



**The University of Arizona
TEACHER FELLOWSHIP OPPORTUNITY
2011-2012 School Year**

**Applications Due
FRIDAY, March 18, 2011**

***An exciting opportunity for K-12 science teachers to host a BioME
Science Teaching Fellow in their classroom for the 2011-2012
academic year.***

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. The program is designed to spark students' interest in the life sciences and clarify the important role evolution plays in our understanding of biological systems. 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. Classroom science teaching will integrate mathematics and communications skills with life sciences content and individual research expertise of fellows and their faculty advisors. Fellows will be prepared for their classroom experiences through a graduate-level science education course and **weeklong Summer Institute (JUNE 20-24, 2011), which participating teachers also attend.**

Through BioME's financial support, participants will also have the opportunity to take advantage of several local, national and international training opportunities. The experienced management team, led by Professor Judith Bronstein of the Department of Ecology and Evolutionary Biology and including faculty from both The University of Arizona and Tucson public schools, will work closely with Fellows and teachers throughout their experiences. BioME will strengthen graduate fellows' teaching abilities through in-depth collaborations with K-12 educators, and provide them with innovative opportunities to communicate their scientific research to the general public. Teachers and students will benefit from enriched classroom content aligned to the Arizona Science Education Standards; most importantly, they will be provided with hands-on opportunities to develop their understanding of the process of science.

Interested in learning more about BioME?

Please come to the GK-12 Showcase to see what participants have been doing this year!

*** * * Tuesday, Feb 22, 4-6 pm at BIO5 * * ***

For more information, visit biome.bio5.org

IMPORTANT INFORMATION RE: HOW TO APPLY

High School Teachers: High school teachers of biology and biology-related courses apply individually for a one-year collaboration with a graduate fellow.

High school teachers receive \$1,000 for attending **mandatory Summer Institute (June 20-June 24, 2011)** plus \$3,000 for collaboration with their graduate fellow during the 2011-2012 school year.

Total stipend amount for high school teachers: \$4,000 each.

Middle School (6-8) Teachers: Middle School teachers are invited to apply in teams of 2. The teams must be located at a single school site. The teachers and fellow will coordinate a schedule that provides the best opportunities for the fellow to support biology topics. Possible configurations include alternating quarters or a semester in each classroom.

Middle School Teacher Fellows will each receive a \$1,000 stipend for attending the **mandatory Summer Institute (June 20-June 24, 2011)** plus \$1,500 each for collaboration with their graduate fellow during the 2010-2011 school year.

Total stipend amount for middle school teachers: \$2,500 each.

NOTE: Middle School Teachers may apply individually provided that you can articulate in your application precisely how your curriculum will support ongoing opportunities for your fellow to engage in life science topics throughout the entire school year.

Elementary (K-5*) Teachers: Elementary teachers are invited to apply in teams of two. Teachers on the team must be located at a single school site. The teachers and fellow will coordinate a schedule that provides the best opportunities for the Fellow to support biology and other science topics. Please be as precise as possible when describing how the Fellow will be scheduled to provide life-science teaching and expertise in two classrooms.

Elementary teachers (two-person team) will each receive a \$1,000 stipend for attending the **mandatory Summer Institute (June 20-June 24, 2011)** plus \$1,500 each for collaboration with their graduate Fellow during the 2010-2011 school year.

Total stipend amount for elementary teachers (two person team): \$2,500 each.

Please note: BioME Fellows generally go to schools two days a week for several hours each day. It is important for elementary applicants to address how the Fellow will be able to collaborate given the amount of time students spend on science.

***Note to 6th grade teachers at Elementary School sites: Please follow instructions for Elementary teachers.**

Teacher benefits include:

- ✓ Having a resident scientist support your science activities in your classroom
- ✓ Credit for recertification
- ✓ Opportunity to participate at no cost in National and International Professional Development Activities
- ✓ \$1,000 Stipend for Summer Institute (June 20-June 24, 2011)
- ✓ Additional stipend for 2011-2012 collaboration with graduate fellow (see amounts above)

What are the roles of the Fellows and the teachers?

