

**STATE BUDGET COMMITTEE MEETING MINUTES
February 13, 2006**

MEMBERS:

Senator Robert Meeks, Chairman
Representative Jeffrey K. Espich
Senator Vi Simpson
Representative William C. Cochran
Charles E. Schalliol, State Budget Director

ALTERNATE MEMBERS:

Senator Thomas Wyss
Representative Lawrence Buell
Senator Lindel O. Hume
Representative Dennis Avery

The State Budget Committee members independently considered the following review items on February 13, 2006.

REVIEW ITEMS:


<u>Indiana Economic Development Corporation (260)</u>	\$6,132,025
Indiana 21 st Century Research and Technology Fund	

The projects listed below are current award recommendations based on positive external peer reviews, and further review by the Indiana Economic Development Corporation Board.

- ZOOM Information Systems, Fort Wayne
- AirVoyance, Kokomo
- Candent Technologies, Inc., Indianapolis
- BioVitesse, Inc., West Lafayette
- Purdue University: *Multiplexed Biomarker Assays on the BioCD* (Nolte) (QuadraSpec)
- Semafore Pharmaceuticals, Indianapolis

These projects all have near-term (1-3 year) commercialization/venture capitalization goals, substantial upside development and jobs growth potential.

Pursuant to the provisions of IC 4-12-1 and IC 5-28-16, the State Budget Committee recommends approval of these projects.



Senator Robert Meeks, Chairman



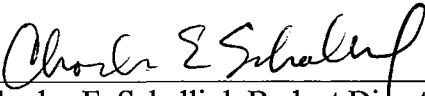
Representative Jeffrey K. Espich



Senator Vi Simpson



Representative William C. Cochran



Charles E. Schalliol, Budget Director

SUMMARY OF CURRENT AWARD RECOMMENDATIONS TO THE INDIANA STATE BUDGET COMMITTEE

Indiana 21st Century Research and Technology Fund
Indiana Economic Development Corporation

The projects listed below are current award recommendations based on positive external peer reviews, and further review by the IEDC Board.

- These projects total: \$6,132,025
- Previously approved by the IEDC Board and the State Budget Committee were SBIR matching awards
(Total of such awards: 43, involving commitment of somewhat less than \$4,300,000)
- Including these SBIR matching awards, the 21st Century Fund will have committed somewhat less than 28% of appropriated funds for this fiscal year (ending June 30, 2006).
- ALL of these recommended awards target the needs of emerging or developing small businesses. 5/6 of these awards are directly to small companies; 1/6 awards is to an academic institution specifically supporting the commercialization objectives of a small business.
- All have near-term (1-3 year) commercialization/venture capitalization goals
- All have substantial upside development and jobs growth potential.

Categories of the awards:

Informatics/IT/Wireless

Zoom

Airvoyance

Engine Design/manufacturing

Candent

Life Sciences

Bioanalytical

Biovitesse

Purdue (Nolte)

Pharmaceuticals

Semafore

- The Indiana academic sector is involved in 4/6 of these awards:

Taylor University (Airvoyance)

Purdue University (Nolte, Biovitesse)

Indiana University School of Medicine (Semafore)

- The Candent award leverages a federal Phase II SBIR award
- The award to Zoom leverages an earlier 21st Century Fund award
- The awards to Candent, Biovitesse, and Semafore leverage previous SBIR matching awards by the 21st Century Fund

Semafore Pharmaceuticals

Indianapolis, IN

\$2,267,700

SF1126 IND Project

Moves a new drug candidate into initial clinical trials. This award affects the evolution of a potentially large-scale pharmaceutical company. Investment at this point is essential to facilitate movement of Semafore into the larger venture markets.

These funds will be devoted entirely to defraying the costs of clinical trials. Completion of these trials will position Semafore to enter equity markets for further product development funding.

Semafore Pharmaceuticals has developed a pro-drug delivery system based on a potent PI3K inhibitor, SF1126. This drug platform permits drug targeting to the neovasculature of tumors at relatively high concentrations, and has broad potential applications for cancer chemotherapy. However, the critical initial test of the value of SF1126 involves entering clinical human trials. Semafore requires support from the 21st Century Fund to carry out these trials. Positive results will make Semafore an attractive candidate for venture funding. Semafore has an experienced management team, including Ron Henricksen and Joe Garlich.

Review:

We have obtained a review from an outside expert which characterizes the technical issues involved in a decision to provide State support for early clinical trials of SF1126. As the reviewer notes: "there will be no value in the agent [SF1126] unless it does reach clinical testing." In fact, the attractiveness of Semafore for venture investment will likely depend on this early clinical testing.

IEDC Business Review:

Further business review included discussions with Semafore senior management and with persons familiar with Semafore and its base technologies.

