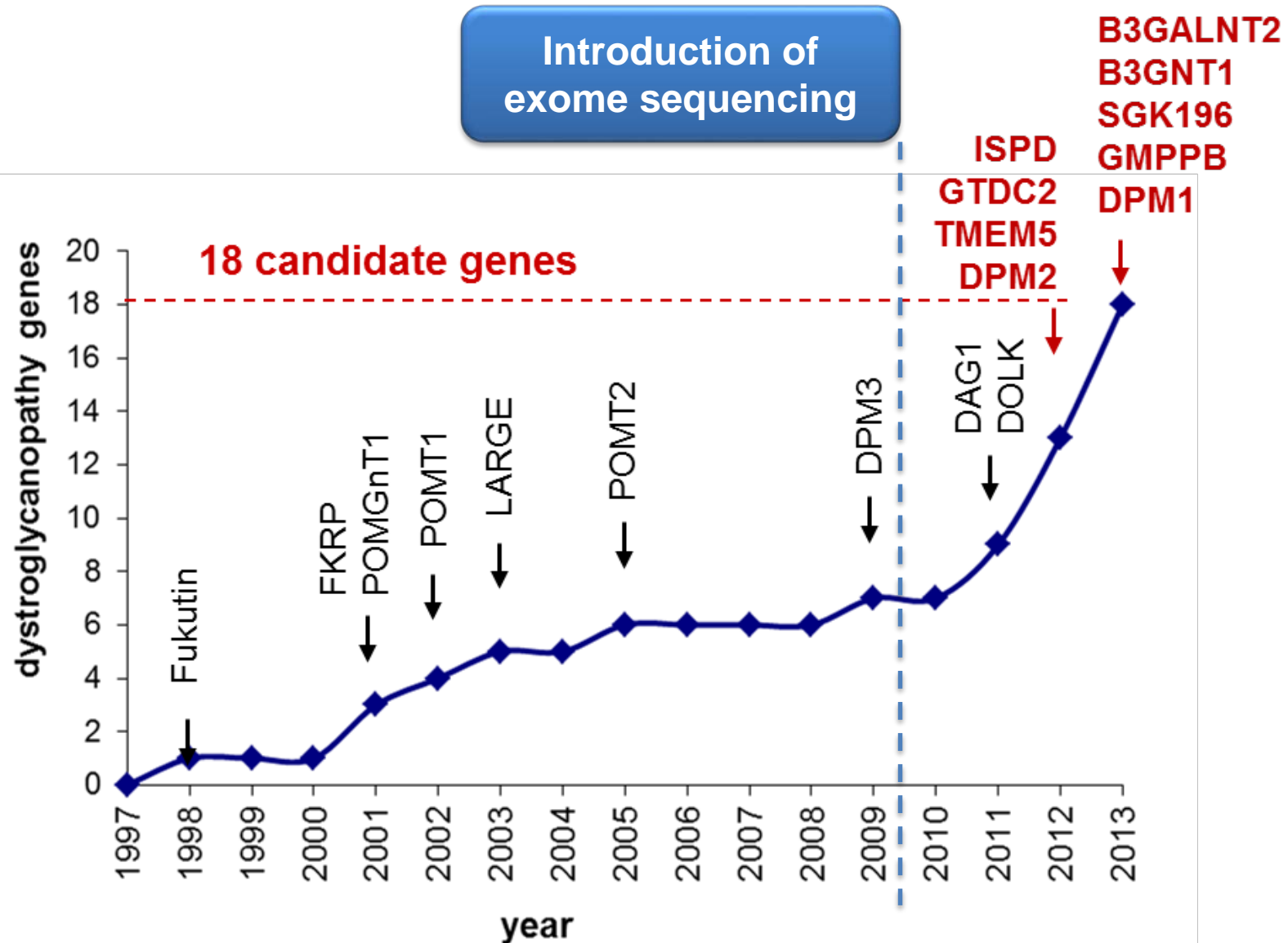


# Senator Paul D. Wellstone Muscular Dystrophy Cooperative Research Center at the University of Iowa *2005-present*

