

Faculty Research Descriptions - 2012

Russell L. Carpenter Summer Internship in Biology

With funding from the Russell L. Carpenter Fund for Teaching and Research in Biology, the Department of Biology will be offering summer research opportunities for one qualified undergraduate. This student will conduct research under the supervision of a Tufts faculty member and will participate in a weekly seminar series on basic research skills in the biosciences. At the end of the program, the student will present an oral report to the program participants and faculty sponsors.

The stipend is \$4,000 and the student will be expected to participate full-time for a total of 10 weeks during the summer.

Dr. Francie Chew	“Butterfly behavior towards exotic, invasive plants”
Dr. Erik Dopman	“Evolutionary Biology: The genetics of speciation”
Dr. Catherine Freudenreich	“Genetics/Molecular Biology/Yeast: Pathways that prevent chromosome fragility and genome instability”
Dr. Stephen Fuchs	“RNA polymerase II as a model for understanding the function of repetitive protein domains”
Dr. Juliet Fuhrman	“Chitin metabolism in parasitic nematodes”
Dr. Sara Lewis	“Ecology and Evolution: Life history trade-offs in butterflies”
Dr. Kelly McLaughlin	“Molecular Development (organogenesis): Investigate signal transduction pathways involved in organ formation and patterning during development”
Dr. Mitch McVey	“Genetics and molecular biology: DNA repair in <i>Drosophila</i> ”
Dr. Sergei Mirkin	“Molecular mechanisms of repeat expansions in human disease”
Dr. Jan Pechenik	“Physiological costs and adaptations to intertidal stress”
Dr. Michael Reed	“Alarm call recognition in migrant and resident bird species”
Dr. Michael Romero	“Physiology/Endocrinology: The physiological, endocrinological, and behavioral responses of birds to stress”
Dr. Barry Trimmer	“Neurobiology: The neuromechanics of soft-bodied locomotion”

ELIGIBILITY

Full-time Tufts undergraduates, who have completed their freshman, sophomore, or junior year, are eligible to apply. Participants will be expected to work full time for a total of 10 weeks during the summer (Enrollment in a summer school course is considered inconsistent with this program.)

APPLICATION DEADLINE: Monday, March 5th, 2012

AWARDS ANNOUNCED: Monday, March 26th, 2012

8. Starting date for the program is June 4, 2012. (Start date is negotiable). Participants are expected to conduct at least 400 hours of research in his/her advisor's laboratory.

Could you fully participate in the program?

Yes _____ No _____ (Why?) _____

Are you interested in continuing to do research during the academic year following your summer experience?

Yes _____ (how many hours per week? _____) No _____ (Why?) _____

9. **Personal Statement:** Enclose with this application a typed statement describing your research/academic experiences and career goals. What do you hope to accomplish by working in this program?

10. Indicate your laboratory preference (rank order top three choices):

Francie Chew _____ Erik Dopman _____ Catherine Freudenreich _____ Juliet Fuhrman _____
Stephen Fuchs _____ Sara Lewis _____ Kelly McLaughlin _____ Mitch McVey _____ Sergei Mirkin _____
Jan Pechenik _____ Michael Reed _____ Michael Romero _____ Barry Trimmer _____

11. Will you request university housing during the summer?

Yes _____ No _____

12. List names, titles, addresses and telephone numbers of two people whom you have asked to write letters of recommendation (please stress their recommendations are **due by: Monday, March 5th**).

a. Name _____ Title: _____

Address: _____

Telephone number: (____) _____ Email: _____

b. Name _____ Title: _____

Address: _____

Telephone number: (____) _____ Email: _____

Please send completed application and supporting material to Karin Murphy, Department of Biology, Tufts University, Medford, MA 02155.

Do we have your permission to share your application and letters of recommendation with outside researchers interested in hiring summer research students? yes _____ no _____

Applicant's Signature: _____ Date: _____

Summer 2012

Russell L. Carpenter Summer Internship in Biology
Department of Biology
Tufts University

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Request for letter of recommendation:

Applicant's name: _____

1. I have known the applicant for _____ years as _____

2. Overall academic ability of the applicant

Excellent Good Fair Poor

3. Applicant's promise for research

Excellent Good Fair Poor

4. Please make a brief statement (in the space provided below) of your evaluation of the candidate. We are interested in the applicant's intellectual ability, character, originality, and other qualities that you feel are relevant.

Recommender's name: (Please type or print)

Signature: _____ Date: _____

Return this form directly to: Karin Murphy, Department of Biology, Tufts University, Medford, Massachusetts 02155

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Department of Biology
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