Dear Colleagues,

I would like to express my gratitude to you for all your efforts in the 2012-2013 academic year. The robustness of our research portfolio demonstrates the superior ideas put forth by our faculty and researchers. This in turn helps support students, post-docs and faculty, and also allows us to establish world-class research infrastructure. Most importantly, it helps us realize professional, economic and societal impact.

For example:

- A research team in the Biodesign Institute has created a variety of two- and three-dimensional DNA nanostructures that push the boundaries of the burgeoning field of DNA nanotechnology. (Science, March 22)
- Researchers in the Ira A. Fulton Schools of Engineering developed a safer alternative to stitches and staples for bowel surgery, using nanocomposite materials that act like a surgical solder. (ACS Nano, March 26)
- Scientists with the Flexible Display Center successfully manufactured the world’s largest flexible X-ray detector prototype using advanced thin film transistors.

In spite of a tight budget and a highly competitive funding environment, ASU has done very well in terms of proposals and awards. We have had a 6.4 percent increase in the proposals submitted from March 2012 to March 2013 and a 15 percent increase in awards received.

The high-quality intellectual ecosystem at ASU contributes to the economic development of our state. Companies have recently announced that they are moving to Arizona or expanding their activities here, citing Arizona universities as a major attractor both in terms of workforce and potential research collaborations. For example, General Motors will open an IT innovation center in Chandler, with more than 1,000 new jobs. ZocDoc is opening a Scottsdale office with plans for 600 new jobs. Stealth Software will hire 200 employees for its new U.S. headquarters in metro Phoenix. OKED is committed to connecting you with these and other companies more effectively.

Faculty and students also launch companies, moving ideas and inventions into the marketplace. Student company FlashFood is currently a finalist in Inc. magazine’s “coolest college startup” competition. Another student venture, G3Box, is preparing to send its first mobile maternity clinic to Kenya. ASU entrepreneurs are truly making a difference on a global scale.

I invite you to peruse this issue to learn more about ASU’s research and entrepreneurship endeavors. You can also find more of your colleagues’ research accomplishments collected from our survey to research deans at https://research.asu.edu/bulletin.

Thank you again for your work and I wish you a wonderful summer!

Sincerely,

Sethuraman “Panch” Panchanathan
Senior Vice President of OKED
Advancing Research, Entrepreneurship & Economic Development
panch@asu.edu
Substance abuse treatment training

ASU’s Center for Applied Behavioral Health Policy, in partnership with UCLA’s Integrated Substance Abuse Programs, received a $3.5 million, five-year continuation grant from the Substance Abuse and Mental Health Services Administration. The grant supports the center’s efforts to disseminate research-based information to substance abuse treatment providers and other professionals. Learn more.

A key piece of the carbon puzzle

Dr. Thomas “Tad” Day in the School of Life Sciences received $1 million from the National Science Foundation to study the breakdown of leaf litter through solar radiation in an arid environment. Litter decomposition is a key pathway in the global carbon cycle, releasing more carbon into the atmosphere than fossil fuel combustion, but it is not well understood in arid systems.

Vaccine for quitting tobacco

Researchers in the Biodesign Institute were awarded $3.3 million from the National Institute on Drug Abuse of the National Institutes of Health to use DNA nanoscaffolds as a platform for developing a vaccine to reduce nicotine dependence. Co-PIs include Drs. Yung Chang, Hao Yan, Sidney Hecht, Li Liu and Sudhir Kumar from ASU and Dr. Paul Pentel from Minnesota Medical Research Foundation.

Improving math education

ASU’s Mary Lou Fulton Teachers College was awarded $950,000 from the U.S. Department of Education to raise mathematics achievement among K-8 students. The project, led by Dr. Elizabeth Hinde, joins ASU with Northern Arizona University and the University of Arizona to provide teacher training and resources aimed at boosting student achievement to meet new state-mandated Common Core State Standards in Mathematics. Learn more.

Support for public health law

Professor James G. Hodge, Jr. in the Sandra Day O’Connor College of Law received $1 million from the Robert Wood Johnson Foundation to continue operating the Western Region Office of the Network of Public Health Law. The two-year grant will allow the college’s Public Health Law and Policy Program to move ahead in providing legal and policy solutions to professionals dealing with complex public health legal challenges such as emergency preparedness, food safety and health reform. Learn more.
Biomimicry research featured as top Discover story

For their biomimicry work on creating synthetic, DNA-like genetic materials, an international research team, which includes John Chaput of ASU’s Biodesign Institute, was recognized by Discover magazine as one of the top stories of 2012. The team hopes to use their discoveries to gain insights into how early life evolved on Earth and for medical applications such as novel therapeutics.

