

Arizona's Bioscience Roadmap: Progress Report

October-December 2011

Arizona's Bioscience Roadmap, commissioned and coordinated by the Flinn Foundation, calls on the state to focus on four strategies to develop a globally competitive bioscience hub. Here are those strategies and how Arizona fared in the fourth quarter of 2011.

Build research infrastructure

- The Arizona Alzheimer's Disease Core Center, a group of researchers representing seven institutions across the state, receives a \$7.7 million grant from the National Institutes of Health's National Institute on Aging to support research on Alzheimer's disease and other age-related disorders.
- Tucson-based HTG Molecular Diagnostics Inc. partners with the Biodesign Institute at Arizona State University on a \$5 million contract extension to continue work developing new radiation-detection technology.
- Dell Inc. launches a multi-million-dollar program to donate cloud-computing resources to study pediatric cancer, centered on a Translational Genomics Research Institute study of personalized treatments for children with neuroblastoma.
- The Critical Path Institute and the Clinical Data Interchange Standards Consortium issue an important new guide to help researchers and pharmaceutical firms collect, pool, and compare data from clinical trials for drug candidates related Alzheimer's disease. Separately, the C-Path convened Critical Path to TB Drug Regimens initiative announces a major agreement among drug developers and non-governmental organizations to speed development of tuberculosis drug combinations.
- The University of Arizona Cancer Center and St. Joseph's Hospital and Medical Center announce an affiliation agreement under which UACC staff and doctors will begin working with St. Joseph's on clinical research and patient care in advance of the opening of a new UACC clinic on the Phoenix Biomedical Campus.
- Stand Up to Cancer and the Melanoma Research Alliance award \$6 million to a nationwide "Dream Team" of researchers led by Jeffrey Trent of TGen, with key contributions from Joshua LaBaer of the Biodesign Institute at Arizona State University, Aleksandar Sekulic of Mayo Clinic Arizona, and Waibhav Tembe of TGen.

Build critical mass of firms

- The Chan Soon-Shiong Institute for Advanced Health, headquartered in Phoenix, announces an agreement with the data-center technology firm IO to support the CSS Institute's development of the largest health-care data center in the world.
- Phoenix Mayor Phil Gordon announces that he will lead the Phoenix hub of the CSS Institute after he leaves elected office in January, 2012.
- Phoenix-based VisionGate Inc., which has developed a non-invasive test for the early detection of lung cancer, raises \$2 million from existing and new investors in an equity financing effort.
- Heliae, a Mesa-based startup focusing on the commercialization of fuel and other products from algae, signs an agreement with SkyNRG, a maker of renewable aviation fuel, to produce algae-based jet fuel for the Amsterdam company.
- The University of Arizona and St. Joseph's Hospital and Medical Center form a partnership to establish a Valley Fever Center on the hospital's Phoenix campus. Working in coordination with the

Tucson-based Valley Fever Center of Excellence, the center will serve greater-Phoenix patients affected by Valley Fever.

- Tucson-based Syncardia Systems Inc. lands on the *Forbes* list of the 100 most promising private companies in America, a collection of firms described as “up-and-comers with compelling business models, strong management teams, notable customers, strategic partners and precious investment capital.”
- Mayo Clinic breaks ground on a \$182 million facility that will feature its new pencil-beam proton therapy program, which will offer cancer patients a treatment option currently found at only a few sites in the U.S.

Enhance business environment

- The Peoria City Council approves a three-year plan to partner with BioAccel and the Plaza Companies to develop and host the Peoria Incucelerator, which will offer reduced-rate leases for laboratory space, as well as business-development mentoring, to startup firms focusing on biomedical devices.
- The Arizona Commerce Authority establishes the \$175,000 AZ Fast grant program to help small science, technology, aerospace, defense, and renewable-energy firms to develop their products through activities such as applying for federal grants and pursuing intellectual-property protection.
- BioAccel creates the Philanthro-Capitalist Network to help startups attract funding. The Network will bring together promising bioscience firms and individuals interested in investing in them.

Prepare workers, educate citizens

- UA establishes the STEM Learning Center, a new initiative to coordinate UA’s efforts in education, outreach, and research in science, technology, engineering, and mathematics (STEM) education.
- Gov. Jan Brewer establishes February 2012 as Arizona Science and Technology Month in conjunction with an announcement of the first annual Arizona SciTech Festival. The SciTech Festival’s founding partners are ASU, the Arizona Technology Council, and the Arizona Science Center.
- Science Foundation Arizona announces that it is extending its Bisgrove Scholar Program to support a second round of awards. Previously open to first-time post-doctoral researchers, the program is now expanding to accept nominations from Arizona’s universities of first-time tenure-track faculty.
- Chandler Unified School District announces that one of its high schools, Gilbert Perry High School, will offer a four-year program in STEM education that culminates in a special STEM diploma. The move builds on CUSD’s decision to designate Knox Elementary School as a STEAM school—specializing in science, technology, engineering, the arts, and mathematics.
- Madeline Grade, a biomedical engineering student at ASU, wins one of 40 prestigious Marshall Scholarships in the United States. The award will support post-graduate study at Grade’s choice of top United Kingdom universities.