Brain imaging aids Alzheimer’s fight

A team of ASU researchers is combining non-invasive brain imaging techniques with sophisticated data analysis methods to help uncover new avenues in the fight against Alzheimer’s disease.

The ASU team, led by Associate Professor of Psychology Gene Alexander and including Psychology Professors Leona Aiken and Steve West, will join with other Arizona researchers in a $4 million research grant funded by the National Institutes of Mental Health.

At the heart of the research is the use of positron emission tomography (PET) and magnetic resonance imaging (MRI), non-invasive brain scanning procedures. Using these techniques, researchers are able to identify physical changes in the brain over time, including those indicative of Alzheimer’s. A gene considered a susceptibility factor for late-onset Alzheimer’s.

Creative writing soars with $10 million Piper gift

ASU received a $10 million gift in October from The Virginia G. Piper Charitable Trust to establish the Virginia G. Piper Center for Creative Writing at ASU.

The gift is the largest ever to a humanities program at ASU, and follows three other “largest ever” gifts to the university — a $50 million gift to endow the W.P. Carey School of Business at ASU; a $10 million gift to endow the Ira A. Fulton School of Engineering at ASU; and $5 million from Fulton to the College of Education.

The $10 million for creative writing helps create the Creative Writing Program from its impressive top 20 ranking to even greater national and international prominence, and solidifies metropolitan Phoenix as a hotbed for creative writing.

Original literary production and publication have been encouraged at ASU since its beginnings. In establishing the Center for Creative Writing, the university will have a vehicle for developing and expanding innovative programs, including an annual writers conference “Desert Nights, Rising Stars,” presented March 11–13 at the Hilton Scottsdale Resort. Also being planned are an annual distinguished visiting writers series, new outreach programs and international exchanges.

Jewell Parker Rhodes and an international writers exchange. As part of the gift, the Virginia G. Piper Chair in Creative Writing is being established and will be held by Professor of Creative Writing and English Jewell Parker Rhodes, who also is named artistic director of the center.

The Piper Trust is the largest charitable foundation in Arizona and is committed to improving quality of life through programs that support children, elderly, arts and culture, medical research, education, and religious organizations.

Initiative drives top Hispanic faculty to ASU

Eight faculty members have been recruited to share their innovative and global insights with ASU’s academic community as part of the Southwest Borderlands Initiative.

ASU announced the initiative in 2001 as a long-term faculty appointment plan with two primary objectives: strengthening existing ASU scholarly and instructional resources on the Southwest with emphasis on the region along the United States-Mexico border, and enhancing institutional recruitment and retention efforts toward building a racially reflective of the Southwest’s diversity.

Designed with broad-based campus input, the continuing initiative seeks to integrate current ASU strengths in borderlands research with bold innovation in faculty recruitment.

Faculty members hired through the Southwest Borderlands Initiative include Ramon Rivera-Severa, assistant professor in the Theater Department of the Katherine K. Herberger College of Fine Arts; assistant professors John Jota Lealos and Selene Sukupanski Quiroga, and spring 2003 visiting artists/lecturer Yolanda Lopez, in the Chicano/a Studies Department in the College of Liberal Arts & Sciences; Sarah Amira de la Garza, associate professor of communication/theater in the College of Pub-

Arizona State University has landed its largest-ever federal research award — $43.7 million for Phase I and another $50 million expected for Phase II — of the ASU-Army Flexible Display Center.

The award funds the development of flexible, low-power computer displays that can be continually refreshed with new data and has the potential to be implemented in a wide variety of applications from command centers, to vehicle platforms, to individual soldiers.

This award — as noted by the 13 industrial partners that joined ASU in the proposal — lays the foundation for cultivating technology clusters in key areas. These clusters, which the university expects dozens more to join, will generate immediate economic development activity.

Young faculty stars win CAREER Awards

ASU researchers have received strong recognition from the National Science Foundation (NSF) in the form of six 2003 Faculty Early Career Development Program (CAREER) Awards.

Receiving the grants are assistant professors Alyssa Punich in bioengineering, John Shumway in physics and astronomy, Teresa Wu in industrial and manufacturing systems engineering and Don Liu in chemistry and biochemistry, Rob Gray, in applied psychology at ASU East; and Junshan Zhang in electrical engineering.

The four or five year awards are granted by the NSF to early-career faculty members, within the first five years of taking a tenure-track position, considered most likely to become the academic leaders of the 21st century.

With this year’s six awards, ASU researchers have received 24 since 1999. From 1999 to 2002, ASU ranked 9th in the nation, tied with Harvard University, University of California – Berkeley, Ohio State University and Rensselaer Polytechnic Institute for the number one CAREER Awards over a four-year period.

