

“The fastest separations and  
the gold standard method.

That’s **electroforward**  
thinking.”



Next-generation precast gels.  
No special buffers required.

Introducing long shelf life Mini-PROTEAN™ TGX (Tris-Glycine eXtended) Gels from Bio-Rad. The innovative TGX formulation delivers consistent, linear separation without the need for expensive, specialized buffers.

Get results faster with:

- Run times as short as 15 minutes
- Transfer in as little as 15 minutes
- New bottom-opening cassette design for faster setup and less handling for downstream applications

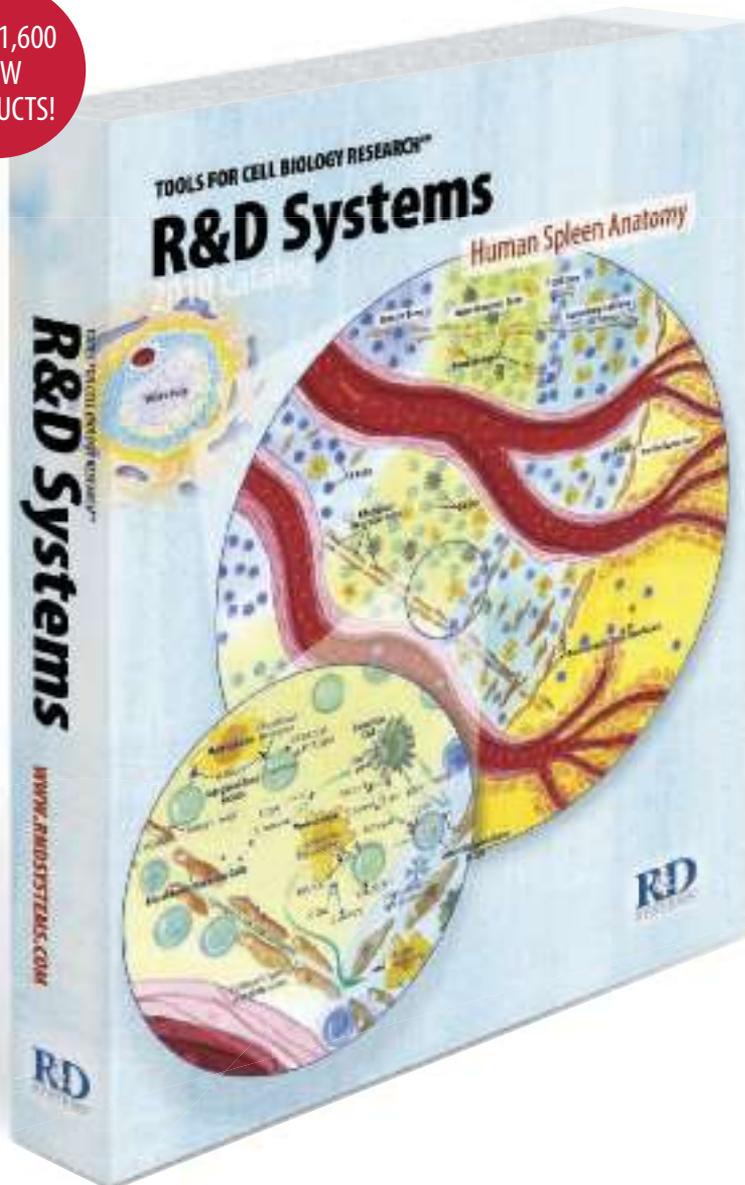
Gel with us at [www.miniprotean.com](http://www.miniprotean.com).

**Research. Together.**

# R&D SYSTEMS 2010 CATALOG AVAILABLE NOW!

R&D Systems is a leading supplier of cell biology reagents with over 20 years of experience serving the research community. More than 97% of the products supplied by R&D Systems are developed and manufactured at our own facilities. This enables us to maintain strict manufacturing and quality control standards, ensuring that our reagents meet the high levels of performance and consistency expected by our customers.

