

**Department of Biomedical Engineering**  
***Biomedical Engineering Partnership Program***  
***Advisory Board Meeting Minutes***

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**Date:** October 21, 2004

**Location & Time:** Mercy Hospital; 9:00 am

**Industry Attendees \*:**

William M. Abraham – Mount Sinai Med Ctr	Margaret Kovacs – MCVI
Zachariah R. Bell – Langley Group *	Kenneth Lassiter - *
Michael Brown – Bioheart Inc. *	Howard J. Leonhardt – Bioheart, Inc. *
Michael Christie – Cordis Corp. *	Ernie Manzano – Scion Cardio-Vascular
Hank Collins – Cordis Corp. *	Joseph L. Mauro – Teragenix Inc. *
Ray Diaz – Scion Cardio Vascular	Mary Perry – SFBC International Develop.
Liz DiBernardo – Boston Scientific *	Leonard Pinchuk – Innovia
Raafat Fahim – Nabi Pharmaceuticals	Mark Pomeranz – Cordis Corp. *
Simon Fuger – Bolton Medical Inc. *	John Roche – IDEXX
Santiago Galvez – Beckman Coulter	Mel Rothberg – Viragen Inc. *
Roberta Goode – Goode Consulting International Inc.	Dozier Rowe – Boston Scientific *
Anterro A. Graham – Miami Dade College*	Stephen Rowland – Orbus Medical Tech Inc.
Pavan Handa – Noven Pharmaceuticals	Ann Salamone – Rochal Industries
Stuart Horowitz – Miami Children’s Hospital *	Ben Sardinas – Avisena Inc. *
Jeffrey L. Horstmyer – Mercy Hospital *	Hamid Shahrestani – Qualtech Solutions Inc. *
Prasanna Jayakar – Miami Children’s Hospital *	Josephine Shallo-Hoffman – Nova Southeastern Univ *
Oscar Jimenez – VasCon LLC	Steve Vadas - *
Yasushi Kato - *	Xiaodong Wu – Cyberknife Center of Miami
Barry T. Katzen – MCVI	Jack A. Ziffer – Baptist Health Systems
Diane N. King – Miami Dade College	

**BME/FIU Attendees:**

Ofer Amit – Biomedical Engineering  
Richard T. Schoephoerster – Biomedical Engineering  
Karym Urdaneta – Biomedical Engineering

**Minutes by:** Rosy Verona

Dr. Richard Schoephoerster welcomed and thanked all of the members for taking the time in working together to improve healthcare and economy in South Florida. In addition, thanks were given to Dr. Horstmyer and his staff and the FIU BME staff for putting this meeting together. Everyone introduced themselves.

John Matuska, the CEO of Mercy Hospital, gave an introduction of the hospital facilities and the type of equipment that they use. The hospital is looking at more involvement in clinical research. Mr. Matuska, from New Jersey, has been at Mercy Hospital for approximately 3 years. In addition, Mr. Matuska mentioned that UM has a very good Medical School but its affiliation is with Jackson Memorial Hospital. He believes that if FIU starts a Medical School, the quality in service level in our County will increase and believes that Mercy Hospital would take advantage of this partnership.

### **Agenda**

Dr. Schoephoerster set the motion to approve the agenda for today's meeting with a few modifications. All were in favor of the agenda.

### **Spring 2004 Meeting Minutes**

Dr. Schoephoerster set the motion to approve the minutes and all were in favor.

### **State of the Department**

Since the last Board Meeting, the BME PhD Program was approved and implemented. BME currently has an enrollment of 100 in the BS Program, 35 in the MS Program, and 10 in the PhD Program. In addition, two new faculty members have been added; Dr. Anuradha Godavarty and Dr. Wei-Chiang Lin (50% FIU and 50% Miami Children's Hospital). The quality of students continues to increase. Last year, the Biomedical Engineering Society received an award for the most active society in the College of Engineering. Furthermore, the BME department continues to build its research programs. For instance, Dr. Nikolaos Tsoukias received a prestigious AHA award; Dr. Eric Crumpler received an STTR with Nanomat; Dr. Schoephoerster and Dr. Pinchuk are working on Phase II Heart Valve project; Dr. Malek Adjouadi and Dr. Armando Barreto have received funding from NSF; Dr. James Byrne received an award for the safest lab in the university; and FIU received the Beacon Council Award for Education for work in Biomedical Engineering and Nursing at the university. Since BME has been focusing more on neuroengineering, this will be the topic for the BME Lecture Series this year, which is being led by Dr. Malek Adjouadi.

