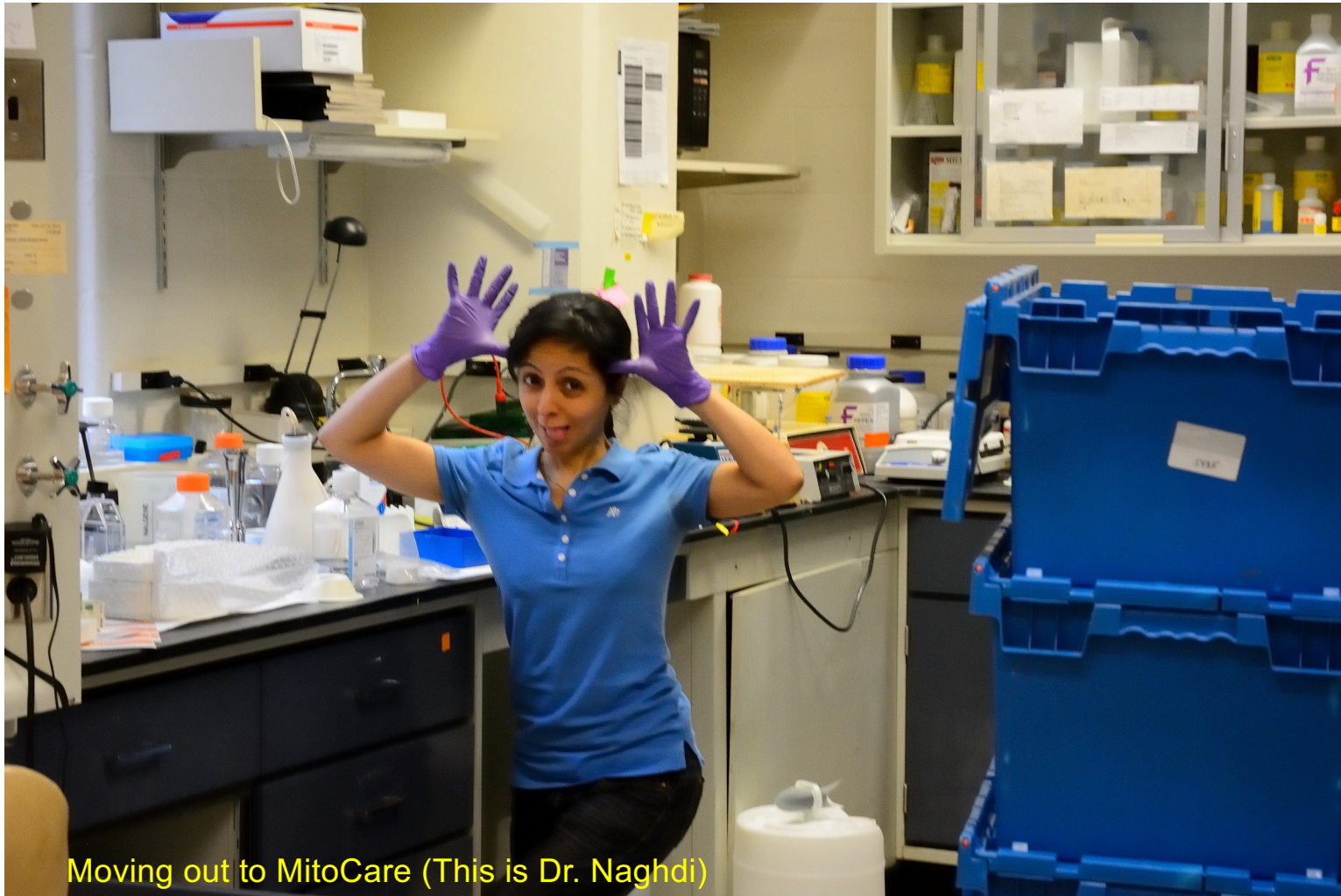


MitoCare Suite on Jan 3rd 2014





Moving out to MitoCare (This is Dr. Naghdi)