OVER 1,600  
NEW  
PRODUCTS!



OFFERING MORE THAN  
**15,000**  
QUALITY PRODUCTS  
including:

Proteins

Antibodies

ELISAs

Multiplex Immunoassays

Stem Cell Products

& More!

Request a catalog online:

[www.RnDSystems.com/go/Catalog](http://www.RnDSystems.com/go/Catalog)

**R&D Systems Tools for Cell Biology Research™**

USA & Canada **R&D Systems, Inc.** Tel: (800) 343-7475 [info@RnDSystems.com](mailto:info@RnDSystems.com)

Europe **R&D Systems Europe, Ltd.** Tel: +44 (0)1235 529449 [info@RnDSystems.co.uk](mailto:info@RnDSystems.co.uk)

China **R&D Systems China Co., Ltd.** Tel: +86 (21) 52380373 [info@RnDSystemsChina.com.cn](mailto:info@RnDSystemsChina.com.cn)

Selection expanding weekly—visit [www.RnDSystems.com/go/request](http://www.RnDSystems.com/go/request) to sign up for weekly new product updates.



# See more See beyond

For years, scientists have relied on ImageQuant™ and Typhoon™. Now we can offer a new standard of performance with the Typhoon FLA 9000, Typhoon FLA 7000, ImageQuant 4000, and ImageQuant 4000 mini. Covering the full spectrum of imaging methods including quantitative Westerns, UV, IR, visible fluorescence, phosphorimaging, and 2-D DIGE, the new imagers provide exceptional sensitivity, speed, and versatility.

At GE Healthcare, our focus is on helping scientists achieve more, faster. However simple or complex your imaging needs, you can depend on us for quantitative imaging that's quantifiably better.

To find out more about our new range of imagers, contact us today.

Visit [www.gelifesciences.com/imaging](http://www.gelifesciences.com/imaging)

| ÄKTA | Amersham | Biacore | IN Cell Analyzer | Whatman | GE Service |



# Choose QIAGEN for detection

Detection platforms, assays,  
and analysis software  
by QIAGEN



Use QIAGEN® solutions from sample to result,  
and benefit from sensitive and reliable detection systems:

- Quantitative, real-time PCR detection
- Automated analysis of DNA fragments and RNA
- Pyrosequencing® sequence-based DNA detection and quantification
- Optimized, ready-to-use assays and reagents

Making improvements in life possible — [www.qiagen.com](http://www.qiagen.com)

