

# Why settle for iffy?

## Get the proven value of Illumina® microarrays.

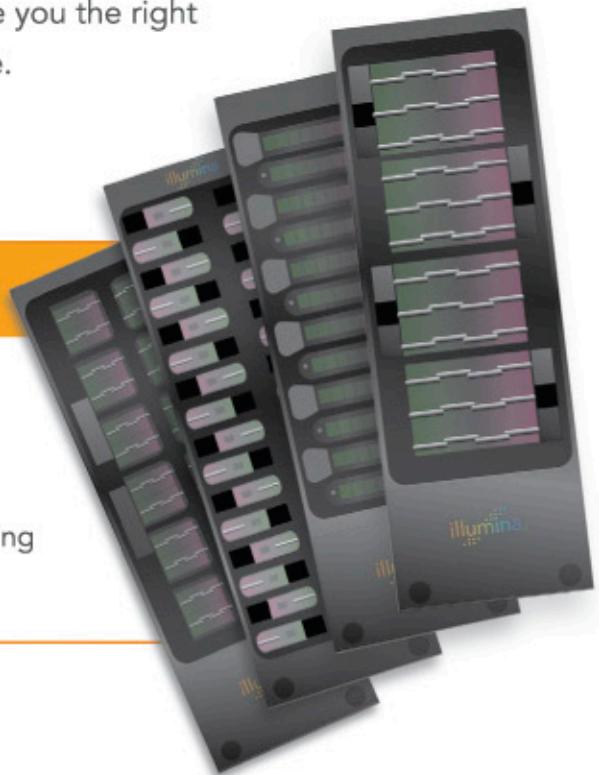
Your research is no place to take unnecessary risks. Not when you can use the proven Illumina microarray platform. Industry-leading call rates and data quality. Flexible options to give you the right array for your study. It's value without compromise.

Only from Illumina.

### The Real Deal.

Now you can get the proven value of Illumina technology—at special prices—during the Illumina Real Deal promotion.

Take advantage of these limited time offers by visiting  
[www.illumina.com/iffy](http://www.illumina.com/iffy)



**illumina®**



To catch the best deals  
and latest technology  
in life science,  
use the NET!

# BIOSUPPLYNET



**BioSupplyNet.com** is your one-stop directory source for life science laboratory supplies and services. Concise and user-friendly, **BioSupplyNet.com** provides direct access to over 6500 companies and 20,000 products.

## FEATURES:

- Download FREE protocols from Cold Spring Harbor Protocols—[www.cshprotocols.org](http://www.cshprotocols.org)
- Search for the latest kits and catalogs
- See the latest products and special promotions
- Sign up for a free monthly newsletter detailing new protocols and products
- Visit our updated career center



[www.BioSupplyNet.com](http://www.BioSupplyNet.com)





## Best-in-Class, Real-Time PCR Solutions. Specific for my research.

**Only Applied Biosystems delivers the highest-quality, best-in-class workflow solutions for all of your real-time PCR applications.** With built-in flexibility, our systems adapt to meet your specific research needs. With 25 years of proven quality, we have the experience you need to bring superior data into your lab. When you want a real-time portfolio that can take your research to the next level, talk to the experts.

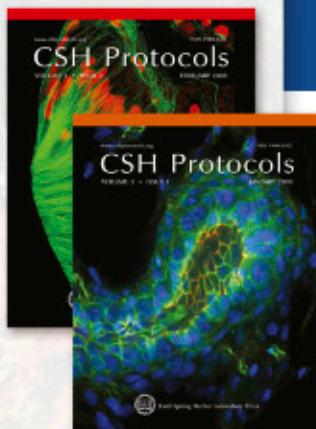


As Flexible as You Want to Be.

**AB** applied  
biosystems®

The highest-quality, real-time PCR solutions optimized just for you at [www.appliedbiosystems.com/realtimesystems](http://www.appliedbiosystems.com/realtimesystems)

For Research Use Only. Not for use in diagnostic procedures. © 2009 Life Technologies Corporation. All rights reserved. The trademarks mentioned herein are the property of Life Technologies Corporation or their respective owners.



# Cold Spring Harbor Protocols

- The online source of trusted techniques in molecular and cell biology
- Contains cutting-edge and classic protocols presented step-by-step with cautions and troubleshooting
- Frequently updated and annotated
- Interactive, customizable, and fully searchable

## Subject Coverage

Antibodies  
Bioinformatics/Genomics  
Cell Biology  
Chromatography  
Computational Biology  
DNA Delivery/Gene Transfer  
Electrophoresis  
Emerging Model Organisms  
Genetics  
High-Throughput Analysis  
Imaging/Microscopy  
Immunology  
Laboratory Organisms  
Molecular Biology  
Neuroscience  
Newly Added Protocols  
Plant Biology  
Polymerase Chain Reaction (PCR)  
Proteins and Proteomics  
RNA Interference (RNAi)/siRNA  
Stem Cells  
Transgenic Technology



## Online. Authoritative. Indispensable.

Cold Spring Harbor Laboratory is renowned for its teaching of biomedical research techniques. For decades, participants in its celebrated, hands-on courses and users of its laboratory manuals have gained access to the most authoritative and reliable methods in molecular and cellular biology. Now that access has moved online.

