

Arizona Biomedical Research Commission

REPORT HIGHLIGHTS performance audit

Subject

The Commission was created in 1984 to provide monies for research on the causes and prevention of diseases and the development of new drugs. Some of the research subjects have included Alzheimer's Disease, Parkinson's Disease, cancer, and the West Nile Virus.

Our Conclusion

Commission-funded research appears to benefit Arizona in several ways: it brings millions of additional research dollars into the State, and some of this research focuses on diseases affecting Arizonans such as sun-induced skin cancer and Valley Fever. However, the Commission should gather and report more information on these projects including the number of patents obtained and the number of jobs funded.



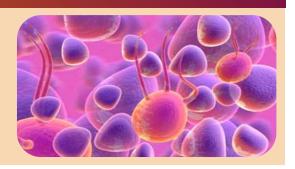
Commission-funded research has positive impacts; should be better documented and reported

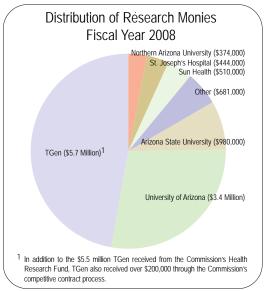
In fiscal year 2008 the Arizona Biomedical Research Commission (Commission) awarded, through a competitive process, \$6.6 million for 75 new and ongoing biomedical research contracts. In addition, the Commission provided over \$5.5 million to the Translational Genomics Research Institute (TGen), a private nonprofit organization performing advanced translational genomics research. The money for these contracts comes from tobacco taxes and the Lottery.

The textbox below describes an example of a commission-funded research project.

Scorpion Antivenom Project Fiscal Years 2006 through 2008 Contract Total \$540,553

This project initially began in 2000 when the Arizona producer of scorpion antivenom retired and experts reported that the State would run out of the antivenom in the next 5 years. Beginning in fiscal year 2005, the Legislature appropriated \$150,000 annually to distribute antivenom donated by a pharmaceutical company in Mexico. The University of Arizona first received commission funding in 2006 to conduct the clinical tests needed to obtain the federal Food and Drug Administration's approval for the donated antivenom, and to create a video protocol to train physicians to diagnose and treat patients with scorpion stings.





Positive impacts of commission-funded projects—We reviewed a randomly selected sample of 27 commission-funded projects as well as other commission information, such as annual reports and patent data, and identified a number of positive impacts, including:

- A focus on special Arizona populations or needs—Subjects of commission-funded projects included Valley Fever, cures using desert plants, scorpion antivenom, suninduced skin cancer, and incidences of rheumatoid arthritis in Tucson.
- **Patents**—Commission-funded research discoveries led to eight patents, including one for a compound that inhibits cancer tumor growth.
- Additional research monies received— Researchers used small commission contracts to gather the preliminary data needed to apply for larger grants. Sixteen of the 27 projects we reviewed received additional grants totaling over \$19 million.

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- Jobs funded—Commission contracts provided full funding for 23 positions and partial funding for 80 positions in the 27 projects we reviewed.
- Translational research—Commissionfunded projects include translational research, which helps convert basic research into products that directly affect patient care (see Scorpion Antivenom Project, pg.1). According to the Commission, this research is often underfunded. About 20 percent of fiscal year 2007's commission-funded projects were translational research.
- **Project collaboration**—The Commission says collaboration among researchers is an important way to increase the efficiency of research. The National Institutes of Health (NIH) also encourages collaboration. Of the 27 projects we reviewed, 22 involved collaboration.
- Publications and presentations—The 27 projects we reviewed resulted in at least 107 publications and 25 presentations.

Some impact measures only partially collected; most not

reported—Although we were able to identify a number of positive impacts from commissionfunded projects, many of these impacts are not fully collected and/or reported by the Commission, As shown in the table. there is a wider range of measures the Commission could be collecting and reporting.

Commission should require and report impact information on TGen—The

Commission provides \$5.5 million per year to TGen for operating expenses. Without this funding, TGen believes that it would not have the money to compete for and receive NIH and other grants.

The TGen contract requires TGen to report on the number of patents applied for and granted, the number of spin-offs (a new company created from a research discovery), and other information. Although the Commission receives information on TGen's activities in a variety of ways, TGen only partially reports this information in its annual report to the Commission. To bring TGen's reporting in line with other commission-funded projects, the Commission should ensure that TGen reports other impacts such as the number and types of jobs created, collaborations, and projects focused on Arizona-specific populations or needs.

Types of Information Collected and Reported For Commission-Funded Projects Fiscal Years 2001 through 2007

Type of Information Number of patents	Was Information Collected? Partial	Was Information Reported? No
Additional research monies		
received from other sources	Partial	No
Number of publications	Yes	Yes
Number of presentations	Partial	Partial
Project relevance to Arizona	Yes	No
Number of collaborative projects	Yes	No
Number and types of jobs funded Number of projects involving	Yes	No
translational research	Yes	Yes

Recommendations

The Commission should:

- Take steps to collect and report more complete information on the impacts of commission-funded research, including the number of patents, presentations given, collaborations, and the number and types of jobs created.
- Ensure that TGen reports all required research impacts in its annual report.

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