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The Fifth Annual K-INBRE Symposium was held January 13-14, 2007 at the InterContinental Hotel next to the Country Club Plaza in Kansas City, Mo.

While the symposium was the best rated gathering yet for K-INBRE, the story of the weekend was the weather. Ice and snow made travel difficult, leading to several registered participants not attending. Students from Langston University and Fort Hays State were unable to attend and present their work.

Despite the weather's best efforts, most of the participants were able to travel and help in the event's success.

"I can't imagine that any organizer of a symposium confronted with ice and snow storms at the time of the meeting would not be disappointed that some individuals were unable to arrive," K-INBRE Director, Dr. Joan Hunt, said. "However, the attendance was the highest ever despite this difficulty."

Administrative Assistant Janette Lyon agreed.

"We are extremely pleased with how the symposium turned out, though we could have used a little more cooperation from Mother Nature," she said.

Planning for the event began soon after the 2006 symposium and an effort was made to include several national and regional speakers.

"A critical aspect of the INBRE program is that the network should

facilitate the gathering of information above and beyond what is available to us in our state," Hunt said. "This year we added two outstanding, international authorities on cell



Dr. Joseph Steinmetz speaks to the attendees of the fifth annual K-INBRE Symposium.

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K-INBRE Administration

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Bioinformatics Core Director

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Dr. Virginia Rider, PSU

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Questions and comments can be sent to jchapes@ksu.edu.

Travel conditions affected by snow

The 2007 symposium was the first K-INBRE event affected by the weather with snowy and icy conditions making travel to the event difficult.

Many attendees traded stories of their adventure of trekking to Kansas City for the event. Dr. Virginia Rider gave an account of her adventure getting her students from Pittsburg State.

On Friday, January 12, as Rider and her students prepared to leave despite the grim weather forecast, they heard that their route to Kansas City, Highway 69, was closed. After investigating, they found that it was still open, but road conditions were bad.

"I thought we should not attempt the trip but the students were adamant about going to the K-INBRE meeting," she said. "If they were going, so was I."

The group from PSU soon found the grim weather reports were true.

"Wiper blades became crusted with ice. Ice covered all but a small viewing space of the window shield," she said. "The students told me they pulled off the road twice to break the ice of the windshield. I pulled off once. But we made it safely!"

Despite the dangerous conditions, Rider felt the symposium was worth the trip.

"I would not have attended had I been the only one from PSU," she said. "But the students work too hard to prepare for the meeting to be denied and they look forward to attending every year. Once there, I too was glad we took a chance and arrived without major incident."



Icy roads made travel to the symposium difficult.

Fifth Annual K-INBRE Symposium, Cont.



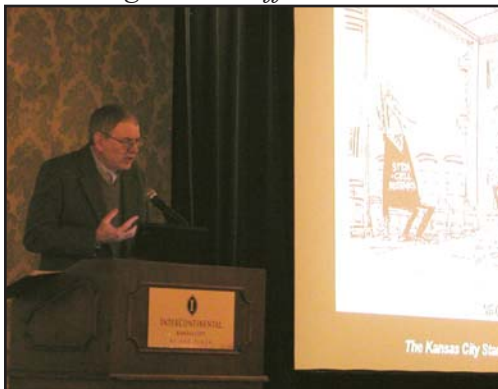
Dr. Rebecca Hays



Dr. Rollie Clem



Dr. Margaret Petroff



Dr. William Neaves

and developmental biology, the research theme of the Kansas INBRE, and a highly informative talk on stem cell initiatives in our region. Of these, two were able to reach Kansas City and speak to our participants.”

The symposium’s long list of speakers began on Saturday with Dr. Joseph Steinmetz from the University of Kansas with a discussion entitled, “Eyeblink Classical Conditioning: A Model System for Studying the Neural Bases of Learning and Memory and Clinical Disorders.” Later, Dr. Rebecca Hays from KU spoke on “Mitochondrial Membrane Depolarization and Commitment to Apoptosis in *Drosophila*.” Dr. Rollie Clem from KSU presented “Apoptosis: An Anti-Viral Defense Response in Insects.”