Visit *Cold Spring Harbor Protocols* today and discover a rich, interactive source of new and classic research techniques. The site is fully searchable, with many tools that can be customized by users, including topic-based alerting and personal folders. Through a web-based editorial process, users also have the opportunity to add refereed comments to each protocol. Links in the online protocols offer additional resources and step-by-step instructions print out in a convenient form, complete with materials, cautions, and troubleshooting advice. Each protocol is citable, presented, and edited in the style that has made *Molecular Cloning*, *Antibodies*, *Cells*, and many other Cold Spring Harbor manuals essential to the work of scientists worldwide. The current collection of more than 1000 protocols is continuously expanded, updated, and annotated by the originators and users of the techniques.

### NEW to CSH Protocols:

 *Emerging Model Organisms*, a full-fledged guide to the use of new model systems in the laboratory, covering husbandry, genetics, genomics and basic protocols.

*CSH Protocols* is created by Cold Spring Harbor Laboratory Press in association with HighWire Press of Stanford University.

Executive Editor: Dr. David Crotty • ISSN 1559-6095 / online, monthly  
Available exclusively via institutional site license

**Request a Free Trial for Your Institution**

**[www.cshprotocols.org](http://www.cshprotocols.org)**

**The First Choice in Protocols.**

For pricing information or to request a free trial, contact us at:

Phone: 1-800-843-4388 (Continental US and Canada) or 516-422-4100 (all other locations)

Fax: 516-422-4097 E-mail: [cshpress@cshl.edu](mailto:cshpress@cshl.edu) Website: [www.cshlpress.com](http://www.cshlpress.com)

Write: Cold Spring Harbor Laboratory Press, 500 Sunnyside Blvd., Woodbury, NY 11797-2924



# What is your taste?

## BGI'S GENOMICS BAR



tech@genomics.org.cn  
www.genomics.org.cn  
86-755-25273395

Would **60 Gb/day** sequencing capacity, **50 TFLOPS**, **5 P** storage,  
**200** bioinformaticians and the use of cutting-edge software programs  
developed by BGI satisfy your taste?

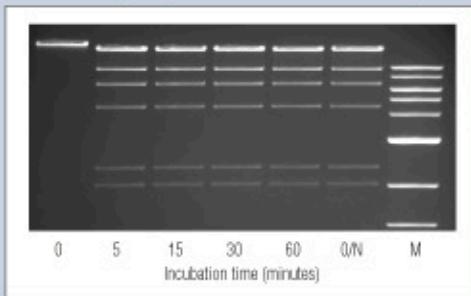
One of the world's biggest genome centers is looking for collaborators !

## EXCEPTIONAL QUALITY

### Restriction Enzymes from New England Biolabs

With 35 years of experience in enzyme technology, New England Biolabs leads the industry in quality, selection and innovation for restriction enzymes. Our expertise in purification coupled with a reliance on recombinant technology results in highly pure enzymes suitable for even the most sensitive applications. Additionally, stringent quality controls ensure that our enzymes deliver optimal performance. For quality you can count on, make NEB restriction enzymes your first choice.

#### Power and purity of NEB Restriction Enzymes



Recombinant HindIII is powerful enough to digest 1 µg of DNA in 5 minutes, but can also be used in overnight digests with no indication of nuclease contamination. Marker (M) is the 1 kb DNA Ladder (NEB #N0323).

Choose recombinant enzymes for a higher quality product with lot-to-lot consistency

#### Advantages:

- **Selection** – More specificities than any other supplier
- **Convenience** – Optimal activity for over 160 enzymes in a single buffer
- **Quality** – State-of-the-art production and stringent QC's
- **Innovation** – HF enzymes engineered for reduced star activity
- **Performance** – Guaranteed



CLONING & MAPPING

DNA AMPLIFICATION & PCR

RNA ANALYSIS

PROTEIN EXPRESSION & ANALYSIS

GENE EXPRESSION & CELLULAR ANALYSIS

less than 2 hours  
+ 50 ng DNA  
= Sequencer-ready library

EPICENTRE's revolutionary Nextera™ technology uses *in vitro* transposition to prepare sequencer-ready libraries from genomic DNA for multiple sequencing platforms. The technology simultaneously fragments and tags DNA, in a single-tube reaction.

- Use nanogram amounts of starting DNA.
- Prepare sequencer-ready libraries in less than 2 hours.
- Incorporate platform-specific tags and optional barcodes.
- Validated on Roche 454™ GS FLX and GS FLX Titanium™, and Illumina Solexa® GAI, GAIi.

For more information visit: [www.EpiBio.com/nextera1](http://www.EpiBio.com/nextera1)

Nextera is a trademark of EPICENTRE Biotechnologies. 454 and GS FLX Titanium are trademarks of Roche. Solexa is a registered trademark of Illumina, Inc.

