What can Schools of Nursing do to support successful PhD student grantsmanship?

Catherine M. Bender, PhD, RN, FAAN Professor and PhD Program Director University of Pittsburgh School of Nursing

Roles of PhD Graduates

- Develop the science
- Stewart the discipline
- Educate the next generation

American Association of Colleges of Nursing (AACN), 2010

Develop the Science

- Conduct original research
- Utilize professional and research ethics and judgment in the conduct of research
- Assume leadership in the conduct of culturally
 competent scholarship to improve nursing practice
- Communicate research findings to lay, and professional audiences and identify implications for policy, nursing practice and the profession

(AACN, 2010)

Steward the Discipline

- Integrate the components of scholarship: research, teaching, mentoring and service
- Communicate scholarship including peer-refereed publications and presentations for professional interdisciplinary audiences
- Understand the evolving roles and responsibilities of a nurse scholar

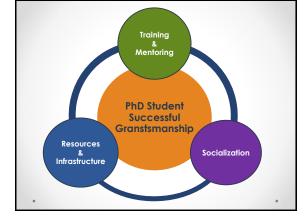
(AACN, 2010)

• Lead in advancing the profession

Educate the Next Generation

- Conduct team science and participate and lead interdisciplinary research teams
- Provide professional and research mentorship to others
- Contribute to a global community of scholars
- Contribute to the formal and informal education of future nurses through discovery, application, and integration

(AACN, 2010)



Training and Experience

- Scientific methods, statistical analysis, theory development
- Comprehensive knowledge in area of science
- Responsible conduct of research
- Grant development, dissemination
- Intra-/Interdisciplinary research team development and leadership

Avenues of Training

- Relevant coursework
 Programmatic, cognates
- Workshops, colloquia, journal clubs, "brown bags"
- Laboratory experiences
- Independent studies
- Apprenticeships/research residencies

Mentorship "The greatest good you can do for others is not just share your riches but to reveal to him his own." Benjamin Disraeli

Mentorship

Faculty

- Serve as role models of interdisciplinary collegiality, professionalism, ethical behavior, work/life balance, negotiation
- Actively engaged in scholarly activity themselves
- Encourage participation in scholarly work

Qualities of Good Mentors

- Set clear expectations
- Be available and approachable
- Maintain confidentiallity
- Provide "constructive criticism"
- Set milestones and acknowledges achievements
- Broaden the scope of student's skills and ideas
- Provide support in discouragement and success
- Share experiences
- Promote networking
- Involve student in all aspects of grant development, research implementation and dissemination

Good Mentoring Programs

- Institutional commitment
- Flexibility in mentorship
- Annual review of achievement
- Plans for mentoring junior faculty

Resources - People

- Collaborators
- Study design, statistical analysis, data management
- Grants management
- Responsible conduct of research
- Scientific editor
- Grant mechanisms

Resources – Space and Services

Infrastructure and

Resources

- Computing services, systems development (laboratories, software, troubleshooting)
- Laboratories (bench, animal, genetics)
- Interview rooms
- Conference rooms
- Libraries with comprehensive, relevant literature

Infrastructure

Internal grant review mechanisms (new grants, resubmissions)

- Scientific, RCR
- Mock reviews,
- Relevant scientists external to the research team

Dissemination

Resources - Financial Tuition and stipend support • Graduate Assistant/Graduate Student Researcher • Teaching Assistant

Socialization

"process through which an individual learns to adopt the values, skills, attitudes, norms, and knowledge needed for membership in a given society, group, or organization"

(Weidman et al., 2001)

Avenues of Socialization for Students

- Interaction with structure in the educational environment
- Interaction with faculty
- Interaction among students

Faculty Role in Socialization

- Serve as role models of interdisciplinary collegiality, professionalism, ethical behavior, work/life balance
- Actively encourage involvement in activities that will enhance socialization