Read the Science study
Read the Discover article

Lots of buzz about bees

Caffeine, which occurs naturally in citrus flowers as well as coffee, improves memory in honeybees.

Caffeine boosts bees’ memory, according to a study published in Science and co-authored by Dr. Julie Mustard in ASU’s School of Life Sciences. The study has been widely covered in major media outlets including National Public Radio’s Science Friday, Discovery.com, CBS News and Science Daily.

Read the study.

Castillo-Chavez reappointed to presidential committee

ASU Professor Carlos Castillo-Chavez has been reappointed to the U.S. President’s committee on the National Medal of Science. The committee, comprised of 12 scientists and engineers and two ex-officio members, evaluates nominees for the National Medal of Science, one of the highest honors bestowed upon American scientists. President Obama first appointed Dr. Castillo-Chavez, a Regents’ Professor and a Joaquin Bustoz Jr. Professor at ASU, to the committee in 2010.
Ramakrishna selected as Jefferson Science Fellow

Dr. B. Ramakrishna, a professor in the School for Engineering of Matter, Transport and Energy, has been selected as a Jefferson Science Fellow for next academic year at the U.S. Department of State. The fellowship program was designed to engage the American academic science, technology, engineering and medical communities in creating and implementing U.S. foreign policy. Fellows spend one year on assignment at the State Department or USAID as science advisors.

ASU network receives EPA award

The U.S. Environmental Protection Agency recognized ASU for its Sustainable Cities Network with the Pacific Southwest Region’s 2012 Green Government Award. Part of ASU’s Global Institute of Sustainability, the network tackles sustainability issues in Arizona by bringing together experts, community members, tribal leaders and city officials to share lessons learned with neighboring cities.

Mars project wins education award

NASA’s Mars Student Imaging Project (MSIP), led by ASU’s Mars Education Program, received Science magazine’s Science Prize for Inquiry-Based Instruction in February.

The prize encourages innovation and excellence in education by recognizing outstanding inquiry-based science and design-based engineering education modules.

MSIP has engaged more than 35,000 students across the country since it was started in 2002.

About the award

http://marsed.mars.asu.edu

Photo credits:
1. Sheri Klug Boonstra, ASU
2. Robert Burnham, ASU
3. Travis Buckner, Global Institute of Sustainability
Biodesign researchers named AACC fellows

Nobel laureate Dr. Leland Hartwell and Dr. Raymond DuBois are among an elite group of scientists to be selected into the first class of Fellows of the American Association for Cancer Research (AACR). The fellowship recognizes individuals who have made exceptional contributions to cancer and cancer-related biomedical science.

Dr. DuBois is the executive director of ASU’s Biodesign Institute and an internationally renowned physician-scientist who explores the links between inflammation and cancer. Dr. Hartwell is chief scientist of the Biodesign Institute’s Center for Sustainable Health. He received the Nobel Prize in Medicine or Physiology for his pioneering work on genes that control cell growth and division.

Dirks to lead GIOS

Dr. Gary Dirks, director of ASU LightWorks and former president of BP China and BP Asia-Pacific, has been appointed director of ASU’s Global Institute of Sustainability (GIOS). In this role, he will help GIOS solve global sustainability challenges and expand the global impact of ASU. Dr. Dirks is a distinguished sustainability scientist, Julie Ann Wrigley Chair of Sustainable Practices, and faculty member in ASU’s School of Sustainability.

Chi named director of LSI

Professor Michelene Chi has been named director of Arizona State University’s Learning Sciences Institute (LSI). This appointment underscores a career in interdisciplinary research environments for Dr. Chi, a cognitive learning scientist and Foundation Professor in ASU’s Mary Lou Fulton Teachers College. Her appointment to lead the institute is effective July 1.

New solar installation at MTW

Have you noticed the new shaded parking at MacroTechnology Works? The OKED facility, located in the ASU Research Park, now offers 221 shaded parking spaces representing about half of a one-megawatt (MWdc) solar energy system. The remainder of the system is located on the MTW rooftop. This third-party-owned system was facilitated, in part, by Salt River Project’s EarthWise Commercial Energy Incentive program.

