

# Biotech progress report

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*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 first quarter of 2007.*

## Strategy 1: Build Research Infrastructure

- Gov. Janet Napolitano's proposed budget includes \$60 million for bioscience and innovation, including \$35 million for Science Foundation Arizona and \$25 million for programs of the three state universities at the Phoenix Biomedical Campus. Bills supporting both have passed key committees in the Legislature.
- Arizona State University and Mayo Clinic announced a joint research effort to develop a vaccine to prevent the development of cancer. The project is the first initiative of the "MAC5" research partnership between the two organizations.
- The Biodesign Institute at ASU landed two major research grants from the National Institutes of Health. One grant will aim to reduce the cost of sequencing the human genome; the other to develop improved antidotes for civilian populations vulnerable to chemical agent poisoning by terrorist attack.
- The Southwest Autism Research & Resource Center is part of the \$14.5 million second phase of the Autism Genome Project, a collaborative effort to identify genes responsible for the brain disorder. The first-phase results, compiled in conjunction with Translational Genomics Research Institute, TGen, are published in Nature Genetics.
- The University Medical Center in Tucson opened a \$30 million, 80,000-square-foot cancer clinic, in collaboration with the Arizona Cancer Center.
- Science and business leaders in Flagstaff launched the Northern Arizona Bioscience Roadmap, a strategic planning process facilitated by Battelle to focus on the region's bioscience strengths and needs.
- Following a national search, the University of Arizona named a dean for the College of Medicine in Phoenix. Dr. Edward H. Shortliffe comes to Arizona from Columbia University, where he served as chairman of biomedical informatics and professor of computer science.

## Strategy 2: Build Critical Mass of Firms

- Phoenix Mayor Phil Gordon proposed a biomedical district to attract health care and research institutions along a mile-long stretch of land in downtown Phoenix. The district would help to ease the space limitations of the 28-acre Phoenix Biomedical Campus.
- W. L. Gore & Associates, one of Arizona's largest bioscience employers, announced plans to build facilities in north Phoenix that could employ up to 800. The Flagstaff-based medical-device manufacturer also intends to add 40,000

square feet to its current campus in addition to a new 133,000-square-foot manufacturing facility that will open in Flagstaff in April.

- The city of Flagstaff entered into an agreement with two developers to construct a science and technology park that will include up to 200,000 square feet of office and lab space.
- Microgy Inc., an international renewable energy company, announced its intention to build what may be the world's largest biogas facility near Maricopa, about 35 miles south of Phoenix, within two years. The facility would produce natural gas from cow manure.

### **Strategy 3: Enhance Business Environment**

- A measure to expand the state tax credit for research and development passed two committees in the state House of Representatives.
- A Tripp Umbach study on TGen's economic impact reported that the institute has created 220 jobs, returned \$21.7 million to Arizona's economy and generated \$1.9 million in tax revenue. To date, TGen has returned \$3.95 for every dollar invested by the state. The study projected that spin-off companies involved in drug therapy will increase TGen's economic impact to \$60.7 million by 2010 and \$202.4 million by 2025.
- Forbes ranked Phoenix the No. 2 city for jobs, noting its performance in attracting technology firms, particularly in biotech. The city recently was named the nation's best to start and grow a new business by Entrepreneur magazine, and the Phoenix metro area was included in Expansion Management's top-50 list for expanding or relocating a new business, along with Flagstaff and Yuma.
- A new report on regional bioscience hotspots, prepared by research giant Battelle for the national Biotechnology Industry Organization, ranked Flagstaff third in the nation in the medical-device category among small metropolitan areas. The report also recognized Tucson as an emerging large-metro area in the category of research, testing and labs.

### **Strategy 4: Prepare Work force, Educate Citizens**

- Gov. Napolitano proposed \$15.5 million to boost math and science education in Arizona, \$10 million to better compensate the state's top math and science teachers, \$3 million to provide incentives for university students to become math and science teachers, and \$2.5 million to award grants to school districts for innovative programs and academies.
- UA received a \$3 million grant from the National Science Foundation to promote science education in public schools. The grant will enable graduate students to serve as science mentors in K-12 classrooms.
- TGen landed a \$380,000 grant from the local Helios Educational Foundation to create the Helios Scholars Program. The funding will support summer internships for 50 high school, undergraduate, and graduate students who will gain research experience under the guidance of a TGen mentor.
- Science Foundation Arizona announced recipients of its first round of grants -- \$4 million in scholarships at the state's three universities under its Graduate Research Fellowship program.

- Chandler-Gilbert Community College announced plans to introduce an associate's degree in biotechnology in partnership with Chandler drug-development services firm Covance within the next year.
- Mesa Public Schools announced plans to open Health Science High School in fall 2007. The school will train students interested in health care professions with a planned maximum enrollment of 500.

-- *Compiled by the Flinn Foundation.*