

Welcome to Idaho Technology's (ITI) quarterly newsletter! Here you will learn the latest news on our products, helpful tips on running and maintaining your instrument, upcoming training dates, plus current papers that explain the technology behind our innovative products. We are also pleased to feature in each issue a beautiful photograph of scenic Utah and Idaho taken by one of our multitalented staff.

Introducing LightScanner® Master Mix

Our newest product brilliantly provides a pre-optimized solution specifically designed to deliver superior PCR performance for Hi-Res Melting™ mutation discovery and mutation scanning on the LightScanner Instrument. Save time and money by moving directly from PCR to melting curve analysis and eliminate the risk of contamination.



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The LightScanner® System: Achieving High Throughput Mutation Discovery

The LightScanner Instrument is the latest addition to our high-quality product portfolio. This innovative technology enables high-resolution melting, a post-PCR technique for homogenous mutation scanning and genotyping. The LightScanner is being adopted at numerous institutions world-wide as a fast, simple, and economical alternative to existing technologies like denaturing high performance liquid chromatography (DHPLC) and temperature gradient capillary electrophoresis (TGCE). Advantages include:

- NO post-PCR processing
- Results in less than 5 minutes
- Detection of both heterozygous and homozygous mutations
- Significant cost savings over competing technologies

Learn more about this exciting technology by visiting our website, www.idahotech.com/LightScanner, or contacting Terry Orchard at 801-824-7565, terry_orchard@idahotech.com. Also check out our new application notes online:

Hi-Res Melting™ or Mutation Scanning Using LCGreen® Plus Dye

DNA Melting Analysis: Benefits of High Resolution Systems for Mutation Scanning and Genotyping

PCR Optimization for Hi-Res Melting Applications



Come see us at the
AACC 2006 Annual Meeting and Clinical Lab Exposition
 Chicago, IL, July 25-27, Booth 2736



The RAZOR™: High Performance, Fast Delivery

With funding from the Defense Threat Reduction Agency, ITI has developed a hand-portable, battery-operated, biothreat identification device called the RAZOR. Instead of glass capillary tubes or plastic vials, the RAZOR uses thin-film plastic pouches as reaction containers. The samples in the RAZOR pouches are repeatedly heated and cooled by moving them between two constant temperature zones. This approach gives the RAZOR excellent energy efficiency and long battery life. Also, the instrument is fast, because the sample is thin and rugged with only a few moving parts.

The RAZOR pouches are packaged with freeze-dried polymerase chain reaction (PCR) reagents sealed inside a plastic header attached to the pouch. Samples are loaded using a plastic syringe to puncture a barrier in the header. The samples are then drawn into the reagent wells. The samples can be routed to many reagent wells, each with a different freeze-dried reagent. For instance, samples may be split between tests for different bioagents or used for multiple gene targets in a single agent. This automation makes sample preparation more convenient and minimizes contamination risks.

The unique thermocycling properties of the RAZOR make it a high-performance, rapid instrument for PCR. Fifty-five cycles of PCR can be completed in less than 30 minutes. Since the instrument uses real-time detection, results on concentrated agents that present the highest risk are obtainable in approximately 15 minutes. Combined with streamlined sample preparation and handling, a user can have results 30 to 40 minutes after taking a sample.

The RAZOR's design caters to operators in Level A Hazmat or mission-oriented protective posture (MOPP) gear. The instrument interface has oversized buttons on the user's interface to ease instrument setup. However, the real advancement lies in the design of the reagent pouch used for PCR. The minimal steps needed to prepare the RAZOR and corresponding reagent pouch make the system very easy to operate in a field environment by users with little or no background of PCR technology.

If you would like more information about the RAZOR, please contact Matt Scullion at (801) 736-6354 x. 327, matts@idahotech.com.



Tip of the Quarter

An easy tip to remember when to reorder reagents and how much to reorder:

1. **NOTE** on your calendar 4–6 weeks before your reagents expire.
2. **CHECK** your stock weekly.
3. **TRACK** how many reagents you use monthly.

IVD/OEM: Outsourcing Kit Production

Have you considered outsourcing your IVD kit production?

With over 16 years of OEM manufacturing experience, state-of-the-art technology, and rigorous quality control systems, ITI BioChem, a division of ITI, offers you immediate access to a CGMP-controlled facility and highly skilled R&D development expertise.

We specialize in assembling custom freeze-dried kits, wet reagent kits, and single-item OEM. We also have extensive experience with packaging, labeling, storing, and distributing kits. By partnering with us, you can avoid large capital cost and reduce human resource demand.

Call us today and get a free competitive pricing comparison on producing your kits. Our IVD/OEM account manager, Brad Coburn, will be happy to discuss how our manufacturing process can work for you. He can be reached at (801) 736-6354 x. 715, or at bradley_coburn@idahotech.com.



Technical Support

ITI has continued to improve our technical and customer support during 2006.

We started the year by increasing our technical support staff. We also developed a web portal for our JBAIDS customers that allows users to log on securely. This web portal gives customers access to updated service information about their instrument, including repairs, warranty,



and location. We plan to apply these improvements to our other products in the future.

Another new feature is the addition of Customer Relation Management (CRM) software. This web-based software allows us to better track our customers and instruments anywhere in the world.



David Inskeep

Photo of the Quarter

Arches National Park
(Fiery Furnace, left foreground
Castle Rock, center left,
La Sal Mountains, background)

Dates to Remember

July

- 25–27** AACC (American Association for Clinical Chemistry)
Chicago, IL
www.aacc.org/2006am

August

- 2–5** 6th Australasian Workshop on Mutation Detection
Couran Cove, Australia
www.genomic.unimelb.edu.au/couran.html
- 9** Webinar, 11:00 a.m., Somatic Mutation Detection in Tumor Samples by Hi-Res Melting™ Technology
www.idahotech.com
- 6–10** ICHG (International Conference of Human Genetics)
Brisbane, Australia
www.ichg2006.com
- 13–16** IAFP (International Association of Food Protection)
Calgary, Alberta, Canada
www.foodprotection.org/meetingsEducation/2006ammain.asp

September

- 8/31–4** Mutation Detection Training Course
The Leiden, Netherlands
mdtc2006.hugo-international.org/home

October

- 9–13** ASHG (American Society of Human Genetics)
New Orleans, LA
www.ashg.org

R.A.P.I.D.® System Training

ITI offers training courses for the R.A.P.I.D. System. Training for two people is included with the purchase of the R.A.P.I.D. Instrument, and more can attend for an additional cost. The training course is three days long and focuses on concepts of operation, sample preparation, reagent setup, and software. If you would like to attend or schedule a training course, please contact our training staff at 1-800-735-6544 x. 439.



Instrument Repair Tip

If you need to return your instrument to ITI for repair, obtain a Return Material Authorization (RMA) number first. Remember also to decontaminate your instrument and fill out the proper paperwork. This will speed the processing of your instrument repair. RMA forms can be found at http://www.idahotech.com/product_sup/forms.htm. Questions can be directed to Technical Support at 1-800-735-6544 (U.S. and Canada) or IDD Prefix-1-801-736-6354 (International).

Department of State Note: The R.A.P.I.D. System and RAZOR Instrument are controlled for export under the International Traffic in Arms Regulations (ITAR), administered by the U.S. Department of State, Directorate of Defense Trade Controls (DDTC) and may not be exported or transferred to any foreign national without prior approval of the DDTC.

Editor's Note: If you have comments or suggestions for articles, please e-mail the editor at loretta_orgill@idahotech.com.