



G-KNOW 'EM

Genome and other Biotechnology Curriculum Integration Possibilities...

Summer Instructor Institute

NSF: Biotech Grant DUE 0603308

Tuesday, June 17, Algona

9:00 Hydrogen Engine Center Tour

10:10 Pioneer Research Facility Tour

11:20 Room 16 Steve Larson, Pioneer Seed

12:30 Room 10 Lunch, Room 16 Keynote
Speaker: Terry Meyer, Pioneer

2:00 Room 16 Norm Olson, Iowa Energy Center

3:10 Room 16 *"Intro to Wind Energy – Policy and Scales (production turbines)*, Mike Schmidt, Program Coordinator, Wyoming

Tuesday, June 17, Emmetsburg

9:00 Room 710 *"Simply Soothing, Soap-making: Chemistry"*, Freda and Jim Sojka

10:10 Room 3100 *"Using Modern Techniques to Understand Historical DNA Research: Rediscovering Hershey-Chase and Meeselson-Stahl."* Dr. LaRoy Brandt, Biology Professor, State Fair Community College, Sedalia, MO

11:20 Room 810, ICN: *"Intro to Bioscience" piloting NSF Biotechnology curriculum developed and lessons learned.* Cheryl Donlon, Science Professor, Northeast Iowa Community College, Calmar

12:30 Lunch in Executive Dining Room

2:00 Room 150 Mike Zeller...TBA

3:10 Room 3100 *"Role of Asp181 in Itk Kinase Autophosphorylation through Mutation"*, Tasida Fischer, Research Undergraduate Experience, 2007 Iowa State University participant.

Tuesday Night Dinner & Tour...Little Swan Winery. Charter bus will leave at 5 p.m. and return following tour and meal.



Wednesday, June 18

9:00 – 11:00 Room 3204, Technology Building: *Creative Media for the Science and Ag Classroom and Laboratories (Double Session)*, Greg Riemer, Information Technology Program Coordinator, Iowa Lakes and Cristin Tandberg, Infinity Scholar (program student).

9:00 Room 3100: *"Embryo Sexing, Splitting, Sexed Semen and Cloning"* Transova Genetics

10:10 – 12:10 Room 150: Sargent Welch Lab: *"Enzyme Adventures: Assaying for HRP"*. Participants will conduct a simple peroxidase assay, learn how to extract horseradish peroxidase from horseradish roots, and conduct a colorimetric assay for HRP activity.

11:20 Room 3204 *Electronic Resources – Enzymes and curriculum enhancement tools.* Marv Carlson, AgProduction Program Coordinator, Iowa Lakes Community College

12:30 – Lunch-Executive Dining Room *"Wind Energy emerging energy source, small scale and other opportunities"* Mike Schmidt, Program Coordinator, Wyoming

2:00 Room 3100 *"Selection and evaluation of Swine Influenza isolates for autogenous vaccine manufacture."* The study will help determine if a numerical score could be applied to swine Influenza virus (SIV) analysis to aid in the selection of vaccine strains. Tracy Oleson, Research Scientist, Newport Labs

2:00 Room 3101 *Soybeans & food products*, John Schillinger, Schillinger Seed

3:10 Room 3101 Vance Owens, Plant Science Department, South Dakota State University, Brookings, SD

3:10 Room 3100 Mike Zeller, TBA

Thursday, June 19

8:30 College Farm: *"Swine Real Time Ultrasound"* Randy Muller, EI Medical – Double Session

10:30 College Farm: *"Ultrasound technologies – pregnancy checking and diagnostics"* Randy Muller, EI Medical and Neal Williamsen, Iowa Lakes Community College

Thursday, June 19

8:30-12:00 Room 150, Sargent Welch – Science Lab: *"How do Scientists Extract and Study DNA?"* Participants will precipitate DNA molecules from solution and spool the DNA onto a glass rod. Agarose electrophoresis will then be used to analyze the differences between DNA from various sources. Several standard lab techniques, lab safety, and extension lab activities will be practiced and discussed.

9:40 Room 3204, Technology Building: *Using Technology in the Classroom – Camera use in the Career and Technical Laboratories*, Shane Conley, Motorcycle and Small Engine Instructor, Iowa Lakes Community College

10:50 Room 3204: *Increasing student interactivity – through technology*, Renee Jedlicka, Instructor, Iowa Lakes Community College

12:00 – Key Note Speaker, "Vaccinology and Cell Line Technology" – **Dr. Thayer Hoover and Chelcee Hindman**, Pfizer, Des Moines, Iowa

1:30 Room 3100 Genetics and Industry Priorities, Clint Schwab

1:30 Room 3209 "Intro to Biofuels" *Hands on presentation: converting raw products to fuel*", Dave Peterson, Biomass Renewable Fuels Technology Instructor, Iowa Lakes Community College

2:40 Room 3204 *"Use of current and future technologies in beef cattle breeding."* Dr. J.R. Tait, Associate Scientist, Iowa State University

2:40 Room 3100 *"Forensic Chemistry"* Dr. Robert Klepper, Chemistry Professor, Iowa Lakes Community College

4:00 Executive Dining Room – Wrap up –

Safe Travels home...OR Join us for National Science Foundation Grant Writing Workshop...



**National Science Foundation &
and
Council for Resource
Development**



Grant Writing Workshop

Thursday, June 19 – Friday, June 20

Agenda:

Thursday, June 19

5:00 p.m. Reception, registration and poster session

6:00 p.m. Dinner: Keynote: Dr. Barbara Anderegg, Madison Area Technical College, former ATE Program Co-Lead

7:15 – 9:00 p.m NSF Programs, News and Proposal Writing Strategies
Barbara Anderegg, Ph.D., Co-Lead ATE program through August 2007
Division of Undergraduate Education
National Science Foundation

Friday, June 20

8:00 - 10:00 Elements for a Winning Proposal. NSF Review Process – Identifying Key Elements for a Winning Proposal

10:20 Form Small Groups – Discuss and evaluate sample proposal

11:30 Report out – Proposal Writing Tips and wrap up

12:00 Lunch *and informal discussion*

Register separately for this Grant Writing Training Session – if interested, please email Teresa Tonderum: ttonderum@iowalakes.edu