

CSB/SJU Biology Department Newsletter

Volume 3 Number 8

November 18, 1999

1. Message from the Chair

Yikes, I can't believe that it's been nearly three weeks since the last issue! Life has been busy with registration, teaching and other activities. Hopefully, now we'll be back on track, for at least a short while.

There have been many great happenings around the department lately. Last night, Ron Weinhold gave a great presentation about "seed dispersal". He is a self-taught botanical wonder. My favorite story was learning about hybridization in cattails. The previous week we were treated to an excellent lecture by Dr. David Sherman from the Microbiology Department at the University of Minnesota. Not only have we hosted this "off-campus" talent, but last week we were also rewarded by a research symposium put on by our own students who completed summer research projects. Thanks to everyone who participated. The poster presentations were great. For those of you interested in conducting research this summer, the department will again sponsor several research students. And, read below for opportunities at the University of Minnesota and other schools.

Don't forget about the Bean Counter/Bean ID contests. And there will soon be a new way to win valuable prizes in the department – check out the "Plant Puzzler" posted on the door of the herbarium and I'll announce it here, too.

Have a great week.

2. Student News:

Dr. Stude(SJU '77) just completed a textbook project, serving as editor-in-chief and co-author for a multi-disciplinary reference textbook titled "Spinal Rehabilitation"; Appleton + Lange and McGraw-Hill; Copyright 1999. He has served as team doctor for many many sports competitions, including, for example, the World Ironman Triathlon Championships (Kona, Hawaii), World Powerlifting Championships, National Taekwondo Championships and the World Cup Speed Skating Championships. Currently, he is a patient care clinician and trains future doctors of chiropractic at the Wolfe-Harris Center for Clinical Studies and also provides opportunities for rotational experiences for some interns from the University of Minnesota medical school. He is involved in scientific research and has authored many scientific publications in peer-reviewed journals.

3. Faculty News:

Drs. **Brown, Reagan, Lamberts**, and **Webster** (along with Carol Theisen, Physics) attended the Sigma Xi Forum on "Reshaping Undergraduate Science and Engineering Education: Tools for Better Learning" in Minneapolis Nov. 4-6. They attended workshops and talks on a variety of innovative science teaching methods, including "Project Based Learning", "Investigative Learning: Putting the Laboratory First", "Peer Instruction: Getting Students to Think in Class", and "Creating a Research-Rich Environment".

Dr. Mel George, President Emeritus of St. Olaf College and The University of Missouri, spoke about his experiences and impressions as Chair of the National Science Foundations *Shaping the Future* Advisory Committee.

Congressman Rush Holt (D, NJ) gave the McGovern Lecture on "The Future of Science Education" and expressed strong views on the importance of K-12 educators (and especially, science teacher preparation in college) to our future. In response to a question about "Why should an accomplished physics major teach high school when engineers are paid 10 times as well and receive none of the criticism now leveled at educators?", Mr. Holt responded that a cultural change is needed. He followed with the disturbing statement that "As long as parking lot attendants earn more than child care workers, our cars will be better cared for than our children."

Dr. Webster (with Dr. Sue Chaplin, Univ. of St. Thomas) presented a poster at the Forum entitled "Project-Based Laboratory Instruction in Animal Physiology". Watch for the poster in a hallway near you!

4. Curriculum News

Cancelled Class: Senior Seminar (Biodiversity), Core 390-01A.

New Course for Spring '00: Field Biology – Biol107; 9:40, days 1-3-5. Lab on day 1, 8:00 am.

5. Biology Club News:

none submitted

6. Calendar of Events:

Nov 19 GIS Day – learn about GIS from 1:00 – 4:00 pm in the offices of ESRI MPLS. For more information contact them at 651 454 0600.

Nov 24 Entries in the Bean Counter and Seed Identification Contest Due. Submit them in the box in the Herbarium (SC 329).

- Nov 29 Winners of the Bean Counter and Seed Identification Contest will be announced.
- Dec 1 Kaplan Practice MCAT – UM- Physics Building, 5 – 9:30 pm. For more information, call 1 800 kap test or www.kaplan.com.
- Dec 2 **"The South African Study Abroad Program 1999: What Really Went On?"** Dr. Stephen G. Saupe; College of St. Benedict/St. John's University; Biology Department; NSC 140; 4:00 PM
- Dec 11 Biology Subject Test – GRE
- Mar 10 Lil' Sibs Weekend
- Mar 31 CSB Senior Parent Weekend
- Feb 15 Deadline for Claire Booth Luce Scholarship Applications
- April 1 SJU Mother-Son Dance
- April 8 Biology Subject Test – GRE
- April 29 Pinestock

7.Internships/Scholarships/Jobs

National Collegiate Natural Sciences Award (NCNSA)

