COLLEGE OF APPLIED SCIENCE AND TECHNOLOGY

RESEARCH OFFICE
ANNUAL REPORT 2004-2005

Submitted by
Dr. Deborah B. Gentry
CAST Associate Dean
CAST RESEARCH MISSION

The College of Applied Science and Technology (CAST) supports and promotes quality research which is recognized at national and international levels and which enriches the educational environment of its academic programs.

EXTERNAL FUNDING ACTIVITIES

CAST faculty and staff were quite productive with regard to external grant activity this past year. The FY05 annual report to be issued by the Research and Sponsored Programs Office (RSPO) is currently being published online, though a draft has been made available to the Associate Dean for Research (ADR). The draft report indicates CAST faculty and staff had submitted 64.25 grant proposals requesting a total of $13,408,915 in external funds. Every department/school had faculty and/or staff involved in these submissions. Fifty-eight (58) of these grants were awarded, totaling $2,947,605. By comparison, in FY04, CAST faculty and staff submitted 71.88 grant proposals requesting $29,433,744 in funding. Fifty-nine (58.73) grants totaling $1,130,014 in funds were awarded.

A break-down of external grant monies awarded to investigators in CAST departments/schools is as follows:

<table>
<thead>
<tr>
<th></th>
<th>FY05</th>
<th>FY04</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR</td>
<td>$332,373</td>
<td>$534,469</td>
</tr>
<tr>
<td>CJS</td>
<td>$137,594</td>
<td>$117,076</td>
</tr>
<tr>
<td>FCS</td>
<td>$70,253</td>
<td>$106,123</td>
</tr>
<tr>
<td>HSC</td>
<td>$1,130,184</td>
<td>$1,229,694</td>
</tr>
<tr>
<td>ITK</td>
<td>$92,657</td>
<td></td>
</tr>
<tr>
<td>KNR</td>
<td>$201,364</td>
<td>$106,650</td>
</tr>
<tr>
<td>TEC</td>
<td>$983,180</td>
<td>$1,033,502</td>
</tr>
<tr>
<td>CAST OFF.</td>
<td></td>
<td>$2,500</td>
</tr>
</tbody>
</table>

To put these figures into a campus-wide context, the FY05 annual report being prepared for future dissemination by the RSPO indicates faculty and staff across the entire university submitted 317 grant proposals requesting $68,345,764 in funding. These figures are somewhat less than those reported in
FY04 when 366 proposals were submitted requesting $108,947,127. As to grants awarded in FY05, there were 262 awarded university faculty and staff for a grand total of $20,382,162 in funding. While 319 grants were awarded in FY04, the total monies awarded were $20,569,248. In general, both the College’s and the University’s accomplishments with regard to grant submission and acquisition has somewhat declined. The figures below demonstrate fluctuations in external funding within the College over more than two years and, thus, provide added perspective concerning CAST’s successes in this area. CAST researchers have consistently pursued and acquired external dollars to support their projects.

CAST External Funding History

<table>
<thead>
<tr>
<th>Year</th>
<th>Requests</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>$13,408,915</td>
<td>$2,947,605</td>
</tr>
<tr>
<td>2004</td>
<td>$29,433,744</td>
<td>$3,130,014</td>
</tr>
<tr>
<td>2003</td>
<td>$20,142,208</td>
<td>$3,308,250</td>
</tr>
<tr>
<td>2002</td>
<td>$6,053,315</td>
<td>$2,600,238</td>
</tr>
<tr>
<td>2001</td>
<td>$7,414,271</td>
<td>$2,491,865</td>
</tr>
<tr>
<td>2000</td>
<td>$6,161,635</td>
<td>$2,104,344</td>
</tr>
<tr>
<td>1999</td>
<td>$7,818,208</td>
<td>$5,704,279</td>
</tr>
<tr>
<td>1998</td>
<td>$6,798,520</td>
<td>$3,381,367</td>
</tr>
<tr>
<td>1997</td>
<td>$6,946,888</td>
<td>$2,151,634</td>
</tr>
</tbody>
</table>

(Included InfoTech)
COMPETITIVE ACTIVITIES

1. University Research Grant Program:

The College of Applied Science and Technology (CAST) at Illinois State University supports the research and scholarly efforts of tenured and tenure track faculty through the University Research Grant (URG) Program. This program, funded through Provost’s Office, provides faculty with support for projects approved on a competitive basis. URG applications may be made to one of two programs: Grant Development Program or Research Development Program.

