

Postdoctoral Training in the Division of Biology and Medicine

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As of June 1, 2008, 117 postdoctoral appointees held Brown-paid appointments as either Postdoctoral Research Fellows or Postdoctoral Research Associates in the Division of Biology and Medicine. These individuals are vitally important to the Division's research mission and productivity. They account for approximately two-thirds of the total Brown-paid postdoctoral population. A large proportion (currently 45%) of postdoctoral researchers is international. Postdocs arrive on campus throughout the year. Few mechanisms are in place for them to become acclimated to Brown, meet peers and gain a sense of community. A Brown University Postdoctoral Association (BUPA) was active in this regard for a few years but has been dormant since 2005. Recent efforts to create community within Biomed have focused on professional development events and a Postdoctoral Advisory Panel. Until recently, data on postdoctoral appointees was not collected or tracked in a systematic way. Postdoctoral researchers desire and need to acquire career "survival skills" complementary to their scientific training in order to enhance their competitiveness for independent positions beyond Brown.

Recent Initiatives. Several changes implemented over the past two years have improved the training environment for postdoctoral appointees and the ability to track data within the Division of Biology and Medicine:

- Centralization of Postdoctoral Appointment Process: Appointment letters and I-9 process are handled within the Office of Graduate and Postdoctoral Studies
- Creation of a FileMaker database of postdoctoral data
- Professional development events developed specifically for postdoctoral trainees including subject matter relating to Responsible Conduct in Research
- Creation of a Postdoctoral website
- Creation of a Division-wide Postdoctoral Advisory Panel with postdoctoral representatives from biology, public health and clinical departments
- Dissemination of funding and career opportunities via website and specific email communications
- Facilitation of postdoctoral T32 training grant applications with staff support from Office of Graduate and Postdoctoral Studies including text modules and required data tables

Remaining Needs. Additional infrastructure and oversight will aid the Division in attracting the best postdoctoral researchers, assist trainees in their career objectives, and enhance our training environment. Several recommendations were proposed by a University-wide ad hoc committee on Postdoctoral Researchers, commissioned by the Provost in 2004. It is not clear to what extent the recommendations were adopted as policy. The following actions are proposed:

1. Review postdoctoral benefits and policies at Brown, including their clarity, equity and competitiveness with peer institutions.

2. Adopt an expectation and process whereby postdoctoral trainees and mentors engage in setting expectations and/or an individual development plan at the beginning of the initial appointment using an instrument such as the AAMC Postdoc Compact (1).
3. Develop a postdoctoral-specific evaluation instrument and implement a required annual evaluation process tied to reappointment.
4. Require documentation of postdoctoral Responsible Conduct in Research (RCR) training.
5. Formalize exit interviews and a process to evaluate trainee satisfaction and mediate conflict.
6. Partner with non-Division Brown administration and affiliated hospitals in fostering a campus-wide postdoctoral community, including joint postdoctoral orientation and professional development events, a representative advisory panel and communication strategy.
7. Develop a broadly inclusive “post-graduate” database for communication of professional development events and funding opportunities that includes non-Brown paid hospital-affiliated individuals with appointments as Research Associate, Senior Research Associate and Fellow as a special category in the postdoctoral database.
8. Request funding to expand postdoctoral events, to provide competitive conference travel awards, and to give postdocs access to University resources such as the Career Development Center.
9. Formally notify advanced postdoctoral trainees and mentors of 5 year appointment term limit for titles of Postdoctoral Research Associate and Postdoctoral Research Fellow and options for appointments at other titles including Senior Research Associate.
10. Track career outcomes of postdoctoral trainees within the Division.

Postdoctoral Training in the Division of Biology and Medicine

Introduction

The purpose of this report is to review the current status of postdoctoral training within the Division of Biology and Medicine. Information is provided about the Division's postdoctoral cohort, activities of the Office of Graduate and Postdoctoral Studies relating to postdoctoral trainees, and challenges that confront postdoctoral training at Brown.

Background

As noted in the 2004 ad hoc Brown University Postdoc Committee Report (2), classifications of postdoctoral researchers at Brown are defined in Chapter 8 of the Handbook for Academic Administration and include Postdoctoral Research Fellows, Postdoctoral Research Associates and Postdoctoral Senior Research Associates. The committee report describes postdoctoral appointments as follows:

“The University makes a number of postdoctoral appointments that support its research mission. Such appointments are intended to enhance the academic and research development of the appointee. Postdoctoral appointees receive supervision and mentorship by a senior scholar, and are guaranteed freedom to publish. All postdoctoral appointments, since they are designed to support the academic development of the appointee, have limited terms. All Postdocs must hold the PhD (or equivalent). All postdocs have access to health and dental insurance.

