

News, Events, & Announcements for:

Southwestern University
DEPARTMENT OF BIOLOGY



LATEST NEWS: The Biology Department is very pleased to announce the 2004-2005 Appointment of Dr. Maria Todd as a tenure-track Assistant Professor in Molecular Biology!

The Academic Profile:

- B.Sc. with honors from University of Sussex
- Ph.D. from Cambridge University
- Research Postdoctoral Experiences at UT and U Colorado Health Sciences Center
- Future research on the role of cell cycle defects in breast and ovarian cancer

Reaction to the news:

- When informed that she was the Search Committee's choice for the next tenure-track faculty, Dr. Todd says she felt "sheer delight."
- Dr. Todd also remarked on loving SU for students that have commitment, enthusiasm & a willingness to open their minds to new ideas.

The Fun Profile:

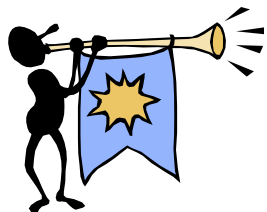
- Likes Hiking
- Indian Food
- Darjeeling Tea
- Reading mystery novels
- And, of course, Cadbury Chocolates!

SEMINARS

All BIO STUDENTS should make a very strong effort to attend The Biology Seminar Series 12:00 THURSDAYS in Room 151:

BIOLOGY MAJORS ARE INVITED TO LUNCH (FREE!) WITH SPEAKERS AFTER TALKS!

- April 1: Ian Molineux of UT-Austin will be speaking about "Bacteriophage DNA Transport across the Cell Envelope."
- April 8: SU Grad Dan Stephens of St. Jude Medical Center will be here to talk about his alternate career in the medical device industry.
- April 15: Archit Sanghvi of UT-Austin will speak on "Peripheral Nerve Tissue Engineering"
- April 22: Our own, Dr. Romi Burks, will talk about "Taking the Red Pill: A Journey into Ecoinformatics" based on a workshop she attended.



THINKING ABOUT
**UNDERGRADUATE
 RESEARCH? GO TALK**
 TO YOUR BIOLOGY FACULTY:

- Dr. Romi Burks
 - Dr. María Cuevas
 - Dr. Stephanie Fabritius
 - Dr. Martín Gonzalez
 - Dr. Rebecca Sheller
 - Dr. Max Taub
 - Dr. Maria Todd
- IT IS NEVER TOO EARLY!

**OPPORTUNITY: The Biology
 Department needs Summer
 Workers to help with animal care,
 lab set-up and space reallocation.
 See Ms. Linda Johnson ASAP if
 you are interested!**

Students and Faculty
 interested in submitting
 announcements, items for
 focus, profiles or highlights
 (i.e. Magnifications) to
BioScope should email
 Lindsey Loveless (lovelesl) or
 Dr. Burks (burksr).
 Next Issue: August 2004

BIOSCOPE FOCUS:

- Southwestern University has been named one of 15 colleges and universities awarded \$60,000 grants by the Undergraduate Science Research Program for collaborative work between faculty and students in the Departments of Chemistry and Biology.
 - The Merck award provides \$60,000, paid over three years at \$20,000 per year, for joint use by the biology and chemistry departments.
 - The funding supports research stipends for undergraduate students and ancillary programs that foster interactions between departments.
 - *Merck Faculty in the Biology Department include Dr. Gonzalez, Dr. Cuevas and Dr. Taub.*
- **Dr. Romi Burks** recently gave a talk entitled "What about the Flipside? Reorienting one's view of *Daphnia* migration in shallow lakes" at Texas State University and co-authored a paper in *Freshwater Biology*.
- **Dr. Max Taub** was invited to speak at Indiana University Purdue University Indianapolis on "Ecological Differences between C4 Grasses."
- **Dr. Maria Cuevas** recently received authorization from the Drug Enforcement Agency to conduct her research with androgen hormones.
- Congratulations to **Seniors Katy Eby** ("A preliminary analysis of the upstream regulatory region of the *Drosophila melanogaster* enhancer of split gene mBeta and "Scalable purification methods of aav-7 and aav-8") and **Travis Bias** (In-vitro ricin-A-chain treatment of yeast ribosomes and visualization of ribosomal rRNA depurination) for recent CAPSTONE projects!
- Nearing completion: the renovation project for research space for **Dr. Cuevas** and **Dr. Gonzalez** is just about done and ready for undergraduate researchers!
- Last semester both **Dr. Gonzalez** and **Dr. Todd** gave research presentations at the Lost Pines Molecular Biology Conference in Bastrop.
- Also last fall, **Dr. Rebecca Sheller** and her Organ Physiology students hosted a campus-wide open house to demonstrate different types of experiments to the community.
- **The Biology Department**, along with select other faculty, submitted a grant in March to the Associated Colleges of the South to establish a Non-majors Poster Symposium and set-up poster making capabilities on campus.
- **Dr. Stephanie Fabritius** (Associate Provost and Professor of Biology) recently organized a very successful Brown Symposium on Arctic Ecology.

