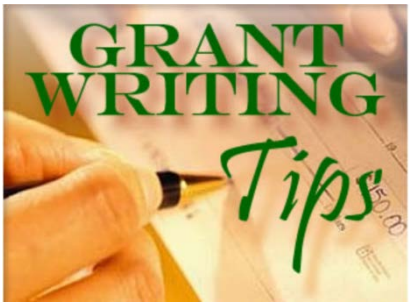
GRANT WRITING RETREAT
July 14th, 2017
AGENDA

Title: Demystifying the grant process: A grant writing retreat for postdocs and graduate students



Learning Objectives:

- Learn grant finding strategies
- Familiarize yourself with different granting agencies
- Learn how to write a convincing proposal
- Experience a live grant review session

Agenda:

11:00-11:30	How to find a grant (Dr. Michelle Schoenecker-UWM)
11:30-12:00	NSF grant process: a non-NIH perspective (Dr. John Kirby-MCW)
12:00-1:00	Lunch-to include networking with faculty (bring your grant-related questions!)
1:00-1:30	What makes a ~~good~~ *competitive* proposal? (Dr. Michelle Schoenecker-UWM)
1:30-2:00	Introduction to F grants (Dr. Joe Barbieri-MCW)
2:00-3:00	Learn to think like a reviewer (Dr. Dara Frank-MCW)
3:00-4:30	Live grant review ▪ Chair: Dr. Dara Frank (MCW) ▪ Primary reviewers: Drs. Dusanka Djoric and Dan Bretl ▪ Secondary reviewers: audience members

Afternoon snacks will be provided.

PLEASE FILL OUT THE EVALUATION SO WE CAN IMPROVE FUTURE RETREATS

NIH F32 Toolkit - Kirschstein Postdoctoral Individual National Research Service Award (NRSA)

This resource is intended as a tool to assist those individuals preparing an F32 application. It does **NOT** replace the detailed information provided in the specific funding opportunity announcement (FOA). Particular FOAs have specific requirements that may not be included here. **As a best practice, always refer to your specific FOA.**

KEY RESOURCES	
PA-16-307	Ruth L. Kirschstein NRSA Individual Postdoctoral Fellowship (Parent F32)
Program Overview	NIH Research Training & Career Development – Individual Fellowships
SF424 Application Guide	Fellowship Instructions for NIH and other PHS Agencies (Forms D)
Grants Process Overview	Overview of the NIH Grants Process
eBridge Training	eBridge training, instructional and support materials
Internal Deadline	Submission Timeline Requirements