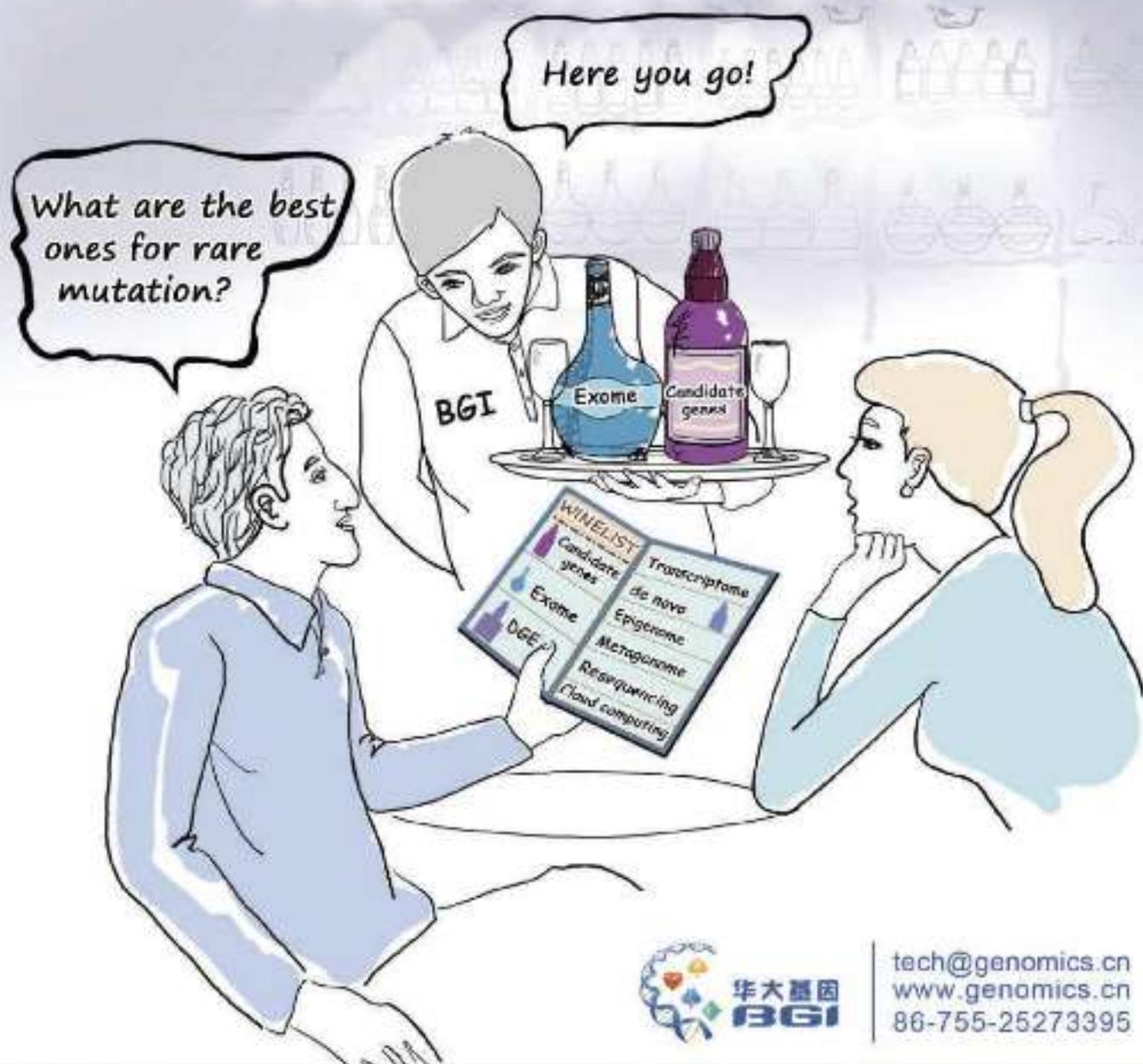


Sample & Assay Technologies

# Rare Mutation Matters!

Find it by deep sequencing of whole exome or candidate genes

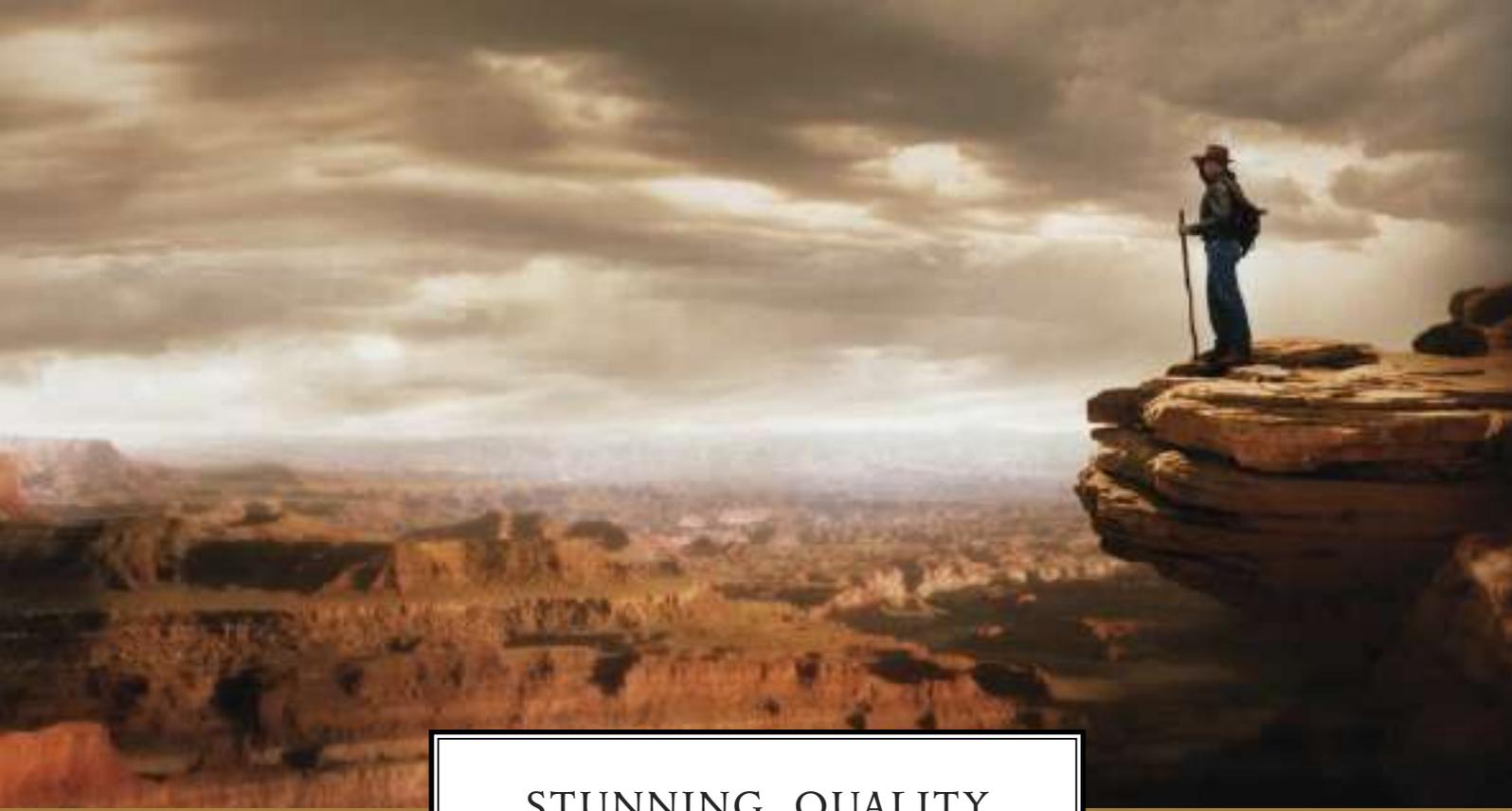
## BGI'S GENOMICS BAR



tech@genomics.cn  
www.genomics.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 !

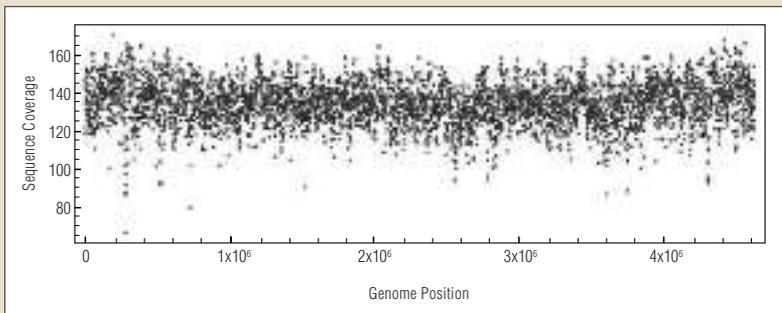


# STUNNING QUALITY

## Reagents for Sample Preparation from New England Biolabs

Introducing NEBNext™, a series of highly pure reagents that facilitate sample preparation for downstream applications such as next generation sequencing and expression library construction. Available in sets, master mixes and modules, these robust reagents undergo stringent quality controls and functional validation, ensuring maximum yield, convenience and value.

