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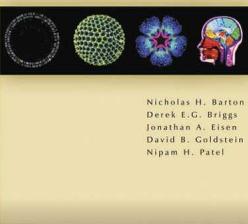
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# EVOLUTION

## EVOLUTION



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By Nicholas H. Barton, *University of Edinburgh*, Derek E.G. Briggs, *Yale University*,  
Jonathan A. Eisen, *University of California, Davis*, David Goldstein, *Duke University Medical Center*,  
and Nipam H. Patel, *University of California, Berkeley*

### Announcing...

*Evolution*, a new book on evolutionary biology that integrates molecular biology, genomics, and human genetics with traditional studies of evolutionary processes.

- Recommended as a primary textbook for undergraduate courses in evolution
- Required reading for biologists seeking a clear, current, and comprehensive account of evolutionary theory and mechanisms
- Written by experts in population genetics, bacterial genomics, paleontology, human genetics, and developmental biology
- Integrates molecular and evolutionary biology in ways that reflect current directions in research

### Contents and Coverage

This extensively illustrated, full-color book has four sections:

**Introduction** (Part 1) gives an account of how the ideas underpinning evolutionary theory developed and a history of experiments and ideas in the development of molecular biology.

**Origin and Diversity of Life** (Part 2) describes the history of life on earth from the origin of life to the evolution of humans, with emphasis on the major transitions in genetic organization and novel adaptations that have appeared. The diversity of life is emphasized. The chapters make extensive use of information from complete genome sequences and analysis of molecular mechanisms in development.

**Evolutionary Processes** (Part 3) describes how the diversity of life is generated: how variation arises and how selection acts are considered in detail. Many examples used to illustrate these processes are drawn from molecular sources.

**Human Evolution** (Part 4) discusses human evolution and diversity. The benefits of molecular markers for our understanding of human evolution are highlighted and these findings integrated with paleontological evidence. Also discussed is the use of evolutionary methods to identify genetic differences that predispose people to specific diseases and affect their responses to treatment.

### Online-only Chapters

Additional chapters, found on the Web only, deal with techniques and models used in studying evolutionary biology, emphasizing the contribution of molecular biology and genomics to phylogenetic reconstruction methods.

### Resources for Instructors

The *Evolution* web site ([www.evolution-textbook.org](http://www.evolution-textbook.org)), is an invaluable supplement to the textbook, a resource for teachers that contains downloadable figures (for PowerPoint or overhead display) and chapter problems.

[www.evolution-textbook.org](http://www.evolution-textbook.org)

