents, and teachers cheer for academic excellence in science and engineering in a school gym at a regional fair. And one never knows what good will come from these awards. Recently, I learned from a colleague at Argonne National Laboratory that the ANS Chicago Section gave his daughter a prize many years ago, and it helped persuade her to become a nuclear engineer.

To see whether *your* ANS section can participate in a local science fair program next year or if you can serve as a judge in a state final this year, contact your local schools. You will be glad you did, and so will the next generation of nuclear scientists and engineers.

MEMBERS BEHIND THE SCENES

Denis Beller: A drive to communicate

Denis Beller may be an educator, but he is adamantly opposed to the notion of “educating” the public about nuclear science and technology. Instead, when Beller, a research professor in the Department of Mechanical Engineering at the University of Nevada at Las Vegas, undertakes outreach efforts, he focuses on *communicating*.



Beller

Educating the public “is an insulting concept,” says Beller, an ANS member since 1986. “Many in our field don’t understand that we need to communicate with, not educate, people. We need to answer their questions, to affect their opinions to counteract deceptive information.”

Fittingly, after first recognizing the need for nuclear advocacy in the early 1980s while speaking to grammar school students misinformed about nuclear matters, Beller chose a proven effective communication vehicle for his initial major outreach effort. “As a longtime fan of open-wheel racing, I had noted how it was used to promote products, organizations, and causes,” he explains. His wife’s racing souvenir business had also given him insight into fans’ loyalty to sponsors. “Thus, I believed auto racing could be used to sway the opinions of fans toward supporting nuclear science,” he says.

He enlisted the help of the ANS Outreach Department, particularly manager Sharon Kerrick, and through his connection with Carl Haas, actor Paul Newman’s partner in Newman Haas Racing, Beller secured a show car from Dick Simon Racing for an exhibit at the 1994 ANS Winter Meeting in Washington, D.C.

The overwhelming response to the exhibit launched the ANS Indy Car Outreach initiative. For about a year, Beller and his wife, Judy, transported and set up the show car for exhibits that they organized at universities, conferences, the Mall of America, and the Indianapolis 500. “In outreach activities, the racing car creates an emotional connection between the public and the communicator that provides the opportunity to influence people’s beliefs,” Beller explains. The ANS Indy Car Outreach gave the public, the media, and policymakers positive impressions about nuclear technology, he says.

This program was only the beginning of Beller’s outreach through ANS. A current member of the ANS Speakers Bureau and the Public Information Committee, Beller has served as the committee chair, organized public infor-

mation sessions for ANS national meetings, and arranged an ANS workshop for science teachers. He, along with several other ANS members, also serves as an executive officer of the Eagle Alliance, a nuclear advocacy organization founded in 1995 to solidify public support for nuclear technologies.

Reading about outreach shortcomings still persistent in the nuclear industry, how-

ever, as identified by nuclear historian Richard Rhodes, led to Beller’s most significant outreach contribution yet. “Rhodes stated that when he does call in radio shows, the public doesn’t even know that the federal government regulates nuclear energy generation,” Beller recalls. So he e-mailed Rhodes, author of *The Making of the Atomic Bomb*, to suggest cowriting an article. The result was “The Need for Nuclear Power,” an argument for increased international reliance on nuclear energy and an exposé of the negative environmental effects of renewables.

Published in 2000 in *Foreign Affairs* magazine and later in the *Bulletin of the International Atomic Energy Agency*, the article was entered into the *Congressional Record*, cited in newspapers, and used in college courses. Beller even encountered one lobbyist with a trunkful of copies of the article for distribution on Capitol Hill. “That essay gave me a voice and opened communications avenues that did not previously exist,” Beller says.

The most significant avenue sped him back to racing. In 2001, Rhodes, who had been the technical advisor on Paul Newman’s 1989 movie about the Manhattan Project—*Fat Man and Little Boy*—and had subsequently become the actor’s friend, referred Newman’s questions on the disposition of used nuclear fuel to Beller, who was involved in a related program at the University of Nevada at Las Vegas. Knowing Newman’s passion for racing, Beller suggested that Newman visit him for a series of presentations and a tour of Yucca Mountain, capped off by a trip to a racing engine shop involved in installing a hydrogen-fueled V-8 engine in an electric-powered bus. While that idea intrigued Newman, the Nevada Test Site was what awed him. “That is the most impressive thing I’ve ever seen,” Newman told Beller.

