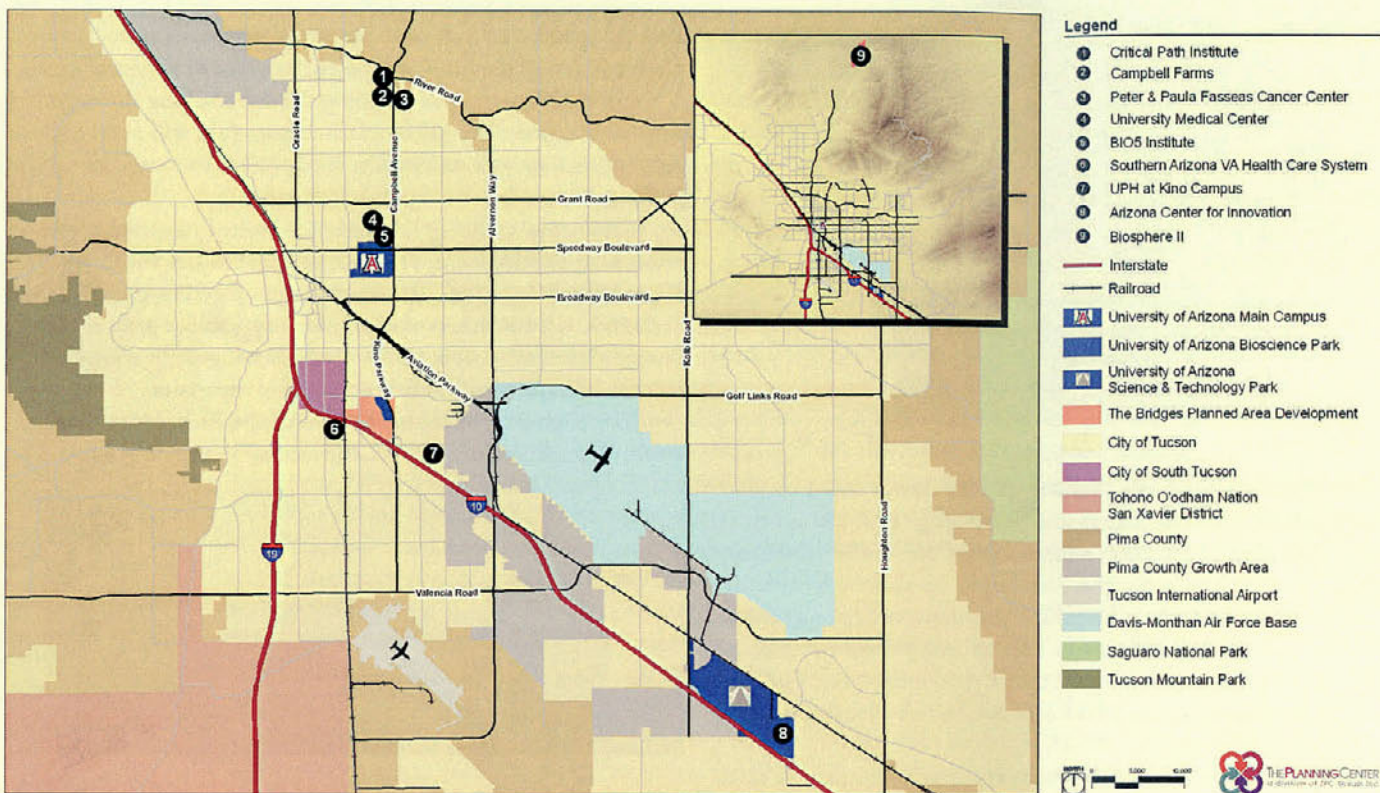


## Southern Arizona Bio Industry and the Tucson BioCorridor



## Tucson Biocorridor Map

In the Spring of 2002, the Flinn Foundation commissioned the Battelle Memorial Institute --a worldwide leader in the development, commercialization, and transfer of technology--to assess Arizona's competitive position in the biosciences and to develop a biosciences economic roadmap for the next decade. In 2003, the State of Arizona began implementing the Arizona Biosciences Roadmap, a 10-year strategic plan for Arizona prepared to invest in one of the fastest-growing sectors of the economy, the biosciences. The mission of this action plan is for Arizona to become a leading southwestern state in selected biosciences built around world-class research, clinical excellence, a growing base of cutting-edge enterprises, and supporting firms and organizations.

