UNIVERSITY OF VIRGINIA
BOARD OF VISITORS
MEETING OF THE
EDUCATIONAL POLICY COMMITTEE
April 5, 2003

EDUCATIONAL POLICY COMMITTEE

Saturday, April 5, 2003
8:30 – 9:15 a.m.
Board Room, The Rotunda

AGENDA

UNIVERSITY OF VIRGINIA
BOARD OF VISITORS AGENDA ITEM SUMMARY

BOARD MEETING: April 5, 2003

COMMITTEE: Educational Policy

AGENDA ITEM: I.A. New Degree Program: Bachelor of Science (B.S.) in Biomedical Engineering, School of Engineering and Applied Science

BACKGROUND: The School of Engineering and Applied Science proposes to establish the Bachelor of Science (B.S.) Degree in Biomedical Engineering.

Biomedical Engineering (BME) is a dynamic field that uses engineering expertise and technologies to analyze and solve problems in biology and medicine, resulting in an overall enhancement of health care. Students trained in biomedical engineering are in great demand for jobs in research and development, and in teaching. The Department of Biomedical Engineering at the University was founded more than 30 years ago and has offered graduate degrees since 1967. Over the past four years, the department has developed undergraduate courses to serve student demand for an undergraduate minor; to date, there have been 280 students who have pursued minors.

Several factors now prompt the School of Engineering and Applied Science to propose a B.S. degree in Biomedical Engineering. These factors include: 1) the evolution of knowledge in biology, coupled with the ability to perform quantitative engineering work in basic discovery and practical applications in biology and medicine; 2) increased student demand for a BME major; and 3) a rapidly growing set of industrial and private sector opportunities for graduates. Moreover, the Department and School believe that it is time for the University to play a role in defining the future of the discipline. Currently ranked 13th out of about 85 programs in the country, the Biomedical Engineering Department at the University is the last of the top 15 departments in the country to introduce a B.S. degree. Each year the University loses top students to Johns Hopkins University and Duke University because of the lack of a BME major.

The one existing BME program in the Commonwealth (at Virginia Commonwealth University) is a small program that organizes its academic program into technical tracks, such as embedded microprocessors for nerve control, artificial tissues, rehabilitation engineering, and biomaterials. The University's proposed program instead will focus on the cardiovascular system, cell and molecular biomechanics, and medical imaging and also will allow a more customized approach to biomedical engineering education.

DISCUSSION: The proposed Bachelor of Science degree in Biomedical Engineering will be developed as a "spin-off" degree from the undergraduate minor program that is currently offered in the School of Engineering and Applied Science. The new major is designed to imbue students with an understanding of the ways in which engineering knowledge can be harnessed and used to understand the components of complex biological systems, resulting in better understanding, diagnosis, and treatment of disease. The aims of the program are to: a) give students an early, sound underpinning in the life sciences; b) stress elements of design and problem formulation skills throughout the program; c) teach engineering fundamentals with rigor and in the context of BME examples in systems analysis and biomechanics/transport; and d) guide students to additional breadth and depth in bioengineering elective coursework and other engineering electives.

The near term fiscal impact of the new undergraduate degree in Biomedical Engineering is minimal. The majority of the courses are offered already in the School, and no new faculty members are needed to offer the major program. Modest costs to develop courses or support undergraduate research will be supported by private funding from the Whitaker Foundation and other private sources. It is anticipated that this degree will be approved readily by the State Council of Higher Education because it draws on existing courses and faculty, does not require additional state funding, and is not duplicative of similar programs in the Commonwealth.

The School of Engineering and Applied Science faculty approved the proposal in January, and the Faculty Senate approved the degree in February.

All new degrees must be approved by the Board before they can be forwarded to the State Council of Higher Education for Virginia for its approval.

ACTION REQUIRED: Approval by the Educational Policy Committee and by the Board of Visitors

APPROVAL TO OFFER A NEW DEGREE PROGRAM: BACHELOR OF SCIENCE (B.S.) IN BIOMEDICAL ENGINERING IN THE SCHOOL OF ENGINEERING AND APPLIED SCIENCE

RESOLVED that, subject to approval by the State Council of Higher Education for Virginia, the Bachelor of Science (B.S.) in Biomedical Engineering be established in the School of Engineering and Applied Science.