GK-12 Fellows are a resource to teachers and students but are not student teachers. Their roles and responsibilities vary depending on the teachers and students they are working with as well as their expertise and experience. The teacher and Fellow pair collaborates to structure curriculum units as well as plan, deliver and assess science labs and lessons. Fellows and teachers assume the following sorts of responsibilities:

Fellows: Responsibilities and Expectations:

- ✓ Work with teachers to plan 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 development of research question, methods, data interpretation and analysis and presentation of results)
- ✓ Guide students in original research and inquiry projects when appropriate
- ✓ Infuse classes with examples from their own and other UA research where possible
- ✓ Access resources (outreach programs, materials, journals and faculty) from UA

Teachers: Responsibilities and Expectations

- ✓ Understand and appreciate the goals and objectives of the BioME program
- ✓ Work with BioME fellow in your classroom to develop activities related to the biological sciences
- ✓ Hold periodic conferences with your BioME fellow to exchange ideas and plan future lesson activities based on your written classroom/subject syllabus
- ✓ Provide periodic verbal and/or written support/feedback to your Fellow on classroom instruction, management techniques and teaching effectiveness
- ✓ Participate in program-related activities
- ✓ Cooperate with the project evaluator in evaluating the effectiveness of the project
- ✓ Maintain classroom discipline
- ✓ Always remain in the classroom and actively engaged when the fellow is teaching/presenting. The fellow is not a certified teacher and not a student teacher.

Applying: (Applications must be received or postmarked by March 18, 2011)

Interested applicants should complete the attached 2011-2012 application form and have it signed by their principal.

For more information about the program, visit biome.bio5.org or contact:

Mary Bouley, BioME Program

marybouley@cox.net

520-370-1900

BioME Teacher Fellowship Application

Due March 18, 2011

Check One:

- Elementary Team (2)
- Middle School Team (2)
- Middle School Individual
- High School Individual

Note: The Summer Institute is an essential element of the program and establishes the foundation for successful teacher/fellow partnerships. ALL SELECTED TEACHERS MUST BE AVAILABLE TO ATTEND ALL DAYS OF THE BIOME SUMMER INSTITUTE, JUNE 20-JUNE 24, 2011.

Please provide the following contact information:

School name: _____ District: _____

School Address: _____

Teacher Name: _____ Grade level/subject: _____

Cell #: _____ Home #: _____ Work #: _____

Email preferred for BioME communication: _____

(If applying as team, please complete this section for partner)

Teacher Name: _____ Grade level/subject: _____

Cell #: _____ Home #: _____ Work #: _____

Email preferred for BioME communication: _____

Have you or your teacher partner been employed by the University of Arizona in the past three years?

- Yes If Yes, please describe: _____
- No

Will you be participating in any other grant activities or receiving federal funding between June 1, 2011 – May 30, 2012?

- Yes If Yes, please describe: _____
- No

Please provide a two to three page letter of interest in which you describe why you are interested in working with a BioME Fellow. Please address the following:

- How you see yourself and your students benefiting from working with a Fellow
- A brief summary of the biology topics you teach throughout the year
- For Middle School teams, please describe how you anticipate structuring the fellowship in terms of how/when the Fellow might work with each teacher on the team.
- A short description of your school, student demographics, special characteristics and/or programs.
- For Elementary teachers, how a fellow might support science and/or life science activities at your school.

Tip: Help us to visualize the experience a BioME fellow will have when they collaborate with you and work with your students.

Please attach the following to the application form:

Commitment to participate:

I agree to participate as a BioME Teacher for the 2011-2012 school year. I will attend the BioME Summer Institute (June 20-Jun 24) and other BioME related activities throughout the year, and accept the responsibilities and expectations described in the BioME information packet.

Signature

Date

Signature

Date

Principal's Signature:

Signature

Date

Submit BioME applications to:

Dr. Judith Bronstein
Department of Ecology and Evolutionary Biology
Biological Sciences West
University of Arizona
Tucson, AZ 85721

Telephone: 520-621-3534
Fax: 520-621-9190
Email: judieb@email.arizona.edu

**Applications must be received or postmarked by March
18, 2011.**

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

Mary Bouley, BioME Program
(520) 370-1900
marybouley@cox.net

Applicants will be notified of the selection outcome by April 8, 2011.