



Council of Principal Investigators

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Texas A&M University - Texas A&M Health Science Center – Texas A&M Engineering Experiment Station -
Texas A&M AgriLife Research – Texas A&M AgriLife Extension Service – Texas A&M Transportation Institute

DATE: August 24, 2016

TO: Helene Andrews-Polymenis, Chair, CPI
James Batteas, Vice Chair, CPI

FROM: CPI Graduate Education Special Topics Committee

RE: Recommendations for Increased Resources for Graduate Student Training

The CPI Graduate Education Special Topics Committee convened on April 22, 2016 and was charged with providing recommendations to the President on ways in which new investments in graduate student education and training could have a significant, transformative impact on the research enterprise at Texas A&M University. The goal was to identify several areas in which increased support would serve to facilitate novel approaches to cutting edge research. The committee was composed of Hubert Amrein (Medicine), George Cunningham (Education and Human Development), Victor Ugaz (Engineering), Teresa Wilcox (Liberal Arts, Chair), Heather Wilkenson (Agriculture & Life Sciences), and Mark Zoran (Science). The committee met four times and agreed upon these four areas as priorities.

1. Competitive, Sustainable Multi-year Funding Offers

Graduate students form the core of the research enterprise, both in terms of workforce and intellectual contributions. Establishing and maintaining cutting edge research programs depends on recruitment of the best graduate students, and recruitment of the best students requires university level commitment to graduate student funding. The committee was in agreement that a significant impediment to recruitment of the top graduate students to Texas A&M University is a lack of competitive, sustainable, multi-year funding offers that allow students to focus on building their research programs. This sentiment was echoed in the Fall 2016 survey of CPI members, where 61% of respondents indicated that TAMU does not have adequate financial support mechanisms for graduate students. ***As part of an increased commitment to graduate student funding, the committee encourages conversations about the following:***

- (1) Ways in which colleges and departments (units) could be incentivized to offer guaranteed, multiyear packages to prospective students. This could, for example, involve the use of matching funds and partnerships (e.g., between departments and colleges or between internal and external sources of funding).***
- (2) Implementation of minimum stipend levels, recognizing that stipend levels vary (sometimes dramatically) across colleges and fields of study.***

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- (3) University commitment to payment of graduate student tuition and fees regardless of whether a student is supported by internal or external sources of funding.**
- (4) Funding models that would allow students to focus on research, without teaching responsibilities, during critical stages in their graduate training (e.g., first and last year of graduate training). Committee members expressed concern about the increased teaching demands placed on graduate students in some programs from the beginning of their graduate training, which is detrimental to recruitment efforts and student progress.**
- (5) Mechanisms by which graduate students could obtain funds to directly support their research projects.**

2. Coordinated Recruitment Efforts

The committee encourages implementation of coordinated, graduate student recruitment efforts with shared financial and administrative support. The goal of coordinated recruitment efforts is to increase the number and quality of students applying to, being accepted into, and attending graduate programs at Texas A&M University. The committee agreed that recruitment efforts at local levels, at least for many programs, could be significantly enhanced by the implementation of university supported efforts. At the same time, the committee acknowledges that the most effective method for doing this may vary by field of study. For example, umbrella admittance programs, like that shared by Dr. John La Pres with the CPI and guests on August 11, 2016 works well for science-related fields. Other models, which are yet to be identified, might work better for Engineering, Social and Behavioral Sciences, and other fields. ***The committee recommends exploration of several coordinated recruitment models that include, as a central component, shared financial and administrative support.***

3. Professional Development Opportunities

The university currently offers a wide range of professional development opportunities for research active graduate students through GRAD Aggies and other mechanisms. However, there are some areas of professional development that would benefit significantly from additional resources. ***One area of need is a commitment to the enhancement of graduate student writing competencies, both scientific writing and writing to translate scientific ideas to the lay community.*** Communication is critical to the research enterprise and a university level commitment to improving communication in these two domains could significantly enhance publication rates, levels of grant funding, and visibility of the research conducted at Texas A&M University. There are a number of ways in which this could be structured and when considering models we encourage discussion about how to identify those who need support, the need for area-specific and area-general writing skills, and differing needs of native and non-native English speakers. In terms of graduate student professional development, ***the committee also recommends university-level discussion about the extent to which our graduate training efforts map onto the changing landscape of potential career paths of our students.*** Over the last 20 to 30 years there has been a significant increase in number of students graduating with a Ph.D. and not a commensurate increase in academic research positions available. Some sources estimate that about 10% to 20% of Ph.D. students in research-related fields obtain tenure or non-tenure track positions. While we strive to place our students in those limited number of positions, the reality is that many very talented students will take a different career path. We encourage conversations about what skills and competencies we believe are critical to graduate training, the extent to which these skills and competencies can be applied to other career paths, how and when we might mentor students for alternative career paths, and the type of additional training opportunities that would best prepare students to be successful in alternative careers. We also encourage conversations about how to best measure "student success" within this context, so that academic units are fairly evaluated for efforts put forth to place their students in desirable, competitive (but non-academic) positions. The committee recognizes that placing our students in desirable, non-academic positions after graduation may require changes in the current curriculum in some programs.

4. Interdisciplinary Programs

The committee discussed at length Interdisciplinary Programs (IDPs) and noted that few of these currently exist at Texas A&M, and those that do exist lack sufficient funding. While some members of the committee strongly support the implementation of IDPs, citing benefits to recruiting, graduate training and the research enterprise as a whole, other members were concerned about the extent to which IDPs can be successfully implemented and sustained, due to lack of support from the administration. ***The committee recommends an exploration of IDP models that have been effective at other institutions, identification of institutional barriers that hinder the creation of IDPs, and providing incentives for generating institutional structures that facilitate their implementation and sustainability.*** The committee notes that the generation of IDPs should be faculty driven, and the committee encourages discussions between interested faculty and the administration to identify content areas in which IDPs would be most likely to succeed. One approach would be to create a task force, composed of tenured research-active faculty, who would be responsible for establishing the programmatic and financial framework for a University wide competition for 2-4 new integrative IDPs. The task force, which would directly report its recommendations to the President, would outline the specific requirements that these IDPs need to fulfill. Ultimately, the goal of these IDPs would be, within a period of 3 to 4 years, to successfully compete for a training grant from NIH, NSF, or other national funding agency. The willingness to provide the programs with sufficient financial resources towards this goal is essential for their success. Programs that have successfully competed initially, but fail to garner a training grant after 4 years, may continue, be integrated into existing programs or dissolved (depending on the achievement of other goals set by the task force), while the programs that achieve that milestone should be elevated to the appropriate status within the University.

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