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UNIVERSITY OF VIRGINIA
FISCAL IMPACT STATEMENT

PROJECT/PROPOSED BOARD OF VISITORS ACTION: **Creation of a new Bachelor of Science degree in Biomedical Engineering.**

DESCRIPTION: **The School of Engineering and Applied Science seeks to create a new degree in Biomedical Engineering to promote advanced research and knowledge in this important, emerging field and to respond to student interest and employer demand for such education. This degree will leverage existing strengths and resources of the University in the related engineering and medical sciences. It is hoped that the proposed strategy to introduce this new program will better enable the University to enhance its stature within the community of this discipline. The University's Biomedical Engineering degree program will not duplicate other offerings within the Commonwealth.**

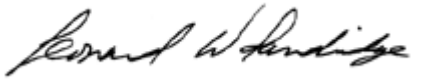
FISCAL IMPACT: **The University already offers a minor in biomedical engineering, thus the implementation of a full degree program will not represent a major commitment or redeployment of resources. Approximately four to six complementary classes will be added to the existing course offerings to create the Bachelor of Science in Biomedical Engineering. This growth will utilize the addition of three new faculty of varying classification – probably one junior and two senior positions. These new positions will cost around $420,000 annually in salary expense (this figure includes fringes). School administrators point out that these faculty additions will likely occur irrespective of the approval for the new degree. Funding will come initially from the $10.5 million Whitaker Foundation grant, which runs through 2006. This award has already provided resources of $7.5 million for MR5 and $3.0 million for Biomedical Engineering toward the proposed faculty hires. An additional $2.0 million is possible from this foundation after 2005. At the conclusion of the grant period, the School of Engineering and Applied Science will assume responsibility for these new positions by committing three retirement lines to this purpose.**

The School does not envision any other significant fiscal impact. The additional faculty positions may necessitate incremental staff support, but this will be funded by new external funding should the need arise.

If the program grows more rapidly, thus affecting the timing and need for staff support, then the School will reconsider its options at the appropriate time. The move to implement a full degree program does not mandate a need for supplementary laboratory space that is not already dedicated to, or under development for, the Biomedical Engineering program as it currently exists. The Dean of the School of Engineering and Applied Science will provide $3,000 in OTPS funds from his budget to support this new degree.

CONCLUSION: The Board should approve the creation of the new Bachelor of Science degree in Biomedical Engineering.

RECOMMEND APPROVAL OF BOARD ACTION:



Leonard W. Sandridge
April 5, 2003

UNIVERSITY OF VIRGINIA
BOARD OF VISITORS AGENDA ITEM SUMMARY

BOARD MEETING: April 5, 2003

COMMITTEE: Educational Policy

AGENDA ITEM: I.B. Conflict of Interest Exemption (CaseNex, LLC)

BACKGROUND: The University of Virginia is negotiating a contract with CaseNEX, LLC, a Virginia limited liability company organized on August 17, 2000, to perform research on cases used as evaluation devices. CaseNEX, LLC, which offers professional development courses for educators using the case method, has obtained funding under the Small Business Innovative Research (SBIR) grant program and proposes to subcontract additional research at the University of Virginia. This SBIR contract will leverage additional funding from the Center for Innovative Technology.

DISCUSSION: Two University faculty members, Mr. Robert F. McNergney and Ms. Joanne M. McNergney, have 64.7% equity in CaseNEX, LLC. Under the Virginia Conflict of Interests Act, a University contract with CaseNEX, LLC, would place both in violation of the Act, unless the Board of Visitors approves the conflict created by this equity interest. State law grants such approval authority to the Board in the case of sponsored research, in order to allow research furthering the public interest.

Virginia law and University of Virginia policy will require Mr. McNergney and Ms. McNergney to file annual disclosure statements of their economic interests in the company. Neither will be involved in the University negotiation, approval, or procurement of contract terms with CaseNEX, LLC. The chair of the Department of Educational Leadership, Foundations and Policy will review the transactions for all funds expended on the CaseNEX project to ensure that the continuing best interests of the University are served.