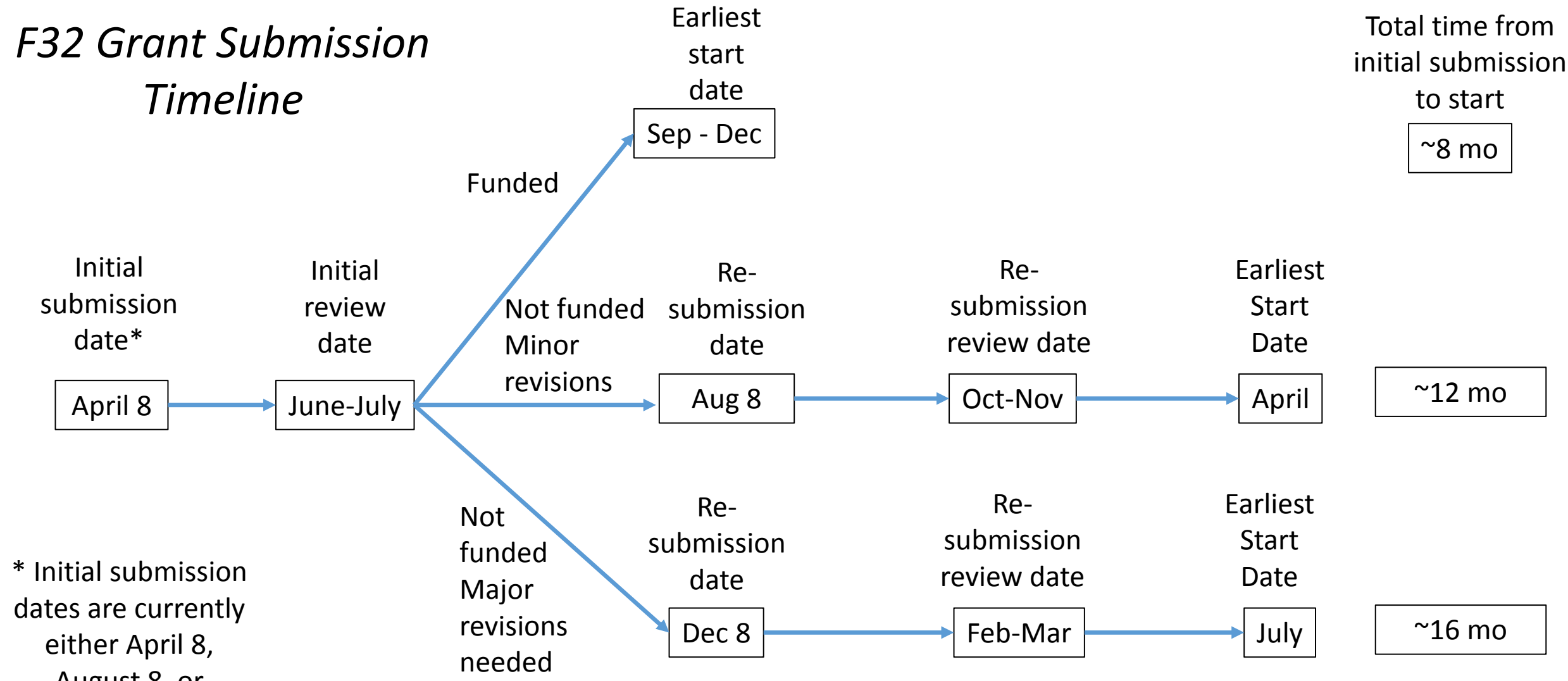
FORMATTING INSTRUCTIONS	
Document format	PDF only; no headers or footers
Font type/size	✔ Arial, Georgia, Helvetica or Palatino Linotype typeface ✔ 11 or larger ✔ Black font color
Line spacing	✔ No more than 6 lines of type within a vertical space of 1 inch ✔ Only single column formatting
Page size	Standard letter paper size (8.5 x 11)
Margins	At least 0.5" all sides

PROPOSAL DOCUMENTS		
1	☐	**Cover Letter**
		✔ Fellowship applicants are required to include a cover letter with the application. The cover letter will not be shared with peer reviewers. The cover letter must contain the list of referees (including name, department affiliation, and institution). It should also contain any of the following information that applies to the application: o Application Title o Funding Opportunity (PA or RFA) title of the NIH initiative. o Request of an assignment (referral) to a particular awarding component(s) or Scientific Review Group (SRG). The PHS makes the final determination. o List of individuals (e.g., competitors) who should not review your application and why. o Disciplines involved, if multidisciplinary.
2	☐	**Project Summary /Abstract -** No longer than 30 lines of text
		✔ State the application's broad, long-term objectives and specific aims, making reference to the health relatedness of the project.
3	☐	**Project Narrative -** No more than three sentences
		✔ Describe the relevance of this research to public health.
4	☐	**Bibliography & References Cited -** No page limit
		✔ When citing articles that fall under the Public Access Policy, were authored or co-authored by the applicant and arose from NIH support, provide the NIH Manuscript Submission reference number (e.g., NIHMS97531) or the PubMed Central (PMC) reference number (e.g., PMCID234567) for