1. *Postdoctoral Research Associates and Fellows are individuals still in the preparatory or learning stages of their careers who are appointed to meet particular and defined needs of a project or program under the supervision of a regular faculty member.*
 - a. *Postdoctoral Research Associates are employees of the University: they receive full benefits, and the grants which support them are assessed accordingly. Individuals are appointed on a year-by-year basis, for a maximum of three years.*
 - b. *Postdoctoral Fellows or Research Fellows are in residence to conduct research supported by fellowships. Most Postdoc Fellows are not Brown employees, but they may participate in University health and dental plans.*
2. *Postdoctoral Senior Research Associates are individuals with at least three years of service as a Research Associate. They must hold the PhD (or equivalent). As Research Associates, they are fully benefits-eligible employees of the University. Reappointment at this rank may be for a period of up to three years.”*

It is important to understand that postdoctoral titles are determined by the source of funding and have specific benefit and tax implications. Thus, accuracy of appointment paperwork is paramount and must be coordinated carefully with the originating department, as well as Finance, Benefits and Human Resources. Appointments for international postdocs must be coordinated with the Office of International Scholars and Student Services.

Data Tracking and Communications

To facilitate tracking of postdoctoral appointments and data related to these individuals, The Office of Graduate and Postdoctoral Studies began working with the Biomed Computer Services office at the end of 2006 to design a FileMaker database for this purpose. During 2007, the postdoc database structure was refined and ultimately combined with a separately created graduate student database to create the current "Graduate and Postdoc Trainee database". New personnel and database improvements now permit accurate reporting of many characteristics regarding the Division's postdoctoral population. This is important since these individuals are not students and are not included in the Banner student information system that was recently implemented at Brown. Up to date email lists of active postdocs are generated within the Office of Graduate and Postdoctoral Studies and provided to the Office of Biomed Communications. The Office of Graduate and Postdoctoral Studies communicates with Biomed postdocs regarding funding and employment opportunities as well as professional development events. The University currently has no mechanism for communication specifically with postdocs as a group such as via Morning Mail. Outside the Division of Biology and Medicine, postdoctoral appointments are handled by the Dean of Faculty's office, University Hall. The Dean of the Graduate School has oversight responsibilities for non-Biomed postdoctoral training.

Demographics of Postdocs within the Division of Biology and Medicine

As of June 1, 2008, 117 individuals had active appointments with titles of either PDRF or PDRA within the Division of Biology and Medicine. The number of individuals with each title by departmental association is included in **Table 1**. Seventy-eight (67%) hold the title of PDRA. They are primarily in basic science departments. Thirty-nine (33%) postdocs hold the title of PDRF. Most of these individuals are trainees on NIH T-32 grants awarded to public health investigators. A small number of PDFs (currently four) have a concurrent unpaid appointment as a Research Associate in order to be eligible to apply for funding to extend their training at the conclusion of their fellowship. Data on gender, ethnicity and citizenship are presented in **Tables 3 and 4**. Of the 117 postdocs, 66 are male (56%) and 51 are female (44%). Sixty-four are US citizens or permanent residents (55%) and 53 (45%) are international. Of the international postdocs, the countries most represented are China with eleven, the United Kingdom with eight and India with four postdocs. Twenty-three countries outside the United States are represented.

Titles, Length of Brown training and Pay Ranges

The Division of Biology and Medicine policy requires that departments and centers adhere closely to the current NIH postdoctoral pay scale based on relevant experience when appointing PDRA's and PDRF's. The proposed pay level for each postdoctoral appointment is reviewed for equity by the relevant department chair and by the Associate Dean for Graduate and Postdoctoral Studies. For PDRF's paid by individual external fellowships that fall below the NIH scale (currently beginning at \$36,996/yr. for an individual entering with 0 years of previous postdoctoral experience), the faculty mentor or department is encouraged to supplement the award to meet the NIH scale. The median annual salary by department is shown in **Table 2**. Departments vary in the experience levels of postdocs they employ and this impacts the range of salaries. The range of time in position is shown for postdocs within each department. Salary data are represented in this format to protect against individual identification within small departments. Of the currently active postdoctoral appointments, 95% were made within the last three years. Thus, the great majority of appointments are within the three-year term recommended by the 2004 Ad hoc Committee on Postdoctoral Researchers. Once a 5-year limit is reached, it is expected that departments promote the individual to the position of Senior

Research Associate or Senior Research Fellow as appropriate. This practice does not appear to be taking place in all cases; nine individuals are currently eligible for the senior titles but have not been proposed by their department.

Mentorship and Sites of Training

The great majority of Division postdocs are working in research laboratories with either one or two postdocs. 54% of our current postdocs are training in this setting. Fifty-nine faculty members currently mentor 117 postdocs. The largest number of postdocs currently associated with a single mentor outside a training grant is four and just four mentors are in this category. Postdoctoral fellows associated with Brown Centers are funded via NH T32 postdoctoral training grants. The majority of these individuals are based at the affiliated hospitals. The largest group of post-doctoral research fellows associated with a Brown Center and Principle Investigator mentor is currently eleven.

