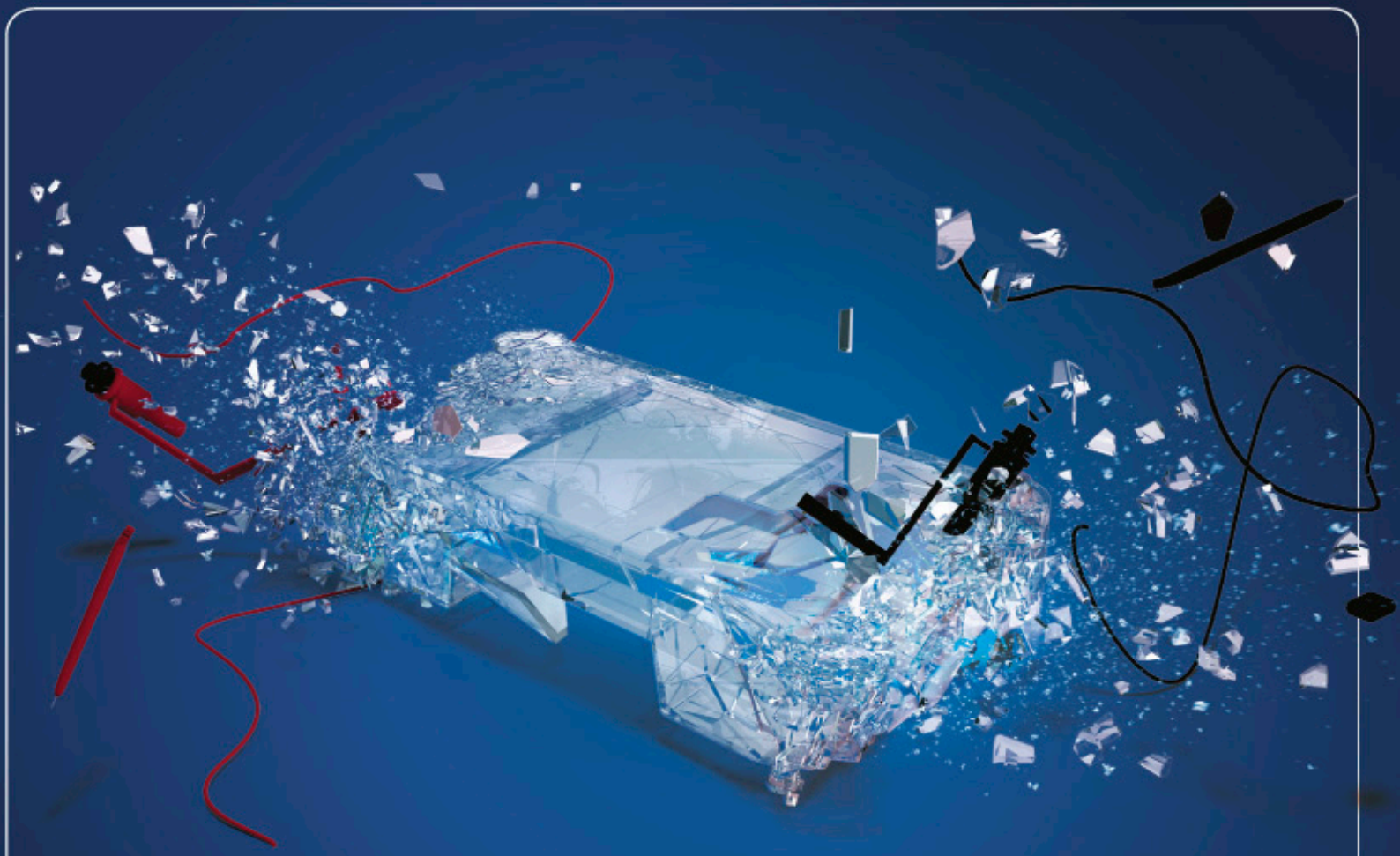


BLOW UP YOUR GENOMICS WORKFLOW.

Automate nucleic acid QC and get on with your life sciences.

If sample QC takes you more than two minutes, it's too manual. Fragment Analyzer™ takes the job off your hands—streamlining lab operations and wiping out errors. Just pipette once and it delivers truly reliable results via automated capillary electrophoresis.

