Research Initiatives

4/21/06 EAC Presentation

Victor M. Bright, PhD
Associate Dean for Research
College of Engineering and Applied Science
University of Colorado at Boulder
• Faculty Research Council
  George Born (ASEN), Victor Bright (ME), Gerhard Fisher (CS), David Kassoy (ME), Michael Lightner (ECE), Theodore Randolph (ChBE), Kaspar Willam (CEAE)

• College Research Awards and Statistics

• Research Initiatives

• DLC

• Technology Transfer and IP
Research Grant Proposals Submitted
FY03: 554 (baseline) totaling $273M (baseline)
FY04: 577 (+4%) totaling $274M (+0.4%)
FY05: 553 (-4%) totaling $255M (-7%)

Contract and Grant Awards
FY03: $37.5M (baseline)
FY04: $42.8M (+14.1%)
FY05: $39.1M (-8.6%)

➢ Need to submit more proposals

FY05: Fiscal Year 2005 (7/1/04-6/30/05)
• Federal grant $ are more competitive and applications-focused!

Multi-Investigator Grant Proposals Submitted of >$1M

FY03: 57 (baseline) totaling $160M (baseline)
FY04: 53 (-7%) totaling $146M (-9%)
FY05: 45 (-15%) totaling $132M (-10%)

➢ Need to focus on multi-investigator (inter- and cross-disciplinary) initiatives, proposals, new centers
Corporate Contract and Grant Awards

- FY03: $4.2M (baseline)
- FY04: $4.7M (+12%)
- FY05: $6.4M (+36%)

Ongoing Challenge:
- Technology Transfer & Intellectual Property (IP) ownership
Research Initiatives

• 11/18/05 workshop to narrow in on themes/focus areas

• 2/24/06 research meeting with Provost Avery to present and discuss five focus areas: nanotechnology, biotechnology, energy, computational science and engineering, space

• Visits and presentations by Program Officers from Federal Funding Agencies (2 DARPA, 1 AFOSR, 1 NSF)

• NSF-IGERTs, NSF-REUs, Dept of Ed.-GAANNs

• DARPA MEMS/NEMS Science and Technology Center

• Sandia National Laboratories Fellowships: 2 PhD fellowships (Micro/nano systems and Computational science and engineering)

• Nanoscale Characterization and Fabrication Laboratory: additional $0.7M earmarked, facility complete (next purchase: Focused Ion Beam system)

• Possibility of a full-time advocate acting on the College’s behalf with federal agencies
Discovery Learning Initiative

Discovery Learning Center (next year is the last year of the initial tenant agreements)

Discovery Learning Initiative Task Force:

- Charge by Dean Davis: “The charge to the task force is to define a vision, structural model, and resource needs for a vibrant discovery learning initiative, both within our Discovery Learning Center and throughout the College.”

- Members:
  - Christopher Bowman (ChBE), Victor Bright (ME), Kevin Coyne (Sun Microsystems), Gerhard Fisher (CS), Michael Lightner (ECE), Merc Mercure (CDM Optics), Lee Peterson (ASEN), Kaspar Willam (CEAE)

- 1st meeting on 3/13/06: draft of white paper w/ recommendations
Remaining Challenges:

- Intellectual property (IP) ownership
- Nondisclosure
- Faculty advisor, graduate student, sponsor relationship
- Paper, thesis publication
- University policies
- CU Technology Transfer Office

White paper (recommendations) for technology transfer efforts and intellectual property rights:

*EAC Research and Corporate/Government Relations Committee (RCRC)*