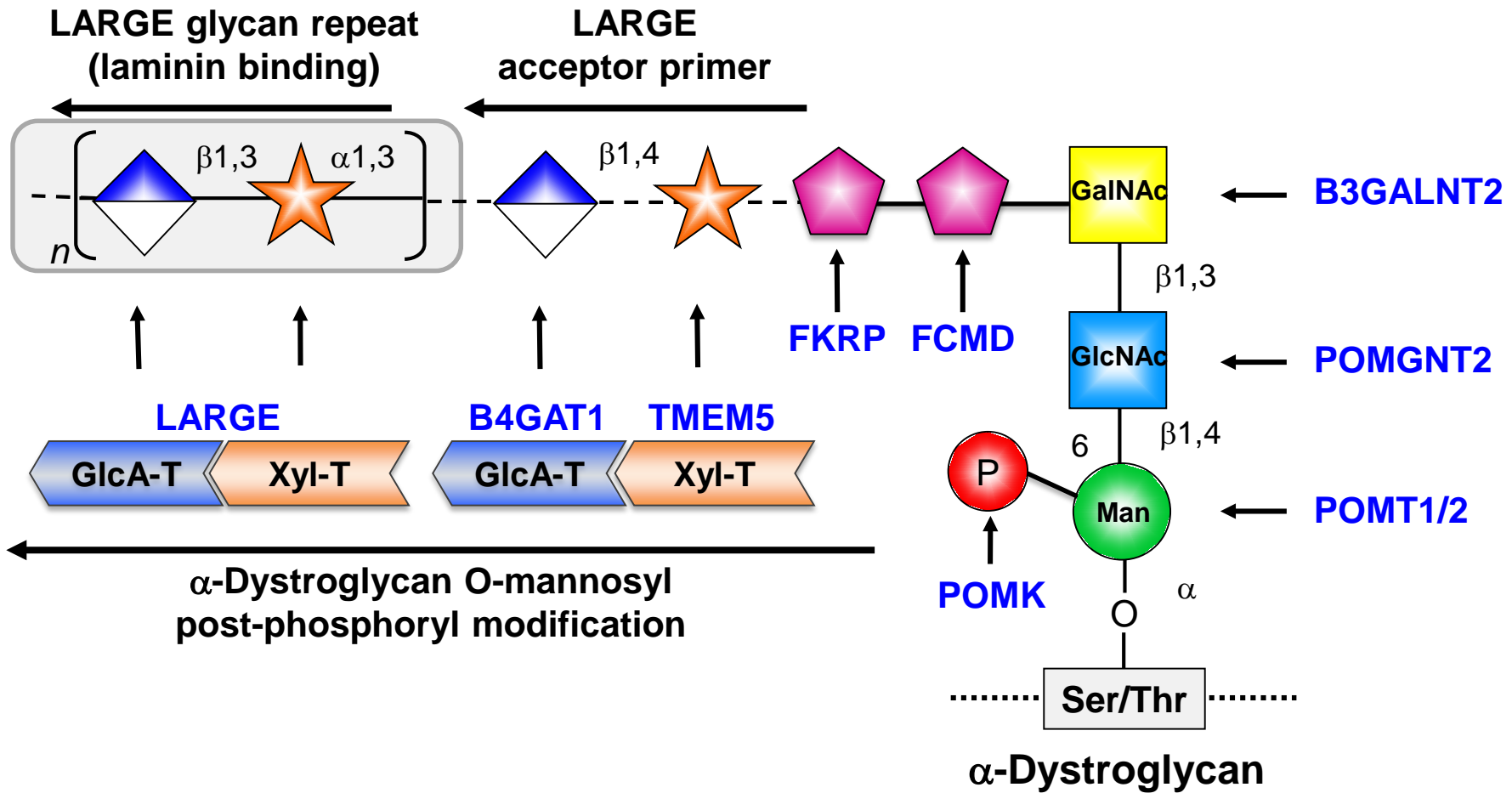


Director: Kevin P. Campbell, Ph.D.  
Co-Director: Katherine D. Mathews, M.D.  
Co-PI: Steven A. Moore, M.D., Ph.D.