The two purposes of the URG Grant Development Program are: 1) To provide faculty with funds to develop significant research programs that have a high probability of acquiring external funding, and 2) To complement proposals submitted to an external agency.

The primary purpose of the URG Research Development Program is to support quality undertakings of the faculty that are deemed important to the discipline but not designed to directly pursue external support. In this program, research is defined as “A formal procedure that contributes to the expansion of basic knowledge or applies such knowledge to the solution of problems in society or exemplifies creative expression in a specific field of study.” The results of research to be recognized by this program must be communicated to professionals outside the university through a peer-review process in a manner appropriate to the discipline.

The CAST Research Committee (CRC) reviewed 22 proposals and awarded 13 URGs across two different programs and within junior and senior categories (see Appendix for more detail). These numbers are generally consistent with those of the previous year. As a result of university-wide rescissions, the College was allotted only $58,0847 for this program, representing a fourth year of decline in funding. The CAST Dean’s Office ultimately supplemented this figure with $17,473 in additional funding. A total of 13 faculty benefited from this program as there were no projects undertaken by investigative teams. The number of faculty receiving URGs per department/school is as follows:

<table>
<thead>
<tr>
<th>Department</th>
<th>URGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR</td>
<td>1</td>
</tr>
<tr>
<td>CJS</td>
<td>3</td>
</tr>
<tr>
<td>FCS</td>
<td>1</td>
</tr>
<tr>
<td>HSC</td>
<td>1</td>
</tr>
<tr>
<td>ITK</td>
<td>1</td>
</tr>
<tr>
<td>KNR</td>
<td>6</td>
</tr>
<tr>
<td>TEC</td>
<td>0</td>
</tr>
</tbody>
</table>
2. CAST Presentation Travel Award:

The CRC evaluates applications for travel funds to present the results of research and instructional activities at conferences and/or conventions. The primary purpose of this program is to encourage and reward the scholarly activities of CAST faculty. It is anticipated that faculty will complete these presentations and subsequently turn them into refereed publications which can then be recognized through the CAST Publication Incentive Program.

The CRC received 13 applications for the CAST Presentation Travel Award. This figure is one less than the previous fiscal year. Upon review, funding was provided for all 13 applications. The number of awards per department/ school is listed below.

<table>
<thead>
<tr>
<th>Department</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR</td>
<td>0</td>
</tr>
<tr>
<td>CJS</td>
<td>0</td>
</tr>
<tr>
<td>FCS</td>
<td>2</td>
</tr>
<tr>
<td>HSC</td>
<td>2</td>
</tr>
<tr>
<td>ITK</td>
<td>2</td>
</tr>
<tr>
<td>KNR</td>
<td>6</td>
</tr>
<tr>
<td>TEC</td>
<td>1</td>
</tr>
</tbody>
</table>

SUPPORT ACTIVITIES

1. Publication Incentive Program:

The Publication Incentive Program (PIP) provides additional incentive for the publication of scholarly results to a national audience. Funds to supplement professional travel for authors was provided upon the publication of a peer-reviewed/refereed article or book chapter. Faculty members were awarded $200 for each sole authored, refereed publication. In the situation of dual authorship, the amount awarded was $150. Should a publication have been shared with two or more co-authors, the amount awarded was $100. An individual could submit applications for a total of $600 worth of travel between July 1, 2004 and June 30, 2005.

Allowing for a brief “grace period” for end of the year submissions, the number of CAST faculty submitting peer-reviewed manuscripts this year was 80. This figure represents a significant increase as compared to the previous year. The number of PIP Awards per department/ school is listed below, while more detailed information about authors and titles can be obtained by contacting the CAST Research Office. A total of $12,600 were awarded to these authors.
2. **Grant Incentive Program:**

The Grant Incentive Program (GIP) rewards faculty in CAST who have received external funds. A total of $150 in travel funds can be given for each funded project (to be shared by all faculty associated with a given project), and there is no limit to the number of GIP awards a faculty member may receive in a given year. The external grant received must have been processed by the University Research Office, must have included indirect costs, and must total $10,000 or more (including indirect costs). Matching funds from any entities at the university cannot be considered as part of the total.

