

**Research Project Guidelines  
Hematology Oncology Fellowship  
Tisch Cancer Institute  
Icahn School of Medicine at Mount Sinai**

**MISSION**

Our main purpose is to educate, train, and encourage talented emerging investigators to engage in scientific discovery and harness the promise of emerging technologies so as to foster and position the future generation of leaders in team science to meaningfully impact the development and outcome of cancer in man.

To accomplish this, we aim to:

- Strategically align our education and training efforts with specific programmatic strengths in cancer research;
- Facilitate recruitment and retention approaches in an integrated and thoughtful manner to best serve the scientific programs of the TCI;
- Implement a research mentoring curriculum to facilitate effective individualized career development of postdoctoral trainees pursuing fellowship training in Hematology and Medical Oncology, focused on the attainment of mentored and ultimately independent funding, as well as other critical milestones anticipated for trainees pursuing careers in either basic, translational or clinical research;
- Foster cross-talk among our clinical trainees with basic science disciplines so as to encourage collaborative, team science research to improve the outlook and well-being of patients with hematologic and oncologic diseases; and
- Leverage the educational resources of Conduits, our NCATS-funded CTSA, to specifically foster the methodological acumen of trainees pursuing careers in research, including
  - Biostatistics, research study design, and informatics
  - Reach for your first K & R programs
  - Writing programs, grant review, and manuscript editing

**TIMELINE** (Completing each task earlier than the proposed deadlines is highly encouraged and may facilitate more competitive applications for training grants.)

**1. EXPLORE AND IDENTIFY MENTOR(S)**

- Prospective 1<sup>st</sup> year fellows will receive information *prior to the onset of fellowship* with guidelines to explore potential mentors and a request to craft and share their interests and ideas regarding potential research projects.
- 1<sup>st</sup> year fellows, as part of their *on-boarding*, will have a series of lectures and a data blitz to provide extensive exposure to research activities within the Division of Hematology and Medical Oncology, the Department of Oncological Sciences, and several MTAs within the graduate school participating in TCI activities .
- The 1<sup>st</sup> year fellows will *meet with the Program Directors* to discuss their research interests (*December – January*). Each fellow will be advised on potential mentors and provided with a list of questions to consider when meeting with prospective mentors (Appendix A).

- During their *1<sup>st</sup> year research block (and any time that the fellow devotes to this pursuit during the 1<sup>st</sup> year of fellowship)*, the fellows are responsible for arranging meetings with potential mentors, discussing potential projects, attending lab meeting to understand the make-up and morale in the lab, and determining whether the mentor is available and willing to take them on as a mentee. The fellows are encouraged to discuss the outcomes of these meetings with the Program Directors such that a Fellowship Research Mentoring Committee can be established.
- The mentors and mentees will mutually agree to enter the relationship and will complete the mentor/mentee form which will be returned to the Program Directors (Appendix B). *Identification of a mentor and submission of the mentor/mentee agreement is due by May 1<sup>st</sup> during the 1<sup>st</sup> year of fellowship.*

## 2. DRAFT RESEARCH PLAN FOR REVIEW

- Fellows will draft a formal research plan, comprising a hypothesis, specific aims, approach, potential pitfalls and alternative plans (Appendix C) for review with their mentor.
- The proposed work should be realistic to complete within the remaining training period and explicitly highlight the role the fellow will play in the proposed research. (Fellows can be provided with examples of research plans and will complete a grant writing didactic session.)
- *The research plan must be submitted to the Program Directors by June 1<sup>st</sup> of the 1<sup>st</sup> year of fellowship.*
- The plan will be reviewed by the Fellowship Research Mentoring Committee between June 1<sup>st</sup> and September 1<sup>st</sup>, and will be (1) approved, (2) approved pending revisions, or (3) not approved, requires revision.
- The focus of the review will be on the extent to which the project enhances the fellow's training in research methodology, the role the fellow will play in the proposed research, and the degree to which the project will serve as a basis for career development. The outcome of the review will be returned to the fellow and mentor to enable preparation for the Fellowship Research Mentoring Committee meeting by October 1<sup>st</sup> of the second year of fellowship.
- In some cases, the fellows will be able to complete all these tasks by June 1<sup>st</sup> of the 1<sup>st</sup> year of fellowship and are encouraged to do so whenever possible.

## 3. FELLOWSHIP RESEARCH MENTORING COMMITTEE MEETINGS

These meetings will be held *three times during the 2<sup>nd</sup> and 3<sup>rd</sup> years of fellowship*. The first meeting will be held sometime between May and October, depending on how quickly the 1<sup>st</sup> year fellow is able to identify a mentor, commit to a project, prepare a Research Plan, and complete approval after the Fellowship Research Mentoring Committee meeting. Multiple progress reports will take place during the Fellowship Research Mentoring Committee meetings in the 2<sup>nd</sup> and 3<sup>rd</sup> years of fellowship.

