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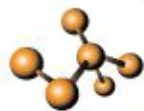
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## Features

iTL thanks you for viewing the final edition of GeneTargeting Quarterly for 2011. Be sure to check out the following features!

- [iTL on the Move](#)
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- ...and More!

## News

### iTL News



#### -- iTL Relocates its Headquarters!

On January 1, 2012, in response to an expanding team and increased demand, inGenious Targeting Laboratory (iTL) has relocated our world headquarters to a new, state-of-the-art facility in Ronkonkoma, New York. Located in central Long Island, the new location will provide us with new opportunities as we continue to define iTL as a leader in the custom mouse model industry.

### Industry News

#### -- Last-Minute Wins for US Science

A year-end push by the US Congress to pass a \$915-billion spending bill has delivered on a key initiative proposed by Francis Collins, director of the National Institutes of Health (NIH).

#### -- Connecticut Clears \$291M for Jackson Labs for Genomics Medicine

A \$1.1 billion plan to build a Jackson Laboratory offshoot that will focus on personalized medicine and genomics in Connecticut passed that state's legislature last night with lawmakers agreeing to issue \$290.7 million in bonds to build the new facility.

#### -- New Mouse Models Open a Window on Autism Research

Genetic studies on autism have zeroed in on a small deletion found in patients' chromosome 16, which affects some 27 genes. So to test the link, a research group tinkered with a mouse model to make a similar deletion, and found that rodents began to respond in much the same way as autistic children...

## Events

### iTL in Attendance

BioConference Live: Laboratory Animal Sciences  
Immunology 2012

Feb 15-16 Online Event  
May 4-8 Boston, MA, USA

### Other Events of Interest

International Conference on Mouse Models  
American Association of Cancer Research  
14th International Neuroscience Winter Conference  
ARVO 2012

Jan 24-26 Valdivia, Chile  
Mar 31 - Apr 4 Chicago, IL, USA  
Apr 10-14 Solden, Austria  
May 6-10 Ft. Lauderdale, FL, USA



"Our experience with iTL has been extraordinarily positive. Animals were generated in a timely manner, and frequent updates (both by email and by online status reports) were provided that included any setbacks and their reasons. Overall, the interactions with iTL have been excellent, and timelines to delivery were very accurate"

- Raghu Mirmira, Ph.D., M.D.



[www.genetargeting.com](http://www.genetargeting.com)

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## Featured Client



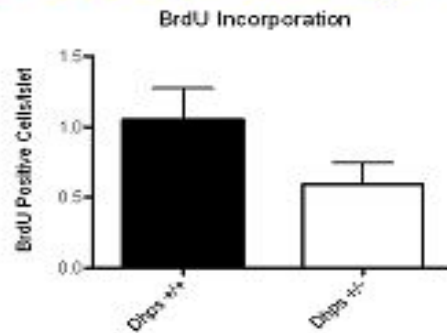
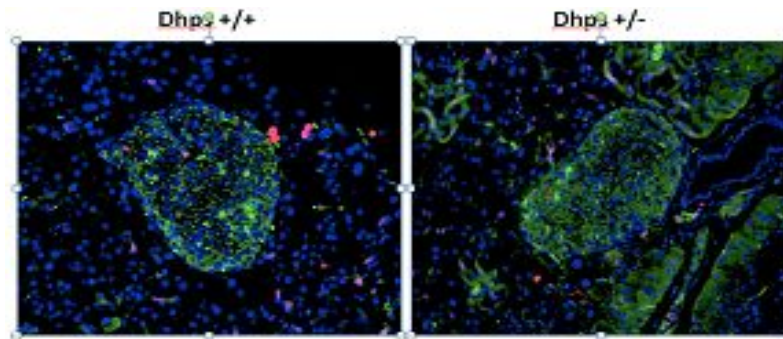
### HERMAN B WELLS CENTER FOR PEDIATRIC RESEARCH

INDIANA UNIVERSITY  
Department of Pediatrics

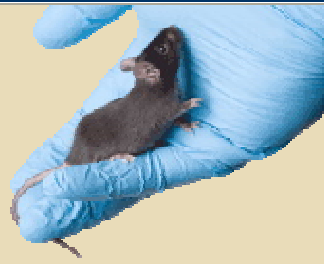
#### Raghu Mirmira Ph.D., M.D.