ACTION REQUIRED: Approval by the Educational Policy Committee and by the Board of Visitors

CONFLICT OF INTEREST EXEMPTION (CASENEX, LLC)

WHEREAS, the University of Virginia wishes to enter into a research contract with CaseNEX, LLC, to perform research on cases used as evaluation devices; and

WHEREAS, Mr. Robert F. McNergney and Ms. Joanne M. McNergney have disclosed in advance that their equity in CaseNEX, LLC, exceeds 3%; and

WHEREAS, the University of Virginia's entry into a research agreement with CaseNEX, LLC, would expose Mr. McNergney and Ms. McNergney to violation of the Virginia Conflict of Interests Act unless approved by the Board as permitted by §2.2-3106(c)(7) of the Code of Virginia;

RESOLVED that the conflicts of interest of Mr. Robert F. McNergney and Ms. Joanne M. McNergney are approved by the Board of Visitors in order to permit the University to enter into an agreement with CaseNEX, LLC, to perform research on cases used as evaluation devices; provided, as required by the law, Mr. McNergney and Ms. McNergney file the required annual disclosure statements of personal interests in CaseNEX, LLC, the University files the required annual report concerning the contracts with the Secretary of the Commonwealth, and chair of the Department of Educational Leadership, Foundations and Policy vigilantly oversees application of University resources in the best interests of the University and in accordance with policy.

UNIVERSITY OF VIRGINIA
FISCAL IMPACT STATEMENT

PROJECT/PROPOSED BOARD OF VISITORS ACTION: Approve a conflict of interest exemption for CaseNEX, LLC.

DESCRIPTION: CaseNEX, LLC, seeks to contract with the University of Virginia to perform research on cases used as evaluation devices. Two faculty members, Mr. Robert F. McNergney and Ms. Joanne M. McNergney, own collectively 64.7 percent of the company's equity. By law, proceeding with the proposed research contract would place these individuals in a conflict because of their personal interests in the venture, unless the Board of Visitors chooses to approve an exemption as the law permits in the case of sponsored research agreements. The University administration will provide appropriate oversight over the allocation of resources.

FISCAL IMPACT: CaseNEX, LLC, pays licensing fees to the Patent Foundation for its cases through royalties as a percentage of the company's income. Moreover, CaseNEX has obtained funding from the Small Business Innovative Research (SBIR) grant program. $15,000 of the funds obtained from SBIR will in turn be used to obtain $30,000 from the Center for Innovative Technology (CIT). These funds will flow directly to the University. This arrangement also promotes additional research and development efforts, as well as hoped for advances in the field consistent with the University's mission.

The University enjoys minimal exposure to unforeseen costs unless it fails to fulfill or ensure proper administrative oversight of these arrangements as prescribed in the resolution.

CONCLUSION: It is recommended that the Board approve the proposed conflict of interest exemption for CaseNEX, LLC.

RECOMMEND APPROVAL OF BOARD ACTION:

Leonard W. Sandridge
April 5, 2003

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UNIVERSITY OF VIRGINIA
BOARD OF VISITORS AGENDA ITEM SUMMARY

BOARD MEETING: April 5, 2003

COMMITTEE: Educational Policy

AGENDA ITEM: I.C. Conflict of Interest Exemption (Avaki Corporation)

BACKGROUND: The University of Virginia is negotiating contracts with Avaki Corporation, a Delaware Corporation, registered in Virginia on December 11, 2000. Avaki Corporation licenses grid-computing software based on technology developed here at the University of Virginia, which was sold to Avaki. Avaki Corporation proposed to license their current software to the University, at no charge, for our use in research on cluster computers, in return for which Avaki Corporation will be permitted to perform software testing during periods of low system utilization. This software will provide a more reliable computer platform for University of Virginia researchers than the software we presently have in place and will enable researchers to pursue better research on cluster computers.

DISCUSSION: One University faculty member, Mr. Andrew S. Grimshaw, has 7.6% equity in Avaki Corporation. Under the Virginia Conflict of Interests Act, a University contract with Avaki Corporation would place Mr. Grimshaw in violation of the Act, unless the Board of Visitors approves the conflict created by his equity interest. State law grants such approval authority to the Board in the case of sponsored research, in order to allow research furthering the public interest.