Only one faculty member (in TEC) submitted a request for and received funds from this program.

3. **Research Mentoring Program:**

This was the sixth year for this program to be in operation. The CAST Research Office is committed to the development of scholarship in new tenure-track faculty members. The purpose of the Research Mentoring Program is to provide a formalized and structured set of relationships and activities that will facilitate scholarly activity among new faculty during their first three years at ISU. On a volunteer basis, a new faculty member is paired with a senior faculty member who is an accomplished researcher. Throughout the first three years at ISU, new faculty mentees are provided with a series of workshops and opportunities. A modest amount of supplementary travel money is associated with serving as a mentor.

This year, CAST welcomed 7 new faculty. Eventually, 4 mentor-mentee relationships were officially formed. New faculty attended a CAST Orientation Event, as well as a workshop which focused on writing for scholarly journals. Each mentee was visited in his or her office by the ADR for purposes of 1) discussing the mentee’s budding research agenda, 2) subscribing him or her to the Illinois Researcher Information Service (IRIS), 3) entering his or her research interests into the ISU Research/Creativity Profile Database, and 4) making him or her aware of the SPIN database and how to access training regarding its use. Though the preparation and submission of a University Research Grant was not
expected of new faculty members in their first year, two of the four mentees, with
the guidance of their mentors, did submit a University Research Grant. At the
close of the school year, each mentee was asked to consult with their mentor in
an effort to formulate a research plan evidencing both short-term and long-term
goals and objectives. All of the mentees submitted such a plan. Hopefully, these
plans will provide these new scholars with guidance and direction.

The number of new faculty in each CAST department/school joining the
Research Mentoring Program is reflected below:

<table>
<thead>
<tr>
<th></th>
<th>AGR</th>
<th>CJS</th>
<th>FCS</th>
<th>HSC</th>
<th>KNR</th>
<th>ITK</th>
<th>TEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0*</td>
<td></td>
<td>1</td>
<td></td>
<td>0*</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(*No new tenure track faculty this year)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Grant Support Program (formerly called the Grant Incentive Program):
The Grant Support Program provides assistance in the preparation of
grant proposals to be submitted to external funding agencies. Funds could be
used for travel to meet with other collaborators or with program officers, or
perhaps for payments to consultants or mentors whose help was needed to write
and support proposals.

While the traditional use of these funds were minimal, such funds were
used to cover expenses associated with four faculty members’ attendance at an
NSF Regional Workshop for grant writing in St. Louis. However, a similar
program offered by the RSPO was devised for possible use. See
Five persons benefited from this program.

5. Statistical Consultant Program:
The CAST Research Office can provide expert statistical assistance from a
pool of CAST consultants to help faculty engaged in research or publication. The
consultants are provided supplementary funding for professional travel for their
efforts. At least one faculty member (from KNR) took advantage of this means of
support. A university-wide program for statistical consultation was implemented
this year as well. See http://www.statscenter.ilstu.edu/.
6. Graduate Student Travel Program:
During this fiscal year, a maximum of $200 could be awarded to graduate students to present the results of research at state, regional, or national conferences. Graduate students who had completed a research project under the direction of a member of the CAST faculty were eligible to participate in this program. Additional funds could be sought from the Graduate School.
Two AGR graduate students utilized these funds in FY05.

7. Undergraduate Student Travel Program:
During this fiscal year, a maximum of $200 could be awarded to undergraduate students to present the results of research at state, regional, or national conferences. Undergraduate students who had completed a research project under the direction of a member of the CAST faculty were eligible to participate in this program.
Three undergraduate students (2 from AGR and 1 from ITK) utilized these funds in FY05.

