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K-BRIN

Fall 2002

Kansas Biomedical Research Infrastructure Network Training and Mentoring Newsletter

KU students present summer projects

Joseph Chapes
Editor

On Monday, July 29, 2002, over 50 undergraduate students presented the results of 10 weeks of summer research at KU in Lawrence.

The presentations took place from 10:00-11:30 AM on the Second Floor of Malott Hall Central Corridor.

The event included research projects in Chemistry, Biochemistry, Medicinal Chemistry, and Pharmaceutical Chemistry.

The participating students represented colleges and universities from across the state of Kansas including KU.

K-BRIN supported several of the participating students, and other programs or grants provided support. These programs included the NSF Research Experiences for

Undergraduates Grant to the Departments of Chemistry and Molecular Biosciences, the Self Graduate Fellowship Program, the KU UGRA program, other special programs, industrial grants, and grants to many individual faculty members.

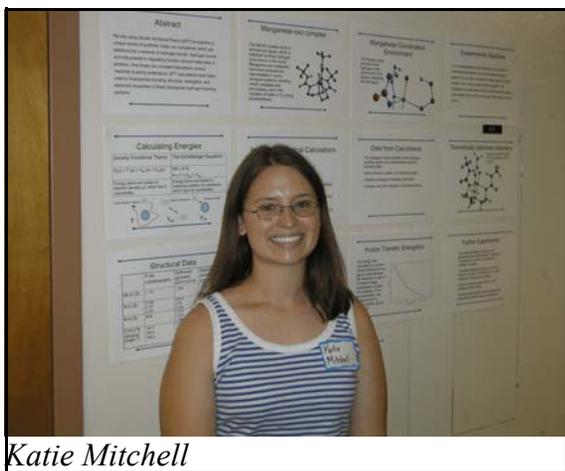
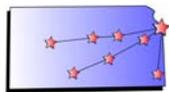
K-BRIN students interviewed at the event unanimously agreed that their research projects gave them useful experience.

“It has given me experience with computational chemistry,



Students present their projects in Malott Hall on Monday, July 29 at KU in Lawrence. Several of the students were sponsored by K-BRIN.

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Katie Mitchell



Susan Banks

which most undergraduates don't get experience with," K-BRIN student Katie Mitchell said. Mitchell hopes to go to graduate school so she can continue with her research.

"It was the first time I had gotten into research," David Miller said. "It has given me good experience in the lab, using the equipment and doing my own experiments."

K-BRIN student Susan Banks agrees with this.

"I spent so many hours in the lab that

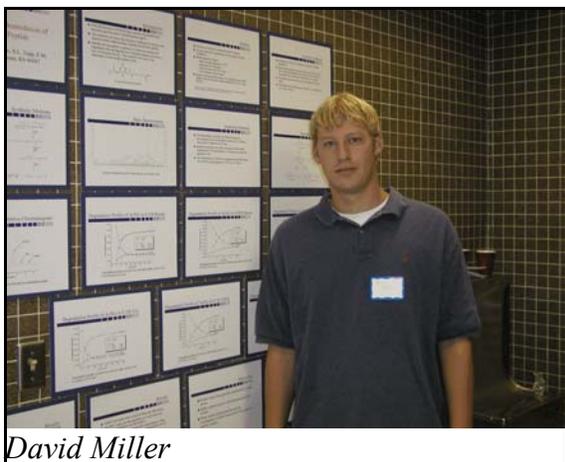
I have learned the techniques that will be helpful in the future. It is the hands-on experience that is important," Banks said.

The experience helped some of the students think about their future.

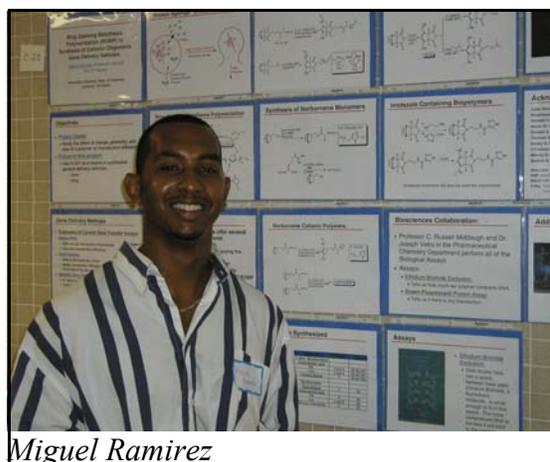
"It shows me that I want to be involved in biomedical research, maybe even go to medical school or Ph.D. program," Miguel Ramirez said.