Newman’s interest spurred Beller to organize and participate in a 2002 dinner-debate on nuclear energy for leaders of the press, hosted by Paul Newman and Joanne Woodward in their New York City apartment. “Celebrities

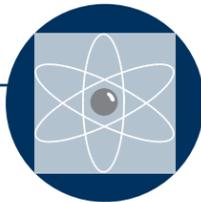
See Beller on page 6



STUDENTS AT PARK JUNIOR HIGH SCHOOL IN LA GRANGE PARK, ILL., enjoyed a presentation about nuclear engineers by Allan Wollaber (center), an ANS student member since 2001 and a nuclear engineer at Argonne National Laboratory, on February 17 during National Engineers Week. Wollaber spoke to five seventh- and eighth-grade science classes about the process of becoming an engineer, the daily responsibilities of an engineer’s job, and the engineering applications of radiation. Students then participated in a group team-building activity (pictured above) and received handouts and bookmarks provided by ANS.

Sighted “behind the scenes”

Do you know of another ANS member involved in significant outreach efforts? Help that individual’s contributions inspire other ANS members by nominating him or her to be considered for a profile in a future “Members behind the scenes” column in *ANS News*. E-mail suggested names to abianchi@ans.org.



ANS members lead Boy Scout nuclear courses



On March 7 in Champaign, Ill., 33 Boy Scouts from troops across Illinois earned the nuclear science merit badge at the 20th annual Troop 9 Merit Badge Seminar during sessions conducted by Craig Pohlod, Paul Sefranek, and other members of the ANS Central Illinois Section, as well as members of the ANS University of Illinois at Urbana-Champaign Student Section. The volunteers, including (from left) student section member Tom Sowinski and local section member Jamison Rappoport, presented lectures and videos on nuclear fundamentals and led exercises.



On February 7 in Augusta, Ga., nine Boy Scouts participated in the Central Savannah River Merit Badge University's nuclear science merit badge course, conducted by Bill Wabbersen, of the ANS Savannah River Section, and Bill Ewanis and Rich Sabol, of Citizens for Nuclear Technology Awareness (CNTA). The course gave an overview of radiation and nuclear power, included a tour of the nuclear medicine facilities at the nearby Medical College of Georgia, and allowed the Scouts to try on anticontamination clothing (pictured above). Wabbersen, along with Sabol and John Pullen, of CNTA, also presented a similar course on January 12 and 24 in North Augusta, S.C., for 50 Boy Scouts from Troop 7.



On December 20, 2008, in Oak Ridge, Tenn., 20 Boy Scouts from Troop 125 of Farragut, Tenn., participated in activities required for the nuclear science merit badge, using materials developed and taught by Jeff Chapman, an ANS member since 1984. The Scouts (pictured above) studied various nuclear topics and toured the gamma-ray spectrometry laboratory at Canberra, the Department of Energy's American Museum of Science and Energy, and the Spallation Neutron Source at the Oak Ridge National Laboratory.

HONORS AND AWARDS

ALVIN M. WEINBERG MEDAL

This award was established in 1995 to internationally recognize an individual who over an extended period has contributed to the understanding of the social implications of nuclear technology by demonstrating outstanding technical and policy leadership in nuclear science and technology and by consistently and effectively illuminating the human dimensions of the nuclear enterprise.

Nominees may be from any nation and need not be ANS members, but must be living at the time of selection. Nominations should include a letter of recommendation summarizing the period of activity, accomplishments in the field, and significance of achievements, and should also contain a list of publications, a brief chronological resume, and letters of support. The selected nominee will receive an engraved medal and a monetary award. The nomination deadline is July 1.

