Department of Radiology Research Training Program

Department/Division Name: Department of Radiology

Training Focus: To provide research training opportunities for people who hope to pursue a career in biomedical imaging research but do not yet have the requisite experience or skills to function proficiently in a research environment.

Faculty Leader/Sponsor: Clare Tempany, M.D., Vice Chair Radiology Research

Administrative Leader/Sponsor: Patti Goldberger, Administrative Director of Radiology Research

Department Research Training Goals and Standards

The goal of the department training program is to fulfill the mission of the Department of Radiology to provide education and training for the next generation of Radiologists and Physicists. The Department provides research training opportunities for people who hope to pursue a career in biomedical imaging research but do not yet have the requisite experience or skills to function proficiently in a research environment. The Department of Radiology Research Training Program is designed to:

- 1. Provide departmental support for training mission,
- 2. Provide leadership, standards, structure and oversight of the training program,
- 3. Ensure trainees receive appropriate daily supervision and training as per the requirements of training, and
- 4. Ensure trainees gain appropriate skills and experience to enable proficiency and completion of training goals.

Trainees participating in the Program are focused on building proficiency and building a broad base of research skills – as opposed to productivity or delivery of service relative to lab/department projects. Trainees participating in this program are not considered employees, do not provide services on behalf of the hospital, and, as such, are not entitled to wages or benefits. At the end of the Training Program successful trainees will have developed the requisite skills and experience to qualify for an entry level position in their chosen field of imaging research.

Selection of Trainees

The Department selects trainees that will best meet the training goals of the department. The PI who will be supervising the trainee evaluates the candidate's training needs and their main area of interest and determines if the Department of Radiology research curriculum will meet the trainee's goals. The PI bases their decision to accept a candidate on the strength of the candidate's resume, letters of recommendation, and the candidate's apparent interest in pursuing a career in imaging research. The following specific criteria are used to evaluate potential trainees:

Medical Track (MD)

- · Currently in medical school or completed medical school
- Recommendations from supervisors
- Interest in academic career (undergraduate and graduate research)
- Communication skills, patient interaction
- Basic computer skills
- Successful interview

Basic Science Track: (non-MD)

- Undergraduate degree program, college degree, graduate degree program, post-doc, etc.
- Recommendations from supervisors
- Evidence of interest in biomedical imaging applications (course selection, prior research, conferences)
- Successful interview

Research Environment

The Department of Radiology is highly motivated to provide a research environment suitable for training and is very committed to providing a successful training program. The Faculty and Administrative Leaders of the department training program have both the time and experience to appropriately lead this program and provide ongoing support for the trainees. The Radiology department supports its own laboratories, which are equipped with modern radiographic and research equipment. The Department of Radiology makes equipment and supplies available to trainees on an asneeded basis.

Trainee Supervision

Each trainee in the department is provided with an Individual Training Plan (ITP) articulating the specific training plan governing that person's training (typically developed by the PI sponsoring the trainee). The ITP identifies supervisors who are appropriately qualified and have the time needed to provide daily supervision and mentorship for the trainee. In addition, the department has an ad hoc Trainee Curriculum Committee which is chaired by the department's training program Faculty Leader. This group consists of 5 members of the active program faculty. Its membership includes those preceptors who are currently supervising research trainees; thus, the committee changes in response to trainees entering or leaving the program. The Trainee Curriculum Committee is charged with the following responsibilities:

- Review ITP's created in the department
- Review trainee progress frequently and recommend modifications to individual trainees' program curricula, as necessary
- Review of program evaluation forms received from trainees
- Develop additional course content as needed
- Review and modify the list of mentors and research projects available to trainees

Department Training Meeting

Trainees in the Department of Radiology are provided opportunities to regularly meet with other trainees in the department to discuss their experiences and learn about research activity taking place across the department. There is a weekly journal club which all department trainees participate in to discuss current research topics in Radiology. The training program faculty hold regularly scheduled "lab meetings" in order to integrate the trainees into their research programs as quickly as possible, and to ensure that the trainees are aware of all the research projects being worked on throughout the department. Department faculty are invited to participate in these meetings by presenting information on their research and to lead discussions on pertinent research topics.

Intradepartmental Collaboration

Department of Radiology trainees are offered opportunities to develop a broad base of research skills and experiences, both within a given laboratory and across the department. The department has established a policy of providing a list of all research topics within a sub-program to each new trainee entering that sub-program. If a trainee is not certain about which sub-program they want to work in, they are given the opportunity to find out more about the possible research projects within any sub-programs in which they are interested.

Course/Seminar Participation

Trainees must participate in at least one relevant course or seminar per week in support of their training goals. Courses and seminars are widely available throughout BWH, Harvard Medical School and Catalyst. The Radiology Department offers the following seminars and courses:

Weekly Grand Rounds on Tuesdays at 12:15 in the Bornstein Lecture Hall First Monday of the Month Lecture Series at noon in Abrams Conference Room CME Course Offerings

Other non-departmental offerings and schedules are found online at:

BWH Research Intranet: http://bwhbri.partners.org/

BWH Events Calendar: http://www.brighamandwomens.org/view/viewEvents.aspx?audience=1

Catalyst: http://catalyst.harvard.edu/learning.html

Harvard Medical School: http://itwwebs.med.harvard.edu/EventsCal/ASP-HTML/index.asp

HMS/HSMD PostDoctoral Association: http://web.hms.harvard.edu/pda/Postdoc Career Series: Careers Facilitating Clinical/Translational Research: http://www.brighamandwomens.org/view/EventDetails.aspx?eventID=46236

Research Connection LIVE Lunch:

http://www.brighamandwomens.org/View/EventDetails.aspx?eventID=46581

Postdoc Q & A Lunch: http://www.brighamandwomens.org/View/EventDetails.aspx?eventID=46567

In addition, trainees participate in the regularly scheduled journal clubs, conferences, seminars, workshops, and grand rounds that are offered throughout the Brigham and Women's Hospital and Harvard Medical School.

Training Summary

At the end of their training program, each trainee will achieve competence in his or her chosen sub-specialty in Radiology. At the conclusion of their training, the trainees present a summary of their training and what they have learned at a lab meeting and at a department training meeting. Each trainee will be required to submit a written summary of his/her training to document completion of the articulated training goals. This written summary will be kept by the department in the trainee's file, along with copies of the trainee's CV, references, and individual training plan.

Training Feedback

The Administrative Leader of the department training program conducts exit interviews with each trainee when they complete their training program. The goal of the exit interview is to solicit feedback from trainees regarding their training experience and the quality of the mentorship provided. The Administrative Leader will compile the information gleaned from the exit interviews and present feedback to the Trainee Curriculum Committee and the Radiology Research Executive Committee, in addition to each mentor as appropriate. Preceptors or labs that consistently have problems with meeting training program goals will meet with the Faculty Leader of the department training program to discuss strategies and areas of improvement.

| Faculty Leader | $\frac{11-9-10}{\text{Date}}$ |
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| Patto Malrager | 11-10-10 |
| Administrative Leader | Date |
| 57 Sell | 11-10-11 |
| Department Chair | Date |
| - Daha 2028 | 11 (10),0 |
| Senior Vice President, Research | Date |
| Les Stonton | |
| Vice President Human Resources | Date |