Banks shared this view.

"It has really encouraged me to do future research," Banks said. "I really like the atmosphere of the lab."



David Miller



Miguel Ramirez



Wichita Students work on projects

Reported by William Hendry
Campus Coordinator
Photos submitted

Student: Jennifer N. Hanna

Mentor: Mark A. Schneegurt,
Ph.D.

University: WSU

Project: Exploiting Genetic
Diversity of Extreme
Environments.

Here is a list of
Summer Scholarship Students
from Wichita State University
that were left out of the last
issue.



McDonald and McCoy

Student: Jennifer E. McCoy
Mentor: J. David McDonald,
Ph.D.

University: WSU

Project: Evaluating the
Reversibility of Hypopigmentation
in BTBRPAHENU2 Mice with
Phenylketonuria.

Student: Mauris C. Nnamani

Mentor: William J. Hendry,
Ph.D.

University: WSU

Project: A Pilot Project to
Adapt the Chromatin
Immunoprecipitation (ChIP)
Assay for Identification of
Genes Involved in Estrogen-
Dependent Uterine Cancer.

Student: Crystal J. Cox
Mentor: Karen Brown-Sullivan,
Ph.D.

University: WSU

Project: Response of Gonadal
Development in the African
Clawed Frog (*Xenopus laevis*) to
Environmentally Relevant
Exposure of the Herbicide
Atrazine.



Cox and Brown-Sullivan

Student: Carmelita E. Fryar

Mentor: William J. Hendry,
Ph.D.

University: WSU

Project: Screening for Altered
Protein Expression in the
Hamster Uterus Following
Neonatal DES Exposure.



Schneegurt and Hanna



Nnamani, Hendry and Fryar



K-BRIN Directors, Coordinators meet in KC

Staff Report

The K-BRIN held its first annual retreat at the Kansas City Marriott on September 14-15, 2002.

Core directors, campus coordinators, and other K-BRIN participants met to compare notes and discuss progress made by the program during its first year of existence.

On Saturday, September 14, Dr. Paul Terranova gave an overview of the Teleresearch network and Mr. Dan Ginavan summarized his efforts to set up the network at the 9 training and mentoring sites in Kansas. Dr. Stephen Chapes summarized progress in the training and mentoring core and each campus training and mentoring coordinator described program progress at each campus.

The site reports were followed by dinner at the hotel where participants were able to discuss K-BRIN programs in an informal setting.

On Sunday, September 15, Dr. Tom Taylor gave a brief overview of the NSF EPSCoR program in Kansas and discussed the



Dr. Paul Kelly introduces the K-BRIN bioinformatics program at the annual retreat.

possible interaction and synergy that K-BRIN and EPSCoR faculty interactions could produce.

Dr. Paul Kelly introduced the K-BRIN bioinformatics program and Jiawen Fang (KU-Lawrence), Stan Svojanovsky, (KUMC) and Youping Deng (KSU) were introduced as the bioinformatics specialists hired at each campus for the K-BRIN program.

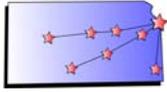
Dr. Joan Hunt announced the successful acquisition of a supplemental grant to the K-BRIN from the NIH which will allow the K-BRIN to institute two new programs, the K-BRIN Star Program and the Faculty Scholars Program.

The K-BRIN Star Program will provide around \$20,000 (per student; up to 10 students) to transition undergraduate students into Ph.D. programs in biomedical research in Kansas.

The second program is the Faculty Scholars Program. The goal of this program is to keep Universities outside of the State of Kansas from recruiting excellent biomedical research faculty away from Kansas' research universities.



K-BRIN Directors, Coordinators prepare for dinner on Saturday night during the retreat.



