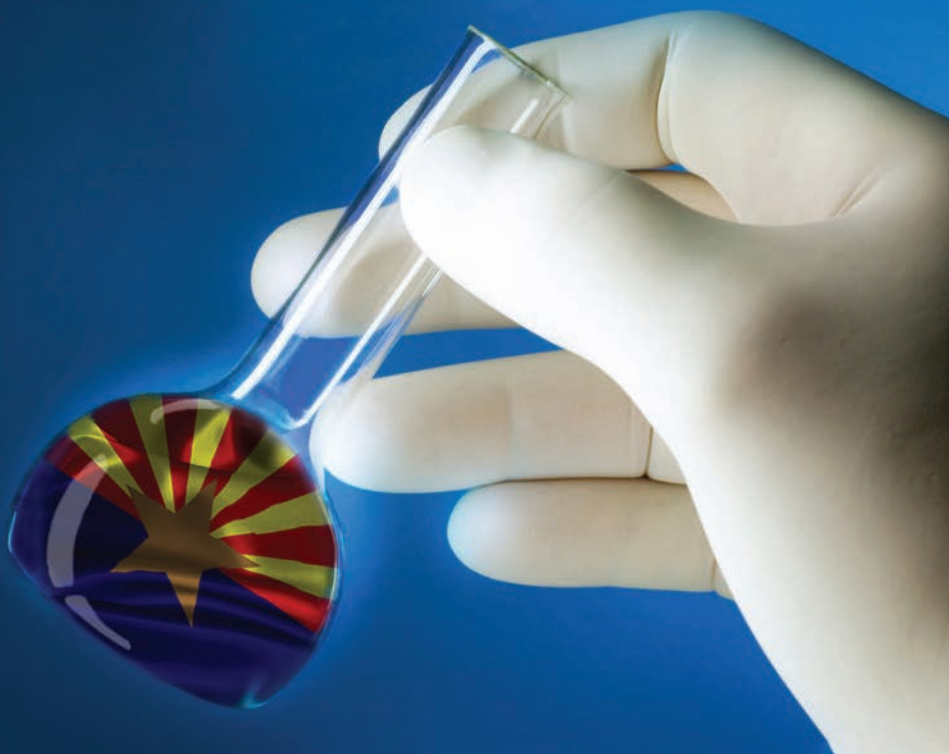


THE STATE OF *Bioscience*



Arizona, with its rich resources and pioneering culture, has positioned itself to flourish in the thriving, dynamic field of the biosciences. One of the fastest-growing sectors of the economy, the biosciences give our state a powerful opportunity to pursue a high-wage, technology-driven employment base with highly skilled workers and seemingly limitless possibilities.



Imaginative People & Unimagined Possibilities

This is Arizona Bioscience

The Arizona bioscience movement is all about our people and their unbridled sense of possibilities. When an unquenchable thirst for ideas and a passion for intelligent risk meet up with ample resources, new opportunities emerge every day. From some of the nation's most noted scientists to visionary angel investors, entrepreneurs, business leaders, and even parents, teachers, and students, Arizonans are mobilizing for meaningful action.

And we have the results to show for it. Whether it's developing drugs to halt cancer growth or making fuel from algae, talented bioscientists and persistent people are working together to bring new possibilities to life.

Our state's bioscience sector works hard and is growing fast. In just a decade, we've welcomed more than 200 new bioscience establishments and added new jobs at nearly four times the national rate. We play hard, too. Still in its infancy and continuing to grow, the



Fiscal Fitness—and More

This is Arizona Bioscience

...economic strength and stability for today and tomorrow.

Arizona SciTech Festival attracts about 250,000 participants annually – making it one of the largest in the nation – while engaging Arizona's scientists of tomorrow.

By definition, bioscience deals with anything that eats, breathes, or sleeps. This means that *you* are bioscience.

Arizona's medical and health researchers are turning scientific discoveries into new solutions for the issues that plague human health and well-being. Scientists, higher education institutions, businesses, hospitals, foundations, and investors are crossing boundaries, sharing resources, and stimulating progress. And that means economic gains. Since 2002, more than 30,000 high-paying jobs have been created in Arizona through the

biosciences, including hospitals, and the growth continued during and after the Great Recession.

Arizona has built state-of-the-art research and clinical facilities, attracted top talent, and launched high-tech incubators to turn discoveries into thriving companies. Bioscience campuses are established or underway in Flagstaff, Phoenix, and Tucson to spark innovation through the convergence of clinical and academic researchers, educators, and entrepreneurs. But it's about more than economic development. It's about more than jobs. It's about placing Arizona firmly on the world stage for pioneering medical research and development.

Discovery

Bioscience jobs pay substantially more than the private-sector average in Arizona.

Research, Testing & Medical Labs

This is Arizona Bioscience

An aging population and escalating health care costs means that finding new ways to prevent, detect, and treat disease is no longer optional. Arizona is known for its scientific leadership in neuroscience, cancer research, and bioengineering, among others, but it is a mega-trend known as “personalized medicine” that will change health care as we know it. Cracking the human genetic code is beginning to deliver on the promise of better treatments and potentially lower costs. And Arizona has the goods to leapfrog other states and become a major player.

With private research institutes such as the Translational Genomics Research Institute, International Genomics Consortium, and Critical Path Institute, plus key industry drivers and leading programs at the state’s universities and research hospitals, Arizona has many of the prerequisite competencies to become a nationally recognized leader in targeted areas of personalized medicine. This signature opportunity for bioscience research in the state epitomizes this fastest-growing segment of our bioscience sector.