Searches versus “Pre-selects”

All Postdoctoral Research Fellow positions for T32 training grants are filled after a search in which the positions are advertised widely. By contrast, in most departments, the majority of Postdoctoral Research Associates are hired as a result of individuals corresponding with faculty working in the field of interest, being recruited at national and international scientific meetings and referrals of colleagues in the discipline. In these cases, faculty request appointments of “pre-selected” individuals whose specific skill sets and availability match research projects and funding resources. In some cases, postdoctoral appointments are requested for completing PhD students in the same laboratory while they complete submission of publications from their research and seek positions elsewhere. Postdoctoral openings are posted on the Office of Graduate and Postdoctoral Studies website. All new postdoctoral appointments (including change of appointment title) are reviewed by the University EEO office.

Appointment Processes

Upon hiring dedicated staff, this Office began handing Brown-paid postdoctoral appointments with the title of Postdoctoral Research Fellow (PDRF) and Postdoctoral Research Associate (PDRA) on June 15, 2006. Prior to June 2006, appointment responsibility for these titles resided in the Office of Biomedical Faculty Affairs. Over the last year, the Office of Graduate and Postdoctoral Studies has worked to streamline and simplify the postdoctoral appointment process. The hiring of Ms. Roberta Swanson as full time Postdoctoral Program Coordinator and Data Coordinator has made much of this possible. Instructions and forms for use by Departments are posted on the Office’s website (biomed.brown.edu/grad-postdoc/Managers_Postdocs.html). Upon receiving an appointment request from a Department, the package is reviewed for candidate credentials, references, proposed pay, available funding and EEO. Appointment letters are generated within the office and are generally available to the Department with cc’s to all appropriate offices (including International Scholars and Student Services for International postdocs) within 10 business days after receipt of the request.

In September 2007, appointment signature authority was transferred from Dean of Medicine and Biology Eli Y. Adashi to Associate Dean Nancy L. Thompson. The Department sends the candidate the appointment letter and supporting policy documents. A copy of the letter signed by the postdoc accepting the offer is returned to the Office of Graduate and Postdoctoral Studies. The I-9 process has been moved from University Hall to the Office of Graduate and Postdoctoral Studies so that new postdocs meet office staff and the Associate Dean upon arrival. This

provides a chance to collect demographic data and orient the new postdoc about upcoming events of interest. While at the Office, all postdocs receive a Welcome Packet that includes a copy of the AAMC document “Compact Between Postdoctoral Appointees and Their Mentors”. The document sets out responsibilities of both postdocs and mentors and is a useful tool for discussion of expectations at the start of the appointment.

Annual Review

There is currently no Division policy specifying or enforcing an annual review process for postdoctoral trainees. Although some departments and individual faculty include comments regarding progress or accomplishments within their memos requesting reappointment, or with requests for salary increases, there is no direct mechanism in the form of an evaluation instrument for the postdoc to receive formal feedback. Postdoctoral offices at a number of institutions mandate annual reviews of postdocs by faculty supervisors and tie these to reappointment. The Office of Graduate and Postdoctoral Studies is in the process of developing such an instrument in conjunction with its Postdoctoral Advisory Panel and will recommend adopting this for annual review in conjunction with the reappointment process.

Termination of Appointment

At the conclusion of any appointment that is not to be continued, a termination letter addressed to the postdoc is issued by the Associate Dean for Graduate and Postdoctoral Studies. Because appointments are contingent upon available funding and satisfactory progress, advance notice associated with termination varies considerably. Documentation that the postdoc has been notified of end date by the mentor or department is required. Sufficient notice to allow the individual to make alternate employment arrangements is encouraged and typical. If an individual is in a period of re-appointment and the Department sends a termination request specifying a date that is much earlier than the original term, correspondence from the Department and supervising faculty member is expected. This may include a letter from the postdoc indicating that he/she is resigning to take a new position. In the absence of such documentation, the Associate Dean contacts the postdoc to make a confidential inquiry. It is recommended that a formal and confidential exit interview process be established for all postdocs at the end of their tenure at Brown.

Professional Development

The postdoctoral training period is intended as a stepping-stone to an independent career path. This is a critical period in which the appointee needs to acquire publications and other evidence of productivity. Postdoctoral researchers desire and need to acquire career “survival skills” that are complementary to their scientific training and will enhance their competitiveness for independent positions beyond Brown. Toward that end, postdocs are encouraged to avail themselves of professional development events offered by the Office of Graduate and Postdoctoral Studies, the Office of Biomed Faculty Affairs, and the Office of Women in Medicine, as well as University resources. An important resource for postdocs aspiring to a career that includes teaching is the Sheridan Center. To better orient postdocs about available resources, the Office of Graduate and Postdoctoral Studies collaborated with The Graduate School in September 2007 to hold a University-wide postdoctoral resource and networking event. This was well attended and is recommended as an annual event. We have also established a website with available resources including funding opportunities, professional development events and career information links (biomed.brown.edu/grad-postdoc/).

