

BIOTECH PROGRESS REPORT

BUSINESS JOURNAL PROGRESS REPORT
September 2006

According to the Arizona's Bioscience Roadmap, commissioned and coordinated by the Flinn Foundation, there are four main strategies the state needs to focus on to develop a strong bioscience hub. Here are those strategies and how Arizona fared in the third quarter of 2006.

Strategy 1: Build research infrastructure

- Legislators agree to include \$35 million in the state budget to fund the new Arizona 21st Century Fund, a public-private partnership to invest in medical, scientific, and engineering research programs through Science Foundation Arizona. The Legislature also approves \$7 million to develop a diagnostic test for autism through the Translational Genomics Research Institute and the Southwestern Autism Research and Resource Center.
- Grand Canyon University announces plans to break ground in January on a 50,000-square-foot wet-lab facility, though the location is yet to be determined.
- A state-of-the-art neuroscience tower opens at Barrow Neurological Institute of St. Joseph's Hospital and Medical Center. The 430,000-square-foot facility offers 11 suites dedicated to neurosurgery, as well as 64 intensive-care beds and 80 acute-care beds for neurological and neurosurgical care.
- The Arizona Board of Regents approves \$1.5 million to accelerate planning of the Phoenix Biomedical Campus. The funds come from an unexpected \$12.2 million generated by Proposition 301, a sales tax increase supporting education.
- The Biodesign Institute at Arizona State University joins an international research collaboration to develop an HIV vaccine. Researcher Bertram Jacobs receives \$900,000 from the Bill and Melinda Gates Foundation as part of a \$287 million research effort involving investigators from 19 countries.
- George Poste, director of the Biodesign Institute, is given the Albert Einstein Award by the Global Business Leadership Council. The award acknowledges business leaders who have achieved exceptional advances in human health globally.
- The University of Arizona launches the Arizona Proteomics Consortium, drawing resources from several of its science-based institutions. UA is among a few universities with highly specialized capabilities for proteomics research and services. Proteomics, the study of proteins, is believed to be essential to the future of personalized medicine.

Strategy 2: Build critical mass of firms

- The Chandler city council approves a contract to begin planning a community technology incubator and accelerator that would help fledgling bioscience companies, especially those in the nanotechnology field. The City of Surprise is also contemplating a bioscience incubator.
- Neural Intervention Technologies, a Michigan-based medical device company, will relocate to Flagstaff as part of its acquisition by Flagstaff's W.L. Gore & Associates. NIT

was founded in 2003 based on stroke treatment technology developed in part by an ASU professor. The deal was brokered by Arizona Technology Enterprises, which handles tech transfer for ASU and Northern Arizona University.

- Phoenix-based Molecular Profiling Institute joins forces with US Oncology, a leading national cancer treatment and research network, to create the Tissue Banking and Analysis Center. The center will provide unprecedented access to tissue samples, clinical trial design, biomarker development, and esoteric testing under the guidance of top scientists from government and industry.
- Ventana Medical Systems in Tucson scores high on three national rankings: No. 35 on *Fortune Small Business* magazine's list of fastest-growing publicly held small businesses; No. 24 on a similar list of *Business 2.0*; and No. 66 on *BusinessWeek*'s "hot growth" list of the best small, publicly traded companies. The diagnostic-instrument maker also recently purchased Vision Systems Ltd., an Australian biosystems company, for about \$346 million.

Strategy 3: Enhance business environment

- An investment tax-credit program for "angel" investors goes into effect. Meant to stimulate investment in early-stage tech and bio firms, the program offers state tax credits of 30 percent for investors of tech firms and 35 percent for those targeting bio and rural companies. The measure was passed by the Legislature in 2005.
- A Tucson bio firm, ImaRx Therapeutics, scores one of Arizona's largest venture capital investments in 2006 at \$13 million. Arizona firms generated \$94 million in VC during the first half of 2006, compared to \$87 million during the same period in 2005.
- Statewide communications and marketing professionals launch "Biozona," a new brand identity for Arizona's growing bioscience sector. More information is available at www.biozona.org.

Strategy 4: Prepare workforce, educate citizens

- NAU and TGen receive a \$122,000 grant from the Board of Regents to help train high school teachers in the biosciences. The grant supports collaboration among scientists and educators to help secondary biology teachers update their content knowledge and biotechnology laboratory skills. The program will be launched in the Chino Valley School District, Tuba City School District, and Mesa Public Schools.
- East Valley education institutions benefit from a \$900,000 grant from the National Science Foundation to address future workforce needs in the biosciences. The project focuses primarily on building a "2+2+2" model that would enable students to seamlessly move between high school, community college, and university. The program involves the Biodesign Institute at ASU, ASU Polytechnic, Mesa Community College, and Mesa Public Schools.
- ASU and Mayo Clinic team to offer Arizona's first joint medical and law degree program. The program involves a partnership between ASU's Sandra Day O'Connor College of Law and the Mayo Clinic College of Medicine in Rochester, Minn.
- ASU launches the Arizona Biosciences Network, or AzBioNet, offering opportunities for undergraduate students to interact with scientists who work at Phoenix-area research and medical institutions. The program is funded by a \$1.8 million grant from the Howard Hughes Medical Institute. UA also receives a \$1.5 million grant from Hughes to improve undergraduate science education programs.

- Three science-based high schools open in the Valley and Tucson: Bioscience High School in downtown Phoenix; Copper Ridge Math and Science Academy in Scottsdale; and the Wildcat School, a science/math charter school in Tucson affiliated with UA. Honeywell awards a \$60,000 grant to Bioscience High.
- Paradise Valley High School initiates a biotechnology “signature program” focusing on bioscience research, healthcare, and agriscience.
- Albert Shieh, a 2006 graduate of Chaparral High School, becomes the first Arizonan to receive a genius award from the Davidson Institute for Talent Development. Last year, Shieh and fellow TGen intern Anne Lee teamed to win top prize at the nation’s premier high school science competition, the Siemens Westinghouse.