UTILITY LEADERSHIP AWARD

This award was established in 1994 to recognize an individual who has demonstrated outstanding leadership and has contributed greatly to the success of the nuclear power industry. Nominations should focus on these contributions. The nomination deadline is April 30.

UTILITY ACHIEVEMENT AWARD

This award was established in 1994 to recognize commercial nuclear power plants that have demonstrated outstanding achievements in performance. Nominations should focus on either sustained outstanding performance or outstanding improvement in performance. The nomination deadline is April 30.

UPCOMING DEADLINES

April 30	Utility Achievement Award, Utility Leadership Award
May 1	Samuel Glasstone Award
June 1	Mark Mills Award, Nuclear Historic Landmark Award, Seaborg Medal
July 1	ANS Fellow, Mary Jane Oestmann Professional Women's Achievement Award, Reactor Technology Award, Thermal Hydraulics Division Technical Achievement Award, Alvin M. Weinberg Medal
August 1	Landis Public Communication and Education Award

For nomination forms and additional information, visit the ANS Honors and Awards Web site at www.ans.org/honors/, or call 708/579-8202.

Beller from page 5

influence people's beliefs, and any effort we can make to achieve their support can only help the expansion of the use of nuclear science and technology for the benefit of mankind," Beller says.

With assistance from the ANS Nevada Section, he arranged public appearances for high-profile personalities, including then-Sen. Pete Domenici (R., N.M.) and international security expert Susan Eisenhower. Beller received additional help from the Eagle Alliance and the local chapter of Women in Nuclear to plan a Nevada visit for Eisenhower similar to Newman's earlier one, culminating in a meeting with Newman at the Las Vegas Motor Speedway to discuss nuclear matters.

Those conversations resulted in two dinner-discussions, titled Eisenhower Forums on Nuclear Energy, at Newman's home in 2005 and 2006. In attendance were more than 20 leaders from government, Wall Street, major U.S. corporations, the nuclear industry, and environmental organizations. Assured anonymity, the participants discussed such subjects as nuclear power, recycling, and proliferation. "The meetings allowed nuclear energy proponents to speak to national leaders in a nonthreatening environment," Beller explains.

While private follow-up discussions ensued, public nuclear advocacy expanded through the placement of ANS and other pronuclear decals on cars of Paul Newman and partner Eddie Wach's Newman Wachs Racing team in 2006 and 2007. Complementary public information exhibits, managed by ANS local and student section members, appeared at the San Jose, Denver, and Road America grand prix. ANS's efforts also corresponded with

the formation of the "Nuclear. Clean Air Energy" initiative, presented by Newman Wachs Racing, the Nuclear Energy Institute, and Entergy Nuclear to make the public aware of nuclear's benefits and to recruit students for nuclear careers, most recently through the appearance of a race car and drivers at the ANS Student Conference, held April 1–5 in Gainesville, Fla.

The one-on-one exchanges with the public at such events are the most enjoyable form of outreach for Beller. "I can actually see in a person's face the change in beliefs when I explain how we easily transport used nuclear fuel without substantial risk," he says. In such conversations, he uses the acronym CARESS to emphasize that nuclear energy is clean, affordable, reliable, environmental, sustainable, and safe and secure.

Although Beller has conducted much of his outreach through articles in newspapers and journals and appearances on television and radio, he admits to not maintaining those media contacts. In fact, he cites the publication of one op-ed on wind energy as unintended; he merely sent a letter to a fellow fly fisherman who happened to be a newspaper editor.

Beller recommends that others begin outreach efforts with similar small steps, perhaps through ANS local sections. He also suggests contacting the ANS Public Information Committee and offering to contribute. "But make sure that the personal satisfaction outweighs the potential professional costs," he warns. Although he cites time as one high cost of involvement in outreach, he also mentions great benefits as a result. "So volunteer," he instructs, ever the educator, "then keep your commitment."—Andrea Bianchi



NEWS ABOUT MEMBERS

Sidney Crouch, ANS member since 2007, has been awarded a 25-year service award from Global Technical Training Services Inc. Crouch, an operations director with more than 40 years of experience in the nuclear industry, earned recognition for his passion for the company, his job, and his employees, as well as for his outstanding dedication and performance. The award was presented in December 2008.