Hospitals & Health Systems

This is Arizona Bioscience

Hospitals and health systems around the country are in a state of flux – for some that means major retooling, but for all, it means collaboration and innovation. More than 80,000 Arizonans work in the hospital sector, providing care to tens of thousands of patients annually and recording breakthroughs in clinical research. Though new treatments are helping keep people out of the hospital or shortening hospital stays, it is these bedrock Arizona institutions that continue to be a hub of enormous bioscience and health care activity.

Whether it’s the latest innovation to combat Alzheimer’s disease or a \$180 million proton-beam therapy facility that vaporizes tiny cancer tumors with particle technology, these institutions offer cutting-edge therapies, the very best of care, and often, the greatest sense of hope.

*Vision for
our future:
to become
a recognized
national leader
and global
competitor.*

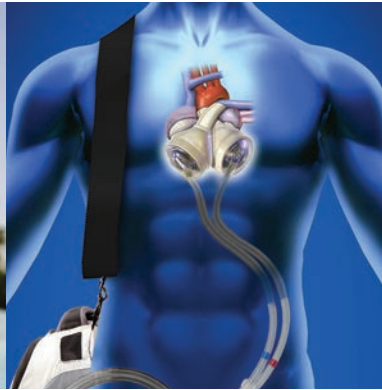


*...access to
the latest
health care
treatments and
innovations.*



Medical Devices & Equipment

This is Arizona Bioscience



*Medical
advancements
that impact
our everyday
lives.*

Among the many arms of the biosciences, it is the state's medical device industry that has some of the largest plants and employers, including W. L. Gore and Medtronic.

Recent Arizona innovations include a contact lens that actually corrects your cornea, putty used in bone grafting, post-surgical recovery garments, dental implants, and injectable micro-devices that stimulate the nervous system. With investors, incubators, awards, and champions, Arizona inventors will continue to transform innovative technologies into viable commercial products.

Innovations

Arizona has an array of institutions in education, research, and industry that are turning discoveries into improved prevention, detection, and treatment of disease and illness. This convergence of science and application is leading to longer and healthier lives.





Arizona has distinctive bioscience assets and areas of expertise that give our state a competitive advantage. We are a top emerging bioscience state with the right ingredients to become globally competitive and a national leader in select areas of the biosciences.



...build on our success and remain committed to achieving our vision.

Drugs, Pharmaceuticals & Diagnostics

This is Arizona Bioscience

Arizona's pharmaceutical and diagnostics industries have ushered in discoveries, development, and commercialization of cutting-edge therapies and tests for cancer, neuroscience afflictions, immunological diseases, disorders of the central nervous system, and more. With big names like Ventana Medical Systems, Sanofi, and Celgene, these firms are devising tests and designing or manufacturing drugs that will prolong life, improve health, and cure disease – for humans and animals both.

*Lead
the
field*

Agricultural Feedstock & Chemicals

This is Arizona Bioscience



What happens when you connect Arizona's agricultural assets with some of the best and the brightest thinkers in the world? You get a bumper crop of possibilities.

Already Arizona has made a name for itself in a variety of high-growth market sectors, including:

- » Biofuel and bioenergy production
- » Controlled environment agriculture, bio-pharming, and functional foods
- » Plant mining for pharmaceutical and non-pharmaceutical products
- » Insect pest control for agricultural, forest, and urban environments
- » Biofuel and bioenergy production using plants

Some call it "future farming." We call it critically important. As the world's human population grows and consumer demands change, it is essential to develop and maintain this sustainable economic development driver.

Arizona will continue to excel in bio-agriculture research, farming, production, and processes by smartly and strategically directing precious resources to those areas where we have a keen competitive advantage.

*Arizona's
sunshine and
plentiful land
provide an ideal
bio-agricultural
setting.*

Bioscience Distribution

This is Arizona Bioscience

A relative newcomer to the innovative realm of the biosciences, bioscience-related distribution coordinates the delivery of bioscience-related products spanning pharmaceuticals, medical devices, and bio-agriculture.

The distribution sector is spurring genuine innovations and fast-track execution of specialized technologies such as cold storage, highly regulated product monitoring, and automated drug-distribution systems. Deploying advanced logistics and process improvements safeguards the integrity and effectiveness of bioscience products like seeds, chemicals, instruments, and drugs and pharmaceuticals for manufacturers and consumers alike.

*The biosciences
are about
discovery,
innovation, and
entrepreneurship.*



*...translating
discovery
into
commercial
success.*



It's taken an army of experts across nearly every field to fuel the Arizona aspiration to be a model bioscience region. Equipped with Arizona's Bioscience Roadmap as our guide, thousands have helped make this vision a reality. Goals for the future:

- » Form a bioscience **hub** of entrepreneurs and new enterprises across Arizona.
- » Turn **research into practice** for improved prevention, detection, and treatment of illness.
- » Make Arizona a **bio-talent powerhouse**.
- » Create **connectivity** by promoting Arizona biosciences to partners in neighboring states, Canada, and Mexico.
- » Sustain and enhance the state's "**collaborative gene**" reputation.

Committed Leadership. Clear Vision. Smart Strategy. Calculated Risk.

This is Arizona Bioscience



Though we've made strong advances on nearly every front, there's much more work to be done. Talk it up, learn more, broker new relationships, ask questions, attend conferences and workshops, and share your ideas. Remind your elected representatives of the importance of health care innovation and economic strength and diversity. Join the bioscience buzz. Together, we can turn today's possibilities into tomorrow's reality.



*Stay informed,
advocate,
and support.*



The Flinn Foundation is a Phoenix-based private, nonprofit philanthropic endowment that supports the advancement of the biosciences and other areas in Arizona. Data cited in this brochure are from Battelle, a nonprofit U.S. leader in positioning regions to excel in technology and the sciences. Photos are courtesy of Paradise Valley Community College, SARRC, SynCardia Systems, TGen, and University of Arizona.



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