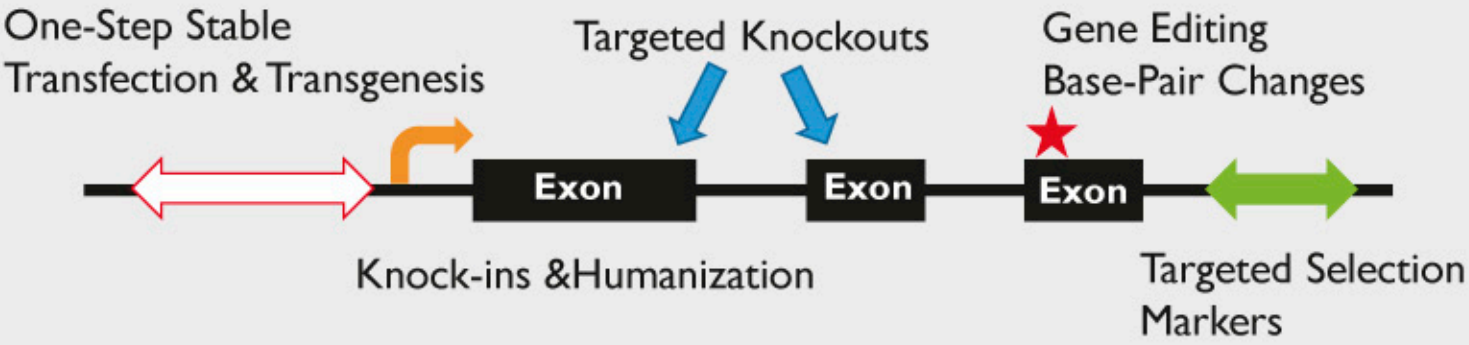
No chips. No tapes. No compromises.

- **Setup in seconds**
- **Get resolution down to 2 base pairs**
- **Detection starts at 5 pg/µL**

DITCH YOUR TIRED OLD WORKFLOW AT **AATI-US.COM.**

ADVANCED ANALYTICAL

Next-Generation Genome Engineering Technologies & Services



With So Many Opportunities What Are You Waiting For?

Footprint-Free™ Gene Editing

NextGEN™ CRISPR

XTN™ TALEN

Stable Transfection Kits & piggyBac™ Transposon

Cell Line & Rodent Model Engineering Services

Your Next Discovery Awaits

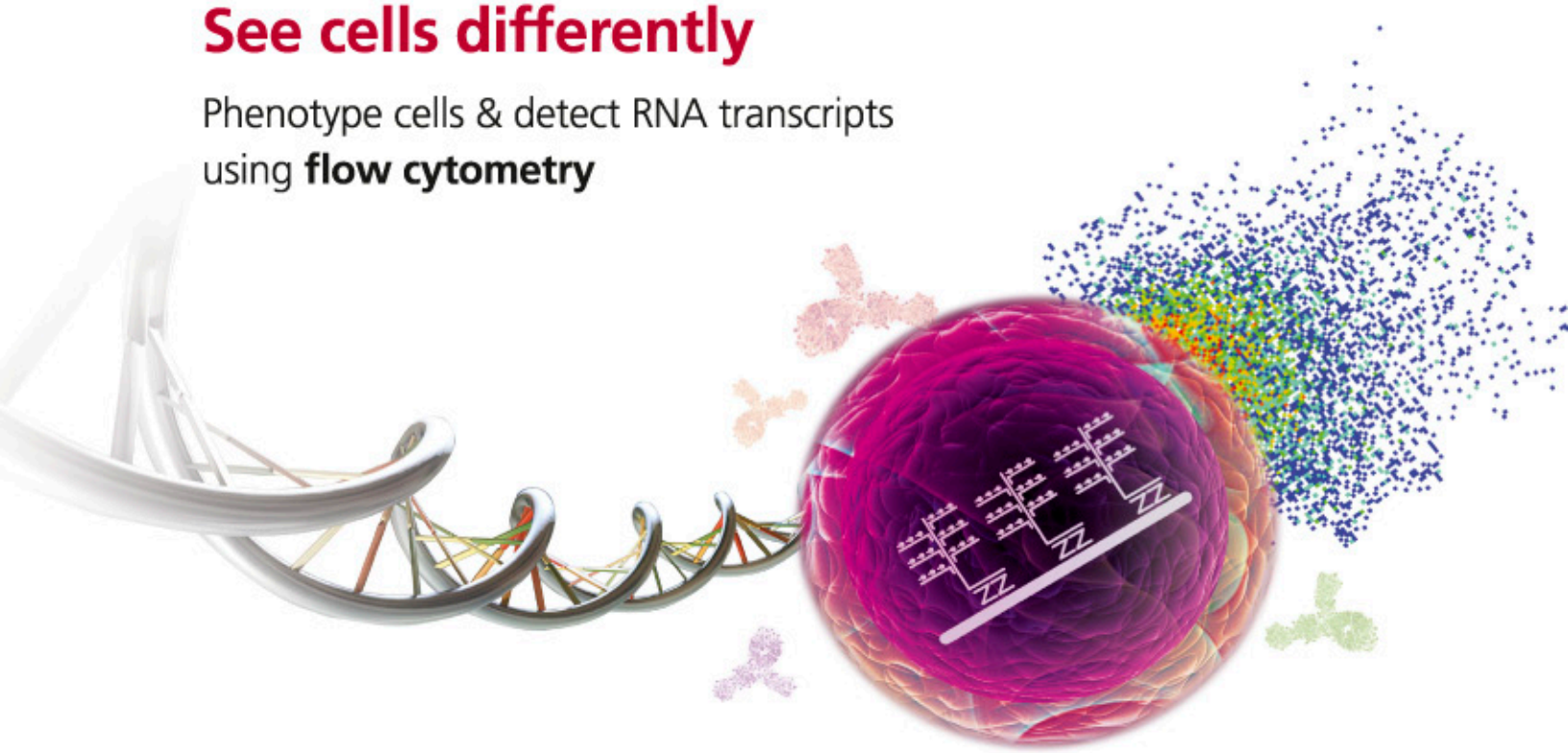
Transposagen
Better Models. Better Results.™