Crouch

Nam Dinh, ANS member since 1998, has been named a Fellow at the U.S. Department of Energy's Idaho National Laboratory. Dinh, the technical lead for the "Risk-Informed Safety



Dinh

Margin Characterization" pathway in the Light Water Reactor Sustainability Program's Technical Integration Office at INL, was recognized for his contributions to the resolution of several issues related to light-water reactor safety. He joins only eight others at INL to achieve this top scientific designation.

Kent W. Hamlin, ANS member since 1979, has been awarded the Training Excellence award by the ANS Education and Training Division. Hamlin, the director of accreditation and the secretary to the National Nuclear Accrediting Board at the Institute of Nuclear Power Operations, received recognition for his outstanding, innovative, unique, and cost-effective contributions related to the training and qualification of personnel in the nuclear field. The award was presented at the Conference on



Hamlin

Nuclear Training and Education (CONTE 2009) in February.

Neil A. Norman, ANS member since 1976, has been named the 2009 Professional Engineer of the Year by the Puget Sound Engineering Council, an organization based in Washington state comprising local chapters of national and international engineering and scientific societies. Nominated for the honor by the Mount Rainier Chapter of the Washington Society of Professional Engineers, Norman is a consultant and a licensed professional engineer in mechanical engineering in Washington and in mechanical and nuclear engineering in California. The award was presented on February 21.



Norman

Yigal Ronen, ANS Fellow and member since 1983, has been awarded an honorary doctorate from the Russian Academy of Sciences. Ronen, a professor of nuclear engineering and the dean of the faculty of Engineering Sciences at Ben-Gurion University of the Negev in Beer-Sheva, Israel, has held a number of positions at the university since 1970. An expert in nuclear reaction theory, he is the author of numerous books and scientific articles.

Michael W. James, 42, ANS member since 2008; graduated with a degree in nuclear propulsion from the U.S. Naval Nuclear Power School in 1990; served as president and chief executive officer of Jamko Technical Solutions Inc.; died February 21 in a snowmobile accident.



James

C. Gordon Lewis, 89, ANS member since 1961; earned a bachelor's degree in chemical engineering from Michigan State University in 1941; worked as a chemist for DuPont before joining the Manhattan Project in Hanford, Wash.; spent more than 40 years at General Electric, where he held numerous managerial positions, including project manager for nuclear power supply at Nine Mile Point-2; retired in 1985; died January 15.



Lewis

Edward U. Powell, 91, ANS member since 1975; received bachelor's and master's degrees in electrical engineering from the Polytechnic Institute of Brooklyn and the University of Pittsburgh, respectively; served in the nuclear power program at Westinghouse Electric Corporation and its subsidiaries for his entire career, managing nuclear power plant construction and working on the Westinghouse breeder reactor project; retired in 1980; died October 30, 2008.



Powell

Garland L. Thomas, 88, ANS member since 1955; graduated from Drury College in 1942 and earned a doctorate in physics from the University of Missouri in 1954; worked for Westinghouse Electric Corporation's Industrial and Commercial Atomic Power divisions; served on the faculty of the Florida Institute of Technology; worked for Florida's Brevard County Planning Department before serving at the National Aeronautics and Space Administration's Kennedy Space Center as a physicist for 13 years; retired in 1997; died December 13, 2008.



Yario

William R. Yario, 75, joined ANS in 1986; earned a bachelor's degree in metallurgical engineering from the University of Notre Dame in 1955; began his career at Argonne National Laboratory and General Electric; served in senior engineering positions at Combustion Engineering for more than 10 years and at New York Power Authority for 20 years; retired in 2000 and became president and owner of Core Component Consultants; died December 24, 2008, in Branford, Conn.

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OBITUARIES

Kevin F. Flynn, 80, ANS member since 1976; earned bachelor's and master's degrees in chemical engineering from the Illinois Institute of Technology in 1950 and 1952, respectively; worked in nuclear chemistry and physics at Argonne National Laboratory for nearly 40 years; retired in 1989; died January 3, 2008.