The academy has granted over \$660, 290 in scholarships to USAA National Award Winners Application deadline is November 10, 1999

Visit them at: www.usaa-academy.com

Claire Booth Luce Scholarship - Here's some very exciting news for female, second-year students in the natural sciences: CSB has received a major grant to fund up to four, free-ride (covers tuition, room and board), scholarships for the junior and senior years. These scholarships are for specifically destined for women who are not planning a career in medicine. The application deadline will be February 15, 2000. Details are available at:

<http://www.employees.csbsju.edu/hjakubowski/cblucehomepage.htm>

Looking for a Job in the Environmental Field? Perhaps one of the positions or internships in our updated list is right for you.

<http://plaza.edf.org/jobs.nsf>

Research Associate position available Forage Additives Research

Pioneer Hybrid is looking for a member of a team committed to the development of improved forage inoculant products. This person will be involved in all aspects of product development and evaluation. The RA supports research activity by assisting in planning and conducting experiments in the lab and field, recording and interpreting data, and ensuring efficient daily operation of the laboratory. Requirements: B.S. in biological or agricultural science or equivalent experience, with directly related laboratory experience. Coursework and lab experience in microbiology is required. Background in microbial ecology or molecular biology also advantageous. For more information contact Pioneer Hi-

Bred International, Inc.; PO Box 1004; Johnston, IA 50131-1004; Email:
jobsresearch@phibred.com.

NIH Research Study Program via Colgate:

A Wonderful Opportunity for Research-Minded Undergraduates interested in the Biomedical Sciences during the fall semester of 2000, Colgate University will be taking about 20 students to Bethesda, Maryland, on our National Institutes of Health Off Campus Study Semester. Professor Dietz Kessler of the Biology Department at Colgate will be leading the group.

While in Bethesda, students will be placed in an NIH research lab, where they will do a one-semester project with an NIH mentor. Students will be expected to work about 30 hours each week on their research. The research experience, along with a final paper, will count as the equivalent of two undergraduate science courses. In addition, the Colgate faculty member will either teach or arrange to have taught two additional courses designed to meet the requirements of a liberal arts curriculum. For the fall of 2000, all students will take Biology 492 Topics in the Primary Literature of the Molecular Biosciences. This discussion course requires students to use important journal papers from their research projects as the focus for class reading and critical analysis. Students may choose either Chem 353 Proteins and Nucleic Acids, or Biology 451 Topics in Advanced Cell Physiology for their second course.

We are looking for students with strong backgrounds and motivation in the biomedical sciences, and, particularly, qualified students from traditionally underrepresented groups. More information and a downloadable application form is available on our NIH Study Group Web site at:

<http://classes.colgate.edu/NIHStudyGroup/NIH.html>

Our deadline for applications is November 19, 1999.

8. Seminars/Lectures/Symposia:

"The South African Study Abroad Program 1999: What Really Went On?"

Dr. Stephen G. Saupe; College of St. Benedict/St. John's University; Biology Department; NSC 140; 4:00 PM. Come listen to the South African national anthem, see images of our students in action, and view a clip from a ceremony held in honor of our group at the Pendla Primary School in the Kwazakhele community.

9. Miscellaneous:

Human Genome Project Update – by Dr. Michael Reagan.

An important milestone has been reached in the Human Genome Sequencing Project. It was recently announced that the sequence of the protein coding region of human chromosome 22 has been determined. The sequence

covers a total of about 53 million base pairs of chromosome 22 and appears to include all of the genes on the chromosome. The sequence was determined by a collaboration between groups in Japan, the UK, and Oklahoma. This is the first in what is expected to be a long line of announcements about the Human Genome Sequencing Project. The pace of sequencing is rapidly increasing, and the sequence should be 95% complete by December of 2000. The sequence should be completely determined to an accuracy of 99.99% by 2003. The challenge after that will be to determine the function of each of the approximately 100,000 human genes. That should keep scientists busy for a while!

The Sanger Center has an outstanding web site dealing with the Human Genome Sequencing Project (and other genome sequencing projects)
<http://www.sanger.ac.uk/HGP/>

Another leader in genomic sequencing is The Institute for Genomic Research (TIGR)
<http://www.tigr.org/>

The web page of the lab in Oklahoma contributing to this project is
<http://www.genome.ou.edu/>

Check these out!

NCUR Conference – from Dr. Marcus Webster

I want to call your attention to a wonderful opportunity for student scholars to present their work at a national meeting. The 14th National Conference on Undergraduate Research will take place on April 27-29, 2000 at the University of Montana in Missoula. Some 2,500 students will attend along with their faculty sponsors.