1-844-GEN-EDIT
info@transposagenbio.com
www.transposagenbio.com

affymetrix
eBioscience

See cells differently

Phenotype cells & detect RNA transcripts
using **flow cytometry**



Need to take a closer look at your cell's signature? Want to understand transcription regulation and patterns? Is RNA expressed intermittently or consistently?

Gain insight into single cell analysis with the QuantiGene® FlowRNA Assay,
a novel multiplex RNA hybridization protocol using a standard flow cytometer. Choose from a catalog of more than 4,000 probes or request a custom set at no additional charge.

Show Me Data

Download scientific poster at **ebioscience.com/FlowRNA-Genes**
eBioscience, an Affymetrix company, provides innovative solutions to researchers and clinicians worldwide looking to answer questions driving today's life science community.

Biology for a better world.

NORTH AMERICA: 888.999.1371 ▪ EUROPE: +43 1 796 40 40-304 ▪ JAPAN: +81 (0)3 6430 4020 ▪ INQUIRIES: info@ebioscience.com

©Affymetrix, Inc. All rights reserved. For Research Use Only. Not for use in diagnostic or therapeutic procedures.

eBioscience GeneChip Panomics USB

immunogenomics 2014

Join international leaders in immunogenomics as they discuss their cutting-edge research.

September 29 – October 1, 2014
HudsonAlpha Biotechnology Campus
Huntsville, AL USA

Abstract deadline: July 18, 2014

Early booking deadline: August 1, 2014

Register today at immunogenomics.com

Our Keynote Speakers:

Christophe Benoiste

Professor, Department of Microbiology and Immunobiology, Harvard Medical School

Mary Ellen Conley

Federal Express Chair of Excellence and Professor, Department of Pediatrics, University of Tennessee, College of Medicine, Memphis

Mark Davis

Investigator, Howard Hughes Medical Institute; Professor, Department of Microbiology and Immunology; Director, Institute for Immunity, Transplantation, and Infections, Stanford University School of Medicine

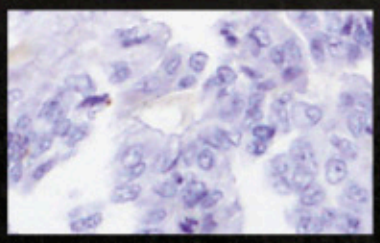
presented by

HUDSONALPHA INSTITUTE FOR BIOTECHNOLOGY

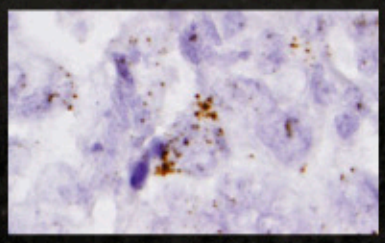
Science AAAS

FLYING SAUCER OR FRISBEE?

Don't let ambiguous images lead you to the wrong conclusions. Get definitive results with RNAscope® technology.



***IHC** fails to detect Napsin A expression in lung adenocarcinoma*



***RNAscope ISH** detects Napsin A RNA molecules in the same specimen*

Take the RNAscope challenge:

Are IHC antibodies giving you ambiguous results? RNAscope is an RNA biomarker detection technology that delivers single molecule sensitivity with single cell resolution. Try RNAscope ISH and we'll credit your antibody expenses towards your purchase. We guarantee that RNAscope assay will work with your samples.*

Learn more at **acdbio.com/RNAscopechallenge**

ACD
Advanced Cell Diagnostics

*Share your poor antibody results and expenses with us. We will provide you a credit of up to $500 USD towards your purchase of RNAscope products, and guarantee that RNAscope will work with any samples where RNA is present. Limit one promotional credit per antibody.