According to the Flinn Foundation, reasons why Arizona should invest in the Biosciences include:

- Bioscience is one of the fastest growing sectors of the 21st Century economy;
- Bioscience research will lead to the availability of new medical treatments for Arizona residents;
- The biosciences represent a chance to build a higher-wage, skilled, and technology-driven employment base;

- The bioscience sector offers employment opportunities, providing jobs at various skilled levels;
- The bioscience sector builds upon Arizona's strength in electronics, optics, and advanced manufacturing;
- The bioscience sector can bring stability to Arizona's economy by balancing more cyclical industries.

Science Foundation Arizona (SFAz) was launched in the spring of 2006 by the three statewide CEO groups: Flagstaff 40, Greater Phoenix Leadership, and Southern Arizona Leadership Council in an effort to build on the pioneering work done by the Flinn Foundation and their consultants, the Battelle Memorial Institute, in creating the Arizona Biosciences Roadmap. SFAz's organization includes a nationally recognized board of directors and biosciences expert Bill Harris as Executive Director, along with \$35 million in state funding.

The Southern Arizona Biosciences Roadmap was developed to complement the statewide effort and to identify specific strategies for the Southern Arizona market. These strategies include:

- Building Southern Arizona's research strengths around bioscience technology platforms;

- Building critical mass of bioscience firms in Southern Arizona;
- Building a talent base that captures and retains Southern Arizona's human resources;
- Maintaining a business climate supportive of the biosciences and their growth; and
- Educating, informing and spurring to action opinion leaders and the general public on Southern Arizona's future in the biosciences.

Currently Southern Arizona's bioindustry is home to over 70 biotech companies engaged in sectors such as medical devices, pharmaceutical research and development, medical imaging, industrial products, and biomaterials. Over half of these firms are involved with product development and/or manufacturing, about 40 percent perform laboratory research and about 30 percent are involved in clinical testing programs. These trends make Southern Arizona a vibrant entrepreneurial environment for launching and incubating early-stage technology companies.

A recent UA study, the Biotechnology Industry in Tucson and Southern Arizona, reports over seventy local companies engaged in the biosciences that employ approximately 2,000 employees (nonhospital). The same study reports that there are 112 nonhospital bioscience establishments in the area, with a 21.9% increase in the region's nonhospital bio employment from the years 2001 to 2004.

Major bioscience employers in the area include: Vantana Medical Systems, Inc. (more than 600 employees), Sebra (75 employees), Byron Medical (50 employees), Hanger Prosthetics & Orthotics (48 employees), Protein Technologies, Inc. (22 employees), ImaRx Therapeutics, Inc. (19 employees), and HTG (13 employees). The average annual biosciences wage is currently \$40,004 and the bioscience industry nets an estimated \$6 billion in revenues.

The Tucson BioCorridor encompasses the Biosphere II, Arizona Center for Innovation (Innovation Place), The Critical Path Institute, Campus Agricultural Center (Campbell Farms), the Peter and Paula Fasseas Cancer Center, The University of Arizona, University Physicians Healthcare at Kino Campus, the University of Arizona Science and Technology Park, the University Medical Center, BIO5 Institute, University of Arizona Bioscience Park and Southern Arizona VA Healthcare System. The Tucson BioCorridor was created to help strengthen conditions for collaboration between the University of Arizona and private sector investors. The creation of the BioCorridor increases productivity, enabling researchers to catalyze more quickly their ideas into commercial, marketable products.

Coupled with the increasing demand for state-of-the-art bioscience facilities is the need to demonstrate an employable workforce with the job skills necessary for the biosciences. Tucson and Southern Arizona have already begun strategically preparing themselves to meet that need. The University of Arizona has

22 Life Science-related degree programs. The Arizona Health Science Center, Sarver Heart Center, Arizona Respiratory Center and Arizona Cancer Center are known worldwide for research productivity and clinical trials management. The University of Arizona Colleges of Agriculture, Science, and Engineering and Mines produced 157 Ph.D., 410 M.S. and 1517 B.S. graduates in 2004-2005. The University of Arizona's College of Science, a national leader in Applied Bioscience programs, now offers a Master's Degree in Applied Bioscience. Pima Community College offers applied degree programs in bioscience topics. The University of Arizona Bioscience Park is also underway and will house a wide diversity of world-class bioscience-related industries and programs.

## TREND

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