### Request exam copies and other information

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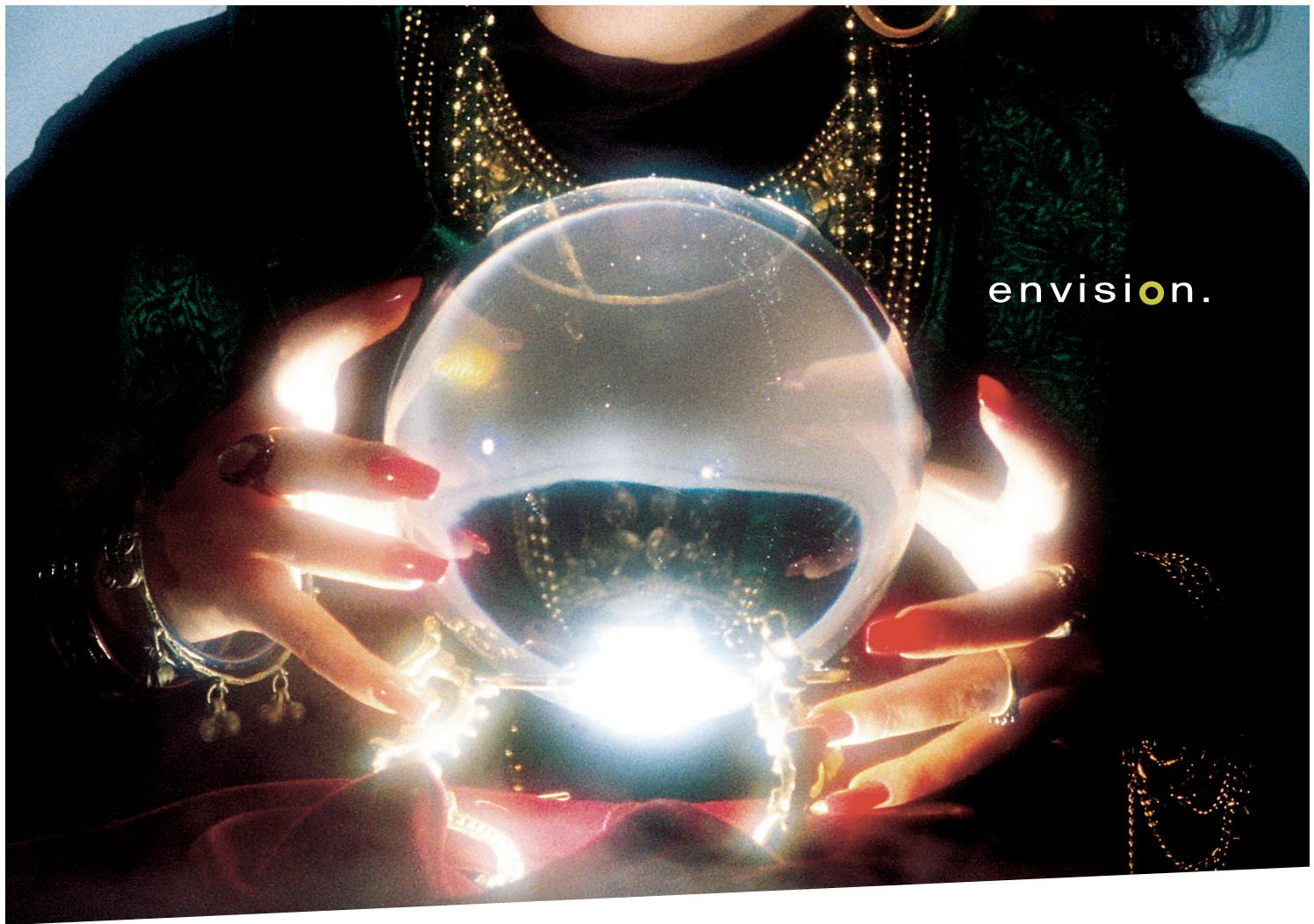
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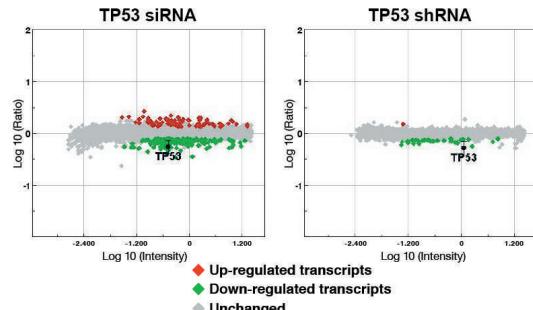
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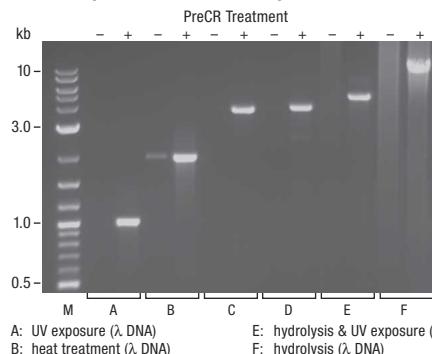
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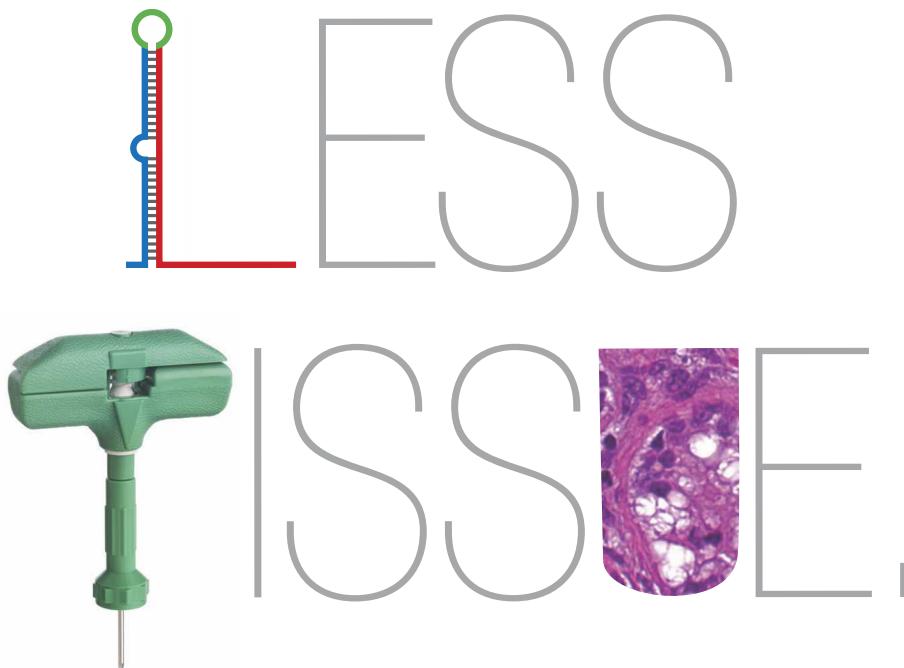
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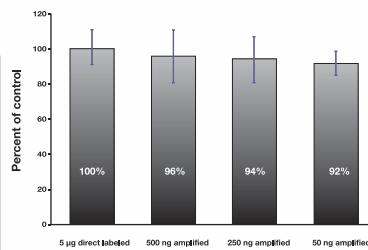