NCUR is an association of college and university faculty and administrators who are supportive of research and creative work by undergraduate students in all fields of study. The annual conference creates a unique environment for the celebration and promotion of student achievement, provides models of exemplary research and scholarship, and helps to improve the state of undergraduate education. NCUR participation by our students and faculty will help to foster appreciation of the valuable role that student research and creative work play in undergraduate education. More information on NCUR is available through the Web site at <<http://www.union.edu/NCUR/>>.

Last spring, CSB/SJU was represented at NCUR '99 by 11 students from Chemistry, Psychology, Biology, Nutrition, English, and Political Science. We would like to send a similarly talented and diverse group of scholars again next spring.

All types of scholarship -- art, music, scientific research, creative writing, multimedia - are welcomed. Formats include 15 min. oral presentations, posters, 20 min. musical performances, dramatic scenes or monologues, and solo or ensemble dance performance. Please consider submitting (or asking your students to submit) a successful class project, an honors thesis, or the product of a summer internship.

Travel, hotel accommodations, and other expenses of the meeting will be paid by CSB/SJU Undergraduate Research & Creativity Support Program. Student participants funded by CSB/SJU (6 to 10, depending on travel costs) will pay only \$150 of their meeting expenses. Application consists of a 100-word abstract of the paper/creative work and agreement by a faculty sponsor to support the student's work. An internal cover sheet is also required to apply for funding.

To apply, email MWebster requesting an abstract form with the word "NCUR application" in the subject line. Or you can phone Dr. Webster at 363-3176 or stop by his office, OSC 319. All materials are absolutely DUE 23 November. Abstracts submitted independently of the internal CSB/SJU program will NOT be financially supported by the institution. More information on the conference is available at: <http://www.umt.edu/ncur2000/>

Specific abstract instructions are at:
<http://www.umt.edu/ncur2000/register2.htm#abstract>

Controlled Deer Hunt – will be held the weekend of November 13-16 in the St. John's Wood. Do not enter the woods without wearing blaze orange. The deer hunt is an effort to control the burgeoning deer population that is having a negative impact on the ecology of the St. John's woodlands. For more information, contact Father Paul Schwietz, St. John's Arboretum.

Bean Counter Contest – The CSB/SJU Herbarium is sponsoring a contest to guess the number of seeds in the gumball container. The container is in the display case in entryway of the Science Center. If you guess the correct number you will win a brand new introductory biology textbook. All entries must be submitted by November 24th. Submit your entry to Dr. Saupe via snail mail, email (ssaupe@csbsju.edu) or slide a scrap of paper under my office door (SC 329). The winner will be contacted by November 29.

Identify the Seed Contest – If you correctly identify the species of seeds in the gumball container in the display case (common name, scientific name, family) you will also win a brand-new introductory biology text. Entries must be submitted to Dr. Saupe by November 24th. The winner will be contacted by November 29.

Looking for a good place to study?

Check out the Herbarium or Natural Science Museum. You are welcome to sit and relax or study in a wonderful biological atmosphere.

GRE TEST DATES- GRE SUBJECT tests (i.e., Biology) are given on Nov. 6, Dec. 11, and April 8. The GRE General Test is now given on a computer basis only and by appointment at a local test center. The GRE Subjects are still given on a paper-pencil basis. More for information contact the Career Resource Office on either campus.

Do you know what you're doing during J-Term? - How does spending it in Northern Minnesota studying the ecology of wolves? For more information call (320) 245-2648.

10. Web Sites Worth a Visit: *(have you visited any cool sites lately? Let us know so we can post them here!)*

Pre-Med Web Site: <http://www.users.csbsju.edu/~premed/>

Biology Department Web Site: <http://www.csbsju.edu/biology/>.

The National Academies Web Site:

Includes reports, science in the headlines, research case studies, current projects, education and employment and online editions of various journals. Visit them on the web at: national-academies.org.

DNR Volunteer Opportunities: Check out the web site at the following address: <http://www.dnr.state.mn.us>

Claire Booth Luce Scholarship:

<http://www.employees.csbsju.edu/hjakubowski/cblucehomepage.htm>

11. Joke of the week: *(we welcome your jokes and other contributions!!)*

Here's an audio "cat joke". Thanks to Dr. Bill Lamberts for sharing this with me. To run it using a CSB/SJU networked PC, just click on the file and it should play. I don't know who deserves credit for this outstanding musical piece, but they certainly have done a great job. If anyone knows who the musician is, please let me know so I can publish it in a future issue.



catfood.wav

12. Frequently Asked Questions: *How do I get into a closed course?*

If a course in the biology department is closed and you want to try to get in, contact the chair of the Biology Department (Dr. Saupe; x2782). Do not contact the instructor of the course.

For more information, contact:

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