

# u p d a t e

Charles River Laboratories

Summer 2002

## Introduction

Charles River Laboratories was named "Company of the Year" by *The Boston Globe* in its 2002 ranking of the best-performing public companies in Massachusetts.

This distinguished public recognition can be attributed to the multifaceted and ever-changing work that Charles River does, and has been doing for over a half century. This past year's success specifically was in large part due to several key acquisitions, technological advances, and expansion of our facilities and resources. While many have just recently been introduced to Charles River as

a high quality, emerging public company, our dedication to significantly contributing to the search for healthier lives has remained both assiduous and extremely strong since the beginning.



## Home Improvement

### **New Microsatellite-based Technology Enhances Speed Congenic Program**

In January of this year, Charles River's Genetic Testing Services began using microsatellite-

based Marker-Assisted Accelerated Backcrossing (MAX-BAX<sup>SM</sup>). Nucleotide repeats (microsatellites) mapped to specific locations on each chromosome are used to evaluate genomic polymorphism. This new PCR-

based method scans 19 chromosomes of the mouse genome at approximately 20 centimorgan intervals. Results yield a detailed analysis of the genome in question, and a preferred breeding rank is determined for all test individuals. As the animals are backcrossed, individual locus and eventually entire chromosomes will become fixed and no longer require monitoring. This allows us to custom design a panel for every subsequent backcross generation. By breeding selectively rather than randomly, an investigator can significantly decrease the number of backcross generations needed to create a 95-99% congenic strain.

We utilize DNA amplification extensively as a diagnostic tool and were pleased to apply this superior technology to our MAX-BAX/Speed Congenic program. Meticulously designed and continuously refined, Charles River's assays provide the most accurate and comprehensive molecular-based testing available today.

### **Opening of New Transgenic Services Facility**

For several years, the biomedical research community has focused on developing genetically-modified animals as a more accurate model of human disease and, therefore, a better predictor of the potential success of new drug candidates. With the recent opening of a new transgenic facility at our Wilmington, MA site, we can further accommodate the ever-growing demand for these specialty models in the research community. The new building is approximately 68,000 square feet. Two floors of isolator space constitute about 60,000 square feet and house approximately 1,750 six-foot isolators, effectively doubling previous capacity. The remaining area of the new building is →

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allocated for three floors of clerical, office, and support space.



By utilizing our transgenic service capabilities, researchers can easily overcome the difficulties often associated with the development of transgenic lines.

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## **Business Strategies**

### ***Medical College of Wisconsin Collaboration***

Charles River entered an agreement with the Medical College of Wisconsin (MCW) to produce and distribute novel consomic rat models developed at the Medical College. The group at MCW developing the consomic rats, known as PhysGen, is one of eleven Programs for Genomic Applications (PGA) funded by the NIH's National Heart, Lung and Blood Institute (NHLBI).

Consonic research models are created by substituting whole chromosomes one at a time from one model to another. The end result of the chromosome substitution process is a rat model directed toward understanding and treating a certain disease condition of the heart, lung, and blood from a chromosome and, therefore, gene function perspective, or pharmacogenomics.

Seven consomic strains currently exist and will be made available in the coming months. The Medical College will develop numerous additional strains over the next several years.

"We're delighted to be working with the Medical College of Wisconsin and Dr. Jacob in this new and very exciting area of consomic rat models directed to applied genomics research," commented James C. Foster, Charles River Chairman and CEO. "It's particularly rewarding to be able to direct our expertise, resources and capabilities to support scientific leaders focused on applied or functional genomics, as we move from identifying and mapping genes to actually understanding the contribution of genes in the disease process, beginning with predictive animal models."

### ***Agreement with The Jackson Laboratory***

We entered an international cooperative agreement with The Jackson Laboratory to

supply their JAX® Mice to biomedical researchers located in European and Pacific Rim countries. The terms of the agreement authorize Charles River to serve as the exclusive import and distribution agent for all JAX® Mice strains in Austria, Belgium, China, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Taiwan, and United Kingdom. Researchers in these countries can continue to order directly from The Jackson Laboratory. However, ordering JAX® Mice through Charles River provides the benefits of both a local customer service organization and a local supply of some JAX® Mice strains.

Furthermore, under the guidance of The Jackson Laboratory, Charles River is authorized to breed, for distribution, selected high demand JAX® Mice strains in local Charles River breeding facilities in Europe and Japan.

### ***BioLabs Acquisition***

We recently acquired the privately held Biological Laboratories Europe Ltd. ("BioLabs"), a leading drug discovery and development services company located in Western Ireland. BioLabs provides a broad range of services supporting the discovery, development and manufacturing of pharmaceuticals, medical devices, as well as animal and human health products. BioLabs' strengths include the development and conduct of bioassays under stringent regulatory conditions that test for the safety of toxins, hormones and other biologics used in medical treatments. BioLabs also recently completed a new facility to support the testing of new medical devices. We have identified numerous synergies that are expected to lead to accelerated growth and expansion of BioLabs' operations in the coming years.

