

BioME GRADUATE FELLOWSHIP APPLICATION

BioME (Biodiversity from Molecules to Ecosystems) is a fellowship program pairing University of Arizona life sciences graduate students with K-12 teachers and their students.

Funded by the National Science Foundation, BioME creates one-year partnerships between biological scientists and K-12 science educators, each sharing different perspectives and expertise. Fellows become better communicators of scientific concepts and methods, while teachers and their students benefit from enriched science content and a better understanding of the process of scientific research.

Biology is ideal for heightening public interest in science; people can see how science directly relates to them and the natural world around them (“Bio and ME”). At the same time, students can easily become lost in the details and miss the big concepts. BioME fellows can help both students and teachers better understand how basic theories of evolution and biocomplexity unify the field of biology. Together, teacher-fellow partners will use cutting-edge approaches, including molecular techniques, computers, and experience with live organisms to teach biology concepts; all activities are centered on giving K-12 students hands-on experience with the process of scientific inquiry. Classroom science teaching will integrate mathematics and communications skills with life sciences content and individual research expertise of fellows and their faculty advisors.

BENEFITS:

Through the BioME program, each Fellow will:

- ✓ Receive a stipend of \$30,000 plus additional funds for university fees and benefits.
- ✓ Learn new approaches and strategies to improve his/her capacity as a teacher and as a communicator of science.
- ✓ Develop a broader understanding of K-12 education.

RESPONSIBILITIES:

- Fellows will work with teacher partners throughout the school year. Fellows are expected to spend an average of 10 hours per week in the classroom and an additional 5 hours in preparation, for a total of 600 hours over the entire year.
- During Spring 2011, prior to the start of the fellowship in June 2011, fellows will attend a weekly teaching preparation course. The seminar will be on Tuesdays from 3:00 to 4:50pm. Fellows will also attend a UA teaching seminar led by BioME staff and faculty in Fall 2011.
- During the summer, fellows will attend a week-long Summer Institute in June, meet teacher partners and begin planning for the school year.
- Fellows will work with one or two teacher partners at the same school over the course of the school year (High school level = One teacher partner; Middle school level = One or two teachers; Elementary school = One or two teacher partners). While curriculum and activities will vary depending on the needs and interests of the individual classes, all fellows will:
 - ✓ Work with teachers to plan science units or projects.
 - ✓ Assist with lesson development and implementation.

- ✓ Introduce concepts about the practice of science.
 - ✓ Field student questions during class period and laboratory sessions.
 - ✓ Guide students in original research and inquiry projects when appropriate.
 - ✓ Share examples from his/her own and other UA research where possible.
 - ✓ Access resources (outreach programs, materials, and faculty) from UA.
 - ✓ Arrange for his/her graduate advisor to participate in at least one classroom activity.
- During the spring semester, fellows will participate in BioMEET, where they will showcase their K-12 activities to the UA community.

APPLICANT REQUIREMENTS:

- ❖ Applicants must be enrolled in a University of Arizona master's or doctoral degree program pursuing research in the biological sciences. Students enrolled in science education graduate programs are **not** eligible.
- ❖ Applicants must be citizens, nationals or permanent residents of the United States. Foreign students who hold student visas are **not** eligible.
- ❖ Doctoral student applicants must have completed **two years of research** by the start of the Fall 2011 semester. Priority will be given to students who have advanced to candidacy. Master's student applicants must have completed **1 year of research** by Fall 2011.
- ❖ While access to a car is not required for applicants, it is helpful, as many schools are located at a considerable distance from the UA.

APPLYING FOR A BioME FELLOWSHIP:

To apply, please submit the following:

1. BioME Fellowship Application Form (see below).
2. Current Resume or C.V., max. 2 pages.
3. A written statement of interest (max. 1 page) that should address your interest in science education and goals for participating in the BioME fellowship program. If you have any previous formal or informal teaching experience or experience working with children, please describe these activities.
4. A written description of research interests (max. 1 page). Imagine you are talking to a student in the particular K-12 grade level you would like to work with as a BioME fellow. Explain your general research interests and why you enjoy being a scientist. Write your answer using words and concepts that will be understandable and interesting to the student. Please note that your research interest description may be shared with your teaching partner.
5. UA graduate transcript (unofficial copy is fine).
6. Two letters of recommendation, including one from your graduate advisor (see below).