For Molecular Biology Applications (MBA), not intended for diagnosis. Refer to appropriate regulations. RNAscope® is a registered trademark of Advanced Cell Diagnostics, Inc. Doc# 321084/031314/revA

Maverix BIOMICS

Dominate the NGS Data Wave with Maverix Analytic Platform

Watch a short video to learn more:
maverixbio.com/view-demo

With the Maverix Analytic Platform, you can take control of your NGS data analysis. Upload your FASTQ files directly in your web browser, configure and launch an analysis in less than 5 minutes. Visualize and discover the biology using the integrated UCSC genome browser.

Finally, a bioinformatics tool designed for the biologist!

Upload.
Directly in your web browser

Configure.
Start an analysis in less than 5 min.

Launch.
Monitor real-time progress

Discover.
Visualize your results in ~24 hours.

1.650.388.9277 www.maverixbio.com info@maverixbio.com

Simply Better Workflow.

Ovation® Target Enrichment System

Customized target enrichment powered by Single Primer Enrichment Technology — interrogate up to 10Mb target regions in a complete library solution with as little as 10 ng gDNA input

One tube. One day. It's that simple.

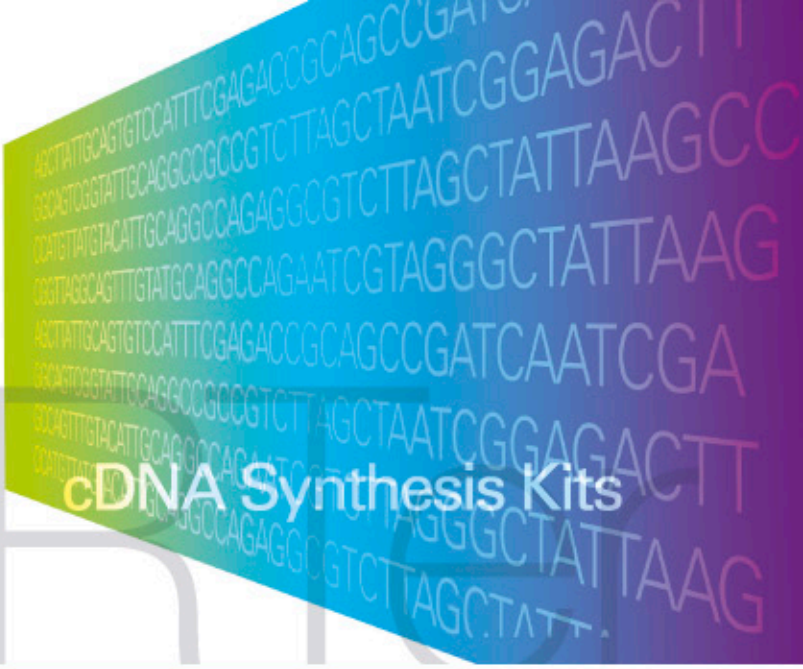
NuGEN
imagine more from less®

www.nugen.com

©2014 NuGEN Technologies, Inc. All rights reserved. The Encore®, Ovation® and Applause® families of products and methods of their use are covered by several issued U.S. and International patents and pending applications (www.nugen.com). NuGEN, Ovation, SPIA, Ribo-SPIA, Applause, Encore, Prelude, Mondrian and Imagine More From Less are trademarks or registered trademarks of NuGEN Technologies, Inc. Other marks appearing in these materials are marks of their respective owners.

For Research Use Only.

Why compromise on your RNA-seq data?



cDNA SYNTHESIS FOR NEXT GEN SEQUENCING

High-quality data from low-input RNA samples

SMARTer® Stranded RNA-Seq Kits for transcriptome analysis

that's GOOD science!™

Low-input RNA-seq libraries for Illumina® sequencing

SMARTer Stranded RNA-Seq Kits generate RNA-seq libraries for Illumina sequencing from 100 pg–100 ng input RNA. These random-primed kits allow for transcriptome analysis of RNA samples of any quality, capturing data from both coding and non-coding RNA while retaining strand of origin information.

The SMARTer Stranded method is compatible with the new RiboGone™ - Mammalian kit to seamlessly integrate rRNA removal from low-input samples (10–100 ng) with Illumina-ready library production. The entire integrated workflow can be completed in less than 5 hours.