Sequencing coverage map of the *E. coli* genome after using NEBNext™ DNA Sample Prep Reagent Set 1 for Sample Preparation



*E. coli* strain MG1655 gDNA was prepared with NEBNext DNA Sample Prep Reagent Set 1 and sequenced on an Illumina Genome Analyzer II.

For more information about NEBNext, including customized solutions, please contact [NEBNext@neb.com](mailto:NEBNext@neb.com).

**Now available:**  
**NEBNext™ dsDNA Fragmentase™**  
an enzyme-based solution for the  
fragmentation of DNA



CLONING & MAPPING	DNA AMPLIFICATION & PCR	RNA ANALYSIS	PROTEIN EXPRESSION & ANALYSIS	GENE EXPRESSION & CELLULAR ANALYSIS
-------------------	-------------------------	--------------	-------------------------------	-------------------------------------

## NEW PRODUCTS



## FT-IR SYSTEM

The Atlas FT-IR System for in situ reaction monitoring combines the technology of the Atlas automated reactor with Bruker Optics' Matrix-MF, a process-ready Fourier transform infrared (FT-IR) spectrometer. Available in a wide range of vessel sizes, from 50 ml to 5 L, this compact system fits easily into fume cupboards, making it suitable for any laboratory performing real-time analysis of chemical reactions and processes. With the ability to perform real-time, in situ quantitative analysis, this system can be used to examine product yields, impurities, reaction kinetics, end points, and more. The system is easily upgradable to provide functionality such as reaction calorimetry, pH control, gravimetric or volumetric reagent addition, and crystallization control. The robust system combines a chemically resistant reactor and an attenuated total reflection probe with vibration-resistant optics.

**Syrris** For info: 617-803-6655 | [www.syrris.com](http://www.syrris.com)

## CLONAL AMPLIFICATION

cBot is a plug-and-play, user-installable system for clonal amplification of sequencing libraries capable of four-hour clonal amplification with less than 10 minutes of hands-on time. Its innovations include ready-to-use, prepackaged reagents; simple touch-screen operation; and browser-based remote monitoring. High-quality results are ensured by smart sensors that monitor instrument performance, combined with new chemistry protocols that deliver higher density clusters and improve sequencing accuracy. Illumina's proprietary cluster generation process offers advantages over competing emulsion polymerase chain reaction-based methods in terms of simplicity and hands-on time. cBot improves those advantages by minimizing user touch points, improving chemistry for higher quality results, and decreasing hands-on time.

**Illumina**

For info: 800-809-4566 | [www.illumina.com](http://www.illumina.com)

## DNA ISOLATION KITS

The PowerWater and RapidWater DNA isolation kits are for extraction of genomic DNA from a variety of water samples. The PowerWater DNA Isolation Kit makes use of patented Inhibitor Removal Technology to provide high-quality DNA from even the most turbid water. For nonturbid water, the RapidWater DNA Isolation Kit provides pure genomic DNA in less than 15 minutes. These next generation kits contain several improvements, including a novel bead tube with an optimized bead mix and reformulated buffers that streamline the protocol and reduce processing volumes. Both kits are compatible with a range of filter membrane types and are available with or without sterile, disposable 0.45  $\mu\text{m}$  and 0.22  $\mu\text{m}$  filter funnels.

**Mo Bio Laboratories**

For info: 800-606-6246 | [www.mobio.com/water](http://www.mobio.com/water)

## LIQUID CHROMATOGRAPHY SYSTEM

The ÄKTAmicro liquid chromatography system is designed for small sample volumes and concentrations, providing reproducible high-resolution purification and enabling characterization of target molecules. The system includes a microfraction collections kit for collection of minute fraction volumes and an adapted Unicorn wizard control system for improved ease of use. With an optional degasser and the ability to connect to light-scattering detectors, the system is suitable for molecular characterization. It is a completely bioinert system that can be used for purification of target molecules from a range of sources, such as intact proteins, protein complexes, and nucleotides. It is also well suited for rapid purity/recovery analysis in method development and drug discovery. It offers application flexibility, including reversed-phase and ion-exchange chromatography techniques, as well as gel filtration.