Frederick S. Frantz Jr., 87, ANS member since 1958; received a bachelor's degree in mathematics from Lebanon Valley College in 1943 and a master's degree in physics from the University of Pennsylvania in 1949; served in the U.S. Navy during World War II; worked as a physicist at the National Bureau of Standards for six years and then held various positions at Westinghouse Electric Corporation until his retirement; died January 24 in Annville, Pa.

William A. "Tony" Holt, 74, ANS member since 1969; received a bachelor's degree in mechanical engineering from New Haven College in 1968 and later earned a master's degree in business from Adelphi University; served in



Holt

the U.S. Air Force in Japan and Korea; worked at Brookhaven National Laboratory, Republic Aviation Corporation, and General Dynamics' Electric Boat Division before joining Marsh & McLennan, where he worked as a consultant for more than 20 years; served as a senior nuclear engineer for PAI Corporation at Lawrence Livermore National Laboratory; retired in 1996; died December 25, 2008, in Lincoln, Calif.



NEW MEMBERS

The following individuals joined ANS in January and February 2009. Student members are listed separately by institution.

A

Adams, Jesse D., Nanolabz
Annacone, Michael J., Progress Energy

B

Barnett, Mary K., Westinghouse Electric Co.
Barrie, Abdul-Karim, Entergy Nuclear—Pilgrim Station
Barry, Justin A., American Electric Power
Berger, John F., GE Hitachi Nuclear Energy
Boegel, Anthony J., H&P Inc.
Bonhomme, Gaetan, Kurion
Bonsall, Robert J., Westinghouse Electric Co.
Bordelon, Ted J., General Electric Co.
Brasel, Michael A., Dairyland Power Cooperative
Brockman, John D., University of Missouri—Columbia
Brotsch, Daniel A., Devasco International
Burnette, Benjamin T., Westinghouse Electric Co.
Bush, Christopher J., UK Trade & Investment

C

Campbell, Glenn E., U.S. Navy
Chun, Michael J. W., CBI Polymers
Clement, Mitchell D., U.S. Navy
Collins, Peter, SOR Inc.
Cornock, Mark J., Atomic Weapons Establishment (United Kingdom)
Coyle, Lawrence M., Exelon

D

Dahl, Jon A., Los Alamos National Laboratory
Darrol, David R., American Electric Power—Cook Nuclear Power Plant
Dewalder, Camille H., Civilian Research & Development Foundation
Ding, Jun, Delta M Corp.
Doebler, Gary, PaR Systems
Douglass, Stuart T., Proto-Power Corp.
Dumont, Arnauld S., DimEye

E

Edmonds, James A., U.S. Navy
Eller, James L., Duke Energy Carolinas
Ellison, Karen J., GE Hitachi Nuclear Energy

F

Faletti, Patricia L., Exelon Generation
Farina, Thomas J., Naval Nuclear Power Training Command
Filpus-Luyckx, Paul E., Savannah River National Laboratory
Flowers, James H., Southern Nuclear
Forbes, Julia, Progress Energy
Fox, Daniel K., Northrop Grumman

G

Gasparovic, Michael A., Westinghouse Electric Co.
Goldman, Robert E., Entergy Services
Griffin, Jeffrey W., Pacific Northwest National Laboratory

H

Harding, Susanna E., Apantec
Harlos, Paul, Southern Nuclear
Heffernan, Paul G., Clark Nuclear Services
Heilbronn, Lawrence H., University of Tennessee—Knoxville
Hemmer, Warren D., Lewis & Clark Community College
Higgins, Autumn F., Sandia National Laboratories
Hoang, Will L., Tennessee Valley Authority

I

Ion, Robert A., Atomic Energy of Canada Limited

J

Jadhav, Uday R., UL Group (India)
Jarnagin, Heidi L., Bettis Atomic Power Laboratory
Johnson, Michael J., Johnson Consulting Services

K

Karivelil, Solly R., Atomic Energy of Canada Limited
Kenarangui, Rasool, University of Texas—Arlington
Kini, Ajit P., Anadigics
Kips, Ruth S., Lawrence Livermore National Laboratory
Knight, Kelly J., Bechtel National

