New business incubators, stimulus funds help sustain bio sector

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According to Arizona's Bioscience Roadmap, commissioned and coordinated by the Flinn Foundation, the state needs to focus on four strategies to develop a strong bioscience hub. Here are those strategies and how Arizona has fared since the July report.

Build research infrastructure

- Through the first three quarters of 2009, Arizona researchers secured \$33.4 million in federal stimulus funding from the National Institutes for Health. The support will fund 101 projects at nine institutions.
- Arizona State University recruited 2001 Nobel laureate Lee Hartwell, president of the Fred Hutchinson Cancer Research Center, to lead the new Center for Sustainable Health, which will integrate research on disease biomarkers and health economics.
- The Partnership for Native American Cancer Prevention, a collaboration between Northern Arizona University and the Arizona Cancer Center, received a \$15.7 million award from the National Cancer Institute to study and mitigate cancer disparities among Native Americans.
- The International Genomics Consortium received notice that it will assume a bigger role in the Cancer Genome Atlas project, a development that should allow IGC to triple its current workforce of 45. IGC manages the tissue bank for the project, which will dedicate \$275 million in new federal funding to expand from its current research on brain, lung, and ovarian cancer into a study of 20 or more types of cancer.
- The Translational Genomics Research Institute released a study by Tripp Umbach indicating that TGen generated an estimated economic impact of \$77.4 million in 2008, including a direct economic impact of \$44.5 million, more than twice its 2006 economic impact of \$21.7 million.
- A research team led by Arizona State University professor Charles Arntzen made national headlines with the news that they had used genetically engineered tobacco plants to manufacture a vaccine for norovirus, known colloquially as "cruise ship virus."
- Daniel Von Hoff, physician-in-chief at the Translational Genomics Research Institute and chief scientific officer at Scottsdale Healthcare, reported study findings in the New England Journal of Medicine that indicate dramatic patient response to a new drug for advanced basal cell carcinomas that blocks the important "hedgehog" signaling pathway.

• The University of Arizona announced that as part of its Transformation initiative, \$6 million would be made available to the BIO5 Institute over the next three years to hire rising stars in translational medicine.

Build critical mass of firms

- The Arizona Economic Resource Organization and a private-sector group of Arizona-based organizations have hired Sun Mountain Capital to assemble and manage a \$200 million venture-capital "fund of funds" to back startup Arizona firms in the biosciences and other high-technology sectors.
- Both Mayo Clinic and Catholic Healthcare West sought approval for major hospital expansions in the Phoenix region. Mayo's long-term plans include a second hospital and four outpatient facilities in northeast Phoenix; CHW received authorization to build a new five-story tower at Chandler Regional Medical Center.
- Tolmar Inc., a Fort Collins, Colo. pharmaceutical company specializing in oral health, acquired Scottsdale-based Zila Inc., which makes oral-cancer diagnostic tools, for \$4.7 million in cash.
- ImmuneRegen BioSciences reported that a pilot animal study of oral administration of its drug candidate Homspera indicate a therapeutic anti-influenza effect against the H1N1 virus, lending support to ImmuneRegen's confidence that Homspera augments immune-system response.

Enhance business environment

- The city of Chandler approved \$5.7 million to establish the Innovations Technology Incubator, a bioscience and high-technology business incubator, at a former Intel R&D facility west of the Chandler Fashion Center.
- GateWay Community College secured \$6 million to build a bioscience business incubator on its campus at 40th and Washington streets. Funding came from the Economic Development Administration of the U.S. Department of Commerce, the city of Phoenix, and GateWay's share of a voter-approved bond.
- The Biodesign Institute at Arizona State University launched the Impact Accelerator to move research discoveries more quickly toward commercialization. The Accelerator, which has already received \$5 million, will be housed at ASU SkySong in Scottsdale.
- The University of Arizona receved a \$4.7 million federal stimulus grant from the Economic Development Administration of the U.S. Department of Commerce for the next stage of development of the Arizona Bioscience Park, which will ultimately include laboratory space, a bioscience business incubator, a bioscience high school, and other facilities.
- The Arizona BioIndustry Association hired Robert Green as its new president and CEO. Green, a mainstay in the southern Arizona biosciences landscape, has led several biotech firms, most recently Integrated Biomolecule Corp., which he sold to Ventana Medical Systems Inc./Roche Group in 2008.

• Winners at AZBio's annual Awards dinner included Ventana Medical Systems Inc./Roche Group (Bioscience Company of the Year); Applied Microarrays Inc. (Fast Start Award); Martin L. Shultz (Jon W. McGarity Leadership Award); Nancy K. Barto (Public Service Award); Bruce Rittmann (Research Excellence Award); and Barbara Fransway (Bioscience Educator of the Year).

Prepare workers, educate citizens

- Steve Goldschmid was appointed dean of the University of Arizona College of Medicine in Tucson. Goldschmid, previously chair of the UA Department of Medicine, had served as interim dean of the college since July 2008.
- The Arizona Science Center received a \$1.2 million Science Education Partnership Award from the National Institutes for Health to support the "Pathways" program, which will offer opportunities for hands-on learning about the human body and advances in biotechnology.
- Paradise Valley Community College opened a \$17.4 million, 35,000 square-foot life-sciences building, enabling the college to double its biosciences course offerings and begin teaching anatomy courses that include cadaver dissection.
- NAUTeach, a program at Northern Arizona University to steer math and science majors into K-12 education, began its second year with a full introductory class of 68 students--and fifty more on the waiting list.