

Bioinformatics for High School and College Instructors 2007
National Science Foundation EPSCoR 05-589
Mississippi E Center, Jackson State University

Presenters:

Dr. Sherry Herron, Assistant Professor Biological Sciences; Director, Center for Science and Mathematics Education, University of Southern Mississippi
 Dr. Barbara Wilson, Associate Professor of Biology, Jackson State University
 Dr. Susan Bridges, Professor of Computer Science, Mississippi State University
 Dr. Raphael Isokpehi, Assistant Professor of Biology, Jackson State University
 Dr. Robert Hester, Professor of Physiology, University Mississippi Medical Center
 Dr. Bindu Nanduri, Assistant Research Professor, Mississippi State University

Tuesday, June 5

9:00 - 9:30 am	Welcome, Orientation, and Pretest
9:30 - 10:15 am	Barbara Wilson: <i>DNA chemistry, transcription, translation</i>
10:15 -10:30 am	Break
10:30 -12:15 am	Barbara Wilson: <i>DNA isolation, digestion, electrophoresis, standard curves, molecular weight of unknown DNA, bacteria resistance/selection</i>
12:15 - 1:00 pm	Lunch provided
1:00 - 2:45 pm	Susan Bridges: <i>Bioinformatics/Computational Science: Data Mining</i>
2:45 - 3:00 pm	Break
3:00 - 4:45 pm	Raphael Isokpehi: <i>Bioinfo Language: Sequence Formats/Conversion</i>
4:45 - 5:00 pm	Daily Reflection

Wednesday, June 6

9:00 - 10:15 pm	Sherry Herron: <i>Human Genetic Variation</i>
10:15 -10:30 am	Break
10:30 -12:15 am	Sherry Herron: <i>Bioinformatics and the Human Genome Project</i>
12:15 - 1:00 pm	Lunch provided
1:00 - 2:45 pm	Sherry Herron: <i>Alu Insertion Polymorphism to Study Human Populations</i>
2:45 - 3:00 pm	Break
3:00 - 4:45 pm	Sherry Herron: <i>BLAST Searches at NCBI</i>
4:45 - 5:00 pm	Daily Reflection

Thursday, June 7

9:00 - 10:15	Sherry Herron: <i>Sickle Cell Anemia</i>
10:15 -10:30 am	Break
10:30 -12:15 am	Sherry Herron: <i>Diagnosis of Sickle Cell using HDA Amplification</i>
12:15 - 1:00 pm	Lunch provided
1:00 - 2:45 pm	Sherry Herron: <i>Diagnosis of Sickle Cell using HDA Amplification</i>
2:45 - 3:00 pm	Break
3:00 - 4:45 pm	Sherry Herron: <i>Resources from the Howard Hughes Medical Institute</i>
4:45 - 5:00 pm	Daily Reflection

Friday, June 8

9:00 - 10:15 pm	Analyze experimental results
10:15 -10:30 am	Break
10:30 -12:00 am	Robert Hester: <i>Mathematical Modeling of Human Physiology</i>
12:00 - 1:00 pm	Lunch: provided
1:00 - 3:00 pm	Bindu Nanduri: <i>Mining Biological Information for Function</i>
2:45 - 3:00 pm	Break
3:00 - 4:30 pm	Posttest and Evaluation