

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

Date: March 29th, 2005

Location & Time: NOVA Southeastern University; 9:30 am

Industry Attendees *:

Zachariah R. Bell – Bell Ventures
Michael Christie – Cordis Corp.
Stephen Halpert – Solutions & Resources
Stuart Horowitz – Miami Children’s Hospital
Raj Pandey – HeartWare, Inc.
Zvi Roth – Florida Atlantic University
Ann Salamone – Rochal Industries
Doug Calder – Viragen
Jane Teague – Enterprise Development Corp

Leonard Pinchuk – Innovia
Mark Pomeranz – Cordis Corp.
Stephen Rowland – Orbus Medical Tech Inc.
Hamid Shahrestani – Qualtech Solutions Inc.
Josephine Shallo-Hoffman – NOVA Southeastern Univ
Franklin Garcia-Godoy – NOVA Southeastern Univ
Michael Wasserman – HIG Ventures
Raafat Fahim – Nabi Biopharmaceuticals
Anterro Graham – Miami Dade College
Joseph L. Mauro - Teragenix

BME/FIU Attendees:

Richard T. Schoephoerster – Department Chair
Ofer Amit – Program Director
Karym Urdaneta – Coordinator
Diana Del Rio – Vice President of BMES FIU Chapter

Minutes by: Karym Urdaneta

Dr. Richard Schoephoerster welcomed and thanked all of the members for taking the time in working together to improve the BME department and the education of future biomedical engineers. In addition, thanks were given to Dr. Shallo-Hoffman and her staff and the FIU BME staff for putting this meeting together. Everyone introduced themselves.

Agenda

Joe Mauro set the motion to approve the agenda for today's meeting with a few modifications. Ann Beal Salamone seconded it and all were in favor of the agenda.

Spring 2005 Meeting Minutes

Dr. Schoephoerster requested for someone to set a motion to approve the meeting minutes of the previous advisory board meeting. Stuart Horowitz set the motion to approve the minutes, Zach Bell seconded it and all were in favor.

State of the Department

Since the last Board Meeting, the number of students in the BME program has increased. There are approximately 120 undergraduates, 45 to 50 graduate students, and 10 Ph. D students currently enrolled in the BME program. It gives the department great pleasure to mention that out of the 56 students that were inducted into Tau Beta Pi Honors Society, 16 were BME undergraduate students. Favorable results were obtained from the qualifier exams that PhD students took over the summer. There were 8 Presidential Fellowships awarded to FIU students of multiple disciplines, 4 of which were earned by BME students. The department is also proud to announce that one of the undergraduate students belonging to the department's first graduating class has been hired by Busch and Lomb and considered to be a valuable addition to the corporation. Due to the demand and rapid growth of the department, Michael Brown has been employed as a BME instructor that will be focusing on the courses focused on biological systems and clinical rotations. Two members of the BME Advisory Board have been invited to be adjunct professors for the BME department: Hamid Shaharestani and Michael Christie.

The enrollment into engineering has slightly decreased, especially international students enrollment. The reason could possibly be due to the Patriot Act. Members of the board agreed with Dr. Pinchuk in his statement of considering engineering as the foundation to every successful career in all professions. Therefore, it is encouraged that providing internships to engineering students in other areas of the companies that are not related to engineering can be of great value.

Department Grant Proposal

RCMI

Research Centers in Minority Institutions (RCMI) approved the BME department's concept paper in preparation for a full proposal. The full proposal will be submitted on October of 2005 or February 2006. This a grant of \$ 10 million for a period of 5 years based on translational research in the field of cardiovascular and neural engineering. With this grant, the department can recruit senior faculty, expand research facilities, support tech

transfer, and increase core labs. Bill Murphy will be one of the department's core advisors in designing this proposal.

Wallace H. Coulter Foundation

The concept paper submitted by the BME department in preparation for a full proposal on translational research was denied. There were 83 applicants, which of those, 20 were invited to submit a full proposal. Between 8 to 10 schools that submitted proposals will be expected to get funding. None of these proposals come from a Floridian institution. The reason FIU-BME was declined is due to a lack of critical mass. This is the reason why the department extensively wishes to join forces with the University of Miami. Due to the unsuccessful attempts of UM's collaboration, Dr. Schoephoerster asked the members of the board to assist the department in this process.

Industry and Academic Collaboration for Bioscience Business Incubation

Due to the company's need of efficient facility and minimal access to resources, Joe Mauro from Teragenix initiated a discussion on industry and academic collaboration for Bioscience and asked the BME department and members of the board for suggestions and recommendations on this issue. Members of the board recommend that a company of this nature should be in or nearby a research park. There are differences between a research park and an incubator. SBIR was mentioned to be a good avenue to raise funds, enhance collaborations with the university, and access university resources.

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. It was concluded that Dr. George Dambach should be invited to rediscuss this issue at the next advisory board meeting.

ABET – Accreditation Board for Engineering and Technology

An open discussion was held in respect to the BME program's objective and outcomes and how the skills set the graduates have can be measured. The chair requested the board to collaborate in the design of the capstone of the Senior Design project because at this point many of the objectives and outcomes of the department are validated at this final project. The Technology Expo was mentioned to be a good opportunity for both students and people from industry. Students benefit by having the opportunity to demonstrate such skills that they have acquired through the BME program, market themselves to prospective employers; face the challenge of competing against their peers for a reward. In the meantime, people from industry have the opportunity to be involved in an academic activity as judges of the competition, network with multiple groups (students, faculty, researchers, and executives), and seek prospective to hire. Members of the board have agreed to participate in this activity and assist the department in marketing this event to other people from industry. The department has agreed that a critical project review and a detail evaluation by the faculty are important before exposing the students and their projects to industry at the competition. There should a first round of judging by faculty before a competition round of judging by industry.

In addition to the competition and the student's senior design projects, the board has agreed that an assessment should be held by the employer and the employee separately in order to evaluate the BME program and its graduates. The members suggested for the department to craft a questionnaire to the needs of the department and evaluate further the BME program.

Closing Remarks

George L. Hanbury II, Executive VP for Administration, closed the meeting introducing the future Medical Village at NSU. He claimed this next step will be providing new and better opportunities for the education of the next generation of doctors and other healthcare professionals to serve the community. The interaction between students, fellows, faculty, and physicians at the Medical Village will provide a stimulating clinical environment that positively impacts patient care and strengthens clinical decision-making. Dr. Hanbury invites FIU Department of Biomedical Engineering to collaborate with their institution in every way possible in promoting innovative and effective ways to deliver healthcare services to a culturally diverse population.