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**Faculty positions  
in the genetics and neurobiology of psychiatric disorders**  
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The Stanley Institute for Cognitive Genomics at Cold Spring Harbor Laboratory is seeking applicants for three new positions at the level of assistant/associate professor. These faculty will take part in a multidisciplinary effort to identify the genetic causes of psychiatric disorders and to investigate, at the molecular and systems level, how altered genes lead to changes in cognition. Independent faculty applicants are sought in three areas of research: human genetics, bioinformatics, and molecular and developmental neurobiology. For the human genetics position, applicants should have experience in design and analysis of studies of genetic variation and/or expertise in the generation and analysis of high throughput sequence data. For the bioinformatics position, applicants should have experience analyzing human sequence variation and developing new analytical tools, especially those applying to new sequencing technologies. For the molecular and developmental neurobiology position, applicants should have investigated the mechanisms through which identified disease-associated genomic variations act, using animal models or in vitro techniques; preferably in the area of cognition and behavior. Support for junior or senior faculty is available within the Stanley Institute for Cognitive Genomics at Cold Spring Harbor Laboratory.

Cold Spring Harbor Laboratory is a world-renowned research and educational institution with programs in cancer, neuroscience, plant biology, genomics and bioinformatics. The Laboratory is recognized internationally for its excellence in research and educational activities.

Please send a cover letter outlining your research interests and suitability for the position, CV and names of three references to:

**BIOINFORMATICS POSITION:**

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Lincoln Stein, Ph.D  
Cold Spring Harbor Laboratory  
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Cold Spring Harbor, NY 11724 USA

**HUMAN GENETICS AND MOLECULAR  
NEUROBIOLOGY POSITIONS:**

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W. Richard Mc Combie, Ph. D  
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**Postdoctoral positions  
in the genetics and neurobiology of  
psychiatric disorders**  
Cold Spring Harbor Laboratory  
Cold Spring Harbor, NY

The Stanley Institute for Cognitive Genomics at Cold Spring Harbor Laboratory is seeking applicants for Postdoctoral Researchers in either molecular biology or bioinformatics for a large-scale effort to use genomic technologies to understand the biological basis of schizophrenia and other cognitive disorders. Recently, several candidate genes and genomic regions associated with psychiatric disorders have been identified. The Stanley Institute for Cognitive Genomics at Cold Spring Harbor Laboratory is launching a multi-investigator, multi-disciplinary effort to use next generation sequencing technologies to discover and understand the genetic variation underlying these disorders, focusing on schizophrenia and bipolar disorder.

Postdoctoral Researchers will be working in an interactive environment with scientists from various disciplines. The team is now seeking to fill a number of Postdoctoral positions with researchers having experience in either molecular biology, human genetics, or high-throughput sequencing and informatics focusing on the analysis of human sequence variation. Familiarity with cognitive diseases is desired but not essential.

**Cold Spring Harbor Laboratory** is a world-renowned research and educational institution with programs in cancer, neuroscience, plant biology, genomics and bioinformatics. The Laboratory is recognized internationally for its excellence in research and educational activities.

Please send a cover letter outlining your research interests and suitability for the position, CV and names of three references to:

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W. Richard Mc Combie, Ph. D  
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