Specifically, each fellow will submit progress reports to the Fellowship Research Mentoring Committee detailing progress in completing each aim proposed in their research plan. Each progress report will include any abstracts, manuscripts, and grants submitted. A presentation of the proposed and accomplished aims will be prepared for each Fellowship Research Mentoring Committee meeting (Summer / Fall 2<sup>nd</sup> year; Spring 2<sup>nd</sup> year; and Fall / Winter 3<sup>rd</sup> year).

Lastly, each fellow will submit a final report to the Fellowship Research Mentoring Committee by June 1 of the third (or final) year of fellowship, detailing and summarizing their work in completing their research project. It is the expectation that an original manuscript will be submitted by each fellow and a copy of the manuscript (or most current draft) will be submitted with the final report.

## **TRAINING GRANTS**

The research plan will serve as the basis for submitting a training grant (e.g., ASCO YIA or CDA, ASH training grant, AACR, etc). Each fellow will be provided with a list of training grants and submission deadlines at the beginning of each academic year and will discuss with their mentor the appropriate mechanism to target for application. A new internal grant opportunity is currently being made available for the purpose of encouraging faculty:fellow team-building toward successful research project completion and career development (Appendix D).

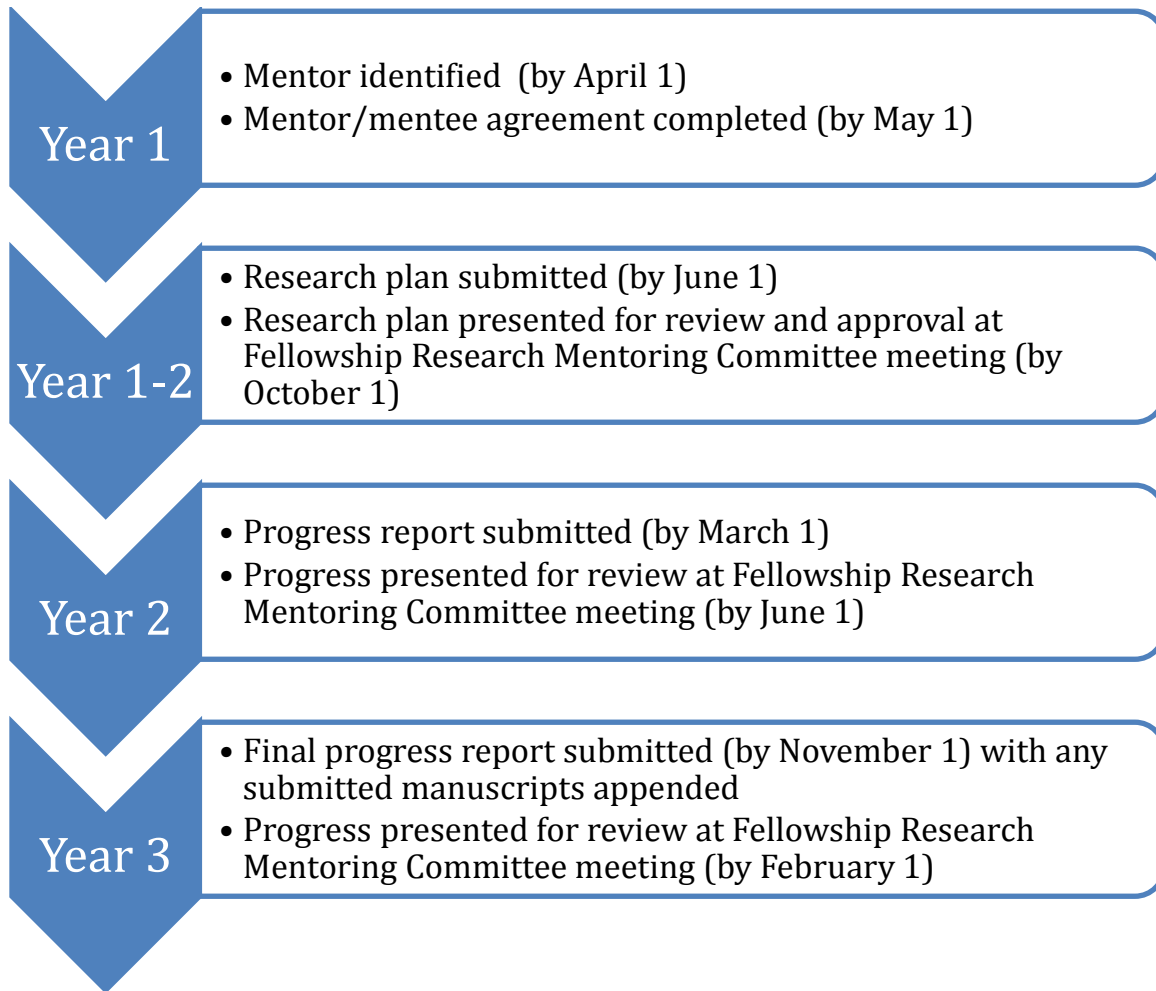
## **METRICS TO EVALUATE AND EXPECTATIONS OF PRODUCTIVITY**

The Fellowship Research Mentoring Committee is charged with evaluating and advising the fellows / mentors specifically regarding the necessary components toward their individual success. The fellow is not limited to receiving guidance from Fellowship Research Mentoring Committee meetings but can reach out to the members of the committee for specific guidance throughout the fellowship. In addition, the Fellowship Research Mentoring Committee also incorporates input from fellowship program directors, Drs. Adriana Malone and Yelena Ginzburg.

Each fellow will be expected to:

- Identify a mentor and mutually agree on a project to pursue;
- Prepare a Research plan for research to be accomplished during the fellowship period to be submitted to the Fellowship Research Mentoring Committee;
- Prepare a proposed research presentation and progress report presentations for 3 Fellowship Research Mentoring Committee meetings;
- Present research results as part of their fellowship presentations at meetings both internally (e.g. Thursday morning talks, Thursday afternoon work-in-progress, etc) and externally (e.g. ASCO, ASH, etc);
- Write at least one review article in an area of their research interest;
- Write a manuscript reporting the results of their primary research project; and
- Consider writing a training grant, to provide funds for both the period during and after fellowship.

Note: Fellows will provide real-time updates to the Fellowship Program Coordinator regarding all manuscripts, abstracts, and grants (both submitted and funded) for tracking in New Innovations.



## **Appendix A: Preparation for meetings with a prospective mentor/mentee**

### **I. Characteristics of a good mentor**

In many cases, the best mentor/mentee relationships are based on good chemistry, like all relationships. There are however some objection characteristics that are rather universal to good mentors:

- A willingness and motivation to help others
- A commitment to the program
- Good interpersonal skills
- Solid knowledge in the area of interest
- A high degree of job satisfaction
- Demonstration of behaviors that model the program's values
- A commitment to invest the time necessary to assist in an individual's personal development
- Good listening skills
- Track record of successful mentoring

### **II. Preparation for meetings with a prospective mentor**

Prior to the first meeting with a mentor, fellows should:

- Write down at least three (3) things that they would like to achieve through mentoring and rank these items in order of importance;
- Write down at least three (3) things that they would like their mentor to provide as part of the relationship;
- Prepare a brief CV to share with your potential mentor at the first meeting, including your own vision, mission, and/or life goals;
- Prepare an agenda to ensure that all of the topics you would like to cover are addressed.

### **III. Understanding possible projects in the mentors research program**

Fellows can ask questions about the mentor and his/her research program:

- How often do you meet individually with your mentees?
- Does your research group have regular group meetings? If so, how frequently?
- What qualities do you value most in a mentee?
- What are your current research projects, and at what stage of completion are they right now?
- Do you allow fellows to design their own projects or do you prefer to assign projects?
- How often do you collaborate with other research groups?
- What process do you use to evaluate your mentees? How often does this occur?
- How many former students and fellows have you mentored, and where did they go after leaving your research group?

#### IV. **Understanding the details of the fellow's role in a prospective research projects**

Fellows can ask questions about available projects in the research group:

- What might I be working on here?
- What approaches/skills would I have the opportunity to learn and develop?
- Would I be able to take courses or participate in training programs?
- Would I be able to attend scientific meetings? How often?
- Would I have opportunities to give formal and informal research presentations?
- Would I be working on my own project or sharing a project with other members of the research group?
- Is there a specific person in the group that I could go to with day-to-day questions?
- What is the expected timeline for completing the project(s)?
- At the end of the research project, is there the anticipation of a publication? If so, what role will I play in the preparation of that manuscript and what are the expectations of authorship? In what order?
- How does the mentor view the potential for grantsmanship on mutually agreed upon topics?

**Appendix B: Mentor/Mentee Agreement**

**Mentoring Agreement**

This agreement outlines how the mentoring relationship will proceed and the commitment of both parties to the relationship.

1. How often will we meet formally (e.g., weekly, monthly, quarterly, etc) and where:

\_\_\_\_\_

2. Who will schedule the formal meetings:

\_\_\_\_\_

3. In addition to the formal meetings, will there be informal communication, and if yes, by what means (e.g., e-mail, phone, face-to-face, etc)?