**GE Healthcare**

For info: 800-526-3593 | [www.gelifesciences.com](http://www.gelifesciences.com)

## PHOTONICS WORKSTATION

The Optometronic 4000 photonics workstation is designed to address nano/micro-photonics characterization. Photonic and plasmonic characterization requires multiple functionality in one platform. This platform integrates Nanonics' multiprobe nearfield optical and atomic force capabilities with its state-of-the-art lensed fibers and highly compact lensed fiber nanomanipulators. Applications of the instrument include analysis of plasmonic waveguides and plasmonic structures, analysis of light in waveguides and optical resonators, profiling of lensed fiber, measurement of a refractive index profile, nanomanipulation of plasmonic particles with multiple probes, and more.

**Nanonics Imaging**

For info: +972-2-678-9573. | [www.nanonics.co.il](http://www.nanonics.co.il)

Electronically submit your new product description or product literature information! Go to [www.sciencemag.org/products/newproducts.dtl](http://www.sciencemag.org/products/newproducts.dtl) for more information.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and governmental organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS of any products or materials mentioned is not implied. Additional information may be obtained from the manufacturer or supplier.



## Everything is in one place!

“You can find what you need scientifically in the technical program, and in the exposition, you can find interesting new apparatus. Pittcon is a very good meeting place for analytical scientists—so you’ll also find interesting colleagues from all over the world.”

STAFFAN NILSSON, Ph.D. | *Professor of Technical Analytical Chemistry, Lund University, Sweden*



## At Pittcon, I was able to meet face-to-face with the people I needed to see.

“This was my first Pittcon and it was a memorable event. It proved to be a great opportunity to meet one-on-one with researchers and companies about GreenCentre Canada, and I was able to connect with new people who will certainly become professional colleagues in the future. For anyone looking to network with industry and academia from around the world for an entire week, Pittcon is the place to be.”

HASSAN JAFERI, M.Sc. | *Analyst, Commercial Development, PARTEQ Innovations*



## At first, it was like entering a new universe.

“It really is the biggest event in the instrumentation field. It took a little while to find my way, but it was a good opportunity to learn about new theoretical subjects during seminars, and to see practical applications on the exhibition area. My lab presented a poster on a new instrument we developed, and we had many opportunities to share ideas with other researchers.”

