

# Turn sequencing on its head.

It's here. Now you can perform a range of genomic experiments that you only dreamed of before. The Illumina Genome Analyzer changes the way you approach every kind of genomic experiment. The discoveries are happening, the wait is over, and our customers are publishing their results.

Change the way you think about sequencing.  
Join the growing Illumina Community.

Do more with sequencing today:

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





# Cold Spring Harbor Protocols



## Subject Coverage

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

## Lights, Camera, Methods!

Now you can see results of the finest methods in action with new online movies in *CSH Protocols*.

The November issue of *CSH Protocols* features methods for tracking RNA and protein molecules in both cells and organisms, and introduces new multimedia content made possible by online presentation: movies showing examples of these techniques in action.

**Read—and see—these newly featured protocols online at [www.cshprotocols.org](http://www.cshprotocols.org):**

- Photoactivation-Based Labeling and In Vivo Tracking of RNA Molecules in the Nucleus
- Selection of Appropriate Imaging Equipment and Methodology for Live Cell Imaging in *Drosophila*

*CSH Protocols* offers cutting edge and classic protocols in molecular and cell biology from laboratories worldwide, along with methods from Cold Spring Harbor Laboratory's renowned manuals and on-site courses. Free trials and discounted subscriptions are available for a limited time.

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

Cold Spring Harbor Protocols • Executive Editor: Dr. Michael Ronemus  
ISSN 1559-6095 / online, monthly • Available exclusively via institutional site license

**[www.cshprotocols.org](http://www.cshprotocols.org)**  
The First Choice in Protocols.

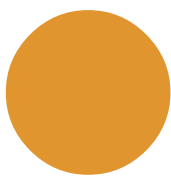
For pricing information or to request a free trial visit the website or:

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)

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





The **power** you need.  
Now at a **price** you'll love.

Infinium® Genotyping and CNV.  
Power your research with industry-leading  
quality and content from Illumina.

Discover the fastest way to a successful study at a price lower than  
you ever imagined:

- ▶ Power your study with the industry's best genomic coverage and the only product with 1 million SNPs for CNV analysis.
- ▶ Publish faster by using the products that power the most publications for whole-genome association studies.
- ▶ Increase study power by accessing iControlDB, Illumina's control database.
- ▶ Leverage the power and speed of multi-sample whole-genome genotyping products and custom iSelect™ BeadChips.

Join the growing Illumina  
Community today:

[www.illumina.com/infinium](http://www.illumina.com/infinium)





lose the damage, keep the genes.

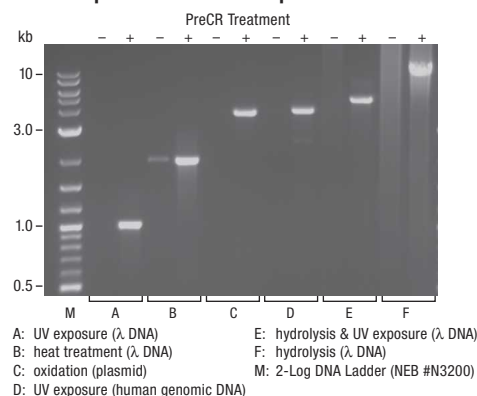
## PreCR™ Repair Mix from New England Biolabs

REPAIR A BROAD RANGE OF DNA DAMAGE PRIOR TO PCR

Increase your chances for successful PCR with the PreCR™ Repair Mix. This innovative blend of recombinant proteins is designed to repair damaged DNA prior to its use in PCR reactions. All it takes is a simple 20 minute reaction to repair a wide range of DNA damage due to heat, low pH, oxygen, and UV light.\*

\*Not recommended for highly fragmented DNA or for damage due to DNA crosslinks

### Proven Repair with the PreCR Repair Mix



### Advantages:

- Suitable for PCR, microarrays and other DNA technologies
- Does not harm DNA template
- Can be used in conjunction with any thermophilic polymerase
- PCR can be done directly on repair reaction
- Easy-to-use protocols included

### Product information:

PreCR™ Repair Mix ..... M0309S/L

For more information and our international distribution network, please visit [www.neb.com](http://www.neb.com)

DNA Damage	Cause	Repaired by PreCR Repair Mix
abasic sites	hydrolysis	✓
nicks	hydrolysis nucleases shearing	✓
thymidine dimers	UV radiation	✓
blocked 3'-ends	multiple	✓
oxidized guanine	oxidation	✓
oxidized pyrimidines	oxidation	✓
deaminated cytosine	hydrolysis	✓
fragmentation	hydrolysis nucleases shearing	X
Protein-DNA crosslinks	formaldehyde	X