8. CAST and University Sponsored Workshops:
An “orientation to CAST” seminar, including lunch, was organized for faculty new to ISU. Each of the deans in CAST, as well as other guest speakers, provided valuable information to attendees in an effort to acquaint them with various services, supports, responsibilities, and expectations. Each attendee received a copy of “Advice for New Faculty Members.” This event was held on September 24, 2004. Additionally, during this month, any CAST faculty or staff member, but particularly those who were new researchers, could attend a workshop on September 10th to learn how to better utilize SPIN, a national database of external funding for research. About fifteen persons attended this training.
A workshop for new researchers specifically related to University Research Grant preparation was conducted by the Associate Dean for Research (ADR) on November 15, 2004. Members of the CAST Research Committee assisted. Thirteen persons attended.
The CAST ADR organized a two-part workshop entitled “Academic and Grant Writing: Breaking Through the Barriers” that was held on February 4,
2005, and presented by Dr. Robert Lucas, director of the Institute for Scholarly Productivity, An Luis Obispo, CA. Participants, most of whom were CAST faculty, could attend one or both sessions. The morning session was devoted to scholarly writing for publication, while the afternoon session focused upon grant writing. Faculty from other colleges across campus attended as well. Feedback about the workshop was extremely positive. Those who attended received a complimentary book on the topic of the workshop.

RECOGNITION ACTIVITIES

1. CAST Outstanding Undergraduate Student Award:
   No department or school within the College put forward a nomination for this award in FY05.

2. CAST Outstanding Graduate Student Researcher Award:
   The CAST Outstanding Graduate Student Researcher Award recognizes theses or other significant research conducted by CAST graduate students and annually identifies one exemplary thesis for submission to the Graduate Student Thesis Competition sponsored by the ISU Graduate School.

   The CAST Research Committee (CRC) reviewed 3 nominations for the award for the following: Stephanie Rau, FCS, Mary Mecklenburg Goodwin, ITK, and Gary E. Kayser, TEC. Major Gary Kayser’s thesis was entitled “Application of Tinto’s Model to the Persistence of Freshmen Students enrolled in the First-Year, Second-Semester Military Science Within 10th Brigade, Western Region Undergraduate Institutions.” This exemplary work, chaired by Dr. Paul Brauchle, was selected for this award and was forwarded on for consideration for the university-wide James L. Fisher Thesis Competition. Drs. Rodney Custer, Dominic Lilak, and Dan Brown also served as thesis committee members. Upon review by the University Research Council, a thesis by James Amemasor, History Department was chosen as the overall university winner. However, Major Kayser’s thesis was selected as the University Runner-Up.
3. **University Research Initiative Award:**

There were no nominations from CAST for the University Research Initiative Award. This award recognizes new scholars for their early research efforts and promising indicators for future accomplishment.

4. **University Researcher Award:**

The University Outstanding Researcher Award is given yearly to as many as three faculty members who have demonstrated excellence in scholarship. To be eligible the faculty member must have won his/her College Outstanding Researcher Award. Excellence is recognized through the faculty member’s participation in peer-reviewed journal articles, national and international presentations at refereed scientific conferences, grantspersonship, and scholarly service to the profession.

There were two nominations for this award this year from CAST: Dr. Timothy Kelley, HSC, and Dr. David Falcone, CJS.

5. **CAST Outstanding Researcher Award:**

The CAST Outstanding Researcher Award is given to a faculty member in the College each year that has demonstrated excellence in scholarship. Excellence is recognized through the faculty member’s participation in peer-reviewed journal articles, national and international presentations at refereed scientific conferences, grantspersonship, and scholarly service to the profession.

The award recipient for 2004-05 was Dr. Guang Jin, HSC. She provided a presentation highlighting her research endeavors at the 2005 CAST Spring Faculty Meeting.

**OTHER TASKS COMPLETED**

The ADR also coordinated the sixth year of the CAST Outcome Assessment project. To date, approximately 600+ graduating seniors have been solicited to participate in this longitudinal study of post-graduation career development. In particular, the study is seeking information about positions held, promotions experienced, and salaries paid these graduates. Most importantly, their perspectives regarding how well their major classes prepared them for their
career responsibilities will be sought. Mid-May, 2001, was the first time a cohort of new professionals (1 year post-graduation) completed the online survey. This cohort has been the first to also complete a follow-up survey at the three year post-graduation milestone. As results are analyzed, they are routinely summarized in newsCAST and BroadCAST.