# Dystroglycanopathy candidate genes - 2016



# $\alpha$ -Dystroglycan functional glycosylation



enzymes with known activity/function

# Acknowledgements



Where  
are they now? **?**

# Rita Barresi

Campbell Lab: 1998-2006

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Consultant Clinical Scientist and Head  
Muscle Immunoanalysis Unit  
Newcastle upon Tyne Foundation Trust, United Kingdom

**Current work:** The Muscle Immunoanalysis Unit is the UK national referral center for the diagnosis of LGMDs and overlapping and allelic disorders. The service provided by the unit is unique and is not duplicated anywhere else in the UK. Comprehensive analysis of the LGMD related proteins using immunohistochemistry and western blotting techniques helps recognize which gene is at fault. The results of the MIU work guide mutation analysis, genetic counselling and patient management.

# Aaron Beedle

Campbell Lab: 2003-2007

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Assistant Professor

The University of Georgia, Department of Pharmaceutical and Biomedical Sciences, Athens, GA

**Current work:** 1) skeletal muscle regeneration in dystroglycan muscular dystrophy; and 2) mTORC1 as a therapeutic target for dystroglycan muscular dystrophy

# Daniel Beltrán Valero de Barnabe

Campbell Lab: 2004-2013

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Scientist

Invitae Corporation, San Francisco, CA



# Ronald Cohn

Campbell Lab: 1998-2001

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Professor and Chair, Department of Paediatrics, University of Toronto, Paediatrician-in-Chief, The Hospital for Sick Children, Toronto, Canada

**Current work:** CRISPR-mediated therapies for muscular dystrophy

# Rachelle Crosbie-Watson

Campbell Lab: 1995-1999

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Professor & Vice Chair

UCLA, Department of Integrative Biology and Physiology

**Current work:** Membrane Stabilizers in Skeletal and Cardiac Muscle

# Jessica de Greef

Campbell Lab: 2010-2015

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Senior Researcher

Department of Human Genetics, Leiden University Medical Center, The Netherlands

Current Position: Senior Researcher

**Current work:** Studying the consequences of DUX4 expression in facioscapulohumeral muscular dystrophy

# Madeleine Durbeej-Hjalt

Campbell Lab: 1997-2001

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Professor

Lund University, Department of Experimental Medical Science, Lund, Sweden

**Current work:** Merosin-deficient congenital muscular dystrophy (MDC1A)

# James M. Ervasti

Campbell Lab: 1989-1992

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Professor; Research Director

University of Minnesota , Department of Biochemistry, Molecular Biology and Biophysics; Paul and Sheila Wellstone Muscular Dystrophy Center, Minneapolis, MN

**Current work:** Dystrophin structure and function, urine biomarkers of muscular dystrophy

# Matt Goddeeris

Campbell Lab: 2007-2014

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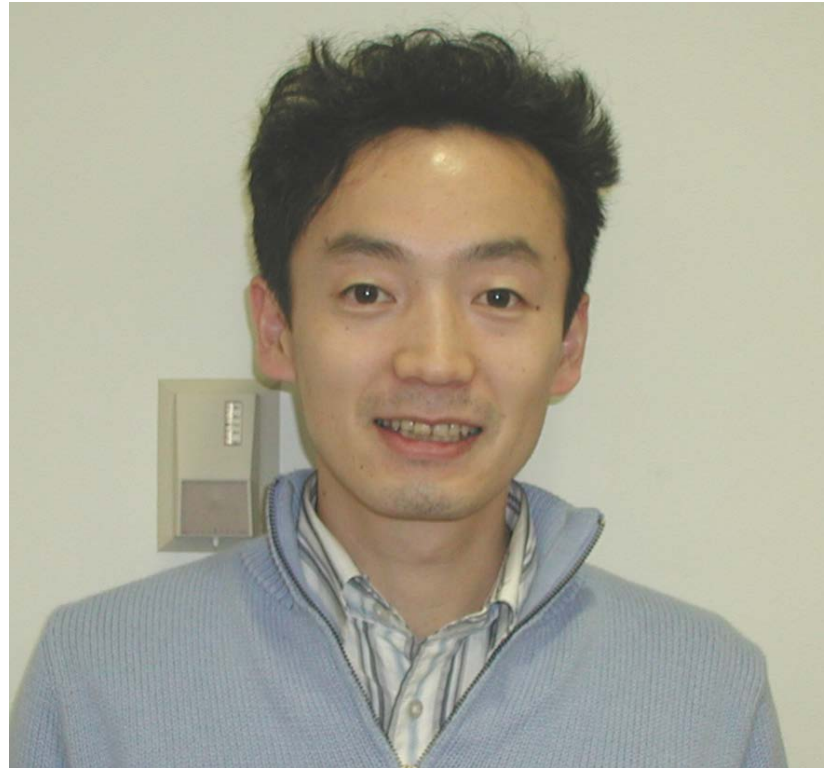
Senior Scientist

