

## **EXECUTIVE SUMMARY**

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**ITEM NAME: Research Contracts with Raytheon, Stanford Research Institute (SRI) International, and the Arizona Early Childhood Development and Health Board (AZECDHB) (UA)**

Action Item       Discussion Item       Information Item

**Issue:** The University of Arizona requests approval of research contracts from Raytheon, SRI International and AZECDHB.

### **Background:**

#### **Raytheon Contract**

- The purpose of this effort is to support the “Non-Ionizing Radiation Exposure and Pacemaker/Defibrillator Function” project. Protecting the American public from terrorist acts is an ongoing process. Raytheon is developing technology that could help protect our nation’s airports from shoulder-fired missiles using electromagnetic fields. If funded, we would work with Raytheon to identify the effects of specific energy levels of these fields on implanted pacemaker function. This proposed research will involve testing of these cardiac devices both in saline solution and in animal models. This testing will help to make sure that the levels of the energy fields do not pose a danger to the general public.
- The Project Director is Jefferey Burgess of the University’s Division of Community and Environmental Policy.
- The proposed amount is \$1,072,773 for the first year of the project with a total anticipated funding amount of \$1,072,773 for the life of the project.
- The proposed contract period is January 1, 2009, through December 31, 2009. The total grant amount is \$1,072,773.

#### **Stanford Research Institute (SRI) International Contract**

- The purpose of this effort is to support the “Modular Architecture for Bootstrap Learning Experiments” (MABLE) project. MABLE is an integrated system for learning from natural instruction. By natural instruction we mean all the modes

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## **EXECUTIVE SUMMARY**

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of instruction employed by ordinary people, such as showing examples, demonstrating, giving feedback, and explaining. Artificial intelligence methods have been developed to learn from all these kinds of instruction, but never in an integrated, continuously operating system. The University's role in this project is to develop novel methods for "learning by noticing," which means learning things the instructor did not try to teach explicitly but are worth learning. For example, children learn language "by noticing," with very little explicit instruction from adults. MABLE is sponsored by the Defense Advanced Research Projects Agency (DARPA) of the U.S. Department of Defense. The University of Arizona participants are Professors Paul Cohen, Clayton Morrison and Ian Fasel, of the Department of Computer Science.

- The Project Director is Paul Cohen of the University's Department of Computer Science.
- The proposed amount is \$1,796,061 for the first year of the project with a total anticipated funding amount of \$3,609,143 for the life of the project.
- The proposed contract period is February 1, 2009, through January 31, 2011. The total grant amount is \$3,609,143.

### **Arizona Early Childhood Development & Health Board (AZECDHB) Contract**

- The purpose of this effort is to support the "First Things First Evaluation" project. The overall goal of Arizona's First Things First (FTF) ballot initiative passed in 2006 and the newly formed Arizona Early Childhood Development and Health Board (AZECDHB) is the creation of a comprehensive, coordinated system of services for Arizona's young children, birth through age five, such that they enter school healthy and ready to learn. In order to monitor the progress of this statewide early childhood effort, a consortium of researchers from the three state universities, lead by The University of Arizona, will assess the ensuing outcomes for young children, birth to age five, across areas of health, education, and social and emotional well-being.
- The initial, eight-year evaluation design involves several components. First of all, a longitudinal evaluation of groups of infant, preschool and kindergarten children will be conducted to assess the proportional impacts of FTF interventions and services during the preschool years and on into elementary school. Secondly, there will be a yearly, cross-sectional evaluation of kindergarten children to monitor whether young children are becoming healthier and better prepared for school as a result of the early childhood system the state has put into place. Thirdly, the consortium will create a

## **EXECUTIVE SUMMARY**

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comprehensive Geographical Information System (GIS), which will map the various outcomes by specific regions across the state.

- In addition, a major contribution of the evaluation consortium will be the creation of the Arizona Early Childhood Institute (AzECI) housed at UA which will serve as a coordinating hub for the evaluation as well as a state and national research center on issues regarding the overall well-being of young children and their families. Finally, the evaluation effort will also assist the state of Arizona in building an early care and education system by developing and maintaining a close, cooperative and coordinated relationship with policy makers and state agencies serving young children, professional early childhood organizations, parent advocacy groups, early childhood providers and local schools, all of whom play important roles in ensuring overall system success.
- The Project Director is Ronald Marx of the University's College of Education.
- The proposed amount is \$2,063,426 for the first year of the project with a total anticipated funding amount of \$27,127,363 for the life of the project.
- The proposed contract period is January 1, 2009, through December 31, 2013. The total grant amount is \$27,127,363.

### **Statutory/Policy Requirements:**

Pursuant to Board Policy 3-203(B), Research and Public Service Agreements, ABOR approval is required for any new agreements in excess of \$1 million and continuation of existing agreements involving more than \$1.5 million.

### **Recommendation to the Board:**

RESOLVED: That the contracts with Raytheon, Stanford Research Institute International, and the Arizona Early Childhood Development and Health Board as submitted by The University of Arizona be, and hereby are, approved.