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ASU Flight Research Center takes off
Interdisciplinary focus draws collaboration

ASU is launching the ASU Flight Research Center to embark on the next century of aerospace advancements. The new center is the nation’s fully dedicated flight research enterprise aligned with a major research university.

Within a year, the center will deploy a fleet of three unique aircraft in interdisciplinary research on such issues as the control of air flow and the resulting turbulence across the surface of a wing as well as air quality measurement. Currently only large government labs are performing this type of research.

Led by ASU Aerospace Engineering Professor William Saric, the center includes experimental and computational research groups in aerospace engineering and air quality monitoring, with expected evolution over time to include other faculty researchers. Funding is provided by the office of ASU’s Vice President for Research and Economic Affairs and the Ira A. Fulton School of Engineering, with $1.5 million in initial start-up costs and an additional proposed $3.6 million facility at the ASU East Campus to be shared with other programs.

Kellogg invests in ASU nonprofit work

The efforts of the ASU Center for Nonprofit Leadership and Management to support and educate members of the nonprofit sector in Arizona and the region have received a strong boost with a $4.1 million investment from the W.K. Kellogg Foundation. Since its establishment in 1999, the center in the ASU College of Public Programs has served the nonprofit community as a resource for training, education, and research. The four-year grant will greatly expand the capability of the center to provide topical training, assist in management and nonprofit development and enhance the university’s already strong research and undergraduate and graduate education efforts in the field.

“This is a great opportunity to build our center,” says Center Director Robert Ashcraft. “It really positions us as a knowledge and tools leader and enables us to further help build capacity of the nonprofit sector in Arizona and beyond.” Specifically, the funds will help add several staff positions, aimed at improving the interaction between the center and professionals working in the various nonprofit organizations in the state.

Major planning efforts spur appointments

ASU has made two major appointments that will drive comprehensive university planning and the development of a new downtown campus.

Richard Stanley, former executive vice provost at New York University, has joined ASU as senior vice president and university planner. Stanley will coordinate and integrate university master planning, facility and capital planning, and academic planning. Among the biggest challenges will be developing a road map for taking the university from 57,000 students today to more than 90,000 by the year 2020, implemented across multiple campuses in the metropolitan Phoenix area.

Nancy Jordan, ASU associate vice president of community development was appointed as a loaned senior executive to the city of Phoenix to work on a joint project to establish a 12,000-student ASU campus in downtown Phoenix.

Both Phoenix Mayor Phil Gordon and ASU President Michael Crow agreed the loaned executive exchange was just the first step in a joint venture that would benefit both the state’s largest city and largest university.

ASU In The News

National Media

Movies and TV shows are tapping into old-fashioned product placement, illustrating a high-pressure test culture that is pervasive in public schools. “We’d heightened row to the impression- cussions for not doing well,” said edu- cations and administrat- er_Viewpoint.org put a layers of stress they haven’t quite been before.” USA Today, Jan. 13.

A federal suit against the marketers of a popular children’s TV show raises questions concerning radio personalities who give on-air product testimonials. “As a radio personality, an individual’s primary allegiance should be to the station or its listeners,” said Joseph Russomanno, journalism professor. He said striking a deal with product rep- resentatives causes conflict of interest.


ASU researchers have found that a drop in brain wave activity precedes the onset of a seizure, allowing the abil- ity to predict seizures. Leonidas Jas- semidis, bioengineering professor, says within five years scientists may develop a computer chip to be implanted in the brains that could record activity and administer anticonvulsant medication or electric shock. Psychology Today, July 1, 2003.

Now that jurors rather than judges must decide capital punishment cases, juries in Arizona have surprised many by making out death sentences in 10 of the first 12 cases. Gary Lowenthal, law professor and criminal-law expert, said current fiscal slants may not give court-appointed lawyers enough resources to prove mitigating circum- stances. Wall Street Journal, Aug. 6, 2003.

Construction professor Howard Bashford shared his “tricks of trade” for picking the right architect to build one’s home. To avoid crashes over the bill, lay out terms beforehand. And check blueprints carefully, paying close attention to areas for air-conditioning systems, water heaters and duct work.”I can’t tell you how many times I’ve seen new buildings where there’s no way to get a duct from here to there.” Wall Street Journal, Nov. 12, 2002.

Major regional theaters are taking surrounding elementary feeder districts have the flexibility to pick and choose from the programs, services and resources that are most needed to sup- port students and families.

Signature moment

Arizona Gov. Janet Napolitano hands President Michael Crow the pen after signing the research infrastructure bill on Oct. 9, 2003. Key legislators who supported the bill also were on hand for the ceremony. The bill includes $185 million for ASU to rapidly and dramati- cally increase the research synergy for faculty and students. The funds will be used in construction of five new interdisciplinary research-intensive buildings, slated for completion by the end of 2005.

