

RESIDENT RESEARCH, DEPARTMENT OF SURGERY, UCSF

- Residents are provided an opportunity to participate in research at the end of R3.
- Residents usually spend 2 years (1 year for plastic surgery residents, and occasionally 3 years) engaged in full time research.
- The Department of Surgery Research Committee advises residents about selection of research training programs, including didactic training, monitors residents' progress, and tracks the success of the training programs.

1. SELECTION OF A TRAINING PROGRAM

Time-lines

R1 November. R1 residents attend a **Primer for Research Years*** workshop that is run by the Research Committee and senior residents. The workshop will:

- Provide resources to facilitate the identification of a mentor and project.
- Provide a practical timeline for identification of a mentor and project.
- Discuss funding opportunities and the process of grant submission.
- Reiterate the rules, policies and expectations for the research years (*e.g.* Policy of Resident Funding in Research).

* *available for categorical and non-categorical residents.*

R1 May. Residents must select 1 (maximally 2) research themes that follow the SOM/GME **Pathways to Discovery Program** (<http://medschool.ucsf.edu/pathways/>). Themes include:

- Clinical and Translational Research (*e.g.* TICR Program, stem cells, tissue engineering, device development)
- Global Health (*e.g.* global diseases, global health care delivery)
- Health and Society (*e.g.* health disparities, health systems, policies)
- Molecular Medicine (*e.g.* research into disease mechanisms)
- Health Professions Education (*e.g.* educational programs)

Residents will be assigned a theme advisor with expertise in these themes. Theme advisors are members of the Research Committee.

R2 July to August. Residents meet with their assigned theme advisors who will assist them in selecting a research topic and training program, and who will provide advice about sources of funding. The theme advisor will assist in helping residents select two mentors:

- **Research Mentor** - who will direct the resident's research training.
- **Clinical Mentor** - who will provide guidance in relating their research training to the resident's longer term clinical goals.

R2 August to November. Residents meet with their research mentors and identify a research project.

R2 December. Residents and their research and clinical mentors attend a **Research Planning Meeting** that is run by the Research Committee. Residents present their research project. The presentation (20 min) should include background, aims and research plan, and should indicate potential sources of funding. A 1 page written summary of the project is required 1 week before the meeting (submit to Eleanor.Fiege@ucsfmedctr.org).

R2 January onwards. Residents and their research mentors are required to write grants that support the residents' research training program. Copies of grants must be submitted to the Research Committee (submit to Eleanor.Fiege@ucsfmedctr.org). Grant submission is mandatory (*e.g.* all residents on the *Molecular Medicine* theme are required to apply for an NIH F32-NRSA award).

2. RESPONSIBILITIES OF RESEARCH MENTORS. Research mentors are expected to:

- Maintain an active research program that provides a supportive environment for training residents in research.
- Provide funding for the research program, which may include supporting the residents research activities and salary if extramural and departmental funds are unavailable for salary (see Policy of Resident Funding in Research).
- Discuss with the resident *at the beginning of the training program* the criteria for a successful research experience, including goals and expectations, requirements to present at local, national and international meetings, and publications.
- Devote adequate time to mentor and train the resident in research.
- Provide resources (e.g. technical support) to ensure that the resident is trained in the practical aspects of research.
- Assist the resident in applying for extramural funding.

3. RESPONSIBILITIES OF CLINICAL MENTORS. Clinical mentors are expected to provide guidance about relating research training into the resident's long-term clinical careers.

4. RESPONSIBILITIES OF RESIDENTS. Research residents are expected to:

- Commit to full time participation in the research training program.
- Discuss with their research mentor *at the beginning of the training program* their plans for outside clinical activities (e.g. moonlighting), which must not distract from the research training program.
- Participate in other scholarly activities (e.g. projects with other laboratories) *only after discussion* with their research mentor.

5. MONITORING RESIDENTS' PROGRESS

- After 3 months of research training (by **October**), residents and their mentors will attend a Research Committee meeting. Residents will make a 15 minute presentation of their research progress. They should have a clear hypothesis and a provide information about their experimental design, methods and progress.
- After 12 months of research training (by **August**), residents and their mentors will attend a Research Committee meeting to make a 15 minute presentation of their research progress. They must provide details of progress (presentations, publications) and present plans for future work.
- Within 3 months of completing training, residents will provide the Research Committee with a summary of their accomplishments (1 page) and a list of all publications and presentations.
- All residents are required to submit abstracts for Residents' Research Day **every year**.

Formal Evaluations

- The Research Committee will formally evaluate residents' presentations at the Research Planning Meeting.
- The Research Committee will formally evaluate the residents' presentations (October and August) and their accomplishments.
- Research mentors are required to submit a brief report of the residents' performance to the Research Committee (Eleanor.Fiege@ucsfmedctr.org) at the end of the training program.
- Residents will evaluate the research training program at the end of the final year in training.

6. FREQUENTLY ASKED QUESTIONS

Do I have to apply for grants?

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Yes, grant writing is an integral component of the training program. Grants should be written with guidance from the research mentor. The Departmental Editorial Office (Pamela Derish: <http://sciencepubs.surgery.ucsf.edu/about-us/pamela-derish.aspx>) provides guidance in scientific writing. The Department of Surgery Contracts and Grants Office (Gail Johnson: Gail.Johnson@ucsfmedctr.org) provides guidance in the nuts-and-bolts of grant submission.

What happens if I don't apply for grants?

You will not be allowed to participate in a research training program.

How many grants do I need to apply for?

Residents typically apply for multiple grants. Usually, the same application can be submitted to several agencies (although funding from only one agency is allowed – unless permitted by the funding agency (sometimes one grant will fund salary and another will fund research costs)).

What happens if I am unsuccessful at obtaining grant funding?

*You will be eligible to be considered for funding from the Department of Surgery or your research mentor. See **Policy of Resident Funding in Research.***

Can I moonlight?

*Yes, provided that this does not detract from your training program, which is your primary responsibility. Moonlighting must be discussed with your research advisor **at the start of your training program.***

What if I want to do something for which there is no grant funding available?

You have chosen the wrong project and should select a different research topic.

What if I want to obtain an additional degree?

This is possible at UCSF and elsewhere, but you will usually have to fund this activity yourself.

Will the department fund research at a different institution?

*No. See **Policy of Resident Funding in Research.***

What do I do if I have problems – if I have selected the wrong research program or mentor, or if my research is going nowhere?

*First, immediately contact the resident ombudsman (Dr. Peter Stock). If you wish, these discussions will be kept in **strict confidence.** The Research Committee can intercede on your behalf and help you and your mentor negotiate suitable outcomes. Under exceptional circumstances, the Research Committee can reassign you to an alternative training program.*