Focus on

Emporia State University



Photo submitted

Student: Martha McMurphy
Year: Junior
Mentor: Dr. Scott Crupper

Project Title: "Multiple Drug Resistant Enterococcus Species Isolated from Northern Bobwhite Quail Chicks."

What do you hope to accomplish with your project?

"I hope to make society aware of bacteria. People need to better understand their effects on life and humans. Many people are naive to the harm or good that bacteria can do, and I hope to make a difference in that area."

How did you get interested in research?

"I became interested in research after Dr. Crupper mentioned something to me about joining the microbiology lab team. As an undergraduate, I saw this as a way to gain needed experience to further pursue my career."

What is the best thing about learning about science at your institution?

"The best thing about ESU's Microbiology and Molecular Lab is the equipment and technology we have. There is so much we can do here with the advanced equipment that we have."



Photo submitted

Student: Christy Terry
Year: Junior
Mentor: Dr. Dave Saunders

Project Title: "Age Effects on Erythrocyte Morphological and Biochemical Properties

Associated with Storage."

What do you hope to accomplish with your project?

"Currently there is very little research done in association with this area. I would like to investigate the degree of deterioration of erythrocytes. There is not a maximum cut off age for humans on donating blood. Maybe there should be a cut off age."

How did you get interested in research?

"I became interested in scientific research in my process of investigating different career avenues in biology. I particularly liked the idea of biomedical research because I am very interested in health and medicine and I see this as a direct contribution to this area."

What is the best thing about learning about science at your institution?

"The best thing about being at ESU for learning about science is its small size. I feel this has a direct influence on the availability of the faculty and their willingness to aid the students."



Focus on Emporia, Cont.



Photo submitted

Name:
Dr. Dave Saunders
Job: Professor and
K-BRIN Campus
Coordinator
Time at ESU:
10 years

How did you get interested in research?

"I began to take an interest in biology and research as an undergraduate at Oklahoma Panhandle State University. Dr. Schaeffer encouraged me to take on independent projects, to get a job in the biology department, and to get involved in biology club. This provided me with the stimulus to pursue a master's degree at Emporia State University. The more I was involved in research, the more I enjoyed the challenge. As such, I pursued a Ph.D. at KSU."

How do you help K-BRIN students at Emporia?

"I act as the coordinator of the program, overseeing the details of the program such as the budget. I also have two students working in my laboratory under the K-BRIN program. I work with these students in developing a question, designing the appropriate experiments to answer their question, teaching them laboratory techniques needed for their experiments, and the development of an oral or poster presentation."

Why is K-BRIN a good program?

"Any program that gets undergraduate students involved in research, supports them monetarily, and exposes them to additional research laboratories and immerses them in research is an excellent program. I hope that our students realize that they are among a select few who have been provided the opportunity to be involved in such a unique program."

Editor's Note:

Mark your calendars! K-BRIN will hold its first annual State-Wide research conference on January 11-12, 2003 in Kansas City. Trainees will have an opportunity to gather and present data and project summaries at that time.

Corrections:

In the Summer 2002 issue, Kyle D. Ross' project title was incorrect. It was actually titled "Effects of Graded Hypertension on the Intravascular PO2 Kinetics of the Contracting Spinotrapezius Muscle."

K-BRIN Administration

Dr. Joan Hunt, Director
Dr. Paul Terranova, Associate Director
Dr. Stephen K. Chapes, Training & Mentoring Core Coordinator
Dr. Paul Kelly, Bioinformatics Core Director
Ms. Heiata Chapman, Administrative Officer
Mr. Joseph Chapes, Training & Mentoring Newsletter Editor

Campus Coordinators:

Dr. Janice Barton, WU
Dr. Stephen K. Chapes, KSU (Co)
Dr. Robert Hanzlik, KU
Dr. William Hendry, WSU
Dr. Michael Madden, FHSU
Dr. Smokey McKinney, HINU
Dr. Virginia Rider, PSU
Dr. Michael Sarras, KUMC
Dr. Dave Saunders, ESU
Dr. Larry Williams, KSU (Co)

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