

IOWA STATE UNIVERSITY

Strategic Plan Progress Report / October 2012

Executive Summary

Fourth consecutive year of record enrollment

- 31,040 students
- Undergraduate enrollment of 25,553; 67 percent are Iowans
- Record freshmen class of 5,366 students
- Record transfer enrollment, including 1,111 students from Iowa's community colleges
- Record enrollment of 6,765 international and underrepresented minority students
- Student body represents all 99 Iowa counties, all 50 U.S. states, and 101 countries

A catalyst for economic development

- \$360 million in external research funding in fiscal year 2012, an increase of 5.3 percent from the previous year
- Iowa companies using Iowa State-licensed technology generated more than \$100 million in sales in 2011
- Worked with 4,100 Iowa businesses and manufacturers, creating or retaining 8,000 jobs, and generating more than \$400 million in economic impact
- Helped create 179 new business start-ups

Addressing affordability

- Iowa State's tuition and fees are the lowest among its peer group, and lower than most public research and land-grant universities in neighboring states
- Zero percent increase in student fees proposed for 2013-2014
- Iowa State is one of only five universities, nationally, to offer a financial counseling clinic
- Iowa State named a "top-20" public university by the *Fiske Guide to Colleges* for its combination of quality academic programs, affordable tuition and fees, and exceptional student experience

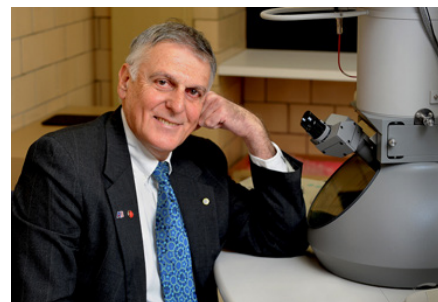
Becoming more efficient

- Streamlining commonly used information technology services saves more than \$1 million annually
- Collaboration between the colleges of engineering and liberal arts and sciences saved students more than \$500,000 in online course delivery fees
- New School of Education consolidated two departments, creating annual savings of \$200,000
- College of Design reorganization created \$290,000 in savings by centralizing administration, reducing redundancies in curriculum

A Magnet for Outstanding Faculty



The College of Design and Iowa State Extension and Outreach were one of 17 groups chosen to represent land-grant universities in the Smithsonian Folklife Festival's celebration of the 150th anniversary of the Morrill Act. The exhibit asked guests questions about design, offered interactive games, and showcased how Iowa State benefits Iowa communities. **Christopher Hopkins**, associate professor of music and theater, developed sound components for the exhibit.



Dan Shechtman, distinguished professor of materials science and engineering, and a research scientist in the U.S. Department of Energy's Ames Laboratory, received the 2011 Nobel Prize in Chemistry for his 1982 discovery of quasicrystals. Shechtman's discovery forced scientists to rethink ideas about matter and its atomic arrangement, and led, literally, to the rewriting of textbooks.

A Magnet for Outstanding Students

Well-prepared for growth

- 84 additional faculty hired
- 450 additional course sections compared to fall 2010
- Course availability team ensures students have access to the right classes, and at the right time on their path to graduation
- Residence halls modified to accommodate record numbers

Working to improve student retention and graduation rates

- Expanded tutoring services to help students in need
- Partnering with Iowa's community colleges to help ensure transfer students are academically prepared to finish their degrees
- Iowa State named a "top gainer" for improving graduation rates among African American students by 16 percent from 2004-2010
- Offering the *Engaged to Excel* program, which increases the retention rate of STEM majors, and boosts the scientific literacy of all students by helping them understand how science works

Offering an exceptional student experience

- The new Hixson-Lied Small Animal Hospital helps educate future veterinarians, and provides invaluable service to Iowa pet owners and livestock producers
- 1,239 students studied abroad in 49 countries in FY2012, gaining experience to help them succeed on a global scale
- 800 organizations provide students with leadership skills