SUCCESS OF NEW INITIATIVES PREVIOUSLY UNDERTAKEN

The ADR, in cooperation with the Research and Sponsored Projects Office staff, Washington lobbyists, and other Dean’s Office staff, facilitated the continued development of research initiatives appropriate for federal funding. Several projects were among those put forward to federal legislators. Results have been and continue to be quite promising. Additionally, CAST faculty and staff who receive external funding for research were routinely featured in the newsCAST publication.

Work to redesign and improve the entire CAST website was undertaken by the ADR along with Dean Wood, Jenny Bonack, and Kate Plantholt. The new website became functional during the 2005 spring semester.

The first cohort of new faculty to participate in the Research Mentoring Program has recently achieved tenure. One new initiative the ADR undertook during FY05 was to meet with these newly tenured scholars individually and in a group in an effort to understand their future goals and identify ways to provide continuing support for their research efforts. As a result of these and other discussions, along with the input of Dean Rossman, the ADR developed and publicized guidelines for these two new support programs: 1) External Grant Development Fund (GDF) and 2) Faculty Professional Development Fund.

The External Grant Development Program to support faculty development and submission of external grant proposals seeking substantial funds. It will allow a faculty member to be reassigned from duties associated with teaching one three-hour course (25% reassignment) during either the fall semester or spring semester of the 2005-06 academic year. For its inaugural year, FY06, it is planned that such reassigned time can be awarded, via a competitive process, to up to three faculty members each semester. Provision of the release time is contingent upon application guidelines being followed and specified criteria being met.
In support of Illinois State University’s strategic plan for the future, *Educating Illinois, 2003-2010*, the College of Applied Science and Technology Dean’s Office aims to facilitate the continuing professional development of the faculty within the College. All tenured, tenure track, and 100% employed continuing non-tenure track faculty are eligible for funds associated with the new Faculty Professional Development program. An individual can receive support from this fund one time per fiscal year. A request for funds to support an opportunity for continuing education/professional development may be made at anytime during the fiscal year. Once the funds allotted to this program for a given fiscal year are depleted, no further requests will be considered. The 2006 fiscal year will serve as an inaugural one for the CAST Faculty Professional Development program, thus the program will be assessed prior to offering the program in subsequent years.

While a mechanism for collecting and reporting data regarding the scholarly productivity of CAST faculty has been in place for the last two years, the means has been a relatively crude one. Under the direction of the ADR and Dr. David Doss, Ravi Meduri, a former graduate student of the ITK program, has been asked to design a computer database for such purposes. The program, entitled the Faculty Accomplishment Reporting System (FARS), was critiqued at multiple stages during its development. The ADR coordinated a training session for program users in late January. Using information reported by faculty for ASPT review in January, 2005, a representative from each department/school inputted data for the first time in February. Eventually, as data accumulates year after year, college-wide reports or unit reports will be able to be generated. Such information has and will continue to be useful to the Dean as he communicates College accomplishments and needs to the Provost. Likewise, such information can be helpful to department chairs/school directors as they prepare program review and accreditation self-study reports.

**NEW INITIATIVES PLANNED FOR 2005-06**

During FY06, both the External Grant Development Fund and the Faculty Professional Development Fund will be piloted. The decision to continue one or both programs will be made at the close of the spring semester. If one or both programs continue, the guidelines may be further tweaked, adjusted, or refined.

The CAST ADR will confer with members of the CAST Research Committee about the worthiness of increasing the amount of financial support associated with various research incentive and support programs offered in the College. As the College has been seeing monies associated with indirect costs increasing, it is
reasonable that such assets be used to further enhance existing programs. Levels of funding for research incentive and support programs have remained fairly stagnant for the last five years.

The ADR will draft guidelines for a new support program that would aim to assist faculty authors with publication page costs. Input from the CAST Research Committee and Dean Rossman will be sought.