 **EPICENTRE®**  
**Biotechnologies**  
[www.EpiBio.com](http://www.EpiBio.com) 800-284-8474

# Plant & Animal Genome XVII



## Workshops

- Abiotic Stress
- Allele Mining
- Animal Epigenetics
- Apomixis
- Aquaculture
- Arthropod Genomics
- Avocado
- Banana (Musa) Genomics
- Barley
- Bioinformatics
- Brassicas
- Brachypodium Distachyon
- Cacao Genome Sequencing
- Canadian Swine
- Cattle/Sheep
- Challenge Program: Unlocking Crop Genetic Diversity for the Poor
- Citrus
- Coffee Genomics
- Comparative Genomics
- Compositae
- Computer Demonstrations
- Connectrons
- Cool Season Legumes
- Cotton
- Curcurbit
- Equine
- Euphorbiaceae
- Evolution of Genome Size
- Forage & Turf Plants
- Forest Trees Fruit and Nut Crops
- Functional Genomics
- Fungal Genomics
- Gene Expression Analysis
- Genomics Assisted Breeding
- Genomics for Plant Disease Resistance
- Host-Microbe Interactions
- Host Pathogen Interactions
- Insect Genetics
- Int'l Wheat Genome Sequencing Consortium
- ICSB
- ICGI
- Int'l Grape Genome Project
- Int'l Lolium Genome Initiative
- IGGI
- ITMI

## Speakers

### The International Conference on the Status of Plant & Animal Genome Research

January 9-13, 2010

Town & Country Hotel, San Diego, California

- Eric Schadt, Pacific Biosciences
- Peter Raven, Missouri Botanical Garden
- Howard Jacob, Medical College of Wisconsin
- Evan Eichler, Washington University
- Joanne Chory, Salk Institute
- Robb Fraley, Monsanto
- Vicki Chandler, University of Arizona

## Organizing Committee

### CHAIRMAN:

Stephen R. Heller, NIST, USA

### PLANTS:

Michael Gale, John Innes Center, UK  
Ed Kaleikau, USDA/CSREES, USA  
Dave Matthews, USDA, ARS Cornell University, USA  
Graham Moore, John Innes Center, UK  
Jerome P. Miksche, Emeritus Director, USDA Plant Genome Program, USA  
Rod Wing, University of Arizona, USA

### ABSTRACT COORDINATORS:

Victoria Carollo, USDA, ARS, WRRC, USA  
Gerard Lazo, USDA/ARS/WRRC, Albany, CA, USA  
David Grant, USDA/ARS & Iowa State University, USA

### ANIMALS:

Cecilia Penedo, UC - Davis, USA  
Shu-Hong Zhao, Huazhong Agricultural University, China  
Christopher Bidwell, Purdue University, USA  
John Liu, Auburn University, USA

## Sponsors

USDA, Agricultural Research Service  
USDA, National Agricultural Library  
USDA, Cooperative State Research, Education, and Extension Service (CSREES)  
John Innes Centre  
NCGR, National Center for Genome Resources

## Presented by

Scherago International  
525 Washington Blvd., Ste. 3310  
Jersey City, NJ 07310  
201-653-4777 x20  
fax: 201-653-5705  
E-mail: pag@scherago.com

For complete details, including on-line registration, visit our website at [www.intl-pag.org](http://www.intl-pag.org)

# **G** *Gordon Research Conferences* *frontiers of science*

*There has never been a better time to experience a Gordon Research Conference! Our high quality, cost-effective meetings are widely recognized as the world's premier scientific conferences.*

## **Cellular & Molecular Fungal Biology**

June 13-18, 2010  
Holderness School  
Holderness, NH  
Chairs: Michelle Momany & John Taylor

## **Chromatin Structure & Function**

July 25-30, 2010  
Bryant University  
Smithfield, RI  
Chair: Robert Kingston

## **DNA Damage, Mutation & Cancer**

March 21-26, 2010  
Ventura Beach Marriott  
Ventura, CA  
Chair: Joann B. Sweasy

## **Environmental Bioinorganic Chemistry**

*Elements In The Environment,  
From Prokaryotes To Planets*  
June 13-18, 2010  
Salve Regina University  
Newport, RI  
Chairs: Rachel N. Austin & Ariel D. Anbar

## **Genes & Behavior**

*Integration*  
March 14-19, 2010  
Ventura Beach Marriott  
Ventura, CA  
Chair: David F. Clayton

**-and-**

**Genes & Behavior (GRS)**  
*Gordon-Kenan Research Seminar*  
March 13-14, 2010  
Ventura Beach Marriott  
Ventura, CA  
Chairs: Seth A. Ament & Margaret S. Ferris

## **Post-Transcriptional Gene Regulation, The Biology Of**

July 18-23, 2010  
Salve Regina University  
Newport, RI  
Chair: Lynne E. Maquat

## **Spirochetes, Biology Of**

January 31 - February 5, 2010  
Ventura Beach Marriott  
Ventura, CA  
Chair: Richard P. Ellen

*APPLY NOW! See why our attendees consistently rate GRCs "the best conference I've attended this year"!*

*Visit us on the web at: [www.grc.org](http://www.grc.org)*