Koury, Daniel J., University of Nevada—Las Vegas

L

Lee, Su Jin, C & E Company (Korea)
Levy, Paul A., General Atomics Electronic Systems
Louis-Joseph-Dogue, Joel M., EDF Development

M

Mahgerefteh, Moussa, Exelon Nuclear
Marinacci, David W., E.S. Fox (Canada)
Mattern, Kevin S., U.S. Army
Mattie, Rich J., The Babcock & Wilcox Co.
Maurio, Joseph M., Northrop Grumman
McDonald, Robert W., Westinghouse Nuclear
McDonough, Martin B., Idaho National Laboratory
McGettrick, David J., Sulzer Pumps
Meraz, Christopher, consultant
Merten, Mathew A., Bechtel
Millard, Sarah E., Entergy Operations
Miller, William D., Entergy Services
Mills, Keith A., Ameren
Mitchell, Stephen, National Security Technologies
Mohammed, Reza, Unity Energy (Canada)
Morichi, Massimo, Areva—Canberra

N

Nilsson, Mikael, University of California—Irvine

O

Osborne, Ken, U.S. Department of Energy

P

Parker, Victoria F., Los Alamos National Laboratory
Pate, Bruce, Pate Capital Partners
Paulus, Arthur M., U.S. Army
Peter, Louis W., South Texas Project Nuclear Operating Co.
Phillips, Michael, Invensys
Potts, Stephen S., GEI Consultants
Powell, David B., Southern Research Institute
Powell, Gerald T., South Texas Project Nuclear Operating Co.

R

Reed, Jason A., Areva NP
Remley, Gilbert W., Mitsubishi Electric
Reuwer, Stephen M., Florida Power & Light
Reyenga, Gerald J., National Institute of Standards and Technology
Reymond, Robert L., Burns & McDonnell Engineering
Rhodes, Robert L., New Mexico Junior College
Rittenhouse, Paul A., Dominion Generation
Robinson, Sharon, Oak Ridge National Laboratory
Roche, Thomas R., ABS Consulting
Rodriguez, Pedro J., Progress Energy
Ronningen, Einar T., Sacramento Municipal Utility District
Rothenbush, Fred D., U.S. Army
Russell, Sally A., Chambers Group

S

Sawyer, Charles W., Duke Energy
Scanlon, Nancy J., Curtiss-Wright Flow Control
Shah, Pankaj Kumar, Magnus Engineering Services
Siefer, Timothy C., Indiana Michigan Power
Sistrunk, Jacob W., URS—Washington Division
Sleaford, Bradley W., Lawrence Livermore National Laboratory
Smith, Art A., EnerTech
Smith, Michelle M., Council on Foreign Relations
Snoj, Luka, Jozef Stefan Institute (Slovenia)
Swart, Kevin J., American Electric Power

T

Taylor, Anthony, consultant
Thuy, Nguyen L., Culturimex (Vietnam)
Tompkins, E. Graves, General Atlantic
Tragesser, Carl, USA Environment LP
Turner, Carolyn A., Tennessee Valley Authority

V

Vaz, Pedro, Instituto Tecnológico e Nuclear (Portugal)

W

Waltersdorf, Robert J., Centria
Welsh, Mark, Areva

STUDENT MEMBERS

Air Force Institute of Technology
McNabb, Suzanna J. D.

Bismarck State College
Butler, Orientia

Brigham Young University
Williams, Ammon N.

Colorado School of Mines
Worrall, Mike

Colorado State University
Bargsten, Clayton J.

Excelsior College

Herman, Michael
Kirchner, Robert R.
Lee, Tirelle T.
Lepi, Jillian A.
Morris, William A.

Georgetown University
McGillvray, Melany L.

Mukhi, Sanjay H.
Murphy, Chantell L.

George Washington University
Hallock, Andrew D.

Georgia Institute of Technology
Black, Nick

Idaho State University
Beller, Jason R.

Iowa State University
Retek, Joseph J.