Alpha Partnership forms to support educators

As pre-K–12 education emerges as a critical priority within ASU, one of the “New American University,” the spring 2004 launch of the first comprehensive university-school partnership, called Alpha Partnership, demonstrates ASU’s long-term com- mitment to supporting educa- tors, schools and families in the important work of educating Arizona’s children. The Alpha Partnership began taking shape last fall in collabor- ations with state Sen. Richard Miranda (D-District 13), the Tolleson and Phoenix Union high school districts, and their surrounding elementary feeder school districts. Alpha is the first of several university-school partnerships to be established statewide within the next three to five years under the Office of University-School Partnerships, established June 2003. The Alpha Partnership cur- rently provides a comprehens- ive menu of 18 programs and resources for educators, schools and families and the list is expected to expand as addi- tional linkages are established. Schools within the partnership are developing the flexibility to pick and choose from the pro- grams, services and resources that are most needed to sup- port students and families.

Robert Ashcraft
Top ASU Faculty Make Research Meaningful

Shrinking fuel cells may power future

Researchers at ASU are applying nanotechnology to the design of fuel cells. Their work could lead to several new ways of dealing with disadvantages of conventional fuel cells,” said Fredric Zimshausen, director of the Center for Applied Nanobiotechnology (ANBC) at the Arizona Biodesign Institute. At ANBC, Professor Don Gerovasio and his team are developing micro-fuel cells for portable applications. Gerovasio says the goal is to develop a complete micro-power system for battery applications that would include a fuel cell subsystem, a battery and controller. Packed for power, it would supply more energy than batteries alone, Gerovasio says.

Power outages in the United States have many people re-examining electrical generating systems, with CD players more flexible, cleaner and less prone to major catastrophic failure. One energy source that could fill these needs is fuel cells.

Fuel cells cleanly and quietly generate electric power by harnessing fuels such as hydrogels over one electrode while feeding the air over a second electrode. But their development has long been dogged by costs of the technology as well as safety concerns.

Jacobs aims to fight smallpox safely

ASU virologist Bertram Jacobs has received a $5.5 million, five-year grant from the National Institutes of Health's Biodefense Partnership Program to develop and test a modified smallpox vaccine.

The current smallpox vaccine, though very effective in protecting against the disease, relies on the live vaccinia (once called “cowpox”) virus that is self-limiting and causes a mild rash. It is effective 99 percent of the time, and is thought to be identical in effectiveness to the smallpox vaccination that was given to the general public in the 1950’s and 1960’s. ASU will develop the modified vaccinia virus and test preclinical animal testing. ASU Regents Professor Philip Christensen lays out a huge image of the Mars surface for a photo shoot with National Geographic.

Spectacular images of Mars in infrared were taken by the Mini-TES instrument on the Opportunity Rover, directed by ASU geologist Philip Christensen. The colors indicate relative quantities of the important mineral hematite — the red areas are high in hematite, the blue and green areas are low.

Mission to Mars

From the earliest planning stages, to the current activity on the planet's surface, ASU scientists have played a key role in the rover mission to Mars.

ASU Regents Professor of Geological Sciences Ronald Greeley and ASU anthrologist Jack Farmer were involved in picking the landing sites for the rovers, and a discovery by geologist Philip Christensen of hematite (a mineral that usually forms in the presence of water) led to the selection of a place known as Terra Meridiani for Opportunity.

The contributions of ASU will continue, as Christensen and his team will be operating an unprecedented array of instruments simultaneously during the MER campaign. In addition, three other ASU faculty members, Greeley, Farmer and ASU research scientists James Race are members of the MER science team. Greeley and Farmer are both chairmen of important decision-making committees, which means that ASU has three scientists who are playing “mission-critical” roles on the rovers’ three-month-long odyssey.

Motor control research key to improving lives

ASU researchers are trying to gain a better understanding of a physical decline in the elderly by systematically studying motor control deficits.

The main issue for Professor George Stelmach and his colleague Assistant Research Professor Natalia Donkskaia, is to determine why movements typically become slower and more variable in older adults.

Through a four-year, $1.3 million grant from the National Institute on Aging, the researchers hope to use high-speed motion recorders to analyze reaching and aiming movements.

He believes finding the root cause of seemingly subtle changes in movement could have long-term quality of life implications. Greater independence and high costs of health care for elderly adults, technology that could improve health maintenance and health care, or perhaps the associated costs, would be especially valuable.

"I think this could be an important breakthrough," he says. "The better we understand these declines, the better we can account for them and improve people's lives.”

ASU researcher Natalia Donkskaia (left) helps Aelita Baidoon complete a movement exercise in the ASU Motor Control Laboratory.