Benefits

Benefits policies for Brown paid postdoctoral appointees are currently unclear in several regards. No specific maternity or family leave policy is in place. Some individuals take an unpaid leave while maintaining their appointment. Individuals with external fellowships or on training grants are entitled to and all receive individual health care coverage. In some cases, there are benefit inequities. Some mentors and Departments supplement external fellowship benefits. For example, a fellow based at an affiliated hospital in some cases receives family health care benefits not available to a fellow working with a campus-based mentor. The cost of supplemental family coverage to a postdoctoral fellow is some \$8000/year. The Biomed Postdoctoral Advisory Panel has raised benefits as a central concern this year in a letter addressed to Dean Adashi, Dean Bonde and Provost Kertzer. In response to this, a meeting was held in early June with Deans Sheila Bonde and Nancy Thompson to further solicit the Panel's views. Nancy Thompson held a follow-up meeting in June with representatives from several administrative offices on campus to review benefit policies and consider strategies for improvement.

Identification of other individuals who hold doctoral degrees and are in training

While the Office of Graduate and Postdoctoral Studies is responsible for a sizeable cohort of postdoctoral scholars within the Division, its responsibility is limited to Brown paid individuals whose appointment begins with the word "Postdoctoral". It is known that individuals with similar characteristics exist within the larger Division academic environment but their identification remains problematic. Appointments for these individuals are currently the responsibility of the Office of Biomedical Faculty Affairs. The title of Research Associate is used for a variety of individuals employed by the hospitals affiliated with the Alpert Medical School. This title includes postdoctoral researchers in training, individuals with a doctoral degree who are long-term employees who do not aspire to independent status and individuals with Masters degrees who have major responsibilities in a research program. It is desirable to identify non-Brown paid postdocs who are in training and hold titles of Research Associate, Senior Research Associate or Fellow in order to include them in notices of funding and professional development opportunities and to facilitate networking and sense of community throughout our academic enterprise.

Notes and References

1. www.aamc.org/research/postdoccompact/postdoccompact.pdf
2. In 2004 an ad hoc Committee on Postdoctoral Researchers led by Prof. of Engineering William Curtin (Chair) and Associate Provost Nancy Dunbar was charged by the Provost to evaluate the training, development and employment environment of postdoctoral researchers at Brown and to offer recommendations regarding policies governing the employment and oversight of such researchers. Their report and recommendations may be viewed at www.brown.edu/Administration/bupa/PostDocReport.pdf

TABLE 1
Postdocs by Department and Appointment Title

DEPARTMENT	Postdoctoral Research Associate	Postdoctoral Research Fellow	TOTAL
Community Health	5	18	23
Ecology & Evolutionary Biology	13	3	16
Medicine	2		2
Molecular Biology, Cell Biology & Biochemistry	24	5	29
Molecular Microbiology & Immunology	3		3
Molecular Pharmacology, Physiology & Biotechnology	8	3	11
Neuroscience	13	3	16
Pathology & Laboratory Medicine	7	2	9
Psychiatry & Human Behavior	3	5	8
TOTAL	78	39	117

TABLE 2
Median Salary of Postdocs by Department

Department	Median Salary	Range of Years at Brown
Community Health	\$36,996	0 – 2
Ecology & Evolutionary Biology	\$40,000	0 – 4
Medicine	\$38,498	0 – 2
Molecular Biology, Cell Biology & Biochemistry	\$38,976	0 – 5.5
Molecular Microbiology & Immunology	\$36,996	0 – 4
Molecular Pharmacology, Physiology & Biotechnology	\$40,088	0 – 5
Neuroscience	\$41,081	0 – 6
Pathology and Laboratory Medicine	\$43,719	0 – 4.5
Psychiatry & Human Behavior	\$38,976	0 – 2

TABLE 3
Gender & Ethnicity of Postdocs*

Gender	Race	Total
Female	African American	1
	Asian	4
	Asian/Indian	0
	Asian/Pacific Islander	3
	Hispanic or Latino	4
	Prefer Not to Respond	2
	White	35
	White/Asian	1
	White/Hispanic	1
	Female Total	
Male	African/American	0
	Asian	16
	Asian/Indian	2
	Asian/Pacific Islander	1
	Hispanic or Latino	3
	Prefer Not to Respond	13
	White	29
	White/Hispanic or Latino	1
	White/Hispanic/Puerto Rican	1
	Male Total	
Grand Total	*self-reported data	117

TABLE 4
Citizenship of Postdocs