Virginia law and University of Virginia policy will require Mr. Grimshaw to file annual disclosure statements of his economic interests in the company. Mr. Grimshaw will not be involved in the University negotiation, approval, or procurement of contract terms with Avaki Corporation. The license agreement has been reviewed by the chair of the Department of Computer Science and the Office of the Dean of the School of Engineering and Applied Science. On the basis of the contract terms and provisions, it is their recommendation that a management strategy will not be required for this conflict. However, the chair of the Department of Computer Science will monitor the software license.

ACTION REQUIRED: Approval by the Educational Policy Committee and by the Board of Visitors

CONFLICT OF INTEREST EXEMPTION (AVAKI CORPORATION)

WHEREAS, the University of Virginia wishes to enter into a research contract with Avaki Corporation to conduct joint research with Avaki and to license grid-computing software for use in research by University faculty; and

WHEREAS, Mr. Andrew S. Grimshaw has disclosed in advance that his equity in Avaki Corporation exceeds 3%; and

WHEREAS, the University of Virginia's entry into a contract with Avaki Corporation would expose Mr. Grimshaw to violation of the Virginia Conflict of Interests Act unless approved by the Board as permitted by §2.2-3106(c) (7) of the Code of Virginia;

RESOLVED that the conflict of interest of Mr. Andrew S. Grimshaw is approved by the Board of Visitors in order to permit the University to enter into a research agreement with Avaki Corporation which includes a license of grid-computing software; provided, as required by the law, Mr. Grimshaw files the required annual disclosure statement of personal interests in Avaki Corporation, the University files the required annual report concerning the contracts with the Secretary of the Commonwealth, and the chair of the Department of Computer Science monitors the use of University resources connected with the contract in order to protect the interests of the University and to ensure compliance with policy.

UNIVERSITY OF VIRGINIA
FISCAL IMPACT STATEMENT

PROJECT/PROPOSED BOARD OF VISITORS ACTION: Approve a conflict of interest exemption for Avaki Corporation.

DESCRIPTION: The University of Virginia is negotiating contracts with Avaki Corporation to license grid-computing software based on technology developed here at the University. One faculty member, Mr. Andrew S. Grimshaw, has 7.6 percent equity in Avaki Corporation. By law, proceeding with the proposed venture would place this individual in a conflict because of his personal interests in the contract, unless the Board of Visitors chooses to approve an exemption as the law permits in the case of sponsored research agreements. The University administration will provide appropriate oversight over the allocation of resources.

FISCAL IMPACT: The University of Virginia Patent Foundation initially sold the patent rights to Avaki Corporation for $1.5 million in lieu of an on-going stream of royalty payments. The Patent Foundation also owns a modest equity stake in the company of approximately 1.2 percent on a fully diluted basis. The software developed by Avaki will be licensed back to the University at no cost in return for rights to perform testing, observation, and further development using the University's systems and resources.

The University enjoys minimal exposure to unforeseen costs unless it fails to fulfill or ensure proper administrative oversight of these arrangements as prescribed in the resolution.

The software will be very beneficial to the University and its mission to promote advanced research in computer science and technology.

CONCLUSION: It is recommended that the Board approve the proposed conflict of interest exemption for Avaki Corporation.

RECOMMEND APPROVAL OF BOARD ACTION:

Leonard W. Sandridge
April 5, 2003

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UNIVERSITY OF VIRGINIA
BOARD OF VISITORS AGENDA ITEM SUMMARY

BOARD MEETING: April 5, 2003

COMMITTEE: Educational Policy

AGENDA ITEM: II.A. Vice President's Remarks

ACTION REQUIRED: None

DISCUSSION: The Vice President and Provost will use this portion of the Educational Policy Committee to inform the Committee of recent events of which the Board should be made aware.

UNIVERSITY OF VIRGINIA
BOARD OF VISITORS AGENDA ITEM SUMMARY

BOARD MEETING: April 5, 2003

COMMITTEE: Educational Policy

AGENDA ITEM: II.B. Faculty Senate

ACTION REQUIRED: None

DISCUSSION: The Vice President and Provost will introduce the Chair of the Faculty Senate, Mr. Michael J. Smith, Associate Professor of Politics, who will give a report to the Board on the Senate's plans for Spring semester.