# CAREER TRACKS

Dedicated entirely to Employment, Conferences, Meetings, Fellowships, and Grants



## *Investigator Recruitment in Cancer Genetics* *National Human Genome Research Institute*

The Cancer Genetics Branch (CGB) of the National Human Genome Research Institute (NHGRI) is seeking to recruit an outstanding tenure-track investigator to pursue innovative, independent research in cancer genetics. General areas of interest include, but are not limited to:

- Cancer Gene Discovery
- Comparative Cancer Genomics
- Genetic Epidemiology
- Molecular Profiling of Tumors
- Functional Genomics of Cancer
- Genome Instability in Cancer
- Markers for Early Detection
- Genetics of Tumor Progression

The successful candidate will be able to take advantage of interactions with a highly collegial group of scientists within NHGRI and the NIH campus as a whole. In addition, they will have access to NHGRI's outstanding core laboratories, as well as the unparalleled resources of the NIH Clinical Center.

Candidates must have a Ph.D., M.D., or equivalent degree, as well as comprehensive, advanced training and a record of accomplishment in one of the targeted areas. This position includes generous start-up funds, an ongoing commitment of research space, laboratory resources, and positions for personnel and trainees.

Interested applicants should submit a *curriculum vitae*, a three-page description of their proposed research, and three letters of recommendation through our online application system at <http://research.nhgri.nih.gov/apply>.

The closing date for applications is November 16, 2007.

For more information on CGB and NHGRI's Intramural Program, please see <http://www.genome.gov/DIR>. Specific questions regarding the recruitment may be directed to Dr. Larry Brody, the Search Chair, at [lbrody@helix.nih.gov](mailto:lbrody@helix.nih.gov). Questions may also be directed to Dr. Elaine Ostrander, the CGB Branch Chief, at [eostrand@mail.nih.gov](mailto:eostrand@mail.nih.gov).

Interested applicants should also be aware of two concurrent tenure-track faculty searches being conducted by NHGRI's Genetics and Molecular Biology Branch (GMBB) and Genetic Disease Research Branch (GDRB). Information on these searches may be found at <http://genome.gov/11509039>. Qualified candidates are welcome to apply for multiple searches; please note that a separate application must be filed for each search for which you wish to be considered.

Department of Health and Human Services • National Institutes of Health

DHHS and NIH are Equal Opportunity Employers and encourage applications from women and minorities.



## *Investigator Recruitment in Genetics and Molecular Biology* *National Human Genome Research Institute*

The Genetics and Molecular Biology Branch (GMBB) of the National Human Genome Research Institute (NHGRI) is seeking to recruit outstanding tenure-track investigators to pursue innovative, independent research. The faculty within GMBB are highly interactive and use a variety of approaches to understand and develop new treatments for genetic and complex diseases. Current areas of research include hematopoiesis, the genetic disorders of red blood cells, cellular immunology, gene therapy, leukemogenesis, genomic instability in disease, the genetics of skin diseases, and the genomics of the skin microbiome. Of particular interest are candidates with research interests in the following areas:

- Clinical genetics
- Basic genetic/genomics research
- Clinical/translational research
- Application of genomics tools to understanding human disease

The successful candidate will be able to take advantage of interactions with a highly collegial group of scientists within NHGRI and the NIH campus as a whole. In addition, the successful candidate will have access to NHGRI's outstanding core laboratories, as well as the unparalleled resources of the NIH Clinical Center.

Candidates must have a Ph.D., M.D., or equivalent degree, as well as comprehensive, advanced training and a record of accomplishment in one of the targeted areas. This position includes a generous start-up allowance, an ongoing commitment of research space, laboratory resources, and positions for personnel and trainees.

Interested applicants should submit a *curriculum vitae*, a three-page description of proposed research, and three letters of recommendation through our online application system, at <http://research.nhgri.nih.gov/apply>.

The closing date for applications is November 16, 2007.

For more information on GMBB and NHGRI's Intramural Program, please see <http://genome.gov/DIR>. Specific questions regarding the recruitment may be directed to Dr. Fabio Candotti, the Search Chair, at [fabio@nhgri.nih.gov](mailto:fabio@nhgri.nih.gov). Questions may also be directed to Dr. David Bodine, the GMBB Branch Chief, at [tedyaz@nhgri.nih.gov](mailto:tedyaz@nhgri.nih.gov).

