

# Invest Yourself in Citrus Solutions...



**Citrus cultivation** is threatened by a very serious disease called Citrus Greening or Huanglongbing (HLB). Symptoms are latent, then become lethal. The spread and cause of HLB are associated with a phloem-feeding insect (Asian Citrus Psyllid) and a fastidious bacterium (*Candidatus Liberibacter*).

The Citrus Research and Development Foundation requests proposals focused on comprehensive methods of controlling psyllid transmission of disease.

We also invite proposals of \$100,000 or less to test new methods of disease control made possible using the bacterial genomic sequence recently published at:

<http://www.citrusgreening.org/>

We need the brightest minds to quickly help us find the best solutions. Infectious disease has no boundaries. Neither does first-rate science.

Visit [www.fcprac.com](http://www.fcprac.com) for details on awards and simplified program application instructions.



Citrus Research and  
Development Foundation, Inc.

WHERE THE BASIC SCIENCE

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OF MEDICINE

## Submit your work to *Science Translational Medicine* today!

This fall, AAAS and *Science* will launch *Science Translational Medicine*, a new journal focused on applications of basic research knowledge that will improve human health.

The goal of *Science Translational Medicine* is simple: to help the scientific community harness decades of progress in research at the basic level and translate these biological discoveries into medical advances. Take this opportunity to have your work recognized in this groundbreaking new journal.

Papers in the following areas will be reviewed and considered for publication:

- Animal & Human Studies
- Applied Physical Sciences
- Behavior
- Bioengineering
- Biomarkers
- Cancer
- Cardiovascular Disease
- Cell Culture
- Chemical Genomics/Drug Discovery
- Data Mining
- Drug Delivery
- Gene Therapy/Regenerative Medicine
- Imaging
- Immunology/Vaccines
- Infectious Diseases
- Medical Informatics
- Medical Nanotechnology
- Metabolism/Diabetes/Obesity
- Neuroscience/Neurology/Psychiatry
- Pharmacogenetics
- Policy
- Toxicology & Pharmacokinetics
- And other interdisciplinary approaches to medicine

To submit your work for consideration, please visit: [www.submit2scitranslmed.org](http://www.submit2scitranslmed.org)



[www.ScienceTranslationalMedicine.org](http://www.ScienceTranslationalMedicine.org)

INTEGRATING MEDICINE AND SCIENCE

GE Healthcare

# 360° Service

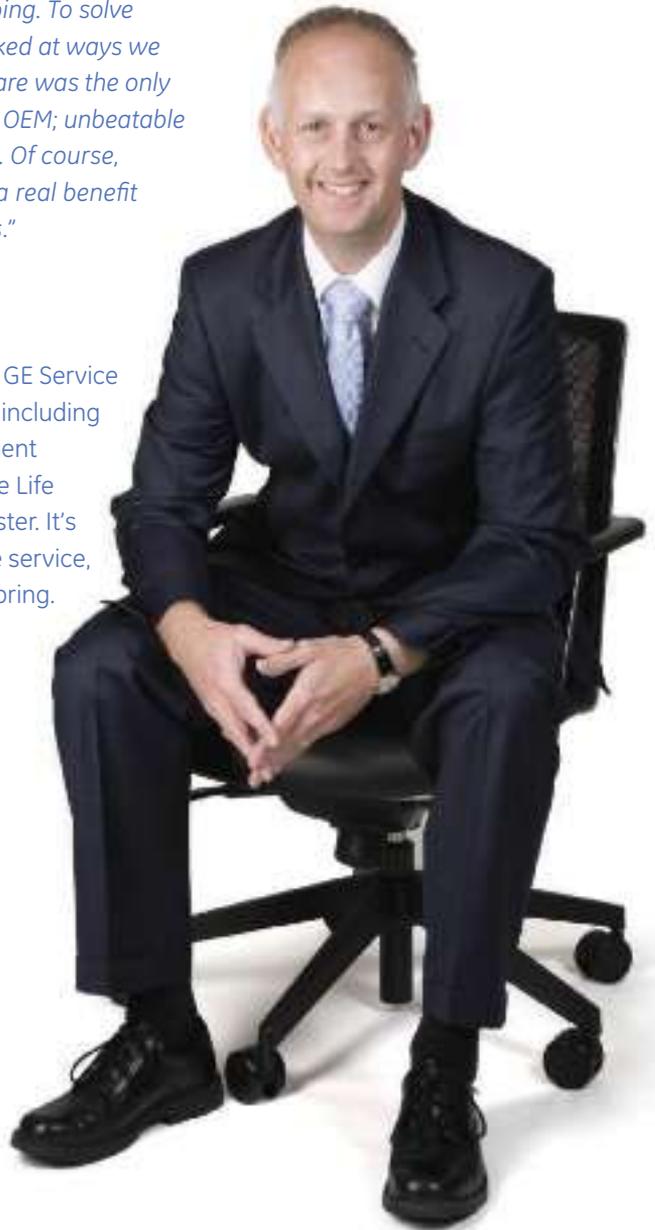
*"These days, productivity is everything in our business. Knowing that our scientists were losing valuable time due to service-related issues wasn't helping. To solve this problem and improve overall organizational efficiency, we looked at ways we could consolidate by purchasing from fewer suppliers. GE Healthcare was the only company that was happy to manage everything, regardless of the OEM; unbeatable flexibility that allows our teams to focus on what they are best at. Of course, GE Healthcare's track record in healthcare is world-class and it's a real benefit having a company that is happy to manage equipment of all types."*

