

NATIONAL HUMAN GENOME RESEARCH INSTITUTE  
NATIONAL INSTITUTES OF HEALTH

CURRENT TOPICS IN GENOME ANALYSIS  
SPRING 2008

**NIH Course Organizers**

Andy Baxevanis, Ph.D., NHGRI  
Eric Green, M.D., Ph.D., NHGRI  
Tyra Wolfsberg, Ph.D., NHGRI

**Course Web Site**

<http://www.genome.gov/COURSE2008>

**Course Mailing List**

An automated mailing list has been set up for this course, and we ask all participants to subscribe to this list. The course organizers will be using this mailing list to remind everyone of upcoming lectures, as well as notify participants of any announcements or changes to the course schedule. Instructions on how to subscribe, including a direct link to the NIH Listserv, can be found on the Course's Web site.

**Continuing Medical Education (CME) Credits**

The NIH/FAES is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The NIH/FAES designates this educational activity for a maximum of 22.5 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity.

In order to receive CME credits through NIH/FAES for this course, please download the CME form from the Course Web site and return it to Dr. Baxevanis at the address listed on the form. All CME forms must be submitted no later than May 1, 2008 in order to receive credit for the course.

**Written Disclosure**

In compliance with the Standards of the Accreditation Council for CME, it is the policy of the NIH/FAES CME Committee to ensure balance, independence, objectivity, and scientific rigor in all of its educational activities and to include information free of commercial bias and based on the best evidence available. All speakers, planning committee members, and others in a position to influence the content of the CME have disclosed any financial interest or relationship of their own, their spouse/partner, or their worksite with any manufacturer or provider of any commercial product, service, technology, or program, any planned discussion of unapproved/investigative use of a commercial product/device, and also disclosed relationships with any non-Governmental supporter of this event. (There are no non-Governmental supporters of this series.) Information and, if applicable, the steps taken to resolve any possible conflict of interest, is provided below.

A complete list of organizing faculty is above and speakers are found on pages 3 and 4.

*None of the speakers or planners participating in this series have reported financial interests or relationships relevant to these educational presentations.*

**Unlabelled/investigational/alternative uses to be discussed:**

*None of the speakers participating in this series have reported that they will be discussing unlabelled, investigational or alternative uses for any products or services discussed in their presentations.*

### ***Educational Objectives of the CTGA Lecture Series***

At the completion of this activity, participants will be able to:

1. Assess the value and benefit of using genomic approaches in modern biomedical research;
2. Practice the use of bioinformatics-based approaches;
3. Evaluate and integrate genomic and bioinformatic techniques into your own basic or clinical research program.

### ***Supplementary Texts***

Available at the NIH Library:

Birren, B., Green, E.D., Klapholz, S., Myers, R.M., and Roskams, J., eds. *Genome Analysis: A Laboratory Manual*, volumes 1-4. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, 1997-1999.

Brown, T.A. *Genomes 3*. Garland Publishing, New York, 2007.

Baxevanis, A.D. and Ouellette, B.F.F., eds. *Bioinformatics: A Practical Guide to the Analysis of Genes and Proteins*, 3<sup>rd</sup> ed. John Wiley and Sons, New York, 2005.

Baldi, P. and Brunak, S. *Bioinformatics: The Machine Learning Approach*, 2<sup>nd</sup> ed. MIT Press, Cambridge, MA, 2001.

Available Electronically through the NIH Library Web Site (<http://nihlibrary.nih.gov>, under Online Journals):

*Current Protocols in Bioinformatics*

*Current Protocols in Human Genetics*

Please direct any questions regarding the course to Dr. Baxevanis ([andy@nhgri.nih.gov](mailto:andy@nhgri.nih.gov)).

**National Human Genome Research Institute  
National Institutes of Health**

**Current Topics in Genome Analysis  
Spring 2008**

*All lectures are on Tuesday mornings from 10:00 am to 11:30 am in the Lipsett Amphitheatre, NIH Clinical Center (Building 10)*

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|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| January 15  | Techniques for Analyzing Genomes I<br><i>Eric Green, M.D., Ph.D.</i><br><i>Scientific Director, NHGRI</i>                                                         |
| January 22  | Nucleotide and Protein Sequence Analysis I<br><i>Andy Baxevanis, Ph.D.</i><br><i>Deputy Scientific Director, NHGRI</i>                                            |
| January 29  | Nucleotide and Protein Sequence Analysis II<br><i>Andy Baxevanis, Ph.D.</i><br><i>Deputy Scientific Director, NHGRI</i>                                           |
| February 5  | Mining Data from Genome Browsers<br><i>Tyra Wolfsberg, Ph.D.</i><br><i>Associate Director, Bioinformatics and Scientific Programming Core, NHGRI</i>              |
| February 12 | Evolutionary Analysis<br><i>Fiona Brinkman, Ph.D.</i><br><i>Associate Professor, Department of Molecular Biology and Biochemistry<br/>Simon Fraser University</i> |
| February 19 | Techniques for Analyzing Genomes II<br><i>Elliott Margulies, Ph.D.</i><br><i>Investigator, Genome Technology Branch, NHGRI</i>                                    |
| February 26 | Regulatory and Epigenetic Landscapes of Mammalian Genomes<br><i>Laura Elnitski, Ph.D.</i><br><i>Investigator, Genome Technology Branch, NHGRI</i>                 |
| March 4     | Microarray Analysis<br><i>Paul Meltzer, M.D., Ph.D.</i><br><i>Chief, Genetics Branch, NCI</i>                                                                     |
| March 11    | Strategies for Disease Gene Identification<br><i>Dennis Drayna, Ph.D.</i><br><i>Chief, Section on Systems Biology of Communication Disorders, NIDCD</i>           |
| March 18    | Introduction to Population Genetics<br><i>Lynn Jorde, Ph.D.</i><br><i>Professor, Department of Human Genetics, University of Utah School of Medicine</i>          |

- March 25            Linkage Analysis and Complex Traits  
*Elaine Ostrander, Ph.D.*  
*Chief, Cancer Genetics Branch, NHGRI*
- April 1             Studying Genetic Variation I: Laboratory Techniques  
*Karen Mohlke, Ph.D.*  
*Assistant Professor, Department of Genetics*  
*University of North Carolina*
- April 8             Studying Genetic Variation II: Computational Techniques  
*Jim Mullikin, Ph.D.*  
*Associate Investigator, Genome Technology Branch, NHGRI*
- April 15            Protein Structure Analysis and Protein-Protein Interactions  
*David Wishart, Ph.D.*  
*Professor, Departments of Computing Science and Biological Sciences*  
*University of Alberta*
- April 22            Public Policy Challenges in Genetics  
*Kathy Hudson, Ph.D.*  
*Associate Professor, Genetics and Public Policy Center*  
*The Johns Hopkins University*
- April 29            Open