KUMC’s Dr. Margaret Petroff delivered “B7/CD28 Family Interactions at the Maternal-Fetal Interface” in the afternoon, later followed by Dr. William Neaves, President and Chief Executive Officer of the Stowers Institute for Medical Research, who talked about the stem cell initiative in Missouri.

After dinner, Dr. Joan Ruderman of the Harvard Medical School provided an enlightening talk on estrogen antagonists found in plastics. On Sunday, Dr. Opendra Narayan from KUMC gave a lecture on mentoring junior faculty. Dr. Gerry Strauss followed with a discussion on the present and future status of the NIH and how it affects K-INBRE investigations.

Included in the event’s schedule was a poster session allowing students to present and discuss their work with other researchers. KU Student presenter Andria Skinner enjoyed this opportunity.

“I talked with other students at the poster session,” she said. “The interaction provided a way to gage other research and get ideas of how to fix your own research problems. Additionally it was just nice to meet other students in your field that can relate to what you are doing in the lab.”

In the end, it is this interaction that helped make the symposium a success, despite the snow on the ground.

“It is always a pleasure for me to see faculty and trainees from across Kansas meet together,” Hunt said. “I thoroughly enjoy the healthy and productive exchange of ideas and technology among meeting participants that is evident during the meeting. I know of several new partnerships and collaborations that were facilitated, and this is one of the major purposes of the symposium.”



Dr. Joan Ruderman



Dr. Opendra Narayan



Dr. Gerry Strauss

K-INBRE Symposium Poster Session



1. KU Assistant Professor David Davido chats with other symposium participants. 2. The poster session featured over 63 different student projects. 3. KSU's Steven Esch talks with Dr. Ruth Welti. 4. Kansas State Student Cameron Anderson with Texas A&M's Fuller Bazer. 5. Washburn University's Jon Kee explains his research to KU's Matthew Leming. 6. KSU's Dr. Gary Conrad asks Rachael Lawn a question. 7. KU graduate student Xiaochen Wang converses with another symposium attendee. 8. Washburn students Molly Shea and Nicole Roberts listen to a question about their poster. 9. KSU's Michael Asiedu points a fact out on his poster to Dr. Sue Brown. 10. KU's Pat Porubsky considers a question about his research.

Catalyst for Knowledge

Symposium student presenters show off their research, experience

Joseph Chapes
Editor

At the 2007 K-INBRE Symposium, about 63 students presented their work in poster form, but like every year, a select group of students were able to present their research orally.

No matter what experience the students had at presenting their work in front of an audience, many of the students found the experience valuable.

“It was very helpful in many ways,” KUMC biochemistry student Pat Prathuanqsuk said. “Not only did I do extra research regarding my materials. I also had to practice many, many times over.”

KU Genetics student Matthew Leming shared a similar view.

“A presentation sort of forces us to know precisely what is happening and (to understand) the goals of our research to an extent that would not have been realized without a catalyst such as a presentation,” he said. “I learned that presenting is more of a chance to show the work you have done and what you will do rather than you being put on trial, which was my initial fear at my presentations.”

Andria Skinner, a pharmaceutical chemistry student at KU, believes all research students would profit from the



Andria Skinner



Christopher Redford



Matthew Leming

experience of presenting their work orally.

“Any opportunity to present your research, whether it’s in a poster or podia form, is valuable because it allows you to stop and think about what you have accomplished with regards to your project and where you need to go with it,” she said. “Many times you get to the point where you have so much data and you don’t know what to do with it. Presenting your research allows you to stop and organize your data, thoughts, and ideas and helps direct your future research goals.”

The students who presented their work often had suggestions for students who would present their work in the future.

“Try not to be nervous or intimidated, everyone was really nice and supportive,” KSU Microbiology student Erica Cain said. “(I learned) that I really don’t need to be so nervous in front of an audience full of doctors and grad students.”

