

## **GRADUATE DEANS GROUP**

### **COMMITTEE ON POSTDOCTORAL EDUCATION**

#### **REPORT AND RECOMMENDATIONS**

March 28, 2005

#### **Members**

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#### **Background**

Anne Mayhew, Vice Chancellor for Academic Affairs and Dean of the Graduate School, directed the formation of the committee with charges to evaluate the postdoctoral experience at the University and to make policy recommendations based on the evaluations. Dr. Mayhew expressed concern that the University was not adequately addressing the needs of postdoctoral scholars.

The committee received valuable input from Human Resources, the Center for International Education, Linda Sangster (former Coordinator of the Office of Postdoctoral Affairs at St. Jude Children's Research Hospital), and interested faculty colleagues. In addition, two reports addressing postdoctoral education provided important information and guidance:

1. *Report and Recommendation*, Committee on Postdoctoral Education, Association of American Universities, March 31, 1998, [www.aau.edu/reports/PostdocRpt.html](http://www.aau.edu/reports/PostdocRpt.html)
2. *Enhancing the Postdoctoral Experience for Scientists and Engineers: A Guide for Postdoctoral Scholars, Advisers, Institutions, Funding Organizations, and Disciplinary Societies*, Committee on Science, Engineering and Public Policy, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, National Academy Press, Washington, DC, 2000, [www.nap.edu/books/0309069963/html/](http://www.nap.edu/books/0309069963/html/)

The Association of American Universities (AAU) report was the initial attempt at the national level to address issues influencing postdoctoral education. The National Academies (NAS) guide provided a more comprehensive assessment of postdoctoral education in this country.

The AAU report noted that, although postdoctoral training has become a prerequisite for tenure-track academic appointments in several disciplines, “there is reason to question how well this particular form of education has been incorporated into the overall academic enterprise.” The postdoctoral experience evolved independently in academic institutions “lacking a consistent set of standards and expectations.” Failures responsible for these inconsistencies included the lack of policies specific for postdoctoral appointments and the lack of central administrative oversight for postdoctoral education. Concerns addressed in the AAU report included:

- The increasing proportion of postdoctoral appointments granted to international scholars on temporary visas and the failure of institutions to ensure equal treatment of foreign and domestic postdocs;
- The increasing frequency of postdoctoral scholars with multiple postdoctoral appointments and the failure of institutions to establish and/or enforce time limits on postdoctoral appointments; and
- The failure of institutions to recognize and act upon the educational significance of the postdoctoral appointment.

To promote development of “a consistent set of standards and expectations,” the AAU committee suggested a standard definition of a postdoctoral appointment and recommended “universal adoption and consistent application of the definition by all universities, government agencies, and private foundations involved in postdoctoral education.” The AAU committee further suggested a model for “systematization of postdoctoral education.” Important points of the model included the following:

- The university should establish core policies applicable to postdoctoral appointments, and a central administrative officer should be assigned responsibility to assure consistent application of those policies across the institution.
- The postdoctoral appointment should remain a temporary appointment with a primary purpose of providing additional research or scholarly training for an academic or research career.
- The university should establish explicit guidelines for recruitment and appointment of postdocs and for the duration of their appointments.
- Postdoctoral appointees should receive a letter of appointment jointly signed by the faculty mentor and the Department Head or other responsible official, and a statement of goals, policies, and responsibilities applicable to postdoctoral education should accompany the letter.
- Departments and faculty mentors should provide career advising and job placement assistance appropriate to their postdoctoral appointees.

The NAS guide expanded this model with additional recommendations including the establishment of an institutional postdoctoral office to aid the central administrative officer in assuring consistent application of policies and to provide additional functions including organizing orientation and professional development programs; encouraging best practices by mentors; acting as liaison between postdocs, advisors, and administrators; providing tracking for current and former postdocs; and sponsoring a postdoctoral association.

Applying the AAU concerns to The University of Tennessee, Knoxville, the committee made the following observations:

- The University allows postdoctoral appointments in only one category, Postdoctoral Research Associate, which is an exempt professional staff position of restricted duration.
- There are 174 postdoctoral research associates appointed at the University (Nov., 2004). Fifty percent of these appointments are in agricultural and life sciences disciplines, 37% are in the physical and mathematical sciences, and 12% are in engineering (Table I).
- 74% of the appointees are international scholars.
- 14% of the 174 postdoctoral scholars are on term appointments.
- Regular postdoctoral appointments may be continued beyond the 3 year limit, and term appointments have been extended beyond 12 months.
- Postdocs at this university are recruited primarily by faculty investigators who hold external grant or contract funding adequate to pay the appointee's compensation package.
- There are no policies specific for postdoctoral appointments, and there is no central administrative officer assigned responsibility for oversight of postdoctoral education.