Interested applicants should also be aware of two concurrent tenure-track faculty searches being conducted by NHGRI's Cancer Genetics Branch (CGB) and Genetic Disease Research Branch (GDRB). Information on these searches may be found at <http://genome.gov/11509039>. Qualified candidates are welcome to apply for multiple searches; please note that a separate application must be filed for each search for which you wish to be considered.

Department of Health and Human Services • National Institutes of Health

DHHS and NIH are Equal Opportunity Employers and encourage applications from women and minorities.



**UNIVERSITY OF CALIFORNIA, SANTA CRUZ**  
**MOLECULAR, CELL & DEVELOPMENTAL BIOLOGY**  
**Assistant Professor**

The Department of Molecular, Cell and Developmental Biology at the University of California, Santa Cruz invites applications for a tenure-track faculty position. We seek candidates whose research centers on fundamental problems involving the biological roles of RNA. This person's research will expand and complement our existing RNA research areas which include RNA processing, ribosomes, catalytic RNA, genomics, computational biology, ribonucleoprotein assembly, RNA stability, RNA-protein interactions, and the use of cryo-electron microscopy and X-ray crystallography to study RNA and ribonucleoprotein complex structure. Research space is located within the MCD Biology Department in Sinsheimer Laboratories. The successful candidate will be associated with the Center for Molecular Biology of RNA. The RNA Center provides a collaborative research atmosphere with a broad range of interests. More information about the Center for Molecular Biology of RNA can be found at <http://rna.ucsc.edu/rnacenter/>. The successful candidate will also have an opportunity to interact with faculty doing related research in the departments of Chemistry & Biochemistry and Biomolecular Engineering, facilitated by the Center for Biomolecular Science & Engineering and the Stem Cell Facility.

This appointment will be made at the Assistant Professor level. The successful candidate will be expected to establish a vigorous, externally-funded research program, contribute to the intellectual vitality of the MCD Biology department, and teach at both the undergraduate and graduate levels. We offer an interactive research environment, a strong modern infrastructure, and a competitive startup package. Colleagues who can contribute to the diversity and excellence of the academic community through their research, teaching, service and/or leadership are particularly encouraged to apply.

**RANK:** Assistant Professor (tenure track)

**SALARY:** Commensurate with qualifications and experience

**MINIMUM QUALIFICATIONS:** Requires a Ph.D. or equivalent in biology or a related field, postdoctoral research experience, and demonstrated potential for university teaching.

**POSITION AVAILABLE:** Fall 2008

**TO APPLY:** Submit hard copies of a letter of application, curriculum vitae, copies of reprints, and concise description of research plans and teaching experience to the address listed below. Applicants are invited to submit a statement addressing their contributions to diversity through their research, service and/or teaching. Also arrange for three letters of recommendation to be sent to this address:\*

*\*All letters will be treated as confidential, please direct your reference writers to UCSC's confidentiality statement at [http://www2.ucsc.edu/ahr/academic\\_policies\\_and\\_procedures/cappm/confstm.htm](http://www2.ucsc.edu/ahr/academic_policies_and_procedures/cappm/confstm.htm).*

Faculty Search Committee  
Department of MCD Biology  
University of California, Santa Cruz  
1156 High Street  
Santa Cruz, California 95064

**Please refer to Position #841-08 in your reply.**

**CLOSING DATE:** The position will remain open until filled. Screening will begin with applications postmarked by October 15, 2007. To ensure full consideration, applications must arrive by the initial screening date.

***UC Santa Cruz faculty make significant contributions to the body of research that has earned the University of California the ranking as the foremost public higher education institution in the world. In the process, our faculty demonstrate that cutting-edge research, excellent teaching and outstanding service are mutually supportive.***

**The University of California, Santa Cruz is an Affirmative Action/Equal Employment Opportunity Employer, committed to excellence through diversity. We strive to establish a climate that welcomes, celebrates, and promotes respect for the contributions of all students and employees.**

Inquiries regarding the University's equal employment opportunity policies may be directed to: Equal Employment Opportunity/Affirmative Action Office at the University of California, Santa Cruz, CA 95064; (831) 459-2686. Under Federal law, the University of California may employ only individuals who are legally able to work in the United States as established by providing documents as specified in the Immigration Reform and Control Act of 1986.

If you need assistance due to a disability please contact the Academic Human Resources Office at 499 Clark Kerr Hall (831) 459-4300. This position description is available in alternate formats, which may be requested from Academic Human Resources at (831) 459-4300.

VISIT THE AHR WEB SITE <http://www2.ucsc.edu/ahr>  
7/23/07