		each article. If the PMCID is not yet available because the Journal submits articles directly to PMC on behalf of their authors, indicate "PMC Journal – In Process."
5	☐	**Facilities & Other Resources -** No page limit
		✔ Describe how the scientific environment in which the research will be done contributes to the probability of success (e.g., institutional support, physical resources, and intellectual rapport). ✔ Include a detailed description of the institutional facilities and resources available to the fellowship applicant. The information provided is of major importance in establishing the feasibility of the goals of the fellowship training plan.
6	☐	**Equipment -** No page limit
		✔ List major items of equipment already available for this project and, if appropriate identify location and pertinent capabilities.
7	☐	**Biographical Sketch -** Limited to 5 pages
		✔ Use current Format Page – Forms Version D. ✔ Include eRA Commons User Name
8	☐	**Other Attachments, if applicable**
9	☐	**Foreign Sponsorship, if applicable**
		✔ If you are including a "Foreign Justification" attachment, you should include in your justification a description of how the mentor at the foreign site will contribute the scientific advantages of the foreign training experience as compared to the training available domestically.
10	☐	**Applicant's Background and Goals for Fellowship Training**
		✔ Includes the following sections: o Doctoral Dissertation and Research Experience o Training Goals and Objectives o Activities Planned Under this Award
11	☐	**Research Training Plan Section**
		✔ **Specific Aims** o State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will have on the research field(s) involved. ✔ **Research Strategy** o Includes the following sections ▪ Significance ▪ Innovation ▪ Approach ✔ **Respective Contributions** o Describe the collaborative process between you and your sponsor/co-sponsor(s) in the development, review, and editing of this Research Training Plan. Also discuss your respective roles in accomplishing the proposed research. ✔ **Selection of Sponsor and Institution** ✔ **Progress Report Publication List (Renewals only)** ✔ **Training in the Responsible Conduct of Research**
12	☐	**Sponsor(s), Collaborator(s), and Consultant(s) Section**
		✔ **Sponsor and Co-Sponsor Statements** o Includes the following sections: ▪ Research Support Available ▪ Sponsor's/Co-Sponsor's Previous Fellows/Trainees ▪ Training Plan, Environment, Research Facilities ▪ Number of Fellows/Trainees to be Supervised During the Fellowship

		▪ Applicant's Qualifications and Potential for a Research Career ✔ **Letters of Support from Collaborators, Contributors, and Consultants**
13	☐	**Description of Institutional Environment and Commitment to Training**
		✔ Document a strong, well-established research program related to the candidate's area of interest. Describe opportunities for intellectual interactions with other investigators, including courses offered, journal clubs, seminars, and presentations. Indicate the facilities and other resources that will be made available for both career enhancement and the research proposed in this application.
14	☐	**Protection of Human Subjects, if applicable**
		✔ This attachment is required for applicants involving human subjects.
15	☐	**Data Safety Monitoring Plan, if applicable**
		✔ This attachment is required for applicants involving a clinical trial.
16	☐	**Inclusion of Women and Minorities, if applicable**
		✔ This attachment is required for applicants using human subjects, where the research does not fall under Exemption 4.
17	☐	**Inclusion of Children, if applicable**
		✔ This attachment is required for applicants using human subjects, where the research does not fall under Exemption 4.
18	☐	**Vertebrate Animals, if applicable**
		✔ This attachment is required for applicants involving vertebrate animals.
19	☐	**Select Agent Research, if applicable**
		✔ Include a "Select Agent Research" attachment if your proposed activities involve the use of select agents at any time during the proposed project period, either at the applicant organization or at any performance site.
20	☐	**Resource Sharing Plan**
		✔ When resources have been developed with NIH funds and the associated research findings published or provided to NIH, it is important that they be made readily available for research purposes to qualified individuals within the scientific community.
21	☐	**Authentication of Key Biological and/or Chemical Resources**
		✔ Do not submit an "Authentication of Key Biological and/or Chemical Resources" attachment unless it is specifically requested in the FOA.
22	☐	**Applications for Concurrent Support, if applicable**
		✔ If you answered "Yes" to the "Applications for Concurrent Support?" question, you must provide a description of the concurrent support. Include the type, dates, source(s), and amount in the attachment.
23	☐	**Appendix**