Mitobridge, Inc., Translational Biology, Cambridge, MA

# Yuji Hara

Campbell Lab: 2005-2012

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Associate Professor

Graduate School of Engineering, Kyoto University, Department of Synthetic Chemistry and  
Biological Chemistry, Kyoto, Japan

**Current work:** Investigation of lipid dynamics in muscular dystrophy

# Kei-Ichiro Inamori

Campbell Lab: 2006-2013

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Associate Professor

Institute of Molecular Biomembrane and Glycobiology, Tohoku Pharmaceutical University,  
Sendai, Miyagi, Japan

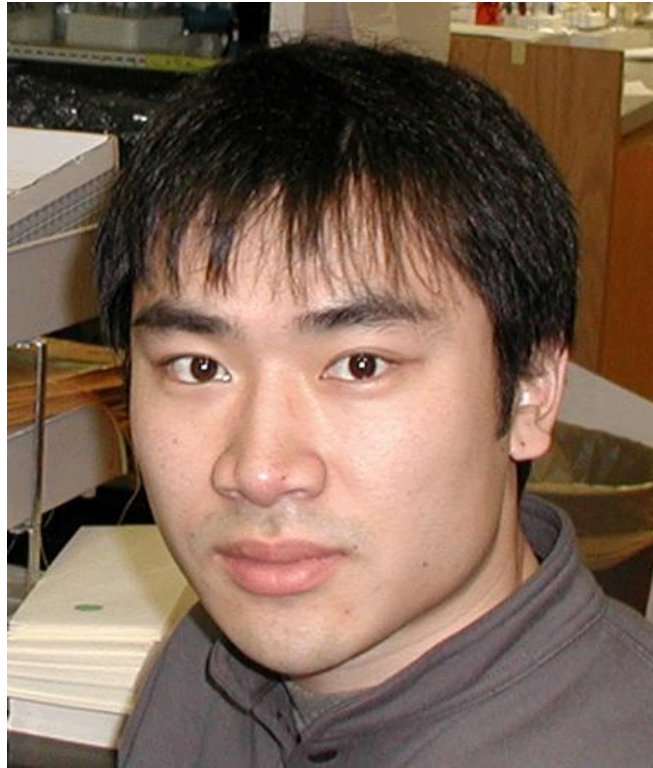
**Current work:** research focused on pathophysiological functions of sphingo-glycolipids in  
metabolic syndrome