Based on the concerns expressed in both the AAU report and the NAS guide, UTK shows little evidence of recognizing and acting upon the educational significance of the postdoctoral appointment. The University follows the traditional postdoctoral model relying almost exclusively on the faculty mentor to determine the postdoctoral experience. There is no formal mechanism for progression of postdocs to aid in transition to permanent jobs, and there are no policies to ensure the quality of the postdoctoral experience.

### **Recommendations**

Committee deliberations concentrated on the current status of postdoctoral education at UTK. The primary focus was improvement of postdoctoral education at UTK to enhance benefits to the postdoctoral scholar, the faculty mentor, and the University. The committee makes the following recommendations:

The committee proposes for adoption a standardized program and associated policies for postdoctoral education at UTK (see *Postdoctoral Program and Policies* document). Key points of the Program and Policies are (1) definition of a postdoctoral appointment meeting both the needs of the University and the spirit and intent of the AAU recommendation; (2) restructuring of postdoctoral appointments to recognize the various needs of postdocs, promote progression and transition to permanent employment, and enhance the research competitiveness of faculty in certain disciplines; (3) assignment to the Dean of the Graduate School oversight responsibility for postdoctoral education; (4) clarification of the rights, responsibilities, and expectations of postdoctoral scholars; and (5) description of the responsibilities of the faculty mentor and appropriate administrative officials.

The committee recommends discouraging the use of 12 month term postdoctoral appointments for probationary purposes. The committee further recommends discouraging extension of term postdoctoral appointments beyond the initial duration of appointment.

The committee recommends establishing a postdoctoral affairs office answering to the Dean of the Graduate School. This service may be in addition to or in association with existing graduate service functions but should be staffed by a full-time staff coordinator. The functions of this service should include the following:

- assuring consistent application of policies;
- preparing and maintaining a current postdoctoral handbook;
- organizing orientation and professional development programs;
- interacting with the Center for International Education to address the special needs of international postdocs;
- encouraging best practices by mentors;
- acting as liaison between postdocs, mentors, and administrators;
- incorporating data management for tracking of current and former postdoctoral scholars;
- coordinating training program approval and review; and
- coordinating and sponsoring an institutional postdoctoral association.

**Table I. Postdoctoral Research Associate appointments, November 2004**

<b>Department</b>	<b>Regular</b>	<b>Term</b>	<b>Total</b>
Microbiology	3	1	4
Biochemistry/Cellular&MolecBiology	7	5	12
Botany	5	0	5
Chemistry	22	2	24
Earth & Planetary Science	4	0	4
Mathematics	1	1	2
Physics	26	3	29
Ecology & Evolutionary Biology	9	1	10
School of Genome Science & Tech	3	0	3
Nutrition	1	0	1
Materials Science & Engineering	10	3	13
Civil & Environmental Engineering	3	1	4
Electrical & Computer Engineering	2	0	2
Mech, Aero & Biomed Engineering	2	0	2
Theory & Practice-Teacher Ed	1	0	1
Entomology & Plant Pathology	1	0	1
Agricultural Economics	1	0	1
Entomology & Plant Pathology	1	0	1
Biosystems Engr & Env Science	3	0	3
Forestry, Wildlife & Fisheries –Exp	7	2	9
Animal Science/Nutrition	1	0	1
Plant Sciences – Exp	2	0	2
Small Animal Clinical Services	1	1	2
Comparative Medicine	1	0	1
Microbiology – Vet Med	4	0	4
Pathobiology	12	5	17
Ctr for Envir Biotechnology	2	0	2
UT Food Safety Ctr of Excellence	3	0	3
Ctr for Biomarker Analysis	1	0	1
Ctr of Excellence in Structural Biology	1	0	1
Racheff Chair of Excellence	3	0	3
Joint Inst for Computational Science	6	0	6
<b>TOTALS</b>	<b>149</b>	<b>25</b>	<b>174</b>