\_\_\_\_\_

4. Goals for the mentoring relationship:

a. Mentee

i \_\_\_\_\_

ii \_\_\_\_\_

iii \_\_\_\_\_

b. Mentor

i \_\_\_\_\_

ii \_\_\_\_\_

iii \_\_\_\_\_

5. Confidentiality agreement (How will information be shared both within and outside the partnership? Define expectations.)

\_\_\_\_\_

\_\_\_\_\_

I agree to put my best effort forth to create a successful mentoring relationship and to achieve the goals and standards set forth above.

\_\_\_\_\_  
Mentor's signature

\_\_\_\_\_  
Mentee's signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

## **Appendix C: Research Plan**

### **Specific Aims** (limit 1 page)

List succinctly the specific objectives of the research proposed. The specific aims should state concisely and realistically what the research intends to accomplish and/or what hypothesis is to be tested, and should list measurable objectives for the proposed project.

### **Research Strategy** (limit 4 pages)

The Research Strategy must include the following information:

- **Significance and Background**
  - Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
  - Explain how the proposed project will improve scientific knowledge, technical capability, and/or critical practice in one or more broad fields.
  - Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will change if the proposed aims are achieved.
- **Innovation**
  - Explain how the research challenges and seeks to shift current research or clinical practice paradigms.
  - Describe any novel theoretical concepts, approaches, methodologies, instrumentation, or interventions.
- **Approach**
  - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.
  - Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
  - Include a timeline to demonstrate that the proposed work can be accomplished within the scope of the fellowship.
- **Statistical Analysis**
  - Discuss the justification for sample sizes, procedures for data analysis, and statistical considerations as appropriate for the research design/objectives.



## **Appendix D: Grant opportunity for Hematology Oncology Fellows**

### **FELLOWSHIP RESEARCH AWARD PROGRAM (FRAP)**

Request for Applications (RFA)

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#### **PURPOSE**

The Fellowship Research Award Program (FRAP) is established by the Tisch Cancer Institute. The Award Program aims to encourage excellence in academic research training of clinical fellows enrolled in the Hematology Oncology Fellowship Program at Icahn School of Medicine at Mount Sinai.

#### **FINANCIAL INFORMATION AND NUMBER OF AWARDS**

- FRAP will sponsor two (2) awards annually
- Each award will provide funding for one (1) year
- Awardees will each receive up to \$8,000 toward the expenses of their research-specific activities

#### **ELIGIBILITY**

Candidates must be in good standing with the fellowship program to be eligible for this grant mechanism and have demonstrated evidence of commitment to an investigative career in Hematology / Oncology.

Candidates must be clinical fellows with at least one (1) full year of fellowship remaining.

Candidates must participate in weekend and evening fellow-related “on-call” activities, one weekly half-day continuity clinic, and academic half-day during the entire funding period of this award.

#### **DEADLINE FOR RECEIPT OF APPLICATIONS**

The deadline for the receipt of this application is May 31, 2017. Candidates will be notified of the review committee’s decision by mid-June.

#### **EXPECTATIONS OF AWARDEES**

Upon accepting FRAP, awardees will be expected to:

- 1) Submit a short (2-3 page) research progress report to the review committee upon completion of the award period;
- 2) Participate in presenting their research findings during Clinical Resident / Fellow Research Day at Mount Sinai, held in June of each year;
- 3) Acknowledge FRAP and the Tisch Cancer Institute on all presentations and publications

## **REQUIREMENT FOR SUBMITTING FRAP PROPOSAL**

1. Cover page
2. Letter of recommendation
3. Applicant and Mentor NIH Biosketches
4. Research Plan (limited to 5 pages)
5. Budget and Budget Justification for funds being requested only; source of other support for the project provided by the mentor and / or other awards / pilot funds should also be included
6. If applicable, IRB or IACUC approval (absence of approval may result in ineligibility)

## **GRANT SUBMISSION INSTRUCTIONS**

Send completed application in a single (1) PDF file *electronically* to:

Wanda Evans

Senior Fellowship Coordinator

The Tisch Cancer Institute at Mount Sinai Health System

Division of Hematology/Medical Oncology

Email: [wanda.evans@mssm.edu](mailto:wanda.evans@mssm.edu)

Phone: 212-241-4705

## **REVIEW PROCESS**

Proposals will be reviewed by a 6-person review committee. All decisions made by the committee are final. For additional details, please contact Wanda Evans, Senior Fellowship Coordinator at 212-241-4705 or [wanda.evans@mssm.edu](mailto:wanda.evans@mssm.edu).