A rigorous and varied curriculum

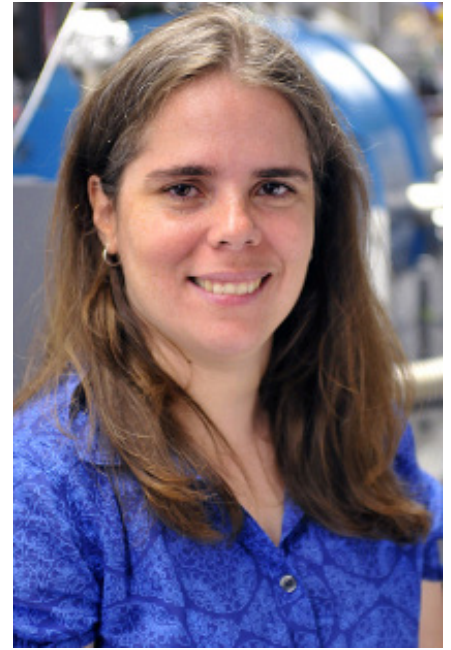
- First graduates of Global Resource Systems program participated in U.N. conferences and assisted foreign refugees living in Iowa
- 227 students enrolled in new event management major
- Kinesiology department enrollment up 11 percent in one year, to 1,200 students; athletic training now offered as stand-alone major
- Colleges of business and engineering partnering to offer online masters program

Great faculty a key to student success

- Five Iowa State and Ames Laboratory professors named fellows in the American Association for the Advancement of Science
- Max Rothschild, distinguished professor of agriculture and life sciences, chosen as Iowa State's first Jefferson Science Fellow
- Anne Clem, Doug Gentile, and John Monroe counted among *Princeton Review's* "Best 300 Professors"

Students are finding jobs

- 93 percent of students graduating in 2011 had a job within six months of graduation, including nearly 100 percent for graduates in agriculture and life sciences
- Internship opportunities provide real world experience before graduation



Mayly Sanchez, assistant professor of physics and astronomy at Iowa State, was awarded a Presidential Early Career Award for Scientists and Engineers, the highest honor awarded by the U.S. government for early career researchers. Sanchez, who also holds a joint appointment at the U.S. Department of Energy's Argonne National Laboratory, studies neutrinos - subatomic particles that rarely interact with matter.



Ebbly Luvaga, a senior lecturer and academic adviser in the College of Agriculture and Life Sciences, works with students on their academic goals. Iowa State's student services, including a nationally rated learning communities program, help new students adjust to campus life and succeed in the classroom.

Addressing Society's Challenges

External funding

- \$360 million in external research funding in FY2012, an increase of 5.3 percent from prior year
- Record research funding of \$22 million for College of Veterinary Medicine
- Diversifying funding sources, including Defense Advanced Research Projects Agency awards to study cell phone and computer security
- Fostering interdisciplinary research between colleges, and helping faculty teams write large, multi-institutional grant proposals
- Collaboration with scientists from the U.S. Department of Energy's Ames Laboratory is leading to the development of new materials and applications. Projects include using the rare earth element cerium to create magnets for electric vehicle motors
- National Science Foundation (NSF) Center for E-Design leadership moved to Iowa State. This effort includes 10 partner universities and 53 companies

An engine for economic activity

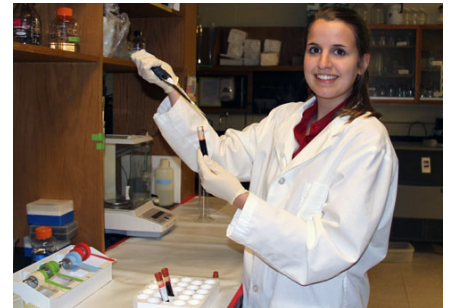
- Iowa State ranked 28th among U.S. universities for licensing revenue in FY2011
- Iowa State researchers disclosed their 4,000th invention for patent protection and commercial application in 2012
- Breakthrough research in cyst nematodes licensed by an agricultural biotechnology company
- Access to Iowa State scientists a factor in DuPont's \$300 million, first-in-the-nation cellulosic biofuels refinery in Nevada
- Launched a five-year, \$25 million CenUSA project to develop perennial grasses on land not suited for food production, for use as biomass to make biofuels
- NSF Engineering Research Center for Biorenewable Chemicals received a three-year, \$12 million renewal
- Center for Advanced Host Defense Immunobiotics and Translational Comparative Medicine combined \$10.9 million in external funding to address emerging infectious diseases in humans and animals