Moving out to MitoCare



Moving out to MitoCare



Moving out to MitoCare



Moving out to MitoCare



Moving out to MitoCare



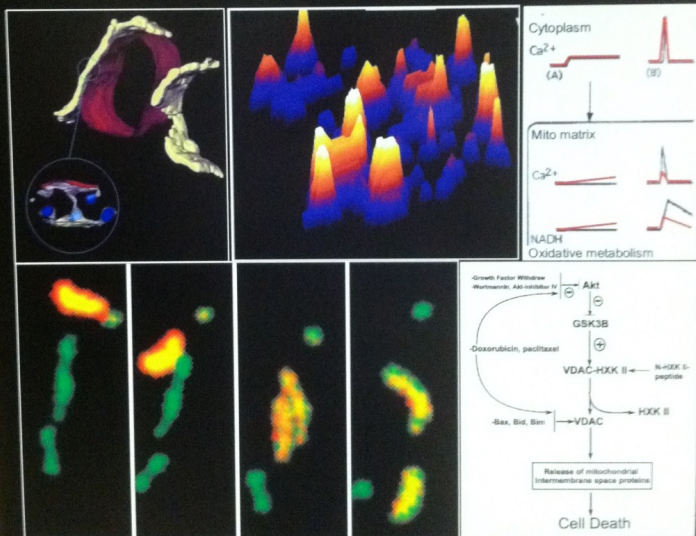
Moving out to MitoCare



Moving FluTrack out to MitoCare

RIBBON CUTTING of MitCare Laboratories

Monday, January 6, 2014 10 A.M.
Jefferson Alumni Hall, Suite 527



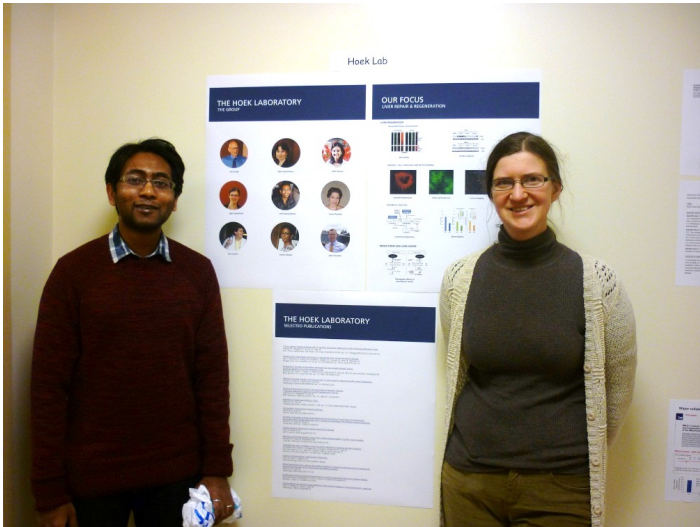
Images are from papers published in *J Cell Biol*, *Molecular Cell*, *Cell*, *Cell Metabolism*, *PNAS*, *EMBO J* and *Cancer Research*.

Contact Information: György Hajnóczky, MD, PhD • 215-503-1427





January 6th, 10am
Welcome to the
MitoCare Suite!





Moving in to MitoCare



Settling in MitoCare



Moving to MitoCare



Settling in MitoCare





End of January 2014: Moving into MitoCare



Moving into MitoCare End of a big day!!





Feb. 2014
¡Adios Verónica!
Update (Nov 2014):
Congratulations
on getting a faculty
position!