BioScope Magnifications:

- **MOLECULE - Green Fluorescent Protein:**

Scientists recently implanted an enhanced version of the original wildtype GFP found in the jellyfish *Aequorea victoria* into "Alba," an albino rabbit. After successful transfer of the protein, Alba glows bright green when hit with the correct light (488nm).

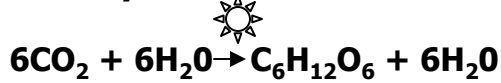


- **ORGANISM - *Ribeiroia*:**

An undergraduate at Stanford identified the larvae of the parasitic trematode (blood fluke), *Ribeiroia*, as the prime culprit for causing limb deformities in Pacific treefrogs (*Hyla regilla*) found in the U.S.



- **MOLECULAR PATHWAY – Photosynthesis**



Necessary to sustain life on earth, this molecular pathway is driven by sunlight and produces sugar that can be converted to ATP for energy.

- **ECOSYSTEM – Blanket Bogs**

Found wherever there is high rainfall (UK, Scotland, Canada). Hugs the topography like a blanket; requires cool climate to grow *Sphagnum* moss. Can be 10-ft thick and home to many creatures.



BIOSCOPE TRIVIA: Guess which Biology Prof is interested in Ballroom and Latin American Dancing? Send your entry to lovelesl@southwestern.edu and a winner will be drawn and announced in next issue.



Need $\beta\beta\beta$ Info?
Contact Katy Eby
ebyk@southwestern.edu

BioScope Profile Student of the Year: Katy Eby



- From: Midland, TX
- Plans: MD/Ph.D. to connect research with clinical studies
- Role Model: Mom (Donna)
- Hobby: Horseback Riding
- Undergraduate Research? YES! 2 experiences actually!

April 1: Undergraduate Research and Creative Works Symposium; 5-8:30 Olin

April 3: Volunteer Science Booth; 11-3 – meet behind McCombs at 10:30 a.m.

April 3: Talk about $\beta\beta\beta$ to Accepted Seniors; 2:30-3:30

April 6: $\beta\beta\beta$ Meeting; Pizza; Elect new Officers; Location TBA

April 15: Dr. Martha Morse is speaking on "Death & Dying" Location TBA

Registration for Fall 2004 is April 6th – Talk to your advisors!

- **MINICOURSES:**
 - **Diversity & Interactions** – Dr. Burks – MWF 10/11 + Ms. Johnson WThF Lab
 - **Life Processes** – Dr. Cuevas – MWF 10/11 + Ms. Johnson M/Tu Lab
- **POKs:**
 - **Environmental Science** – Dr. Burks – MW 2-2:50 + W Lab 3-5
 - **Environmental Science** – TBA – Tu/Th 2:30-3:20 + Th Lab 3:30-5:30
 - **Human Biology Today** – Dr. Cuevas – Tu/Th 1-1:50 + Th Lab 2-4
 - **Biology of Food** – Dr. Taub – W 1-1:50 + F 2-2:50 + M lab 1-3
- **UPPER-LEVELS:**
 - **Molecular Genetics** – Dr. Todd – MWF 8-8:50 + MTuW Lab
 - **Evolutionary Biology** – TBA – MWF 8-8:50 + W Lab 2-5 *(note correction)
 - Cannot count Evolution & Evolutionary Biology toward graduation requirements)
 - Botany – Dr. Taub – MWF 10-10:50 + Th Lab 2:30-5:30
 - **Organ Physiology** – Dr. Sheller – MWF 9-9:50 + M/Tu Lab
 - **Microbiology** – Dr. Gonzalez – Tu/Th 9:30 – 10:45 + Tu/Th Lab
 - **Biochemistry** – Dr. Foote (Chemistry) – MWF 10-10:50 + Tu/W/Th Lab
 - **Capstone** – Dr. Gonzalez – W 12-12:50



Note: **Tentative** upper-levels for Spring '05 include: Molecular Genetics (Dr. Gonzalez), Ecology (Dr. Burks), Endocrinology (Dr. Cuevas), Cellular Physiology (Dr. Todd), Global Change Biology (Dr. Taub), Behavioural Ecology (Dr. Fabritius) and Neurobiology (Dr. Sheller)

*BioScope aims to heighten communication and engagement between biology students and faculty. **If you have ideas for activities that can bring Biologists together, please forward them to Biology Chair, Dr. Rebecca Sheller (shellerr).** Also, if you haven't signed up on the Biology list-serve (su-biology), please do so ASAP as faculty often post Accouncements about outside research and career opportunities.*

Senior Party

Graduating Seniors:
reserve Saturday,
April 24th from 1-4
to celebrate with
Biology Faculty
@ Lake Georgetown



Cambridge, 1953. Shortly before discovering the structure of DNA, Watson and Crick, depressed by their lack of progress, visit the local pub.

For other Bio-funnies, visit
<http://www.nearingzero.net>