Some comments were given in reference to BME's partnerships with industry and clinicians. A discussion occurred on creating a more specific and programmatic method of partners to collaborate with each other. All agreed to put forth more effort on this.

## **Undergraduate Committee Report**

Dr. Michael Brown provided an updated report of the recommendations given from ABET Consultant Dr. K.B. Chandran on BME's Undergraduate Program. Program objectives serve as the expected accomplishments of a student after graduation. Program outcomes serve as the skills that students are expected to have during their education. BME is developing a metric that will chart the outcomes met in each course. One of the recommendations that the consultant suggested was to have a Sr. Design Project Presentation Day at the end of the year where the team's advisory board would be invited to serve as panelists for the presentations. These panelists would assess the student's ability to accomplish all of the outcomes within their project. In addition, discussions occurred in reference to the importance of ethics, professionalism, and intellectual property. BME will be focusing on ABET accreditation over the next year. A Self Study will be ready in about 6 months. The application for accreditation is due in June, 2005, and a site visit will occur a year from now. Your assistance with the site visit will be greatly appreciated. This will be discussed in more detail in the Spring Board Meeting.

## **Medical School**

Dr. Schoephoerster had given a presentation at a Lecture Series by the FIU Provost's Office. Some of the items reviewed were: the Impact of technology on society, Comparing causes of death, Changes in death rates, Information on studies from Brookings Institution Findings, NIH funding rank of top Biotech/Medical Tech cities, and South Florida's Action (adding 2 medical research facilities, additional biomedical research buildup, Global Entrepreneurship Center, Virtual incubator, Business Plan Competition, and Funding).

Jeffrey Horstmyer provided some general information on the plans for a Medical School at FIU. Dr. Tom Breslin began implementing the Medical School project about 8 years ago. The plan was developed in 1996 and in 1999 received half approval from the Board of Governors. Dr. Carlos Martini, VP of Medical School Accreditation in the US, came on board soon after. At that time, the budgets were refined and developed within the university and for our affiliate training centers. The model has been that the preclinical training would be at FIU and the clinical training would be at existing community hospitals (Baptist Hospital, Mercy Hospital, Mercy Hospital, and Mt. Sinai Hospital). A relationship has been developed with each of these hospitals by developing budgets for the clinical training programs and by including residency programs. The Medical School Proposal is currently with the Board of Governors for consideration. Some of the issues at hand are cost and a shortage of physicians.

Dr. Tom Breslin discussed the economic impact and the geographic location for a Medical School in South Florida since there is a shortage of doctors. If Floridians study locally, they end up practicing in Florida. Therefore, Dr. Breslin highly believes in training our own. South Florida's competition would be Central Florida; Orlando is the largest city in Florida without a Medical School.

Dr. Carlos Martini discussed the shortage in doctors and nurses. In order to improve this situation, Dr. Martini believes that residency programs need to increase and Medical Schools need to develop. This should keep local physicians and medical students in Florida.

Dr. Schoephoerster also feels that these issues are very important to BME; he believes that with the assistance of the board members, we can find ways to help with these political issues and with infrastructure availability.

Fall would be the time to communicate and push forward with this initiative, especially with the political issues. A Medical Program, Pre-Med Honors Program, and a Residency Program have been initiated. Dr. Schoephoerster asked for recommendations from the board members. A discussion occurred. Dr. Horstmyer suggested that all board members share contact information in order to keep each other informed on the progress. The Advisory Board Members will be used as a tool for communicating this initiative to the legislature.

Budget Committee meetings will be held in November. Dr. Breslin mentioned that the plan is to receive approval and the Board of Governor's Meeting and their legislature allies in December. A discussion occurred about concerns in the outcomes of the Board of Governors and legislature. A suggestion was made by those business leaders who are part of the Advisory Board could communicate the need for this type of institution by publishing in the newspaper or in other public media.