**COLLEGE RESEARCH COMMITTEE**

The CAST Research Committee (CRC) is an appointed group of CAST faculty who collaborate with the Associate Dean for Research (ADR) to stimulate, support, and oversee research activities in CAST. Investigators in the College are encouraged to utilize this team as they identify research topics and funding sources. Also, CRC members will review proposals and make recommendations for improvement, prior to the submission of externally funded grants. Current practice is to have senior faculty with research experience serve as members of this committee. The following faculty members were CRC members for FY 04-05:

1. David Thomas, KNR
2. Dan Brown, TEC
3. Tom Bierma, HSC
4. Barbara Beccue, ITK
5. Martha Power, FCS
6. Ed Wells, CJS
7. Kerry Tudor, AGR

**CAST ASSOCIATE DEAN FOR RESEARCH**

The primary duty of the CAST Associate Dean for Research (ADR) is to facilitate the research mission of CAST. To do this, the ADR must provide an infrastructure that focuses on research activities in the college. See job description in the Appendix.
CAST RESEARCH OFFICE ANNUAL REPORT
July 1, 2004 - June 30, 2005

APPENDIX
CAST URG AWARD RECIPIENTS, FY 06

JUNIOR RESEARCH DEVELOPMENT
Amy Hurd       KNR $5,000+ $387 extra from CAST Match Prog.
Winn Mahatanankoon ITK $5,000+ $501 extra from CAST Match Prog.
Julianne Trautmann FCS $4,993+ $1,500 extra from CAST Match Prog.
Donna Vandiver  CJS $5,000+ $500 extra from CAST Match Prog.
Jeffrey Walsh   CJS $5,000+ $425 extra from CAST Match Prog.

Total = $24,993+ $3,313 extra from CAST Match Prog.

SENIOR RESEARCH DEVELOPMENT
Tony Amorose    KNR $5,000
Kristen Lagally KNR $5,000+ $500 extra from CAST Match Prog.
Peter Smith     KNR $5,000+ $750 extra from CAST Match Prog.

Total = $15,000+ $1,250 extra from CAST Match Prog.

JUNIOR GRANT DEVELOPMENT
George Byrns    HSC $5,000+ $1,498 extra from CAST Match Prog.
Kevin Laudner  KNR $5,000+ $500 extra from CAST Match Prog.

Total = $10,000+ $1,998 extra from CAST Match Prog.

SENIOR GRANT DEVELOPMENT
Todd McLoda     KNR $5,000+ $500 extra from CAST Match Prog.

Total = $5,000+ $500 extra from CAST Match Prog.

Grand Total = $54,993+ 7,061 extra from CAST Match Prog.

CAST intends to additionally support these two proposals using College indirect funds plus any other funds that become available from the RSPO.

Dawn Beichner  CJS $5,000+ $1,500 extra from CAST Match Prog.
Aslihan Spaulding AGR $5,000+ $1,500 extra from CAST Match Prog.

Revised Grand Total = $64,993+ $10,564 extra from CAST Match Prog.
CAST Associate Dean for Research

Job Description

1. Coordinate the College Research Committee.
2. Manage the University Research Grant program within the College.
3. Serve as the liaison with other college research offices and the University Research Office.
4. Develop and administer a research information system that is responsive to College needs and provide faculty timely information about grant opportunities.
5. Lead and assist in the development of research agendas that are interdisciplinary or intercollegiate.
6. Serve as the designated college reviewer for grant proposals submitted through the College office.
7. Develop and administer a program of faculty development activities that will motivate faculty and enhance the climate for research in the College.
8. Prepare articles for newsCAST that provide tips on grant-writing, publication, thesis advisement, and other research topics.
9. Monitor College accomplishments in research and scholarship and submit an annual report to each department chairperson.
10. Undertake research projects needed by the College (e.g. Outcome Assessment Panel Study).
11. Coordinate graduate program activities for the College as needed.
12. Distribute and monitor the use of tuition waivers.
13. Other duties as assigned (e.g., teach FOI or course in home dept., attend area recruitment meetings, capital campaign promotion and other marketing efforts, college alumni newsletter...).