See more data at
www.clontech.com/SMARTer-stranded
or call 1.800.662.2566

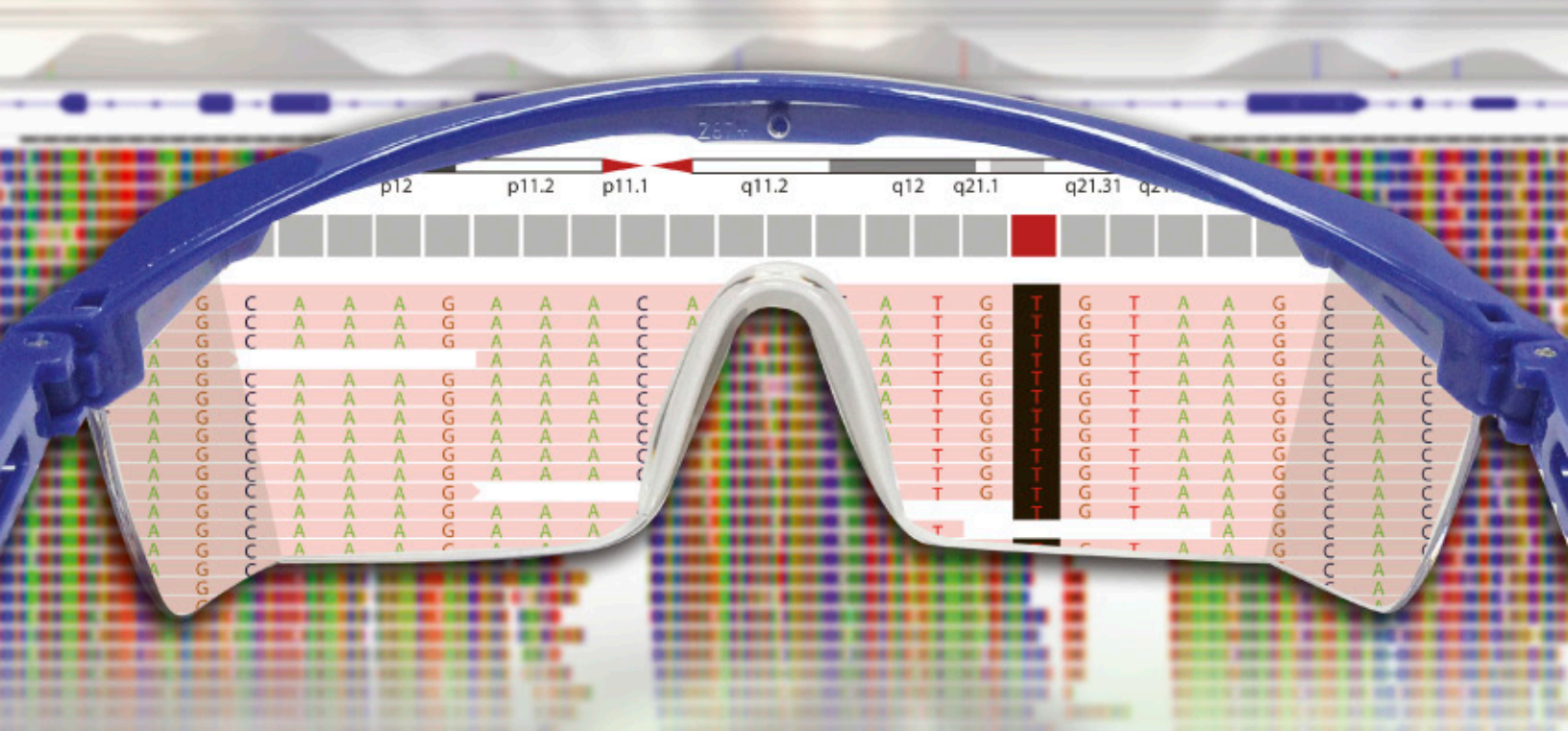
Scan to find out more

TaKaRa Clontech

Clontech Laboratories, Inc. • A Takara Bio Company
United States/Canada: +1.800.662.2566 • Asia Pacific: +1.650.919.7300 • Europe: +33.(0)1.3904.6880 • Japan: +81.(0)77.543.7247
For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. Illumina is a trademark of Illumina, Inc. Clontech®, the Clontech logo, RiboGone, SMARTer, and that's GOOD science! are trademarks of Clontech Laboratories, Inc. Takara and the Takara logo are trademarks of TAKARA HOLDINGS, Kyoto, Japan. All other marks are the property of their respective owners. Certain trademarks may not be registered in all jurisdictions. © 2014 Clontech Laboratories, Inc.

www.clontech.com 05.14 US 633648

FOCUS ON GENOMICS



NEXT GENERATION SEQUENCING & BIOINFORMATICS SOLUTIONS

Comprehensive Service Suite

- Whole Genome Sequencing
- Exome Sequencing
- RNA-seq
- ChIP-seq
- Library Preparation

Specialized Solutions

- TargetGxOne™ Custom Gene Panels
- OncoGxOne™ Discovery Cancer Panels
- Adventitious Agent Contamination Testing
- 16S MetaVx™ Sequencing
- Express NGS™

GENEWIZ®
Solid science. Superior service.