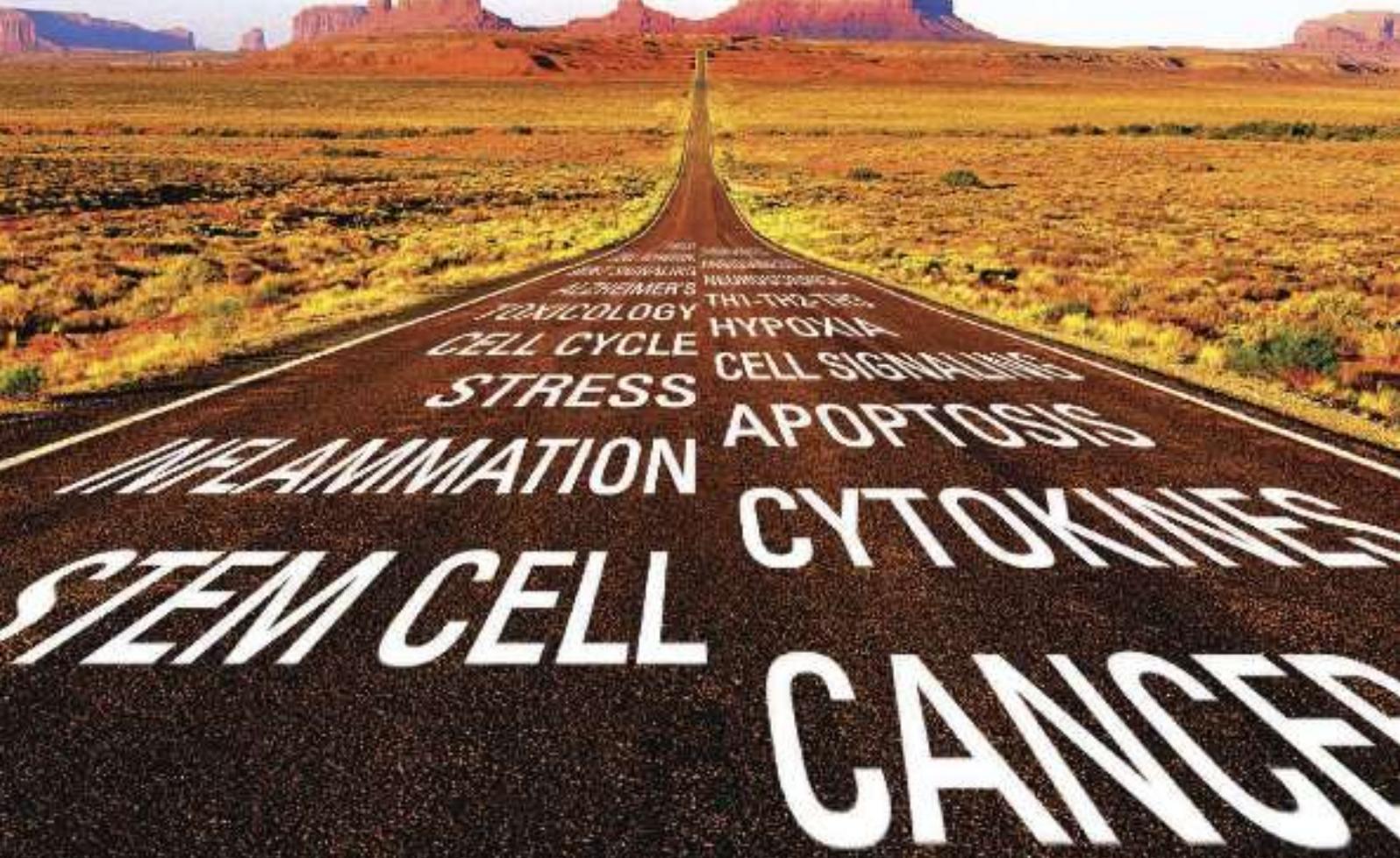
VÉRONIQUE PERES | *Maître de Recherche, Ecole Nationale Supérieure des Mines, Saint Etienne*

### Write your own Pittcon story.

See all the newest scientific innovations and the latest products. Explore new applications and techniques. Meet one-on-one with technical experts. Exchange ideas with colleagues from all over the world. Be part of it all—at Pittcon 2010. To read more scientists’ stories, or write your own, visit [www.pittcon.org/story](http://www.pittcon.org/story)  
ORLANDO, FLORIDA, USA • FEBRUARY 28 – MARCH 5, 2010 • [WWW.PITTCON.ORG](http://WWW.PITTCON.ORG)

**PITTCON**  
CONFERENCE & EXPO 2010

# Celebrate the Success of PCR ARRAYS



## Pathway Gene Expression Analysis

**TWO FREE PCR ARRAYS IN YOUR STARTER PACK!\***



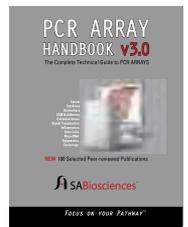
PCR ARRAYS

[www.SABiosciences.com/Science2.php](http://www.SABiosciences.com/Science2.php)

**FREE** PCR ARRAY T-Shirt & PCR Array Handbook!

**ACT NOW!** Offer Ends 26<sup>th</sup> of February 2010

\* With your order of a PCR Array Starter Pack; please visit the link above for full promotion details.



PCR Array Handbook



**SABiosciences**  
Focus on Your Pathway™

Now a  
**QIAGEN**  
company