Team simplifies tests through microfluidics

A team of ASU researchers has made several advances in the area of microfluidic component design, fabrication and integration, bringing technology to the point where DNA analysis can be done simply and in significantly less time than required today.

The researchers are borrowing ideas from the king of small-scale integration — microelectronic integrated circuits (IC)."We've basically taken some of the primary ideas of electronic integration and applied them to microfluidic devices," says Robin Liu, project manager at the Center for Dopahed Nano-Bioscience (ANBC) at the Arizona Biodesign Institute. Liu says the advantages of integrated microfluidic devices include: being able to build sophisticated devices from relatively simple parts, modularity of components and standardization of microfluidic chips.

ASU In the News

National Media

ASU has aggressively recruited professors whose scholarly work focuses on the U.S.-Mexican border, with its Southwest Borderlands Initiative. "We use this initiative to build a critical mass, across disciplines, and in doing so we hope we’ll create a magnet," says ASU provost, Gail Hackett, vice provost. The sheer number of Hispanic faculty members at ASU makes it an attractive place for recruits. Chronicle of Higher Education, Nov. 28, 2003.

So many members of the ASU geology faculty are at NASA's Jet Propulsion Laboratory for the Mars rover landing and exploration, they decided to offer a Mars exploration rover class to be taught by three professors, said geologist Ron Greeley. "At least one of us will be there," he said. "If the class fails during the time we’re all at JPL, we’ll do a videoconference." Chronicle of Higher Education, Jan. 23, 2004.

A writer and two photographers, including Regents Professor of Art Phil Klett, are studying wildness by rephotographing scenes of some of the great landscape photographs of the 19th century in the American West. Photos by Ansel Adams told the story that people are bad, and nature is good," said Klett. "What we saw in the Adams photographs is: 'This is nature. And it’s beautiful because you’re not the boss of me.'" New York Times, Sept. 28, 2003.

The Supreme Court has ruled that states can collect taxes from Indian tribes on reservation cigarette sales, but states cannot use tax revenues for anything other than the ruling, said Robert Clinton, law professor. "The tax is the abstract may be lawful, but all the accouterments, including the ability to see the taxpayer are not in place. The tribes are immune from state enforcement." Nav Yorq Times, Sept. 28, 2003.

Democrats running for president are trying to emulate Sen. John McCain's tactics and style, but they forget that he didn't win the nomination in 2000. McCain is the kind of candidate American years for who bull but not elect, said Bruce Merrill, journalism professor. "The way the rules work, it's up to the parties who control the nomination process. If they want him and they're smart, McCaain would have been elected president." New York Times, Oct. 8, 2003.


The two Mars rovers have landed on opposite sides of the planet in sites that are radically different from each other. Scientists had expected that Spirit would land on more interesting terrain in Gusev Crater and Opportunity would have to drive a quite a distance to find worthy objects of study. "It's just the opposite," said geologist Trashney, who is on the science team. New York Times, Feb. 3, 2004.

 Giant dragontails with wingspans of two and half feet existed 300 million years ago, and scientists have long suspected that high atmospheric pressure may have allowed bigger bugs to thrive. But insect biologist Jon Harrison said the creatures probably didn't exist. "It's still in the realm of speculation," he said. He and other scientists are studying modern insects to test the question. New York Times, Feb. 3, 2004.
Developing new weapons against antibiotic-resistant bacteria and other emerging pathogens, ASU researchers working technology donated from Hercules, Inc., a global manufacturer of chemical specialties used to make a variety of products for home, office and industrial markets.

Hercules has signed an agreement to transfer to ASU patents and know-how related to new microbicides for developing potent new non-averting agents that prevent HIV-1 and H2V2. This technology package from Hercules is exciting because it is a new approach to microbicides that gives broad-spectrum control of many species of bacteria and possible other microorganisms, says Charles Arntzen, world-renowned plant biologist and holder of the Florence Ely Nelson Presidential Chair at ASU.

“Stopping the growth of such microbes will have wide applications in health care, agriculture and environmental decontamination. Antibiotics have been successful products for the pharmaceutical industry, but their enormous benefits must also be balanced against emerging problems of microbial resistance. Current sales of antibiotics and other biocides in the global market are well over $1 billion and biocide use in aquaculture is valued at more than $1 billion and growing rapidly. The new technology area will be incorporated into programs of ASU’s Arizona Bioscience Institute (AbiBio).

Students gain real world experience through tech clinic

A new venture clinic at ASU is accelerating its technology commercialization efforts by tapping into the energy and expertise of top students, who will gain real world experience on the front lines of technology transfer.

The Technology Venture Clinic serves as a teaching laboratory, but is run as a robust market-focused enterprise driven by consumer interests.