The solar generating capacity of one MWdc averts 965 metric tons of carbon dioxide equivalent emissions per year from the atmosphere. This has the same effect as removing 189 passenger vehicles from Arizona roads!

Learn more at: http://asusolar.asu.edu
FlashFood named finalist for “Coolest College Startup”

ASU student venture FlashFood was named a finalist in Inc. magazine’s 2013 “America’s Coolest College Startups” competition. FlashFood, part of ASU’s Edson Student Entrepreneur Initiative, works to reduce food insecurity and the environmental impact of food waste by connecting restaurants, caterers and others that have perishable food for donation with community organizations that serve the hungry.

Corporate Engagement Council boosts collaboration

The Corporate Engagement Council helps ASU faculty and staff who interact with industry to share information and identify opportunities for collaboration and funding. The council meets quarterly to discuss challenges and opportunities, and to learn from internal and external presenters. At the March meeting, OKED director of research analytics George Raudenbush demonstrated Scival, a powerful tool for finding experts, publications and proposals. Ellen Levy traveled to ASU to discuss her experience leading Media X, an initiative at Stanford that engages with companies in unique and highly effective ways.

The council has adopted Salesforce as a tool for tracking and sharing interactions. The council is providing training for those new to Salesforce, as well as integrating data from people using a different platform. Members have also established rules of engagement for using the tool that protect everyone’s valued contacts. To learn more about the council or to become a member, contact Todd Hardy, todd.hardy@asu.edu

Alexandria Network opens EUREKA! Space

ASU, the Scottsdale Public Library and the City of Scottsdale will celebrate the opening of the first EUREKA! space in ASU’s Alexandria Network on May 2 from 4-5 p.m. at the Scottsdale Civic Center Library. The EUREKA! space combines elements of co-working spaces with expert library fact-finding services and ASU startup resources in one place. EUREKA! is part of the Alexandria Network, a new ASU initiative that brings together innovators in collaboration spaces in designated community libraries, creating a network across the state of Arizona.

Learn more and RSVP
Arizona Furnace Demo Day

Please join Arizona Commerce Authority, BioAccel, Arizona State University, Dignity Health, Northern Arizona University and the University of Arizona as the first cohort of startups from the Furnace Technology Transfer Accelerator is introduced. The Furnace Technology Transfer Accelerator is an innovative startup accelerator designed to incubate and launch new companies that license technology and intellectual property from Arizona’s premier research institutions.

The Demo Day will be held on Wednesday, June 5 at 2 p.m. at ASU SkySong, followed by a reception on Friday, May 31.

Event details and RSVP
http://azfurnace.org

AzTE in Santa Monica

ASU opened its new California Center in Santa Monica on March 20. As part of the opening activities, AzTE, ASU’s intellectual property management and technology transfer organization, met with a Mayo Clinic team led by James Rogers, chair of Mayo Clinic Ventures, to gather feedback on ASU’s portfolio of license-able life science technologies. The in-depth briefing covered more than 30 potential drugs, devices, diagnostics, vaccines, tools and reagents, and laid the groundwork for future collaboration on research and/or commercialization.

Education Innovation Summit

ASU and GSV Advisors hosted the fourth annual Education Innovation Summit from April 15-17 at the Phoenician Hotel. The event brings together academics, entrepreneurs, investors, industry leaders and others to share ideas, spark new partnerships and bring new technology to the marketplace. The sold-out conference hosted 1,500 participants and 270 presenters, two-thirds of whom were companies pitching their ideas. Learn more.

Student Startup Demo Day

Arizona Student Startup Demo Day is a new competition developed by ASU Venture Catalyst in collaboration with Northern Arizona University and the University of Arizona. ASU startup Pollen-Tech took home the top prize this year at the first-ever Demo Day on March 29, held at ASU SkySong. Pollen-Tech provides a high-tech way to pollinate crops, eliminating dependence on bee pollination. The ASU student team beat out 11 other startups for a total of $10,000 in funding and the inaugural Startup Territorial Cup.