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## **Higher Education**

### ***2002 Short Course Highlights***

In its 16<sup>th</sup> year of existence, the Charles River Short Course on Laboratory Animal Care and Use experienced its most successful year ever. We had 243 attendees come from over 30 states, as well as from such countries as Japan, Portugal, Egypt and Guatemala, to participate in the event. We feel that the increased interest

can be attributed in part to the significant change that was made to the structure of this year's program. For 2002, the Short Course was substantially revamped with the addition of a third track featuring interesting new break-out sessions such as "Exploring Behavior Enrichment in Laboratory Animals" and "Defining the Environment of the Laboratory Animal," both of which were among the most popular of the more than 60 topics presented.

Though perhaps the most attractive aspect regarding this year's course was its approval for continuing education credit from the American Association of Veterinary State Boards (AAVSB) - RACE Program. Attendees could receive up to 21.5 credit hours for the completion of the Short Course.

As always, incorporated into the Short Course were planned social activities, such as trips to the beautiful ocean town of Ogunquit, ME and Boston's Quincy Market Place.

Overall, this year's Short Course was a resounding success not only for Charles River, but also for the biomedical research community as a whole. The groundwork for next year's Short Course is already in place! Once again the event will be held at the Sheraton Ferncroft Resort in Danvers, MA, from June 16-20, 2003.

### **New Humane Care Poster**

Charles River understands that the humane care of laboratory animals is a matter of moral

commitment as well as a scientific necessity. As animal caretakers and researchers, we have been given the responsibility for the stewardship of these animals. Therefore, we are pleased to announce that the latest addition in our series of humane care posters is now available. Although just a small part of our overall Humane Care Initiative, the posters have an immeasurable impact in helping to

increase employee awareness and sensitivity regarding this important issue. Our latest poster is intended to remind us that animal research not only benefits humans, but animals as well.

If you would like a copy of this or any other of our humane care posters (16" x 20") for your

facility, please call 1-877-CRIVER-1 with your name, company, address and quantity desired. (Posters can be viewed on-line at [www.criver.com](http://www.criver.com).)

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## **Enhancing Our *In Vitro* Offerings**

### **New Software Upgrades**

In response to the LAL community's need for powerful, easy-to-use software that complies with the industry's regulatory requirements, we announced new upgrades to the Endosafe line of endotoxin measuring and database trending software.

EndoScan-V version 1.0.13 is the first endotoxin-specific software that addresses the 21 CFR Part 11 requirement for validation. Enhancements to the previous version include increased flexibility, improved summary report, and compatibility with more laboratory readers.

BioTrend is the only stand-alone software package for trending LAL laboratory data. BioTrend version 3.0b is verified and validated consistent with USFDA and CE mark requirements and complies with CFR 820.30. Other improvements to BioTrend include the ability to trend by operator, spike recovery/ r-value correlation, and customizable reports with additional data and sign-off fields.

### **New IPT Assay**

We are pleased to announce the availability of our new patented human whole blood assay for the determination of pyrogens, the *In Vitro* Pyrogen Test (IPT). The IPT test measures the induction and release of cytokines in human blood as a means of detecting pyrogens. An *in vitro* alternative to the rabbit pyrogen test, the IPT can effectively test for gram negative and positive organisms and other biological pyrogens, including yeast, parasitic and viral pyrogens in pharmaceuticals as well as complex biologicals such as HSA and other plasma products.

### **Acquisition of DakDak**

We acquired DakDak Photoaging Technologies, Inc. The acquisition provides Charles River with a patented *in vitro* technology that enables cosmetic and consumer product companies to rapidly screen their products for safety and efficacy in a gene-based cell culture system. ⇒



**UPDATE**

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Inquires may be  
addressed to  
Jonathan Macdonald,  
Editor

Developed by Dr. Eric Bernstein, the core technology involves the use of the human gene for elastin as a photoaging and phototoxicity model. The molecular assay has been validated for use with products such as antioxidants, anti-inflammatories, sunscreens and a variety of other "anti-aging" skin products.

For further information, please contact Christopher Sambuco at (215) 443-8710 or via email: [chris.sambuco@criver.com](mailto:chris.sambuco@criver.com).

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## Reminder

### Summer Shipping Policy

In accordance with USDA guidelines, covered species cannot be exposed to temperatures above 85°F. Since airports do not maintain temperature-controlled holding areas, problems can arise with animal airfreight shipments, particularly during the summer months. In order to provide safe and comfortable conditions for the transportation of your animals, on days of scheduled air shipments when the temperature is above 85°F, a Customer Service

Representative will contact you to make alternative arrangements to ship your order.

When temperatures are within acceptable ranges, air shipments are limited to Monday and Wednesday. By restricting air shipments to these days, our air carrier will be better able to ensure that end point delivery of all animals will be made in climate-controlled vehicles.

If truck delivery is available in the area, we strongly suggest that you take advantage of this mode of transportation for your orders whenever possible, especially during times of extreme weather. Since the vehicles are climate controlled at all times from our facility to your loading dock, truck deliveries can be made regardless of outside temperatures.

*Please contact Customer Service at 1-800-LAB-RATS if you have any questions or need assistance scheduling your orders.*

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