Some of the university’s brightest students, from several disciplines including engineering, business and science—have been recruited to work as members of this technology transfer team, gaining firsthand knowledge of what works best in bringing new ideas to market.

The clinic functions as an interdisciplinary enterprise, drawing students from the College of Law, the W.P. Carey School of Business, the Ira A. Fulton School of Engineering, and the College of Liberal Arts and Sciences.

Arizona Technology Enterprises coordinates the clinic under the direction of venture capital industry veteran Charles Lewis, former managing partner of Arizona Ventures. At Arizona Ventures, Lewis was an ASU alumnus, focused on Arizona-based early-stage companies in the technology sector.

Activities of the clinic include identifying portfolios for technology venturing, analyzing technology portfolios, developing commercialization strategies and business plans, analyzing markets and partners for technology venturing, and working with faculty to incubate tech ventures.

ASU Highlights

Construction continues on Phase 1 of the Arizona Bioscience Institute facility. The institute and its groundwater studies are one of the major initiatives funded through Proposition 301.

Prop 301 investment pay off for state

Cutting-edge research activities in biotechnology, nanotechnology, information science, and high tech manufacturing benefited from ASU’s Knowledge Economy Plan in 2003 by attracting new federal and private funding and by producing highly skilled graduates, new products, and spinoff companies, according to a recently released study by Morrison Institute for Public Policy, a unit of ASU.

“New Returns in Investment in the Knowledge Economy: Proposition 301 at ASU, FY 2003” analyzes results from ASU’s second year of science and technology research under voter-approved Proposition 301 funding. The full report is available at www.morrisoninstitute.org.

“New Returns 2003” crosswalks results from ASU’s Proposition 301-funded research with five types of activity relevant to the new economy, says Rick Heffernon, author of the report.

“Those five categories are new money, new programs, new ventures, new skills and new talent.”

Among ASU’s reported Proposition 301 accomplishments in FY 2003:

• $9.1 million in new external fund attracting by research projects;
• 3 new research collaborations formed with industry partners and national laboratories;
• 17 new patents approved, 3 new products in the marketplace, and 3 new companies spun off;
• 53 newly degree graduates and student post-docs entered the workforce;
• An internationally recognized research leader, George Poste, recruited to direct the Arizona Bioscience Institute.

Grant expands ASU West charter school program

ASU West’s master’s degree program for charter school administrators is expanding, thanks to a $2.9 million grant from U.S. Department of Education Secretary Rod Paige’s Fund for the Improvement of Education (FIE).

The three-year grant allows for tuition waivers for a second cohort of students, a mentor component and the potential creation of a center for school choice.

The program, Leadership for Educational Entrepreneurs (LEE), bridges the ASU West College of Education’s master’s degree in Educational Administration and the School of Management’s MBA degree. LEE Fellows from around the country learn online as well as face-to-face at ASU West and at regional sites.

Eleanor Perry, associate professor in the College of Education, founded the LEE program—the first program of its kind in the nation—after conducting six years of action research focused on charter school leadership.

“LEE gives participants both the education skills and business skills needed to success-fully operate a charter school,” Perry says.

Nationally, 175,000 students attend charter schools. Arizona has nearly 500 charter school sites serving more than 75,000 students—the most of any state.

In the Spotlight

Fulton honors wife with $5 million college endowment

Less than two months after giving $50 million to endow and name the Ira A. Fulton School of Engineering at Arizona State University, Fulton announced his gift of $5 million to the ASU College of Education.

Fulton presented the gift to the College of Education in honor of his wife, former teacher Mary Lou Fulton, who earned her teaching degree from ASU. The gift is the larg- est ever given to the College of Education and makes Fulton the largest donor in the history of ASU.

“The money will allow us to recruit a national expert in early reading develop-
Arizona families found much needed financial support from ASU, with need-based financial aid increasing 140 percent following the 2003-04 tuition increase. ASU made a systematic effort to reach out and tell families how to apply for financial aid, communicating in both English and Spanish to get the word out.

In more ways than increased financial aid, students have been the major beneficiaries of the tuition increase, though the additional revenues are lifting the entire university. The largest portion – about $14 million – is set aside for increased financial assistance for students.

Other improvements being funded with tuition revenues include expanded library hours, improved classroom facilities, better access to advising and increased availability of classes, as well as improved compensation for teaching assistants. Total revenues from the tuition increase are between $54 million and $39 million for Main Campus, and between $44 million and $50 million for the entire university.

Hours at Hayden Library have been expanded to 114 hours a week, another high priority expressed by students, who were surveyed library use. This places ASU third in the nation among the 27 largest academic libraries. Cost is expected to be $170,000.

ASU and the Maricopa Community Colleges are forming an unprecedented partnership to enhance and increase the number of associate and baccalaureate degrees awarded in metropolitan Phoenix.

