

ERC Annual Meeting
Bethesda, MD
November 29 – December 1, 2006

Summary prepared by Wassim Ghannoum.

Wednesday, Nov. 29

Student Retreat:

Organizers: U. Mass–Amherst CASA SLC (**Kathleen Rubin**, Co-Director for Education & Outreach and **Brian Donovan**, CASA SLC President)

- CASA SLC Introductions and Welcome
 - Welcome by Lynn Preston, NSF ERC Program Leader
 - Putting Your Degree to Work: Practical Career Strategies – **Peter Fiske**, V.P. Business Development, RAPT Industries
 - Discussed PhD alternate careers
 - Only a minority of PhD's continue in the classic route of PhD, Post Doc, Academic job
 - Reluctance for PhD students to switch careers due to feeling that their degree is wasted
 - PhD degrees open many opportunities that graduates should embrace
 - Roundtables: SLC Best Practices
- I sat with SLC members of at least 6 other ERC's mostly new ones
Told them about how our SLC works
Our SLC is doing wonderfully!! Few SLC's have as many activities or are as well organized.



Thursday, Nov. 30

THEME FOR THE DAY: Innovating and Educating in the Global Context

Plenary Session: NSF Session

- NSF & ERC Program Update – Lynn Preston
- Research Center Programs Worldwide: A Survey and Findings Relevant to ERCs – Bhavya Lal, Science & Technology Policy Institute
- Introducing the ERC on Mid-Infrared Technologies for Health and the Environment – Claire Gmachl, Center Director
- Flat World: The View from Asia – Vivek Paul, Partner, Texas Pacific Group (formerly President & CEO, Wipro Technologies)

Breakout Session I – Empowering Innovation and Creativity Building Entrepreneurial Leaders for the Global Environment

Co-moderators: Amr Elnashai (MAE) & Fred Lee (CPES)

Topics: Profile of the “Global Engineer”

Speakers: Gary Downey, Professor of S&T in Society, Va Tech; Michael Zhang, Dept. Mgr., Intel Platform Architecture Solutions Division, Shanghai; Michael Silevitch, CenSSIS; Michael McCorquodale, CTO, Mobius Microsystems

Lunch Key Speaker:

Speaker: Dr. William Haseltine, founder & ex-CEO of Human GenomeSciences, Inc., now setting up a virtual global pharmaceutical company

Building Companies with the World as Playing Field

Very inspiring autobiography targeted at students. It followed his path from chemistry student to global biotech company startups



Breakout Session II: Impact of Globalization on ERCs

New Communication and “Collaboratory” Technologies: Workshop with Demos

Moderator: Joy Pauschke, NSF

Speakers: Thomas Finholt, Univ. of Michigan, Sakai and web instrumentation;

Gerhard Klimeck and **Michael McLennan**, Network for Computational Nanotechnology, Purdue University, NanoHub

- First talk focused on SAKAI which is a new course management and research collaboration software being developed and its use as base in the MAE research exchange software MAEviz
- Second talk was about an online teaching tool for nanotechnology

Breakout Session III – Attracting Diverse Students to the Engineering Pathway

Creating Diverse Multicultural Teams to Enhance the Educational Experience

Co-moderators: Jorge Rocca (EUV) & Anthony Johnson (MIRTHE)

Topics: How to meld domestic and foreign students (including underrepresented groups) into diverse multicultural ERC teams, with cross-cultural mentoring, to improve assimilation of foreign students and retention in the U.S.

- Very animated debate with sobering statistics concerning the unbalance in minority and women recruitment and retention in engineering graduate studies
- Importance of minority and women role-models affect the recruitment and retention significantly
- Minority students tend to choose minority advisors
- Lack of critical mass of minority and women does not provide support network for these students
- International students are very numerous and provide their own support networks to survive graduate studies
- Efforts being made to reduce “clicking” among ethnic groups included creating a common space for all students to congregate

Friday, Dec 1

Plenary Session: *Moderator: Lynn Preston*

Student Retreat Reporting-out – Brian Donovan, President, CASA SLC

Introducing the ERC for Structured Organic Composites for Pharmaceutical, Nutraceutical, and Agrochemical Applications – Fernando Muzzio, Center Director

Introducing the ERC in Compact and Efficient Fluid Power – Kim Stelson, Center Director

Breakout Session IV — Cross-center Issues by Tech Cluster
Earthquake Engineering Centers Discussion Section –
Co-moderators: Jack Moehle (PEER) & Vilas Mujumdar, NSF PD

Members in attendance: Michel Bruneau (MCEER), Vilas, Mujumdar (NSF PD), Mary Poats (NSF), Andre Filiatrault (MCEER), Sofia Tangalos (MCEER), Jack Moehle (PEER), Greg Deierlein (PEER), Yousef Bozorgnia (PEER), Scott Ashford (PEER), Wassim Ghannoum (PEER), Darlene Wright (PEER), Amr Elnashai (MAE), Jerry Hajjar (MAE), Philiip Gould (MAE), and Sandra Menke (MAE), Kenneth Dean Mitchell (MAE).

Closing accounts at end of year 10: explanation by Vilas

Education directors of 3 centers are working on proposal to NSF to keep funding for all SLC's
Self-sufficiency of 3 centers:

MAE raised 4.2M dollars and have one year extra under NSF (w/o NSF funding)

MCEER has secured State funding for research as well as University funding for operations

PEER has state agency funding to continue operations and research

All centers will continue past year 10

ERC framework has been very useful especially in education