# Motoi Kanagawa

Campbell Lab: 2001-2005

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Associate Professor

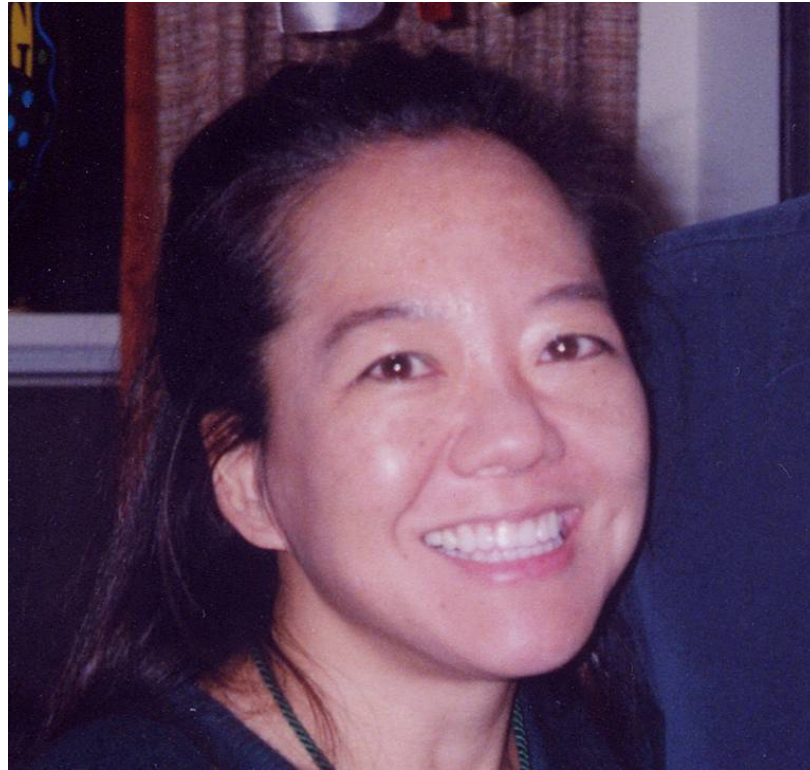
Kobe University Graduate School of Medicine, Department of Physiology and Cell Biology, Kobe,  
Japan

**Current work:** Research on molecular pathogenesis of Fukuyama muscular dystrophy

# Yvonne Kobayashi

Campbell Lab: 2000-2004

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Principal Research Scientist  
Eli Lilly & Company, Indianapolis, IN

**Current work:** Lilly conducted the largest clinical trial in DMD based on Yvonne's research from her Nature paper.

# Jennifer Levy

Campbell Lab: 2008-2016

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Scientific Director  
LGMD2A foundation

# Daniel Michele

Campbell Lab: 2000-2004

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Associate Professor

University of Michigan, Department of Molecular and Integrative Physiology, Ann Arbor, MI

**Current work:** Defective mechanosignaling and membrane integrity in muscular dystrophy and dystrophic cardiomyopathy

# Erik Rader

Campbell Lab: 2006-2012

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Associate Service Fellow

Muscle Pathomechanics, Research Team, Toxicology and Molecular Biology Branch, Health Effects Laboratory Division, Centers of Disease Control and Prevention, Morgantown, WV

**Current work:** Part of a team investigating loading parameters for optimizing the response to resistance-type exercise training in mouse and rat models of aging (e.g. the slow aging Snell Dwarf mouse) and disease (e.g. CMT rat model).

# Volker Straub

Campbell Lab: 2006-2012

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Harold Macmillan Professor of Medicine and Neuromuscular Genetics  
Institute of Human Genetic Medicine at Newcastle University, United Kingdom

**Current work:** Pathogenesis of genetic muscle diseases, with research using zebrafish and mouse models. Also, application of next generation sequencing and other –omics technologies for the characterization of primary neuromuscular disorders.

# Rolf Turk

Campbell Lab: 2005-2014

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Staff Scientist

Integrated DNA Technologies, Molecular Genetics Division, Coralville, IA

# Takako Yoshida-Moriguchi

Campbell Lab: 2003-2008

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Senior Scientist  
Genzyme Corporation, Cambridge, MA



# Tobias Willer

Campbell Lab: 2004-2013

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Staff Scientist  
Regeneron Pharmaceutical Inc., Metabolic and Muscle Disease, Tarrytown, NY

# Tobias Willer



Hang in there Ian,  
my heart is beating for you

## Current work:

Staff Scientist

**Regeneron Pharmaceutical Inc.,**

Metabolic and Muscle Disease, Tarrytown, NY

Working area:

*Myostatin blockage to promote muscle growth*

**Campbell Lab: 2004-2015**



# Iowa Wellstone Center Dystroglycanopathy Family Conference - 2015