The new “ASU-Maricopa Alliance” will move the institutions far beyond the traditional “2 + 2” transfer model by offering new options to eligible students for where and how they learn. By working collaboratively, the institutions will provide these co-enrolled students with programs and flexibility that take advantage of the benefits of each institution.

Although the partnership is still in the development phase, the initiative could include a variety of academic programs available at education sites that are operated by either institution, or both. An “ASU-Maricopa Alliance Steering Committee,” is working to identify pilot programs to advance the program from concept to implementation. The steering committee also is working to develop a timeline and establish working teams to get the pilot running by fall 2004.

The two institutions will prepare joint principles to address common concerns and goals, focusing on encouraging student retention and success, offering learner-centered degrees and programs, meeting the needs of a diverse student population, making higher education accessible and affordable, and expanding opportunities for students that will support the new economy and work force needs.

New partnership to benefit students

Arizona State University has vaulted to third in the nation among all public universities in the number of freshman National Merit Scholars enrolled in 2003 – 04, and seventh overall. ASU enrolled a record 173 National Merit Scholars in the fall freshman class. National Merit Scholars represent the top one-half of one percent of all high school students who take the Preliminary SAT. For the past four years ASU has ranked among the top 20 universities in the country.

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Researchers compare human genome sequence for clues to evolution

An ASU researcher is part of a group of scientists reporting the first large-scale comparison of the human genome to other vertebrates. The work is an important step in understanding how vertebrate species are generally similar or different from one another, and provides a glimpse into the evolutionary past of humans. For example, the work shows that humans are more closely related to rodents than to dogs or cats.

The team, which includes Jeff Touchman — an assistant professor of biology and director of the sequencing facility at the National Genomics Research Institute in Phoenix — published its findings in the journal Nature.

The report, “Comparative analyses of multi-species sequences from targeted genomic regions,” details the comparison of two species targeted in the human genome (a segment of the chromosome 7, which includes the gene mutated in cystic fibrosis) to the same region of other vertebrates ranging from chimpanzees to zebrafish. Touchman directed the sequencing effort of this work while he was at the National Institutes of Health in Bethesda, Md.

“This is a significant genomic achievement,” Touchman said. “We can learn a lot about the human genome by comparing it to the genomes of other species.”

The team, which included 71 researchers from 10 institutions, made the comparisons of the human genome to that of the chimpanzee, baboon, cat, dog, cow, pig, rat, mouse, as well as two species of puffer fish and zebrafish.

Touchman said the work is both a technical achievement in the amount of the genome sequenced (1.8 million base pairs in each of the 12 species), as well as for what will be learned by comparing these genome sequences together. It could provide clues as to how each vertebrate evolved.

In the Spotlight

MBA team is ‘Rose Bowl’ champ in Pac-10/Big Ten business competition

The W. P. Carey MBA student team accrued the first-ever Pac-10/Big Ten MBA Case Competition, finishing first among six teams from major business schools. The competition — the first to pit Pac-10 business schools against schools from the Big Ten — was organized and hosted by the W. P. Carey School of Business with co-sponsorship from Honeywell and Dial Corp. and support from Cardinal Health. Students, faculty and administrators dubbed it “Rose Bowl” business competition.

ASU earned the right to compete in the “Rose Bowl” 2003 inaugural Pac-10/Big Ten MBA Case Competition in October.

The Big Ten was represented by the winners of the 2003 Food Big Ten Case Competition: the Kelley School of Business at Indiana University, the Kranzberg Institute of Management at Arizona State University and the School of Business at the University of Wisconsin-Madison.

Members of the W. P. Carey MBA student team included Tall Brown, Matt Dishnow, Brian Martin and Chad Meyers and were coached by Management Professors Amy Hillman and Gerry Hostetler.

Case competitions provide business students with a forum to exercise the knowledge and skills acquired in class by developing solutions to hypothetical business problems within a set time period.

Cronkite School tops in nation in Broadcast News Content

The ASU Walter Cronkite School of Journalism and Mass Communication currently ranks first in the nation in the Collegiate Broadcast News Compe- tition of the prestigious Hearst Journalism Awards program.

Students Will Potts, Rita Avila, Tom Murray and Brandon Rittiman led the Cronkite School to a top finish after the first round of competition in the feature reporting category. The second round of the Hearst Awards will focus on news reporting. Based on his top five finish in radio reporting, Potts moves on to the national semifinal competition in April.

This 2003 – 04 broadcast news competition is held in more than 100 member colleges and universities of the Association of Schools of Journalism and Mass Communication with accredited undergraduate journalism programs.