### **Wallace H. Coulter Grant Proposal**

This foundation is trying to make a major impact on Translational Biomedical Research through clinical implementation and commercialization. Therefore, the funds that BME has received are dedicated towards this type of research. In addition, BME has also dedicated these funds towards the Collaborative Technology Innovation Program (CTIP) and the Young Inventor Award Program (the newest program receiving funding). These programs continue to build up the infrastructure in research and in commercialization. Dr. Schoephoerster asked to put together a task force that will review these programs, which will also help BME in putting together a competitive Proposal to the Coulter Foundation. He also asked the board members whether BME should submit this proposal alone or to collaborate with UM since a community tie would sell better. The members of this task force are: Ofer Amit (leader), Zachariah Bell, Stuart Horowitz, Prasanna Jayakar, Howard Leonhardt, Wei-Chiang Lin, Len Pinchuk, Stephen Rowland, and Richard Schoephoerster.

### **NERAC**

Len Pinchuk described NERAC as a database system developed by NASA; a worldwide mainframe used to request article/abstract information. He suggested that for those that are interested in this type of system could get together and split the \$5,500 for unlimited use. If anyone is interested, contact Len Pinchuk.

## **FIU Career Services**

Helen Godfrey spoke about FIU's Career Services Program. Since most schools are tightly integrated with industry, FIU would like to give students the opportunity to intern at local companies. This will help solidify our relationship with companies involved. If anyone is interested, contact Helen Godfrey at FIU's College of Engineering.

## **Advanced Materials Engineering Research Institute**

Dr. Kinzy Jones, Director of the Advanced Materials Engineering Research Institute, gave a presentation on the type of research being done. Dr. Jones has been at FIU for 18 years, and prior to this he was employed at Cordis with Pacemaker Products. The Advanced Materials Engineering Research Institute's main focus is on nanotechnology and nanofabrication. Nanotechnology includes biology, physics, chemistry, and engineering. Dr. Jones began this effort approximately 1 ½ years ago with donations from Motorola and NEMS. His facility is a total of 10,000 sq ft. Partnership with the Institute is as follows: \$7,500/year future membership fees, in kind donation of equipment at three times the cash basis, or open facility access without membership at an industrial cost basis. Dr. Kinzy Jones may be contacted at: FIU – AMERI, 10555 West Flagler Street, Miami FL, 305-393-0506 (cell), 305-348-4663 (Carolyn-Administrative Assistant).

## **Biometrics: Supported Processes at Mercy**

Fernando Martinez, CIO/CTO of Mercy Hospital since March 2004, spoke about Biometrics Supported Processes at the hospital. Mercy Hospital has embraced Biometrics into initiatives for clinical informatics (digitized or automated clinical information). The hospital is in the process of installing the suite of clinical information systems. The goal is to bring automated point of care tools to all clinicians and caregivers (for medication administration, electronic charting & documentation, etc.). Some challenges deal with the areas of access control and security. For example, appliances are currently being installed that provide fingerprint access to the network.

## **CT Angiography & Carotid Artery Stenting**

Rafael Aponte-Lopez, Sr. Staff Neuroradiologist at Mercy Hospital, gave a presentation on CT Angiography & Carotid Artery Stenting. Ultrasounds have been used for screening patients, but the hospital is currently looking at CTA for this procedure. CTA provides a more detailed image of the patient. Mercy Hospital has two CTA scanners and 2 3D workstations that have been used since April of 2004.

## **Closing Remarks**

George Dambach, FIU's VP of Research, provided some closing remarks. He expressed his appreciation for everyone's attendance. The goal for FIU's Medical School is to partner with existing local hospitals. FIU has become a research university and has adopted research facilities. FIU's challenge is to work with industry and hospitals in partnership to build a strong community. Dr. Dambach looks forward to meeting all of the Advisory Board Members.

In conclusion, Dr. Schoephoerster introduced BME's faculty. The next Advisory Board Meeting will be held at Nova Southeastern University (Josephine Shallo-Hoffman).