FOR MORE INFORMATION CONTACT:

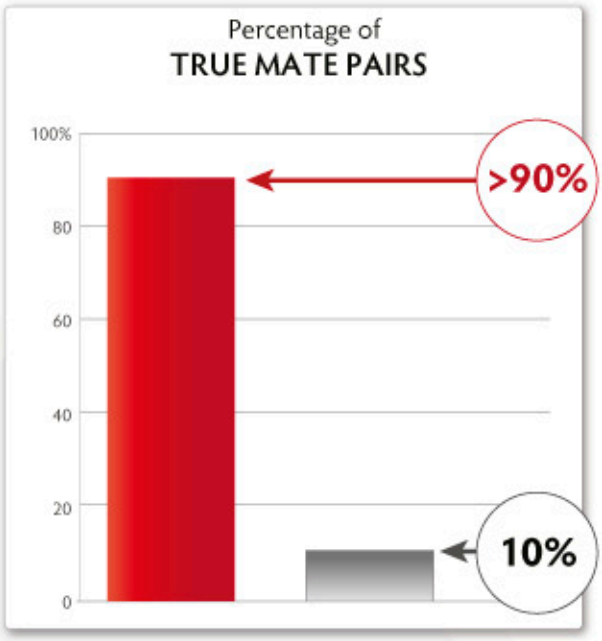
GENEWIZ Project Management • 908-222-0711 • PM@genewiz.com

www.genewiz.com

NxSeq® 2-8 kb Mate Pair Kit

CLOSE YOUR GENOME

with True Mate Pair Libraries



Revolutionary NxSeq 2-8 kb Mate Pair

Conventional Methods

- Larger N50
- Longer Scaffolds
- User-defined inserts up to 8 kb

Learn more >
lucigen.com/matepair

Lucigen®
Simplifying Genomics
lucigen.com

bsi. ISO 13485 Medical Devices Quality Management
FM 598408

For Research Use Only

Interested in DNA METHYLATION & RNA-SEQ?

WANT TO make the most OUT OF YOUR FFPE TUMOR & NORMAL SAMPLES?

Looking to UNLOCK GENOMIC DATA?

INDEED

YES, please

ABSOLUTELY

APPLY TODAY for the 2014 ONCOLOGY RESEARCH GRANT

Introducing the 2014 Oncology Research Grant from EA | Quintiles. Together with Illumina, we're giving two deserving researchers the power to tap into the wealth of genomic data locked within FFPE samples using an innovative technique developed by EA | Quintiles using Illumina's RNA Access method. Unleash the power of your research with:

- Coding Transcriptome RNA-seq Analysis
- Genome-wide DNA Methylation Interrogation

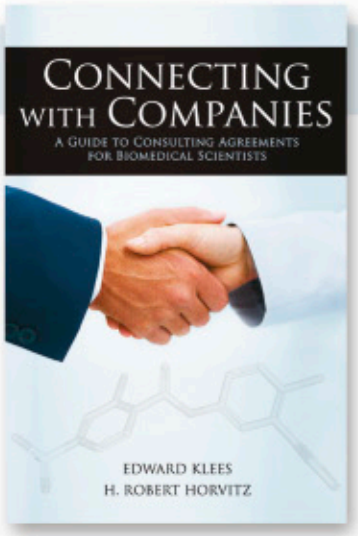
DEVELOP A BETTER UNDERSTANDING OF CANCER BIOLOGY, ONE GENE AT A TIME. APPLY TODAY.

EXPRESSIONANALYSIS.COM/GRANT

ea | QUINTILES

illumina

"The book I wish had been available when starting my first company."



—Roger Y. Tsien, Nobel Laureate in Chemistry, 2008

Connecting with Companies

A Guide to Consulting Agreements for Biomedical Scientists

Edward Klees, J.D., *General Counsel at the University of Virginia Investment Management Company*

H. Robert Horvitz, Ph.D., *2002 Nobel Laureate in Physiology or Medicine; Professor of Biology, MIT; Member, McGovern Institute for Brain Research, MIT; Member, Koch Institute for Integrative Cancer Research, MIT; Investigator, Howard Hughes Medical Institute*

An essential guide for academic scientists and physicians who are considering consulting work in biomedicine

Before signing a consulting agreement, this must-have reference will help you understand the key issues to consider—from intellectual property, confidentiality, and compensation, to often overlooked issues such as indemnity, different classes of stock, and the relevance of insider trading and securities laws. Read *Connecting with Companies* and you will:

- Gain invaluable, first-hand advice from the authors: a leading attorney and a Nobel Laureate in Physiology or Medicine, both with extensive experience reviewing and negotiating consulting agreements
- Receive guidance for academics, lawyers, accountants, auditors, venture capitalists, and technology transfer departments of universities, hospitals, and research organizations
- Understand crucial start-up issues such as 83b tax election and participating preferred stock