In the News

U.S. AID awards two ASU programs

ASU has been awarded two U.S.AID grants, totaling $600,000. These ($300,000 each) awarded to the College of Architecture & Environmental Design (AED) through the Ira A. Fulton School of Engineering, set a new precedent for ASU, says Jorge de los Santos, executive director of the Office of Pan American Initiatives.

“We rarely receive funding of this magnitude from U.S.AID,” says de los Santos, who was instrumental in establishing AED programs with representatives of the U.S. Agency for International Development.

The boom in digital cameras and cameras embedded in many cellular and cultural phenomenon among young people as it is a sign of technology, said Marc Smith, photography professor. “Young people are taking this the way we took photography when the first introduced. People are realizing the ability of our culture to go from sending a written or an oral message to a visual message is really powerful.”

Milwaukee Journal Sentinel, Jan. 18.

After decades of research, evaluating the effect of abortion on a woman’s mental health is still difficult. Psychologist Nancy Russo, who studies women’s issues, has found the most important predictor of depression is violence, not abortion. “These women (who have multiple abor- tions) have horrible life experiences. It doesn’t help us to help them by trying to attribute their problems to abortion.” Toledo Blade, Jan. 22.

Scientists studying Mars snapshots in a story on favorite gathering spots. Staker will use the $8,000 award to buy a rock hammer and magnifying glass. “The best geologist is the one who sees what others see but understands it better,” he says. The researchers hope to find comfort but also because of the remarkable, but for now, the rovers are “the only game in town.”

Midwestern Media

Producers increasingly are leveling criminal charges against pregnant drug abusers. However, they should focus less on public law and more on public policy, said Stamford Health Director Mary Kresta. “There is no evidence that prosecutions will do more than cause anxiety all of these behaviors, and it doesn’t do any good for the baby who’s already dead.” Chicago Tribune, Nov. 23, 2003.

As the Arizona prison hostage situation dragged on, officials didn’t release details about the prisoners’ demands or their identities. Prison hostage situations are rare, so it’s difficult to say why the inmates got themselves into a seemingly hopeless situation, says Gaylene Armstrong, criminal justice professor. “It can be a very stressful environment for most people. Sometimes poor decisions are made.” Chicago Tribune, Jan. 23.

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Professor travels to China to combat domestic violence

While living for a year in China as a U.S. Fulbright Scholar, Robin Haarr experienced life in a society in which women are traditionally considered second-class citizens, witnessed several instances of violence against women on the streets, and heard stories of wife abuse from her Chinese students. An associate professor of justice and criminology at ASU West, was motivated to apply her expertise regarding violence against women to address the treatment of women in China.

Haarr, who was accompanied by Darrell Jenks, director of the U.S. Embassy in Beijing also coordinated Haarr’s participation in a Website chat, focusing on family violence, hosted by the Beijing Youth Daily.

“People didn’t have to like each other in order to co-exist,” said Haarr, an associate professor of criminal justice and human services at ASU West.

Ultimately, violence against women is complicated, but the fact that the beating of one’s wife is often considered a natural and expected part of the marriage relationship, along with the fact that sizeable portions of the population are hesitant to “as they say, air their dirty laundry in public,” Haarr says. Her research interests focus on violence against women on the streets, and heard stories of wife abuse from her Chinese students. An associate professor of justice and criminology at ASU West, was motivated to apply her expertise regarding violence against women to address the treatment of women in China.

While they were not sure how the subject of wife abuse would be received in these northwest provinces — we traveled to some rather remote areas,” says Haarr, who was accompanied by Darrell Jenks, director of the U.S. Embassy in Beijing also coordinated Haarr’s participation in a Website chat, focusing on family violence, hosted by the Beijing Youth Daily.

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BEST program supports beginning teachers

Through partnerships with urban area school districts, the Beginning Educator Support Team (BEST) program provides support to novice teachers. It provides a comprehensive induction and mentoring program serving school districts throughout Arizona.

The idea is to provide new teachers job-specific training and support, beyond their student-teaching experience, similar to what medical residents receive as new physicians.

Locally, BEST annually reaches more than 700 new teachers and 500 mentors in 11 formal partner school districts. The programs also serves more than 200 second-year teachers and teachers who are new to their school districts.

Understanding that they have a vested interest in the success of the BEST program, participating Valley school districts have agreed to release a team of veteran teachers from their regular classrooms to serve as mentors to novice teachers in their home school districts. The mentors continue to receive full pay and benefits from their district while they participate in the program. School district personnel meet monthly with BEST program leaders from ASU who provide ongoing training and support focused in the area of programs and projects for beginning educator classroom visitation support; BEST for mentors; and PEP (Professionals Evolving Practice) for second-year teachers and teachers new to districts in Arizona.

Currently, there is a team of 25 instructors and visitation coaches embedded in school districts throughout the Valley, providing BEST seminars and visits to hundreds of beginning teachers.