IEDC Board Considerations:

Board members noted that such important regulatory milestones are not funded by the venture community, and such well-defined risks are best managed by the State.

Approval of this award was moved, seconded, and passed unanimously.

ZOOM Information Systems

Ft. Wayne, IN

\$1,250,000

Commercialization of Zoom Real-Time Transportation Infrastructure Information System

This award extends the basic software infrastructure, developed through a previous 21 Fund award, to commercial application in selected application areas. Successful implementation will lead to first-in-market status in several important markets.

ZOOM has for several years focused on development of an Automated Real-Time Transportation Information System (ARTIIS)—a framework for collection, analysis, and distribution of real-time transportation information. Potential markets for such a system include: transportation fleet management, real-time assessment of road and other infrastructure condition, and identification

and management of Homeland Security events. Entry into these markets, and growth of ZOOM, is contingent upon ZOOM's demonstration of application-specific integration of their underlying ARTIIS software system.

Review:

Based on comments by two external reviewers, and on additional business development review by IEDC staff, 21 Fund staff recommends an award of \$1,250,000 to ZOOM Information Systems in support of commercialization of the ARTIIS software/informatics platform in several applications areas, including real-time fleet management and civil infrastructure status assessment. This award extends the basic software infrastructure, developed through a previous 21 Fund award to ZOOM, to commercial application in selected application areas. Successful implementation will lead to first-in-market status in several important markets.

ZOOM is at a critical juncture. Its business success now depends on rapidly developing valuable domain-specific applications of its generic software/informatics platform. Until this is accomplished ZOOM will be viewed as a high-risk activity by the venture and other financial markets. This award provides ZOOM with the tools needed to demonstrate its worth in the marketplace.

IEDC Business Review:

Further IEDC business review included discussion with potential trucking industry end-users.

IEDC Board Considerations:

Board discussion centered around the nature of the 'product' under development. 21 Fund staff noted that past 21 Fund support aided Zoom's development of a general transportation informatics platform, and that this award supported the commercial implementation of this platform technology in the transportation sector.

Board discussion also focused on the further development of this company in Indiana, and the scale of its potential jobs creation upside.

Approval of this award was moved, seconded, and passed unanimously.

Candent Technologies, Inc.

Indianapolis, IN

\$730,000

Title: SBIR Phase II Match: Advanced High Pressure Ratio Low Cost Turbine Engine

This award broadens a federal SBIR phase II project to develop an innovative low cost, small turbine engine suitable for a wide range of commercial and military applications.

Candent is engaged in the design and development of high performance, low cost, small gas turbine engines. Previously, Candent was awarded a US Army SBIR Phase I contract and received a 21st Century Fund match. This Phase II project completes the design of the engine, assembly of a prototype, and leads to a brief demonstration test. The Phase II match supports the development and demonstration of the technology, as well as acquisition of needed test hardware. This match will also make Candent eligible for US Army Phase IIb additional funds (\$500,000).

The success of the Phase II project is important to Candent's overall business development strategy. 21 Fund and IEDC staff recommends a matching award of \$730,000 to enhance the likelihood of successful Phase II outcomes.

Review:

An expert external reviewer identifies this proposal as very innovative. The importance of the described product is noted, as well as the challenges in reaching the functional prototype stage. The project time-line is considered to be very ambitious, making the undertaking technically risky. However, the applicants are well-qualified for the effort. As the applicants suggest, the business development plans depend critically on the creation of a functioning prototype engine.

IEDC Business Review:

IEDC noted that success is by no means certain, but SBIR reviewers and our own external reviewer feel that the project has high intrinsic merit. This technology development risk is appropriately shared by the 21st Century Fund.

IEDC Board Consideration:

Board discussion centered on the issue of where successful turbine designs would be commercially developed. It was noted that the central Indiana environment was favorable to further local development of such engines.

Approval of this award was moved, seconded, and passed unanimously.

AirVoyance

Kokomo, IN

\$180,000

Title: Wireless Sensors on Semi Trailers

This award supports creation of wireless prototype software and devices for management of mobile resources in the transportation industry. This is a critical award to a company that has carefully blended essential technologies into what may become a compelling business case.

Airvoyance creates hardware, software, and communications technologies supporting the tracking and management of semi trailers. This is an important unmet need of the trucking and fleet operations communities. Airvoyance seeks early adopter advantages. This award supports the rapid evolution of their product prototypes, rather than simply early stage commercialization, which is underway. This award supports, in addition to Airvoyance, another small company (spun-off from Taylor University) Datalite as well as research by a talented group at Taylor University.