2014, 156 pp., glossary, index
Hardcover $39
ISBN 978-1-621821-07-6

"This is the book I wish had been available when I started my first company. I learned an enormous amount from it."
—**Roger Tsien,** *University of California at San Diego, Nobel Laureate in Chemistry, 2008*

"I loved this book and all potential consultants in the biomedical field will find it enlightening. I highly recommend it.."
—**Katherine Ku,** *Director of the Office of Technology Licensing, Stanford University*

"Consulting agreements between academic scientists and corporations protect discoveries and intellectual property and address legal aspects of their commercial development. In this book, the authors apply academic rigor to the principles and subtleties of these agreements, making it worthwhile reading for any academic scientist with an interest in the corporate world."
— **Ansbert K. Gadicke,** *Managing Director, MPM Capital*

"In this valuable guide, the authors provide a crisp introduction to key issues in academic-industry interactions, making it a must-read for any academic contemplating entry into a consulting agreement."
— **Marc Tessier-Lavigne,** *President, The Rockefeller University*

CSH PRESS

For more information, and easy online ordering, visit:

www.bioagreements.com

Sequencing power for every scale.

The HiSeq X Ten contains 10 sequencing systems.

NEW
HiSeq X™ Ten

Population power.
$1000 human genome and extreme throughput for population-scale sequencing.

HiSeq® 2500

Production power.
Power and efficiency for large-scale genomics.

NEW
NextSeq™ 500

Flexible power.
Speed and simplicity for whole-genome, exome, and transcriptome sequencing.

MiSeq®

Focused power.
Speed and simplicity for targeted and small-genome sequencing.

MiSeqDx™

Focused Dx power.
The first and only FDA-cleared *in vitro* diagnostic next-generation sequencing system.

Find the right sequencer to fit your every need. www.illumina.com/power

illumina®

©2014 Illumina, Inc. All rights reserved.

Easy exome sequencing

Introducing the new Ion AmpliSeq™ Exome RDY Kit for the Ion Proton™ System

Now, more research laboratories can adopt the power of exome sequencing. Identify relevant variants in rare and complex disorders faster—with increased throughput, high accuracy, and the simplest workflow from sample preparation to data analysis.

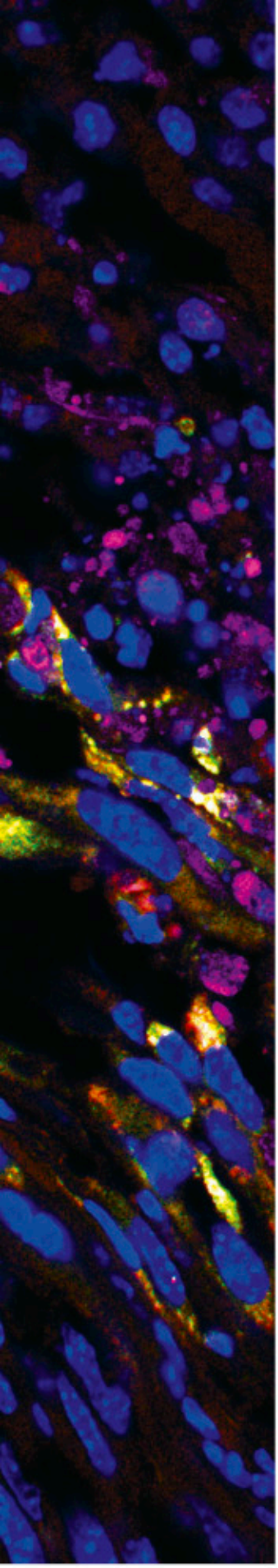
- Simplify your exome enrichment
- Sequence exomes in your lab
- Easily identify relevant variants

Ion Torrent™

Learn more about exome sequencing at
lifetechnologies.com/ionexomerdy

life technologies
A Thermo Fisher Scientific Brand

For Research Use Only. Not for use in diagnostic procedures. © 2014 Thermo Fisher Scientific Inc. All rights reserved.
All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. CO28898 0514



SCIENTIFIC CONFERENCES 2014-2015

American Association for Cancer Research

Presenting the most significant research on cancer etiology, prevention, diagnosis, and treatment

Marsha Rivkin Center for Ovarian Cancer Research-AACR 10th Biennial Ovarian Cancer Research Symposium
Co-Chairpersons: Kathleen Cho, Sandra Orsulic, Mary L. "Nora" Disis, and Saul E. Rivkin
September 8-9, 2014
Seattle, WA