F32 Grant Submission Timeline



* Initial submission dates are currently either April 8, August 8, or December 8. This timeline uses April 8 to illustrate the submission and funding timeline

How to apply – video tutorials

NIH website

https://grants.nih.gov/grants/how-to-apply-application-guide/video/index.htm

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BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Robert-Chang, Leilani
eRA COMMONS USER NAME (credential, e.g., agency login): RobertL
POSITION TITLE: Postdoctoral Researcher

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	START DATE MM/YYYY	END DATE MM/YYYY	FIELD OF STUDY
Swarthmore College	BS	08/1995	05/1999	Engineering
UC Berkeley	PHD	08/2001	09/2007	Molecular Biology
UC Berkeley	Post-doc	09/2007	12/2007	Molecular Biology
Michigan State University	NIH training grant	01/2008	present	Bioinformatics/Immunology

A. Personal Statement

My long-term research interests involve development of a comprehensive understanding of key developmental pathways and how alterations in gene expression contribute to human disease. My academic training and research experience have provided me with an excellent background in multiple biological disciplines including molecular biology, microbiology, biochemistry, and genetics. As an undergraduate, I conducted research with Dr. X. Factor on the mechanisms of action of a new class of antibiotics and I worked with an IBeam Group to develop concrete with a high tensile strength. As a pre-doctoral student with Dr. Tandy Agile, a member of the National Academic of Science at UC-Berkeley, my research focused on the regulation of transcription in yeast, and I gained expertise in the isolation and biochemical characterization of transcription complexes. I developed a novel protocol for the purification for components of large transcription complexes. I was first author of the initial description of the Most Novel Complex. During my undergraduate and graduate careers, I received several academic and teaching awards. For my postdoctoral training, I will continue to build on my first post-doctoral training experience which I conducted with Dr. Begone at the UC-Berkeley, in transcriptional controls by moving into a mammalian system that will allow me to address additional questions regarding the regulation of differentiation and development. Due to personal reasons, I transferred to Michigan State University. My current sponsor Dr. I.M. Creative is an internationally recognized leader in the transcription/chromatin field and has trained two postdoctoral fellows. One fellow is working as Staff at the NIH and the other fellow is an Instructor at the University of Washington-Seattle. There is currently one graduate student in Dr. Creative's lab. The proposed research in this fellowship will provide me with new conceptual and technical training in developmental biology and whole genome analysis. In addition, the proposed training plan outlines a set of career development activities and workshops – e.g. grant writing, public speaking, lab management, and mentoring students – designed to enhance my ability to be an independent investigator. My choice of sponsor, research project, and training will give me a solid foundation to reach my goal of studying developmental diseases in man. During my second postdoctoral year in Dr. Creative's lab my father had a severe stroke that eventually ended his life. I was out of the lab for six months dealing with my father's incapacitating illness and end-of-life issues. This hiatus in training reduced my scientific productivity.

B. Positions and Honors

Positions and Employment

1999 - 2001 Engineer, The IBeam Group
2007 - 2007 Postdoctoral Researcher, UC Berkeley
2008 - Postdoctoral Researcher, Michigan State University

Other Experience and Professional Memberships

1997 - Member, Sigma Xi
2000 - Member, Association for Women in Science
2002 - Member, National Society for Bioinformatics and Biotechnology

Honors

1995 - 1997 Scholarship, Daughters of Hawaii Society
1995 - 1999 Scholarship, National Merit Scholarship Program
1999 Paula F. Laufenberg award for best senior project in the Department of Engineering, Swarthmore College
1999 B.S. awarded with high honors, Swarthmore College
2001 STAR award for public service in engineering, The IBeam Group
2002 - 2005 Predoctoral Fellowship for Minorities, Ford Foundation

