

Biotech Progress Report

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According to the [Flinn Foundation's Arizona Bioscience Roadmap](#), 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 2006.

Strategy 1: Build research infrastructure

- Arizona's business leadership groups file papers with the state to create [Science Foundation Arizona](#), a nonprofit entity that would build and strengthen the state's medical, scientific and engineering programs. SFA will be supported financially by the business community and led by [Greater Phoenix Leadership](#), [Southern Arizona Leadership Council](#) and [Flagstaff 40](#).
- Legislation to create a public/private fund to strengthen scientific research advances in the Arizona House of Representatives. The bill would establish the Arizona 21st Century Fund by providing \$150 million over five years to be matched by private funds. The legislation builds upon a concept proposed by Gov. Janet Napolitano in her State of the State Address, and has evolved through support of legislators.
- The Virginia G. Piper Charitable Trust commits \$50 million over the next five years to attract world leaders in the development of personalized medicine.
- Valley philanthropist Jerry Bisgrove, chairman of the Stardust Charitable Group, pledges \$100 million over the next four years to advance the biosciences. The funds, administered through Science Foundation Arizona, would support research, attraction of internationally recognized scientists, creation of early-stage tech firms and related activities.
- A "virtual coalition" of statewide business and science leaders forms to help carry out the recommendations of Arizona's Bioscience Roadmap, the state's long-term plan to become competitive in the biosciences. The partnership involves groups from three categories:
 1. Arizona's Bioscience Roadmap Steering Committee and the Flinn Foundation.
 2. Bioscience trade associations: Arizona BioIndustry Association, Bioindustry Organizations of Southern Arizona.
 3. Regional business leadership groups: Greater Phoenix Leadership, Southern Arizona Leadership Council and Flagstaff 40.
- The [Translational Genomics Research Institute](#) and the [Biodesign Institute](#) at Arizona State University partner to create the [Center for Systems and](#)

[Computational Biology](#), one of only a few centers in the nation to combine biology and supercomputing power. In another partnership agreement, ASU and [Mayo Clinic](#) form MAC-5 to improve cancer treatment.

- The University of Arizona plans to launch a pharmacogenomics program at the downtown Phoenix Biomedical Campus. The program focuses on how a person's genetics affect the body's response to drugs.

Strategy 2: Build critical mass

- SkySong breaks ground. The 1.2-million-square-foot, \$320 million facility will house private companies and ASU's Technopolis, Arizona Technology Enterprises and the Edson Student Entrepreneur Initiative. It is expected to open in 2007.
- San Diego developer Lee Chestnut unveils plans for a three-story, 35,000-square-foot, multitenant wet-lab facility at Papago Park Center in Tempe. Chestnut, who grew up in Arizona, is negotiating for additional wet-lab space of up to 80,000 square feet.
- Agilent Technologies Inc., acquires ASU spin-out Molecular Imaging Corp., a developer of atomic force microscopes and scanning probe microscope systems. The company was founded in 1993 by ASU professors Stuart Lindsay and Tianwei Jing.
- Sanofi-Aventis, the world's third-largest pharmaceutical company, announces plans to add 100,000 square feet to its two Tucson facilities, tripling their current size.
- Mayo Clinic finalizes an agreement with InNexus Biotechnology Inc., to locate the company's U.S. headquarters within the Collaborative Research Building on Mayo's Scottsdale campus. The Canadian drug-development firm initially will provide 36 jobs in management and research.
- Ribomed Biotechnologies Inc. lands a \$3.5 million contract from the Defense Advance Research Projects Agency (DARPA) to work on a device to keep food safe from bioterrorist attacks.

Strategy 3: Enhance business environment

- Legislation is introduced in the Arizona House and Senate to boost the state's research and development tax credit by 10 percent. This is designed to foster new partnerships combining Arizona university research and private enterprise funding.
- In 2005, Arizona recorded its best year since 2002 in generating venture capital, more than doubling its 2004 levels. VC for Arizona biotechnology and pharmaceutical firms enjoyed its best year ever.

Strategy 4: Prepare work force, educate citizens

- Two TGen interns win the Siemens Westinghouse Competition in Math, Science, and Technology, the nation's premier high school science competition. The students will split \$100,000 in scholarship prize money for developing new software to more accurately analyze genetic data. They are the first Arizonans ever to win the competition.
- Mesa Public Schools plans to expand biotech labs at Mesa and Mountain View high schools. In all, five schools within the district will have training labs totaling about 8,000 square feet.
- The Arizona Town Hall begins statewide meetings to present and discuss the recommendations of the 87th Town Hall in October 2005 on biosciences and biotechnology.
- Phoenix College launches a pharmaceutical technician training program in response to a current shortage and growing demand for pharmacists.
- A new Web blog focuses on news and developments in Arizona biosciences education, available at www.azbioeducation.blogspot.com

Compiled by the Flinn Foundation, www.flinn.org.