Welcome

Provost Anderson welcomed the group and members introduced themselves.

Chuck Rozek gave a brief update on the National Research Council’s Study of Research Doctorate Programs survey. Case exceeded the national submission rate of 85% with 100%! He reported that submitters would also be asked to be raters – a chance for faculty to review other programs. He applauded the work of Jean Gubbins (Institutional Research) for making the project so successful – she spent an enormous amount of time gathering the required information. John congratulated Chuck and Lynn Singer for their hard work during the process.

Minutes of 11/20/06

The minutes of the November 20, 2007 meeting were approved as submitted.

Research Computing

Roger Bielefeld, Director, Customer Service & Support, University Information Services; Iwan Alexander, Professor & Director, Mechanical & Aerospace Engineering; and Mark Griswold, Associate Professor of Radiology were guests of Council to discuss research computing at Case.

Iwan and Roger reported on the issues facing the University regarding the need for expanded research computing:

- **Super Computing Centers**
  - Currently one in Pittsburgh and one at Ohio State University
  - Centers are costly – A center at Case would require $6-8M in hardware and $400-500K per year to maintain it (storage, cooling, maintenance,
tending it). Hardware has a rather short shelf-life of approximately 6 years.
  o Funding is difficult to obtain.
  o An organization must have the space and staff to effectively support it.

- **Needs of Researchers**
  o Case researchers use a diverse range of applications which all have different requirements.
  o Iwan reported working on an application which took 10 days to complete. He had to work on the project at the NASA Glenn facility due to the hardware and software requirements.
  o Case has high-end scanners, but we need a data center that houses a super computer with high-speed network capability.
  o Personnel - Roger is trying to assist the researchers on his own, but he is in critical need of a full-time staff person to help. A lack of staff support is one of the reasons that we are lagging behind some of our peer institutions in research computing.

- **What can the University do?**
  o We have decentralized computing – we need to pool our resources to get a bigger bang for our buck.
  o Spread the word about the Case Cluster. (Clusters are most often implemented as collections of identical servers with a separate network interconnecting them for the purpose of exchanging data related to the applications they are running. This allows researchers to share valuable information with and assistance to one another.) The Case Cluster is currently comprised of 42 nodes. Since individuals tend to ignore email, Iwan recruited several people to speak with other faculty about the Case Cluster. He reported that the response was overwhelming.
  o The Schools/Colleges should build research computing into their strategic plans.
  o The Provost has been very supportive of the initiative by contributing roughly $200K. He can also offer some assistance from his FY2008 budget.
  o We need to look at models from other universities, and perhaps build around research themes.
  o The need for a super computing center requires that central administration be involved, and the initiative will need government and corporate financial backing.

**Mark Griswold**, Associate Professor of Radiology, shared information on the applications of high performance supercomputing in Biomedical Imaging.
  - Case is an international leader – with 15 faculty members - in the development of biomedical imaging.
  - It encompasses nearly every area of healthcare – with MRI and CT ranked the top medical innovations by physicians.
• The Case Center for Imaging Research (CCIR) was recently launched, but we are still limited by our imaging and computational resources.
• We need additional high-end scanners, a supercomputer, and a high-speed network.
• Supercomputing is a major and immediate need at the University.

**ACES (Academic Careers in Engineering & Science)**

Lynn Singer gave a brief report on the status of the ACES Program, which is funded by a $3.5M National Science Foundation grant “to develop a national science and engineering workforce that includes the full participation of women at all levels of faculty and academic leadership.”

Lynn emphasized that Case is able to recruit women but these women aren’t advancing, which means we are not utilizing 50% of our workforce. Amazingly, other countries are making further headway in this initiative than we are. A salary equity study was undertaken and there was a larger gap in the science and engineering area for female faculty than in the other disciplines on campus. It was also noted that more senior-level male faculty are being recruited than senior-level female faculty.

Although Case currently has three female department chairs, we need to increase that number to five to meet our goal by the end of the program in 2008.

Case is currently in the third year of the five year program. A site visit was held in September, 2006 and Lynn distributed the NSF Site Visit Report. The entire report can also be seen at: [http://www.case.edu/admin/aces/sitevisit.htm](http://www.case.edu/admin/aces/sitevisit.htm).

To learn more about the ACES Program, please go to the following URL: [http://www.case.edu/admin/aces/](http://www.case.edu/admin/aces/)

**Research Competitiveness**

Mark Coticchia announced that the Research Council link has been added to the Provost website. Please send Mark or Becky Barker any comments. You can access the site via the following URL: [http://www.case.edu/provost/researchcouncil/index.html](http://www.case.edu/provost/researchcouncil/index.html).

Our research productivity has been flat and we need to address new and innovative ways to become competitive:

• Chuck Rozek distributed graphs and reported on Graduate Student admissions statistics.

• There has been a dramatic drop in applications, particularly in international applications, which is seeing a 48% decline. This decline is due to the events of
9/11 and an increase in the application process fee. Some monies are not available for international students, only for domestic. The international students are however more trained in engineering and science. Case currently has 33% international graduate students – 2% more than the national average.

- Retention of African American males at Case needs improvement as well. As the burden of loans increases, the attractiveness of staying in school decreases. Chuck reported that most African American males attend Case based upon our reputation and not as a result of active recruiting.

- Although we are recognized as a leader in the graduate field of entrepreneurship (TIME and STEP), we need to insure that we continue our success in those kinds of programs. But we also need to develop new degree programs.

- Innovation Incentive funds can be used for pursuing underrepresented minorities. New funding of $800K will be available in July 2007.

- There is also a need for more Graduate student mentoring; John Anderson will look into it.

John also asked that we spend a significant amount of time at the next Research Council meeting to discuss the possibility of hiring one or two additional staff members who would focus on increasing research funding – to be proactive in every area, not just engineering and science. John would consider using some of his discretionary funds to help support such an initiative.

**Misc.**

Lynn Singer asked Council Members to post a hand-out which she distributed for the True Sisters Child Care Center Open House on March 31st.

**Remaining 2006-2007 Meetings**

Monday, April 23 – 10:00 a.m. – Noon, Toepfer Room  
Tuesday, June 12 – 10:00 a.m. – Noon, Toepfer room

**Attachments**

- Applications of High Performance Supercomputing in Biomedical Imaging – Mark Griswold
- Data on Graduate Admissions/Recruitment, etc.
- ACES Summary
- NSF (ACES) Site Visit Report
cc: Interim President Eastwood
    President-Elect Barbara Snyder
    Interim Dean Pamela Davis
    Dean G. Cleveland Gilmore
    Dean Jerold Goldberg
    Dean Mohan Reddy
    Dean Gary Simson
    Dean Cyrus Taylor
    Dean Norman Tien
    Dean May Wykle