Christopher Redford, KU Computer Sciences graduate student also had recommendations.

“Make sure that you relax and make your presentation comprehensible to the audience,” he said. “Use clean, simple diagrams whenever possible. If a concept is abstract,

(Continued on Page 6)

Student Speakers, Cont.



Pat Prathuangsuk

provide examples to illustrate. Entertaining examples work well because they help the audience read meaning into the concept.”

Leming noted that doing well came down to knowing your project well.

“To future undergraduate presenters, I would tell them to just relax and really learn what they are doing in the lab and why,” he said. “At that point present their data and all will go well.”

See the list below for all the student speakers, their schools and projects.



Erica Cain



Stacy Jones



Heather Strahl presents her project to the symposium.

List of all the student speakers, their schools and their projects:

- **Andria Skinner**, University of Kansas, “Structural and Enzymatic Studies of Phosphatase of Regenerating Liver (PRL-1) Using Multidimensional NMR Experiments.”
- **Christopher Redford**, University of Kansas, “Computer Assisted Drug Design: Strategy for Anticancer Drug Development.”
- **Matthew Leming**, University of Kansas, The Role of Potassium Channels in Neuronal Differentiation of Stem Cells From Umbilical Cord.”
- **Erica Cain**, Kansas State University, “In Vivo Characterization of a Baculovirus Lacking a Functional Fibroblast Growth Factor Homolog.”
- **Stacy Jones**, Pittsburg State University, “Endocrine Activation of WNT Signaling and Anterior-Posterior Patterning of Stromal Cell Differentiation (Decidualization).”
- **Vanichpat Prathuangsuk**, University of Kansas Medical Center, “Effect of the Gads Gene on Lymphocyte Differentiation and Responses to an Infectious Pathogen.”
- **Heather Strahl**, Washburn University, “Expression and Purification of a Tagged Herpes Simplex Virus Type 1 Protein.”

Changes in K-INBRE leadership find

Some very large shoes to fill

Joseph Chapes
Editor

This year has brought changes to K-INBRE leadership with Dr. Paul Terranova stepping down as Associate Director, Dr. Peter Smith taking his place and KU's Dr. Gerry Lushington becoming Bioinformatics Core Director.

Terranova stepped down since he has accepted the two top research positions at KUMC. These positions include Senior Associate Dean for Research in the School of Medicine and Vice Chancellor for Research for the Medical Center.

Smith, former Bioinformatics Core Director is looking forward to his new role.

"I'm very enthusiastic and excited about becoming the Associate Director of the K-INBRE," he said. "This is an extremely important program for the state of Kansas. I'm honored to have been selected, but I also know that I have some very large shoes to fill with Dr. Terranova's departure. I'm looking forward to doing all I can to maintain the excellence of the program."

K-INBRE Director, Dr. Joan Hunt, is pleased with Smith's acceptance of the new position.

"I am delighted that he has accepted the position of Associate Director," Hunt said. "The person in this position needs to be available for daily discussion and to have

outstanding interpersonal skills and leadership credentials. . . . Our program could not do better."

As the Associate Director, Smith will have more integral involvement in activities at the outreach institutions, a greater hand in administering K-INBRE and have closer interactions with the staff at the National Institutes of Health.

With Smith leaving the Bioinformatics Core Director position, Dr. Gerald Lushington of KU has taken his place.

"I'm very excited about accepting the new position within K-INBRE for several reasons," he said. "For starters, the bioinformatics core is in very good shape, composed of people who enjoy working with each other and getting things done. It's always easier to step into a new role when things are running well."

Lushington will be working with Smith to develop plans to export bioinformatics content via televideo to Outreach Institutions and to enhance video conferencing infrastructure at all K-INBRE schools.

The changes to K-INBRE's leadership will only serve to improve the organization.

