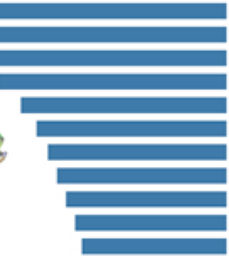
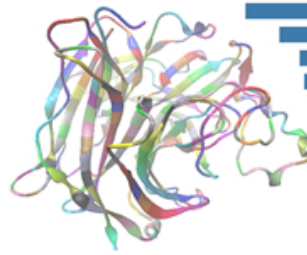


# CONTIG 2009

*Conference Of New Teachers In Genomics*



## **CONTIG 2009**

### **Conference on New Teachers in Genomics**

### **July 27-31, 2009**

**Application materials may be mailed, faxed or emailed to:**

Ange Mason  
San Diego Supercomputer Center  
Mail Code: 0505  
University of California, San Diego  
9500 Gilman Drive  
La Jolla, California 92093-0505

Phone: (858) 534-5064  
Fax: (858) 822-0948  
E-mail: [amason@ucsd.edu](mailto:amason@ucsd.edu)

## Workshop Description

This introductory hands-on five-day workshop is a must for any educator who wants to explore genomics through the use of biotechnology and genomics activities for the classroom. Industry scientists and academic researchers will provide training on the basics of DNA structure and function. The laboratory sessions will include preparation of and procedures for DNA extraction and expression. Computer laboratory sessions will include data analysis with clustering, as well as other bioinformatics tools.

## Workshop Content

The workshop timeline will take participants from the initial extraction of DNA, through the Central Dogma of biology, ending with protein structure analysis. The program will begin with hands-on activities in a lab classroom facilitated by local researchers. Introduced will be basic techniques for DNA extraction, DNA sequencing and proteomics studies. Additional hands-on lab sessions will include PCR, DNA Contigs, gene cloning, protein purification, and protein crystallization. Complimenting the program will be an introduction to BLAST, RasMol and other interactive, protein visualization software programs available for educators. Interspersed in this comprehensive educator training will be field trips to area research labs and institutes.

The goal of this workshop is for participants to be able to:

1. Expose your students to *the real world of science* ---by showing them that science is more than just the facts contained in their textbook.
2. Teach your students about the basic concepts of DNA extraction, sequencing and protein structures.
3. Train your students in the use of computer visualization tools to bring to life concepts that are often difficult to comprehend.

## Program Parameters

The workshop will cover all aspects of DNA structure and analysis including:

DNA Extractions  
PCR  
Gel Electrophoresis  
DNA Sequencing Simulation  
CONTIG Assembling  
Purification and Crystallization

Participants will:

- Discover the role of genomics in agriculture, medicine, ecology and other areas
- Receive exciting genetics and genomics laboratory protocols and materials for the classroom
- Explore current tactics in biotechnology and genomics
- Refresh laboratory skills
- Be exposed to lab experiences at both Miramar College and The Scripps Research Institute.

- Tour university and industry research facilities

### **Workshop Logistics:**

- There is no charge for this workshop
- Teachers will receive a \$300 class materials stipend.
- Participants will receive a hardcopy and electronic set of workshop materials.
- Five quarter-units of professional development credit will be offered through UCSD Extension.

### **Application Criteria**

- This workshop is open to secondary teachers from across the country. Community college educators are also welcome to apply.
- Due to more advanced course content, a basic understanding of biology and genetics is recommended.
- Teachers actively involved in peer mentoring and teacher training are welcome to apply.

### **Workshop Facilitators**

The program facilitators are Judi Heitz from the Grossmont Unified School District ([judihetiz@cox.net](mailto:judihetiz@cox.net)) and Susan Moerder ([smoerder@cox.net](mailto:smoerder@cox.net)) from Francis Parker School. Please feel free to contact them with any questions you may have. Also serving as facilitators will be researcher scientists from The Scripps Research Institute and the University of California, San Diego.

### **Workshop Sponsors**

This workshop is offered in collaboration with The Scripps Research Institute, Miramar College Biotechnology Center and the San Diego Supercomputer Center at the University of California, San Diego.

### **Additional Information**

For more information on the originating UC Davis Partnership for Plant Genomics Education, on which our workshops is based, please see <http://ppge.ucdavis.edu/>.

### **Deadline**

Application must be postmarked no later than **May 15, 2009**.

Applicants will be notified of their acceptance via email.

### **Questions?**

Please contact Marisela Chevez, Director, Academic Preparation & Outreach Programs, TSRI, at 858 784-2171 or email [mchevez@scripps.edu](mailto:mchevez@scripps.edu) or Ange Mason, Director, TeacherTECB, SDSC, at 858 534-5064 or email [amason@ucsd.edu](mailto:amason@ucsd.edu).

## Application for UCSD/TSRI CONTIG Teacher Workshop

<b>General Information (Please Print)</b>	
Name:	School:
Home address:	
Home telephone:	
E-mail address:	
<b>Academic History</b>	
Name of college/university attended (undergraduate):	
Year of graduation:	
Degree:	
Name of college/university attended (graduate):	
Year of graduation:	
Degree:	
Additional courses, credentials:	
<b>Work History</b>	
Name of school at which you are currently teaching:	
School address:	
School telephone:	
Name of principal:	
Years of employment (from ___ - ___)	
Courses taught:	

**Previous teaching experience** (please list teaching appointments chronologically)

Name and address of school:

School telephone:

Name of principal:

Years of employment (from \_\_\_ - \_\_\_ )

Courses taught:

Name and address of school:

School telephone:

Name of principal:

Years of employment (from \_\_\_ - \_\_\_ )

Courses taught:

Additional teacher training, seminars attended, university-affiliated internships:

Honors and awards:

**Statement of Goals**

In 300 words or less, please answer the following questions: How did you learn about the CONTIG Teacher workshop? Why are you interested in participating in this workshop?