Growing the ISU Research Park

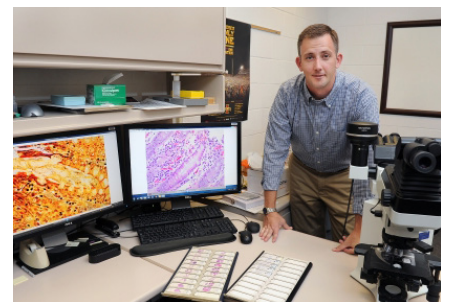
- ISU Research Park now reports to the Office of the President
- Northern anchor for a central Iowa technology corridor, as part of the Greater Des Moines Partnership's Capital Crossroads project
- WebFilings plans to hire several hundred highly skilled, high-paying technology and business positions over the next few years
- Harrisvaccines receives USDA licensure for swine flu vaccine that can be made without isolating live virus from infected animals
- Vermeer opens office to work with colleges of engineering and agriculture and life sciences, as well as Extension and Outreach's Center for Industrial Research and Service



Doug Gentile, associate professor of psychology, has conducted groundbreaking research showing that violent video game exposure increases aggressive behavior by children and adolescents. His research has also demonstrated that *prosocial* video games increase children's helping and cooperative behaviors.



Molly Slattery, a senior majoring in kinesiology and health, explored how exercise impacts the effectiveness of flu vaccine in older adults. Preliminary results indicated that exercising immediately after vaccination can extend its maximum benefits.



Eric Burrough, assistant professor of veterinary diagnostic and production animal medicine, is developing a better way to diagnose swine dysentery, a disease that - left unchecked - could cost the U.S. pork industry more than \$100 million each year.

A Treasured Resource for Iowans

Extension and Outreach helps one in three Iowans

- Providing service in every Iowa county
- Partnering with 900 elected County Extension Council members
- Enlisting 17,000 volunteers

Helping Iowa businesses, manufacturers

- 1,400 companies working with Extension and Outreach's Center for Industrial Research and Service reported more than \$414 million of total economic impact, including 6,200 jobs added or retained as a result of their assistance
- Iowa State's Small Business Development Center within the College of Business counseled nearly 2,700 clients, created or saved 1,900 jobs, helped raise \$42 million in capital, and helped create 179 new business start-ups over the last fiscal year
- Extension and Outreach has worked with partners in the Northeast Iowa Food and Fitness Program to boost sales of locally produced food from \$500,000 in 2006, to \$3.5 million in 2011
- Extension and Outreach provided ServSafe food safety certification to more than 1,000 Iowans in 2011

Helping Iowa communities

- The Extension to Communities and Economic Development program assists Iowa communities in developing sustainable economic development strategies
- 196,000 Iowans increased their understanding and skills on family issues through workshops and conferences
- The College of Design helped Iowa communities manage changes to their economy, environment, and quality of life. In Cedar Rapids, for example, Design students and faculty worked with nonprofits, neighborhood associations and design firms to revitalize areas of town hit hard by the 2008 flood

Sharing information

- Extension and Outreach helped more than 8,000 Iowa crop and livestock producers manage the recent drought through webinars, 78 live educational forums throughout the state, one-on-one consultations, and numerous publications and resources available through the *Dealing with Drought* web site
- New University Library repository is more efficient, and provides open access to scholarly and creative works by students, faculty and staff, and community members

Serving young Iowans

- 94,000 Iowa youth participated in 4-H programs last year
- 95,000 *more* participated in short-term programs such as day camps, FIRST Lego League, Project Lead the Way, and other science and technology focused events
- The College of Agriculture and Life Sciences and Extension and Outreach hosted the first World Food Prize Youth Institute



Iowa companies, through a partnership with the Extension and Outreach Center for Industrial Research and Service, provide Iowa State students the opportunity to apply their knowledge to real-world applications as a final step before joining the workforce. Iowa State students worked on 33 projects for 22 Iowa companies in 2011, with the companies reporting an economic impact of \$10 million.



Iowa State's leadership of the Iowa FIRST LEGO League provides students ages 9-14 with the opportunity to explore their math, science and creativity skills in a fun and competitive environment. In 2012, 72 of 295 teams made it to the statewide championship, held in January on campus.