Application Deadline: October 29, 2010

Applicants will be notified of the outcome of the review process by December 10, 2010. Students awarded a BioME fellowship must participate in the spring teacher preparation course and a one-week Summer Institute. Stipend, tuition and fee waivers for students awarded BioME fellowships will cover the time period from June 1, 2011 to May 31, 2012.

2011-2012 BioME GRADUATE FELLOWSHIP APPLICATION FORM
Applications are due October 29, 2010.

Personal Information:

Name: _____

Address: _____

Phone: _____

Email: _____

*Gender: __ Male __ Female *Ethnicity/Race _____

*Providing gender and ethnicity information is optional. The information will be used to determine our effectiveness at recruiting a diverse pool of applicants and for reporting to our funding agency. An application will not be penalized if this information is omitted.

Do you have your own transportation? __ Yes __ No

Languages spoken (in addition to English): _____

Academic Information:

Student ID#: _____

Department: _____

Degree program (Master's or Ph.D.) _____

Graduate Advisor: _____

Date of starting Graduate program: _____

Expected date of graduation: _____

Have you completed your preliminary exams? __ Yes __ No

Teaching Preference:

Please indicate the school level you would prefer to work with by marking the corresponding box with a 1. You may also indicate your second and third choices.

- Elementary (grades 1 - 5)
- Middle (grades 6 – 8)
- High (grades 9-12)

Letters of Recommendation:

Please list the names and contact information of the two individuals who are asking provide your letters of recommendation. One recommendation must come from your present graduate advisor (see form on the following page.)

Graduate Advisor

Name: _____

Email: _____

Telephone: _____

Name: _____

Title or relationship to you: _____

Email: _____

Telephone: _____

Submit BioME applications in hard copy to:

Dr. Judith Bronstein
Department of Ecology and Evolutionary Biology
Biological Sciences West
CAMPUS
(Applications may also be dropped off at Dr. Bronstein's office, Biosciences West 418.)

Please have letters of recommendation sent in hard copy to:

BioME Graduate Application Recommendation
Dr. Judith Bronstein
Department of Ecology and Evolutionary Biology
Biological Sciences West 310
University of Arizona
Tucson, Arizona 85721

Or by email (with the subject line BioME Recommendation, Candidate's Name) to:
pstamper14@gmail.com

If you have questions, please contact:
Dr. Kathleen Walker, BioME Graduate Coordinator
Department of Entomology, Forbes 410
Email: krwalker@cals.arizona.edu
Phone: (520) 626-5930

2011-2012 BioME Fellowship Application – Graduate Advisor Letter

Name of Applicant: _____

Graduate Advisor: _____

To the Graduate Advisor:

Please attach a letter of recommendation, giving your assessment of the applicant's abilities as a scientist, the progress of his/her research, and your impressions of his/her capacity as a teacher and communicator. In addition, please read and sign the following:

I support the application of _____ (applicant's name) to the BioME Graduate Fellowship Program. I understand that participation in this program will require the fellow to spend 15 hours per week preparing lessons and teaching in a K-12 classroom. In addition, I will accompany the graduate fellow to the classroom to participate in one teaching activity during the year of the fellowship. I understand that more information will be provided once the student has been accepted in the program.

Signature: _____

Date: _____

Recommendation letters are due October 29, 2010.

If you have questions about the BioME fellowship or application process, please contact:

Dr. Kathleen Walker, BioME Graduate Coordinator

Department of Entomology, Forbes 410

Email: krwalker@ag.arizona.edu

or

Dr. Judith L. Bronstein

Department of Ecology and Evolutionary Biology

Email: judieb@email.arizona.edu

Phone: (520) 621-3534

Please send your recommendation letter in hard copy to:

BioME Graduate Application Recommendation

Dr. Judith Bronstein

Department of Ecology and Evolutionary Biology

Biological Sciences West 310

CAMPUS

Or by email (with the subject line BioME Recommendation, Candidate's Name) to:

pstamper14@gmail.com