Kansas State University
Boyles, Alan S.

Dahlstrom, Matthew S.
Edwards, Nathaniel S.
McNeil, Walter J.

Lawrence Technological University
Lopez, Israel

Massachusetts Institute of Technology
Passerini, Stefano

Reed, Mark
Sugrue, Rosie M.

Missouri University of Science and Technology
Ware, Chelsea D.

North Carolina State University

Lipetzky, Andrew C.
Ottinger, Keith E.
Pope, Aaron W.
Ralph, Dillice A.

Old Dominion University
Rockell, Candice L.

Oregon State University
Gardner, Russell J.

Robertson, April J.

Pennsylvania State University

Baird, Jenna J.
Busocker, Adam J.
Ellis, Matthew S.
Fried, Daniel E.
Sprung, Brittany N.

Purdue University
Alamanotis, Miliadis
Foxe, Michael P.

Rensselaer Polytechnic Institute

BaniHashim, Jaafar
Baldon, Lauren M.
Burelson, Steve
Ding, Aiping
Dingley, Justin A.
Faxon, Caroline E.
Grover, Kenneth D.
Gu, Jianwei
Han, Bin
Martos, Jenny N.
O'Brien, Lindsay B.
Pavlou, Andrew T.
Prumo, Corey M.
Puskas, Sean M.
Walsh, David I.

Texas A&M University
Lynn, Nicholas M.

Parkison, Adam J.

University of California—Berkeley

Blanford, Edward D.
Chilton, Sven H.
Purcell, Patrick J.
Tang, Justin
Thivent, Olivier
Wang, Raymond C.

University of Florida

Bougeant, Olivier
Cartas, Andrew R.

Qiu, Wei
Raucci, Anthony D.
Schappel, David P.
Sinclair, Lindsay A.
Stephens, Ryan A.
Swift, Alicia L.
Van Sicklen, Holly J.
Wegner, Dylon M.

University of Illinois—Chicago
Aburto, Jose

University of Illinois—Urbana-Champaign
Huang, Kai
Xi, Chen

University of Maryland
Groth, Katrina M.

University of Massachusetts—Lowell

Le, Khiem V.
Udeji, Chukwuemeka M.

University of Michigan

Beauvais, Zachery S.
Bevier, Katelyn
Everhart, Jennifer M.
Febbraro, Michael T.
Gill, Navneet S.
McKelvey, Andrew J.
Park, Hee Ho
Schuster, Patricia F.
Steffes, Jakob A.
Steinbock, Robert
Taylor, Brice E.
Weis, Matthew R.

University of Missouri

Coleman, Magen E.
Soncasie, Stephen R.
Sublett, Samantha V.

University of Nevada—Las Vegas

Wright, Amber D.

University of New Mexico

Behl, Rishin
Fournier, Sean D.
Glazener, Natasha N.
Paiz, John A.
Root, Margaret A.

University of Ontario Institute of Technology

Mokry, Sarah J.

University of Pittsburgh

Carachilo, Andrew M.
Terek, Justin E.

University of South Carolina

DeGange, Jonathan L.
Garrison, Annah G.
Slavens, Crystal

University of Tennessee—Knoxville

Banfield, James E.
Cates, Joshua W.
Crabtree, Lily I.
Dean, Brian N.
Fields, Jacob
Hickerson, Jessica N.
Hinderer, James H.
Hurt, Christopher J.
Kauerz, William W.
Miller, Ian J.
Murphy, James E.
Parker, Susan
Sandidge, Colin S.
Tuesburg, Adam J.
Vermillion, David A.

University of Texas—Austin

Parks, Brian D.

University of Utah

Cho, Min Jeong

University of Wisconsin—Madison

Johnson, Eric J.
Lucas, Greg M.
Squires, Bonita J.
Western, Evan T.
Wiersma, Amy R.

Virginia Polytechnic Institute and State University

Bladen, Joshua T.
Boehling, Raymond E.
Hey, Meagan E.
Luhman, Stephen J.
Miskovic, Ilija
Piness, Jessica
Shea, Thomas L.
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