C. Contribution to Science

1. **Early Career:** My early career contributions were focused on applying my knowledge of structural engineering to improving the design and integrity of tensile structures. More specifically, I worked with a team of engineers at the IBeam Group to develop concrete with a higher tensile strength that could be utilized in large structures such as suspension bridges. My role in the project was to identify candidate polymers, determine the ultimate tensile strength of these polymers, and make recommendations as to which polymer would afford concrete the most structural integrity under various stresses. I also conducted research with Dr. X. Factor on the mechanisms of action of a new class of antibiotics, but did not publish a study on this topic.

    a. Lorentson C, Sauer N, Robert-Chang L, Mehta S. Use of high-tensile concrete in cantilevered structures. J Applied Engineering. 2000; 63:413.
    b. Robert-Chang L, Janessa AJ. Redesigning the Golden Gate bridge. National Undergraduate Symposium on Science and Engineering; 1998; Baltimore, MD. 1998.

2. **Graduate Career:** My graduate research contributions focused on transcriptional gene regulation in Saccharomyces cerevisiae. Results from my research were highly relevant as they provided new details into the workings of complex biological systems, and allowed for further extrapolations into the development of certain diseases and their progression. I originally developed a novel protocol for the purification for components of large protein complexes. A subsequent publication, in which I isolated and characterized a long sought-after transcription complex, challenged a key paradigm of transcription elongation and was a featured article in a major journal.

a. Robert-Chang L, Schneider K, Chen M, Agile T. Rapid isolation and characterization of the most novel transcription complex in Saccharomyces cerevisiae and its role in transcription elongation. Cell. 2006; 128:770.
b. Schneider K, Chen M, Robert-Chang L, Agile T. A tandem affinity purification tag approach allows for isolation of interacting proteins in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America. 2004; 98:151.

3**. Postdoctoral Career:** As a postdoctoral fellow, my research has provided a compelling link between mutations arising in stress response proteins and the development of various autoimmune diseases in humans. Previous studies have shown dysregulation in the innate immune response lead to autoimmune diseases in humans. A few Rtc homologues have now been identified in humans and appear to play a role in the regulation of genes in the innate immune response. My research is focused on the transcriptional regulator Rtc from *Drosophila melanogastor*. I showed that specific mutations affecting Rtc lead to disruptions in downstream gene regulation involved in the innate immune response. The proposed research in this fellowship, with Dr. Creative will provide me with new conceptual and technical training in developmental biology and whole genome analysis.

a. Yao, M., Dionne, C.-F., Robisen B, Yang W, Robert-Chang, L., and Begone, G.C. 2007. Up-regulation of Drosophila innate immunity genes in response to stress. Science 304, 1754-1756.

Complete List of Published Work in My Bibliography:

Additional Information: Research Support and/or Scholastic Performance

Scholastic Performance

YEAR	COURSE TITLE	GRADE
	SWARTHMORE COLLEGE	
1995	Introductory Chemistry I	C
1995	Introduction to Molecular Biology	B
1995	Introduction to Engineering	A
1996	Calculus II	C
1996	Structures and Design	B
1996	Linear Algebra	B
1996	Physics for Engineers	A
1997	Introductory Chemistry II	B
1997	Organic Chemistry I	A
1997	Structural Materials	B
1997	Structural Materials Laboratory	A
1997	Numerical Computation and Graphics Tools	A
1997	Engineering Graphics and Computer-Assisted Design	A
1997	Principles of Structural Design I	B
1997	Statistics, Probability, and Reliability	A
1998	Principles of Structural Design II	A
1999	Senior Project	B
1999	Biochemistry	A
1999	Cell Biology	B
	UC Berkeley	
2001	Seminar in Genetics	P
2002	Statistics for the Life Sciences	P
2003	Ethics in Biological Research	CRE
2004	Seminar in Physiology and Behavior	P

Except for the scientific ethics course, UC San Diego graduate courses are graded P (pass) or F (fail). Passing is C plus or better. The scientific ethics course is graded CRE (credit) or NC (no credit). Students must attend at least seven of the eight presentation/discussion sessions for credit.