Review:

We have obtained a review from an outside expert in the types of wireless technologies under development by Airvoyance. This review was strongly positive, calling the project excellent. The reviewer notes the combination of deep knowledge of logistics in the trucking industry, expertise in software engineering, and understanding of wireless technology. The crucial issue of timing of entry into this market is central to this review.

IEDC Business Review:

Our reviewer further notes that this award will provide the essential bridge for Airvoyance to appropriate stages of venture capital funding. Discussions with elements of the Indiana venture community resulted in strongly positive recommendations.

IEDC Board Considerations:

It was favorably noted that the project involves a talented group at Taylor University, as well as a Taylor University spin-off company.

Approval of this award was moved, seconded, and passed unanimously.

BioVitesse, Inc.

West Lafayette, IN

\$1,300,000

Title: Rapid Detection and Identification of Live Bacteria

Development of 'in-line process monitoring for live bacteria detection' in support of the multi-billion dollar pharmaceutical in-process and food safety markets. This award supports further prototype development and testing. BioVitesse intends to manufacture bacterial detection devices in Indiana.

BioVitesse is a California company, with development centers in California and Indiana. Its project to develop 'in-line process monitoring for live bacteria detection' has been located entirely in Indiana, has engaged Purdue faculty and facilities, and has involved Indiana small companies in its prototyping efforts. BioVitesse intends to continue to develop its Indiana presence and to manufacture its microbiological devices using Indiana facilities.

Laila R. Razouk, PhD is the President and CEO of BioVitesse. She has close ties with Indiana and Purdue; sits on the Board of Purdue's Discovery Park, and spends at least one week each month in West Lafayette. Rashid Bashir, PhD, a Purdue faculty member, is the VP of Development; and Michael Ladisch, PhD, a Purdue faculty member, is a co-founder, along with Drs. Bashir and Razouk.

Review:

Five reviews were obtained, concluding that the 'platform technology' to be developed is well-worth supporting and developing. Review singled out Dr. Bashir's outstanding credentials for guiding this work. This project will bring a unique combination of superior technology, accomplished researchers, and strong business talents together to approach a large potential market.

Business Review:

BioVitesse provided a comprehensive business plan, which was acceptable to the IEDC.

IEDC Board Considerations:

Board discussion included recognition that this company's development has been supported by funds imported from California, federal sources, and a 21st Century Fund SBIR matching award.

While BioVitesse's intention of continue development work and manufacturing in Indiana was noted, issues surrounding the retention of such companies in Indiana were discussed.

Approval of this award was moved, seconded, and passed unanimously.

Purdue University

West Lafayette, IN

\$404,325

Title: Multiplexed Biomarker Assays on the BioCD

This award supports basic and applied technology micro-electromechanical and nanotechnology development in support of product development in QuadraSpec, a rapidly growing start-up, located in the Purdue Research Park.

Review:

Two reviewers skilled in analytical chemistry and in nano/micro scale technologies commented on this proposal. They found the project to be an innovative and elegant approach to development of high-density microarrays which will lead to high-capacity, cheap, easy-to-use instruments (QuadraSpec, Inc.). Importantly, no protein labeling is required. The project's goal of high-capacity assay development is challenging, but has high probability of success. (This is the major focus of the project). Strong preliminary results are presented.

IEDC Business Review:

The market potential is quite large. The budget is reasonable—with the majority of costs attributed to personnel. The technology is protected by a 2004 patent to Purdue and licensed to QuadraSpec.

An oncologist was consulted about the utility of such high throughput assays. This person agreed with the technical reviewers, that this was a potentially disruptive technology with important clinical applications.

IEDC Board Considerations:

The impact of the BioCD technology in a range of commercial areas was discussed. The importance of continuing to further enhance the capabilities of this platform was recognized, as well as the close ties of IP generated in the Nolte laboratory to the development of QuadraSpec, a rapidly growing company in the Purdue Research Park.

Approval of this award was moved, seconded, and passed unanimously.



STATE OF INDIANA
OFFICE OF THE GOVERNOR
State House, Second Floor
Indianapolis, Indiana 46204

Mitchell E. Daniels, Jr.
Governor

Bond Approval Certification
For
Higher Education Projects Pursuant to IC 20-12

To: Chair, State Budget Committee
From: Governor of Indiana
Re: Approval of Bond Issuances from State Budget Committee Meetings
Minutes from: February 2006
Date: 2/13/2006

Dear Chairman Meeks:

In accordance with statute, I am required to approve the bond issuances certified to me by the State Budget Committee for certain projects related to higher education. As such, pursuant to IC 20-12, I hereby approve the bond issuances for the related university projects approved in the above referenced State Budget Committee Meeting Minutes.

Signed:


Mitchell E. Daniels, Jr.
Governor