*Richard Dickinson, Director of Operations, ERBI Ltd.*

Pharmaceutical and biotech companies around the world rely on GE Service to deliver total coverage. From instrument service agreements — including systems from other manufacturers — to asset lifecycle management and facility validation. Now that's service in 360°. At GE Healthcare Life Sciences, our focus is on helping scientists achieve even more, faster. It's a commitment we have in our genes. And all this is backed by the service, support, and investment for the future that being part of GE can bring.

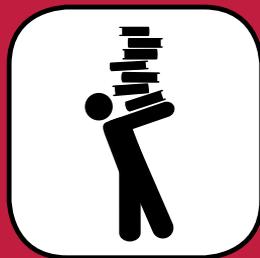
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imagination at work

# 10 Ways to Improve Your Chances of Securing Research Funding



RESEARCH



APPLICATIONS



NETWORKING



HOPING



WISHING



TANTRUM



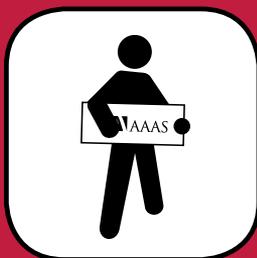
RABBIT'S FOOT



SLOTS



SELF-FINANCING



JOINING

There are many approaches to securing funding, but not all are effective. That's why the American Association for the Advancement of Science is committed to offering its members a variety of resources to help them locate the money they need—including an ongoing analysis of R&D budgets and funding, and an extensive directory of funding opportunities. Join us. Together we can make a difference. [aaas.org/plusyou](http://aaas.org/plusyou)

 AAAS + U = Δ



# Rotor-Gene Q — pure detection



- Enjoy a real-time PCR cycler with outstanding thermal and optical performance
- Perform multiple real-time PCR applications and optional high-resolution melting
- Benefit from a variety of state-of-the-art analyses
- Experience unrivaled robustness and minimal maintenance
- Count on reliable results from QIAGEN kits and assays



Discover more at [www.qiagen.com/goto/PureDetection](http://www.qiagen.com/goto/PureDetection).

## Protein Precipitation Cartridge

The 1ml Protein Precipitation Cartridge combines the proven operational benefits of the proprietary p3 technology with the low cost and convenience of a cartridge-based separation method. Incorporating a novel, treated dual matrix frit, the new cartridge eliminates the wetting out and leaking of sample associated with many traditional protein precipitation products before the application of vacuum. The treated frit matrix also maintains high flow rates enabling quick sample preparation times.

**Porvair Sciences**

For information +44-1372-824290  
www.porvair.com



## Vascular Research Tools

EndoGRO products for vascular research include human umbilical vein endothelial cells (HUVEC) and advanced media formulations for endothelial cell culture. EndoGRO advanced media products include four uniquely optimized formulations for large vessel and microvascular endothelial cells, as well as low-passage HUVEC. These formulations have lower serum concentrations than standard endothelial cell culture media, yet have been shown to support endothelial cell growth rates that exceed other commercially available serum-containing media, while maintaining excellent cell morphology. In addition, the media have no phenol red or antimicrobials, which can cause cell stress and mask natural biological processes.