Next day



Veronica's farewell party

Veronica's farewell potluck party



Juan-Diego



Veronica's farewell potluck party

Biophysical Society Meeting – San Francisco, Feb. 2014





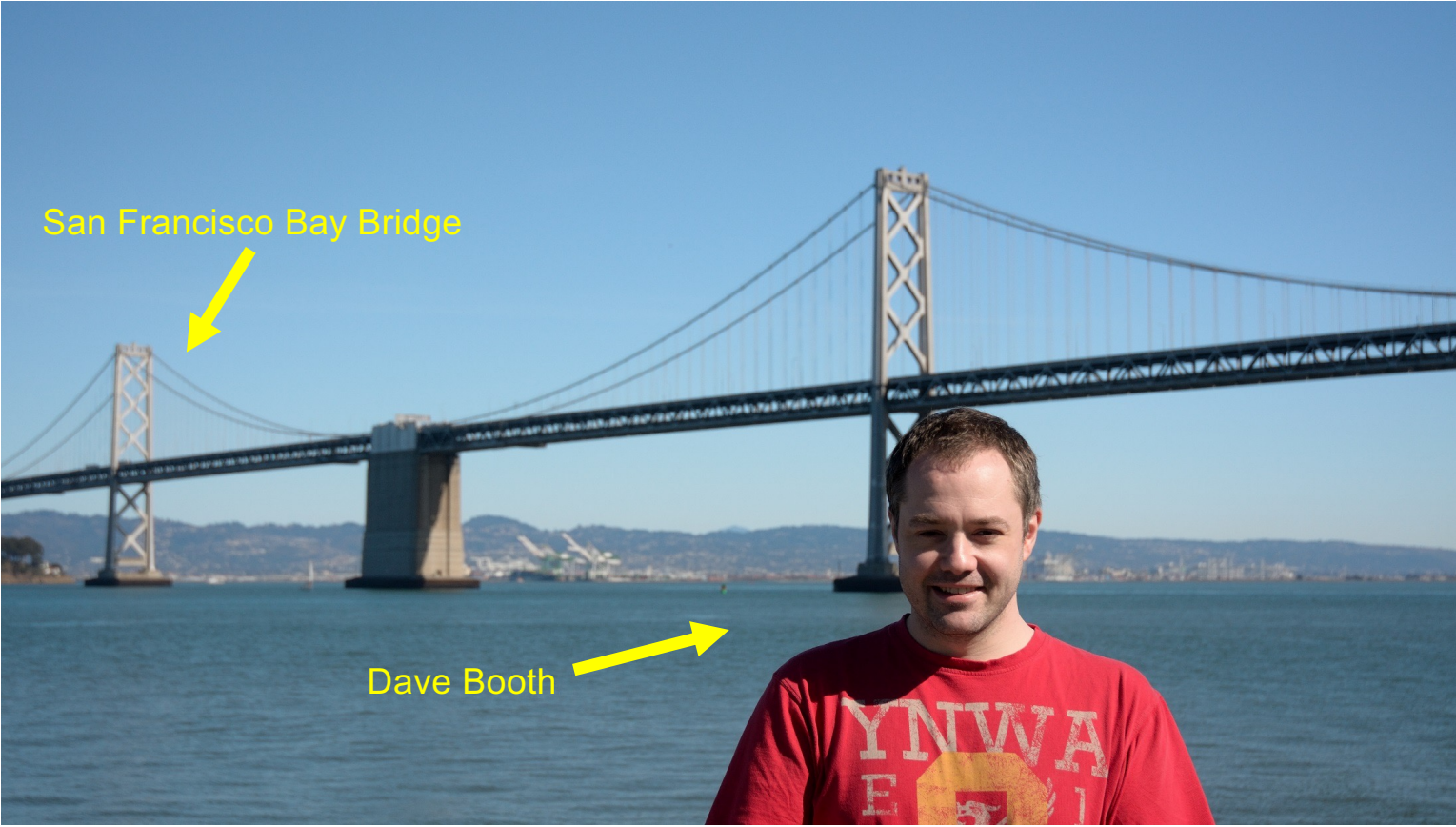
San Francisco – Biophysics Meeting (Pier 39)

San Francisco – Biophysics Meeting (Pier 39)