Photo credits:
This partnership, launched in 2012, is an institutional relationship between the Office of the President at ASU and Arizona Science Center. The Science Center offers a wide range of informal learning opportunities in 120,000 square feet of interactive gallery space. The center serves half a million guests annually, of which nearly 140,000 are schoolchildren. OKED is the ASU lead for this partnership, which serves the following purposes:

- To allow the ASU community to share dynamic science discoveries at the university with a diverse audience in the Arizona community
- To allow for a steady stream of information exchange between the institutions around innovative research and educational activities, projects and exhibits, making collaborations more frequent and strategic
- To set the standard for a university and science center collaboration

www.inspireAZscience.org

ASU research on display

ASU is working with the Science Center to develop a variety of engaging displays and demonstrations. Currently, dedicated exhibit space in the Science Center lobby features ASU research and innovation. Additionally, you can see research videos from ASU displayed in various Science Center galleries. In winter 2013, watch for a joint planetarium show about asteroids.

Joint funding opportunities

ASU faculty and Arizona Science Center are also pursuing collaborative funding opportunities. Dr. Jessica Early in ASU’s English Department has secured the first collaborative grant, a $60,000 award from the National Writing Project in partnership with the Association of Science and Technology Centers. The grant supports professional development in informal science learning environments such as Arizona Science Center.

Enhanced digital experience

ASU’s Center for Games and Impact (CGI) has been invited to redesign My Digital World, one of the center’s seven galleries, located on the third floor. In the coming months, CGI will work closely with Arizona Science Center staff to build content that highlights video games for learning and transforms the Science Center guest experience so that it extends beyond the physical visit.
**ASU partners with Solve for X**

ASU’s Center for Science and the Imagination is partnering with Solve for X, a new forum started by a team from Google [x] in 2012 to encourage discussion of technological solutions to some of the world’s greatest problems. It has evolved into a global network of creative individuals and institutions dedicated to radical innovation. Solve for X is featuring videos of several exciting solutions being developed at ASU on their new website. [Learn more.](#)

**Research around town**

ASU shuttle buses are spreading the “Research Matters” message! Keep an eye out for two ASU buses with research-focused designs traveling between campuses.

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**Latest stories and videos**

- “Undergraduates blaze path for research in ASU’s newest facility”
- “Big insects provide big answers about oxygen”
- “ASU women honor STEM role models”
- “Web site story: gang behavior on the Internet”
- “Talking, listening, connecting: ASU and the community” (video)

If you would like to suggest a story idea, please contact Diane Boudreau, (480) 965-7260, dianeb@asu.edu
Sequestration information online

On March 1, the federal government implemented across-the-board spending cuts of $85 billion for FY13. OKED is sharing the latest information from federal funding agencies at: https://research.asu.edu/sequestration. If you are contacted directly by an agency official, please contact Lisa Mosley, (480)727-9764, lisa.mosley@asu.edu

Funding Success Skills Series

“Why do I need to finish early? The importance of internal reviews.”
Thursday, May 16, 11:30am – 1:00pm, Thoren Room, University Club

The next event of the Funding Success Skills Series will feature an expert panel discussing topics including: methods and approaches for creating constructive opportunities to review proposals; and ways to interpret, prioritize, and incorporate feedback from reviews. Panelists: Rolf Halden, Joshua LaBaer, Diana Petitti and Kevin Reinhart. Co-sponsored by the Faculty Women’s Association.

Lunch is provided. Space is limited. RSVP

Enterprise Research Administration

The Office of Research Integrity and Assurance (ORIA) has completed implementation and testing of the new Enterprise Research Administration – Conflict of Interest (ERA-COI) module. This system will provide:

- A single portal for investigators to report their financial interests for both annual and proposal-specific disclosures
- Tailored thresholds for PHS and other agency reporting requirements
- Real-time notifications to unit heads

ORIA staff will contact faculty directly to complete their Research Certifications until the ERA Grants module is in production.

The ERA-Grants module should be in production by the end of the summer. This new tool will allow for automation of the proposal development process for Research Advancement staff. The tool will provide integrated workflow for proposal approval and online budget development as well as integration with compliance activities such as COI certifications and IRB protocol submission and review.

How are we doing?

OKED Operations strives to provide excellent service to faculty in support of their research and creative activities. If you have any suggestions for how we could better serve your endeavors, please contact Tamara Deuser, (480) 727-7962, tamara.deuser@asu.edu

Grant training giveaway

In December, OKED’s Research Strategy Group sponsored a giveaway for proposal development training during the Faculty Women’s Association’s presentation on “Strategies for Grant Writing Success.” Carrie Gillion, assistant professor in the Department of English, won the opportunity to attend a Grant Development Workshop hosted by the Grant Training Center. Speaking about her experience at the training Carrie said, “I learned so much, it’s hard to put it all down. It was a really good workshop. I highly recommend it.”

RSVP