Associate Professor  
Pediatrics, Medicine, and Cellular & Integrative Physiology  
Herman B Wells Center for Pediatric Research  
Indiana University

"Our laboratory is interested in the role of specific genes in the formation of function of pancreatic islet  $\beta$  cells.  $\beta$  cells are the only cell type that produce significant amounts of insulin to regulate blood glucose levels in animals. A better understanding of the biology of the  $\beta$  cell allows for the potential development of therapies or cures for diabetes mellitus, a disorder that results from dying or dysfunctional  $\beta$  cells. Our laboratory uses genetically altered mice, in which genes that impact  $\beta$  cell function are deleted. As part of a contract, inGenious Targeting Labs has to date generated three genetically altered mouse lines for my laboratory. These mouse lines include two "floxed" mouse lines, in which our genes of interest were flanked by LoxP recognition sequences for the Cre recombinase, and one "conventional" knockout mouse line. The "floxed" mouse lines allow for the inducible deletion of these genes by crossing these mice with a  $\beta$  cell-specific Cre-expressing strain. These two floxed mouse lines were developed within the past 3 years, and initial studies have been performed with one of the lines. To date, this line shows defective  $\beta$  cell function, with mice having reduced insulin secretion and mildly impaired glucose tolerance. The second line is still in the process of being crossed to the appropriate Cre driver strain."



BrdU incorporation in islets of wild type and deoxyhypusine synthase (Dhps) heterozygous knockout mice. Pancreatic sections were obtained from mice 24 hours after injection of 1mL/100g body weight BrdU. Sections were stained for insulin (green), BrdU (red), and DAPI (blue). Analysis of greater than 20 islets per group revealed a tendency to decreased proliferation in Dhps +/- islets ( $p=0.08$ ).



## Resources

### Mouse Breeding Tips

Generating and maintaining a mouse colony is not a trivial task. Many factors influence breeding performance and colony maintenance. The following two guides from Charles River and The Jackson Laboratory provide excellent insight into many of the fundamental considerations to maximize effective colony management.

### Mouse Colony Management

Animal husbandry and colony tracking are essential components of projects utilizing animal models. The development of mouse colony management systems has revolutionized labs, by streamlining workflow and reducing human error. This allows researchers to reduce costs and shift their focus away from colony management, towards other aspects of their research.

### Contact Us

+1 (631) 468 8530 x105

[email](#)  
[quotes](#)

## New Client Publications



### Leucine Zipper Putative Tumor Suppressor 2, LZTS2, Regulates Kidney Development

P Peng, *et. al.*

Project Type: Hybrid Conditional Knockout

[Journal of Biological Chemistry; 286; 40331-40342](#)



### SRY-Box Containing Gene 17 Regulates the Wnt/ $\beta$ -Catenin Signaling Pathway in Oligodendrocyte Progenitor Cells

LJ Chew, *et. al.*

Project Type: C57Bl/6 Conditional Knockout

[The Journal of Neuroscience, 28 September 2011, 31\(39\): 13921-13935;doi: 10.1523/JNEUROSCI.3343-11.2011.](#)

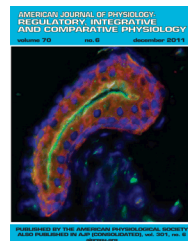


### Behavioral characterization of cereblon forebrain-specific conditional null mice: A model for human non-syndromic intellectual disability

A Rajadhyakshaa, *et. al.*

Project Type: C57Bl/6 Conditional Knockout

[Behavioural Brain Research; 226\(2\); 428-434](#)



### Adipocyte-specific deficiency of angiotensinogen decreases plasma angiotensinogen concentration and systolic blood pressure in mice

F Yiannikouris, *et. al.*

Project Type: Hybrid Conditional Knockout

[American Journal of Physiology, Regulatory, Integrative and Comparative Physiology; 302\(2\); R244-R251](#)



### Modeling the Human MTM1p.R69C Mutation in Murine Mtm1 Results in Exon 4 Skipping and a Less Severe Myotubular Myopathy Phenotype

P Shridas, *et. al.*

Project Type: C57Bl/6 Conventional Knockout

[Hum.Mol.Genet. \(2011\) doi: 10.1093/hmg/ddr512](#)

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