"I think the real rewards will come as we watch ever greater numbers of bright, enthusiastic Kansas students discover exciting career opportunities in biomedical sciences," Smith said. "and as our faculty at all institutions are enabled to develop exciting new educational and research programs."



Dr. Joan Hunt presents Dr. Terranova with a plaque for his years as Associate Director at the 2007 Symposium. Dr. Peter Smith has since taken on the position.

Abraham new LU campus coordinator

Changes in the K-INBRE organization have taken place at Langston University. Dr. Sonya Williams has moved on to other opportunities, while Dr. K.J. Abraham has taken her place as campus coordinator.

Abraham has been at Langston as an assistant professor specializing in molecular microbiology since January 2000. He received his Ph.D. in plant science/phytochemistry from the University of Baroda, India and completed his post doctoral training at the Department of Biochemistry and Molecular Biology at Oklahoma State University in Stillwater, OK.

After accepting the position, Abraham is looking forward to his new role.

"I feel it is a very good opportunity for me to help undergraduate students at Langston University to take up a career in biomedical sciences," he said. "I would love to see our students do well in the future. It will be great to see them perform to their potential. If we provide the opportunities, I am sure they will excel. I am looking forward to work together with the other K-INBRE institutions to establish the objectives of the K-INBRE programs."

Participants awarded at symposium

Several K-INBRE Participants were honored with awards during the Annual Symposium.

KU's Kathy Mitchell and KSU's Dr. Ruth Welti were named 2006 Kansas Technology Enterprise Corporation scholars. They were awarded for recognition for excellence for research science and technology.

Kansas Bio, or Kansas Bioscience Organization presented awards for poster projects and oral presentations.



Dr. Kathy Mitchell receives her award from Kansas Bio's Angela Creps.

The poster winners were Sara Gorjestani from PSU, Lindsay Bertels and Laura Grauer from KSU, Jill Koehler from KU, Sarah Leatherman from ESU, Natalie Santaularia and Thomas Yankee, and Alison Ting from KUMC, and Molly Shea and Nicole Roberts from Washburn.

Erica Cain from KSU, Stacy Jones from PSU and Christopher Redford from KU were the oral presentation winners. Emphasis was placed on interest in the abstract, multi-disciplinary research and overall oral presentation of the project and findings.

Dr. Stephen Chapes, Undergraduate Support Core Director, stressed how important these new awards were for the K-INBRE students.

"It gives them recognition that all that time, above and beyond the call of duty, really pays," he said. "It is also important that the private sector is willing to help us reward our students.

"We thank Kansas Bio's Angela Kreps for her help and we look forward to working with her next year."



Kansas Bio's Angela Creps presents Dr. Ruth Welti with her award.

Announcements

KSU

K-INBRE Faculty scholar winner and mentor Dr. Passarelli of KSU was awarded the 2007 Commerce Bank Presidential Faculty and Staff Award for Distinguished Services to Historically Underrepresented Students. She was chosen for the award by a 15 member committee of KSU faculty, staff, and student organization members. Passarelli was nominated by her student, Erica Cain.

Cain also recently won an award for a presentation at the annual Biomedical Research Conference for Minority Students organized by the American Society for Microbiology. Cain's research focused on baculoviruses and the factors that enable them to spread beyond the midgut of the insects they infect.

KSU summer semester scholar Shwnalea Frazier was

a coauthor on a recent paper.

Xinchun Shen, Robyn Moore, Xiaoqun Mo, Shwnalea J. Frazier, Takeo Iwamoto, John M. Tomich, X Susan Sun (2006) Novel pH Dependent Adhesive Peptides. J. Nanosci. Nanotechnol. 6, 837-844.

Frazier has also accepted a slot in the Ph.D. program in the laboratory of Henry Lester in the Division of Biology at the California Institute of Technology.

WSU

Student Seth Perkins presented "Amoa (ammonia monooxygenase) Gene Counting in Hypersaline Soils" at the 9th Annual National McNair Scholars' Research Conference, University of North Texas, February 16-18.