**Millipore**

For information 800-548-7853  
www.millipore.com

## General Purpose Centrifuge

The Sorvall lines are 3-liter, general purpose centrifuges. The Sorvall ST 40 series provides ergonomic advancements for everyday sample preparations. The Sorvall Legend XT centrifuges offer high throughput processing. Both lines feature the Auto-Lock III rotor system, which enables 5-second rotor exchange without the need for tools for fast switching between applications. Operation is further simplified by the motorized lid latch and the ClickSeal bucket sealing system with its glove-friendly, one-handed open/close capability for certified biocontainment of samples. Rotor management SMART-Spin technology optimizes acceleration, braking, temperature control, and load balance for smooth runs and reproducible data. The user-friendly, backlit interface provides detailed information on operating parameters and the dedicated fast-keys enable immediate access to frequently used programs.

**Thermo Fisher Scientific**

For information 508-742-5254  
www.thermofisher.com

## Chemometric Software

The WITec Project Plus software package for advanced data evaluation and chemometric image processing features various tools for multivariate analysis in the fields of confocal Raman imaging and scanning probe microscopy, such as cluster analysis and principal component analysis. Thus, hidden structures in the images can be visualized automatically, leading to quick and consistent data interpretation. In addition, a variety of advanced patent-pending analysis

tools and algorithms enable comprehensive and user-friendly computerized data evaluation and image generation. The speed with which the extensive calculations behind the various algorithms and procedures can be executed provides a new level of analytical capability. The WITec Project Plus can be obtained as an add-on package for the WITec Project data evaluation software.

**WITec**

For information +49-(0)-731-140-70-0  
www.witec.de

## Microplates

New Polypropylene Microplates 96 and 384 feature a high level of transparency, OptiTrack high-contrast alphanumeric labeling matrix, and innovative RecoverMax well geometry for maximum sample recovery. The ultraclear wells, combined with the OptiTrack labeling, make sample and well identification faster and less error-prone than conventional polypropylene microplates. The plates are also available in high contrast white or black for improved signal-to-noise ratio for fluorescence and luminescence readings and in LoBind DNA and LoBind Protein.

**Eppendorf North America**

For information 800-645-3050  
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## Particle Size Measurement

A particle size measurement principle called induced grating (IG) allows users to measure nanoparticles with high sensitivity and reproducibility. Shimadzu's new IG-1000 particle size analyzer applies the IG method to measuring single nanoparticles. The IG-1000 offers advantages over the dynamic light scattering methods typically used. The sensitivity is the same when measuring a 1-nm particle or a 100-nm particle. Interference from clustering or contamination is significantly reduced or eliminated. The IG method eliminates interferences by using optical signals emitted by the diffraction grating formed by the particles. Even in the single nano region, users can obtain a satisfactory signal-to-noise ratio and stable measurement. The instrument's workflow involves three simple steps: inject the sample, insert the electrode, and begin analysis. It can measure particles in the 0.5 to 200 nm range in about 30 seconds.

**Shimadzu**

For information 800-477-1227  
www.shimadzu.com

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.

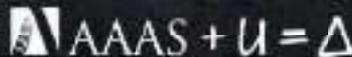
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AAAS is here.

Geospatial Technologies  
Human Rights

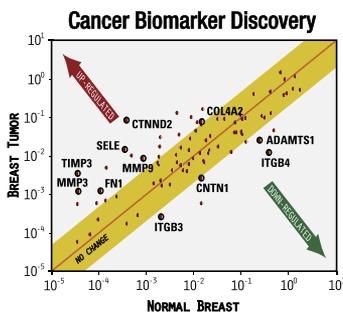
Remote, isolated, catastrophic events occur across the globe that affect civilians, the environment, indigenous rights, and more. The AAAS Science and Human Rights Program is the application of geospatial technologies to broaden the ability of non-governmental organizations to rapidly gather, analyze, and disseminate information in these times of crisis. And this is just one of the ways that AAAS is committed to advancing science to support a healthy and prosperous world. Join us. Together we can make a difference. [aaas.org/plusyou/humanrights](http://aaas.org/plusyou/humanrights)



# FREE PCR ARRAYS\*



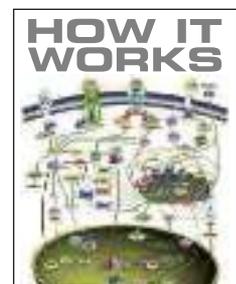
## Gene Expression and Epigenomic Analysis



ECM and Cell Adhesion PCR Arrays Revealed Up- and Down-Regulated Genes in Breast Cancer.

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