ASU professors discuss different roles of religion

With interest rising in the role of religion in public life around the globe, the ASU Religious Studies Department is helping Arizonans understand the roles different religions play in their own state.

Current Arizona social studies standards require schools to give academic and objective instruction in major world religions. But most public school teachers have not been adequately trained to give such instruction, says David Damrel, religious studies professor.

Damrel and the department hosted a program with 45 middle-school teachers from around the state for an outreach conference on “World Religions in Arizona Schools.”

It’s possible to teach about a religion, linking it to cultural traditions, music, art and literature, without advocating for the religion, Damrel says. Teachers can compare and contrast religions by categories: sources of authority and rules of behavior.

“These challenges is to think about ways of discussing and evaluating religions,” he says. “Rumor, misinformation and the media shape ideas about world religions, but this is too important to be left up to the media. It’s a complicated subject, one that we need to approach in a responsible way.”

The conference also was sponsored by the ASU Center for the Study of Religion and Conflict and the Arizona Humanities Council.

SCENE program links high school students with ASU scientists

A collaborative science education program is helping Arizona high school students get a taste of college-level research and science — with spectacular results.

The Research Experiences for High School Students program, offered by the Southwest Center for Education and the Natural Environment (SCENE), targets students considering a science major in college and gives them a firsthand look at the world of scientific research. SCENE, a non-profit organization affiliated with ASU’s Center for Environmental Studies, links students with ASU scientists on research projects for six months of each academic year.

Throughout the program, students are exposed to the scientific process, learn how to collect and analyze data using sophisticated scientific equipment and are active participants in cutting-edge research projects. The program culminates with a research poster presentation by the students. The students are encouraged to enter their research in the Central Arizona Science Fair and Engineering Fair and other science competitions, where they typically excel.

Several students have won Regents’ Scholarships to ASU, and most have won cash and scholarship prizes at one or more science competitions. In addition, the program itself awards a small scholarship to each participant who completes the program successfully.

Mayo Clinic, ASU forge new research collaboration

Mayo Clinic in Scottsdale and ASU have brought together clinical and investigative interests and strengths in a collaborative framework for medical research and development.

Mayo Clinic has extensive clinical experience and expertise, as well as vertically integrated programs spanning basic science, laboratory-based clinical investigation, clinical trials and population sciences. ASU, through the Arizona Biodesign Institute (AzBio), has outstanding multidisciplinary research programs in biologics and pharmaceticals, nanoscale biosystems and devices, neural interface and rehabilitation therapies and genomics and bioinformatics.

While the specific research areas will continue to be identified by researchers at both institutions, the initial areas of potential collaboration include neuroimaging, receptor biology, microdevices (both on-body and in-body) and vaccine development.

Arizona Technology Enterprises and Mayo Clinic’s Medical Ventures Department will work in partnership to bring technologies developed through this collaboration to the marketplace.

Mayo Clinic, Scottsdale, and Arizona State University have formed a new research collaboration.

The Kathernn K. Herberger College of Fine Arts community programs office, together with the academic units, participates in more than 90 community partnerships that provide art experiences for children and adults. Above, guest artist Marilies Yearby, third from left, teaches students from Herrera School for the Arts in Phoenix as part of Dance Arizona Repertory Theatre (DART), one of the afterschool programs the college offers that pairs ASU dance students with professional choreographers and local school children to create choreography and present concerts.

Fine Arts darts into schools

ASU plans construction conference for May

A first-ever “Construction in Indian Country” conference will bring together tribal officials from all over the United States with contractors and developers May 6 – 7.

The conference, expected to draw more than 1,000 people, will be at the Sheraton Wild Horse Pass Resort and Spa in the Gila River Indian Community and is sponsored by ASU’s Del E. Webb School of Construction.

The goal is to prepare Indian and non-Indian constructors for the continually expanding point of view of Indian country. The national conference will gather tribal officials, tribal construction personnel, contractors, suppliers, vendors and developers, and federal, state and local agencies to discuss the issues of construction management for American Indians.

“Building trust between the Indian owner and the construction contractor, and ensuring quality construction of tribal schools, homes, hospitals, commercial buildings and roads is critical,” says Peterson Zah, adviser to ASU President Michael Crow on American Indian Affairs. “Trust and quality construction will be the major points addressed at the conference.

Construction by tribal government owners has increased significantly in the United States. Gaming revenue is projected to exceed $15 billion in 2004, and with it tribes are building hospitals, schools, homes and commercial properties. Infrastructure construction also is increasing.

Plans are for the proceeds from the conference to be dedicated to establishing an endowment at the Del E. Webb School of Construction for American Indian construction management education and development.

Contact: (800) 727-3105 or visit (http://construc tion.asu.edu).