Targeting PI3K-mTOR Networks in Cancer
Co-Chairpersons: Lewis C. Cantley, Jose Baselga, Joan S. Brugge, Brendan D. Manning, and Malte Peters
September 14-17, 2014
Philadelphia, PA

Hematologic Malignancies: Translating Discoveries to Novel Therapies
Chairperson: Kenneth C. Anderson
Co-Chairpersons: Scott Armstrong and Riccardo Dalla-Favera
September 20-23, 2014
Philadelphia, PA

Advances in Melanoma: From Biology to Therapy
Co-Chairpersons: Suzanne L. Topalian, Keith T. Flaherty, and Levi A. Garraway,
September 20–23, 2014
Philadelphia, PA

13th Annual International Conference on Frontiers in Cancer Prevention Research
Program Committee Chairperson: Phillip A. Dennis
September 28-October 1, 2014
New Orleans, LA

Seventh AACR Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and Medically Underserved
Co-Chairpersons: Ethan Dmitrovsky, Rick A. Kittles, Electra D. Paskett, and Victoria L. Seewaldt
November 9-12, 2014
San Antonio, TX

EORTC-NCI-AACR International Symposium on Molecular Targets and Cancer Therapeutics
Scientific Committee Co-Chairpersons: Jean-Charles Soria, Lee J. Helman, and Jeffrey A. Engelman
November 18-21, 2014
Barcelona, Spain

Tumor Immunology and Immunotherapy: A New Chapter
Co-Chairpersons: Robert H. Vonderheide, Nina Bhardwaj, Stanley Riddell, and Cynthia L. Sears
December 1-4, 2014
Orlando, FL

San Antonio Breast Cancer Symposium
Co-Directors: Carlos L. Arteaga, Ismail Jatoi, and C. Kent Osborne
December 9-13, 2014 • San Antonio, TX

Myc: From Biology to Therapy
Co-Chairpersons: James E. Bradner, Martin Eilers, Dean W. Felsher, and Carla Grandori
January 7-10, 2015 • La Jolla, CA

Translation of the Cancer Genome
February 7-9, 2015
Co-Chairpersons: William Hahn, Lynda Chin, and William Sellers

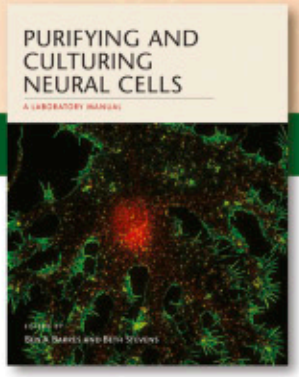
Computational and Systems Biology of Cancer
February 9-11, 2015
Co-Chairpersons: Andrea Califano, Brenda Andrews, and Peter Jackson
The Fairmont, San Francisco, CA

AACR-Society of Nuclear Medicine and Molecular Imaging Joint Conference: Molecular Imaging in Cancer Biology and Therapy
Co-Chairpersons: Carolyn J. Anderson, Christopher H. Contag, and David Piwnica-Worms
February 11-14, 2015 • San Diego, CA

www.AACR.org/Conferences2014

PURIFYING AND CULTURING NEURAL CELLS

A LABORATORY MANUAL



Edited by Ben A. Barres, *Stanford University School of Medicine* and Beth Stevens, *Boston Children's Hospital, Harvard Medical School*

Composed of countless neurons, glia, and vascular cells, the nervous system innervates all parts of the body to function as a vast communication network. This complexity makes it challenging to examine neural properties at the cellular and molecular levels. Cell culture systems for specific neural cell types are thus essential for studies of their development and function.

This laboratory manual provides step-by-step protocols for isolating specific cell populations from rodent tissues and culturing them under conditions that closely resemble those in vivo. The contributors describe in detail how to dissect the brain, spinal cord, and other tissues; how to separate cells using mechanical and enzymatic tissue-dissociation strategies; the use of immunopanning and fluorescence-activated cell sorting (FACS) to enrich the target cell population; and the culture conditions that optimize cell viability and growth. Retinal ganglion cells, motor neurons, dorsal root ganglion cells, astrocytes, oligodendrocytes, and Schwann cells are covered, as are vascular cells such as pericytes and endothelial cells. Myelinating cocultures of neurons and oligodendrocytes are also described.

The manual includes detailed recipes for media and reagents, tips for avoiding common pitfalls, and advice for designing new immunopanning protocols using tissues from other sources. Many of the protocols are accompanied by freely accessible online movies that demonstrate critical steps of the procedures. This is an essential laboratory companion for all neurobiologists, from the graduate student level upward.

2013, 205 pages, illus. (24 4C images and 3 B&W), index
Hardcover $135 **ISBN 978-1-621820-11-6**
Paperback $89 **ISBN 978-1-936113-99-6**

Contents

www.cshlpress.org