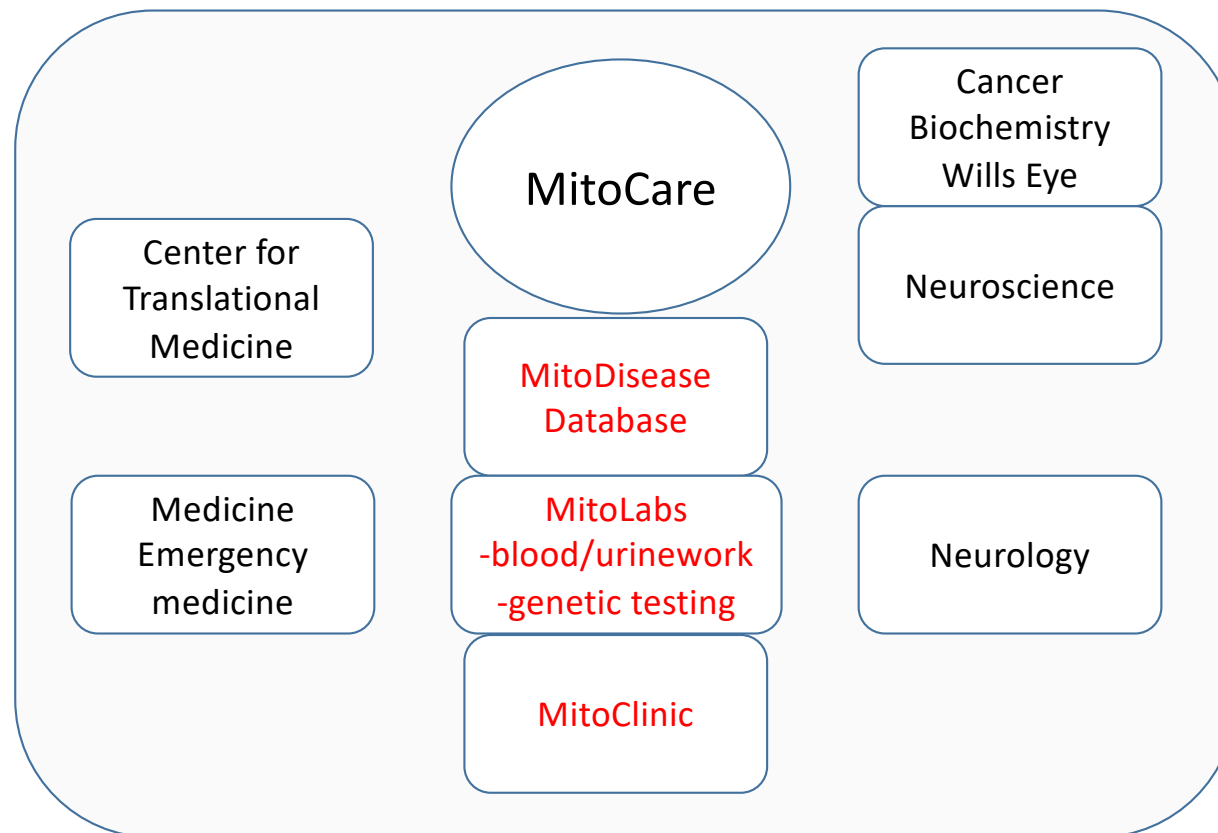
San Francisco – Biophysics Meeting (Pier 39)



San Francisco Bay Bridge

Dave Booth

Long term plan: Integrated research-clinical MitoCare network to fight mitochondrial disease

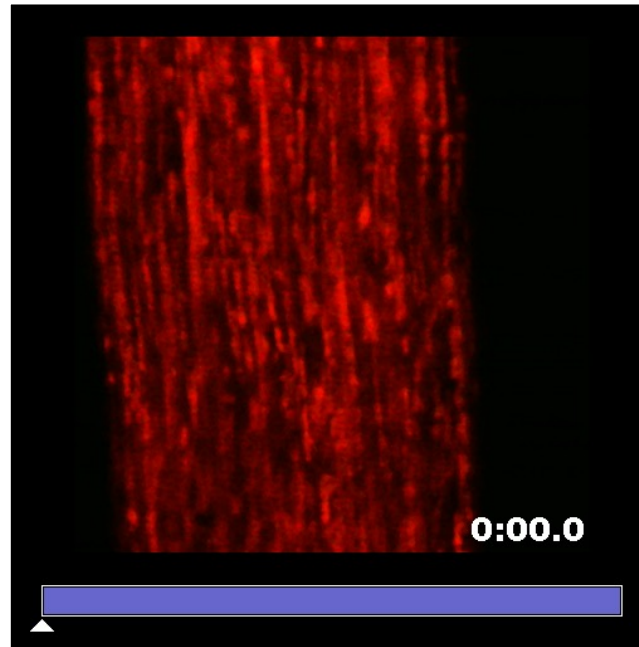
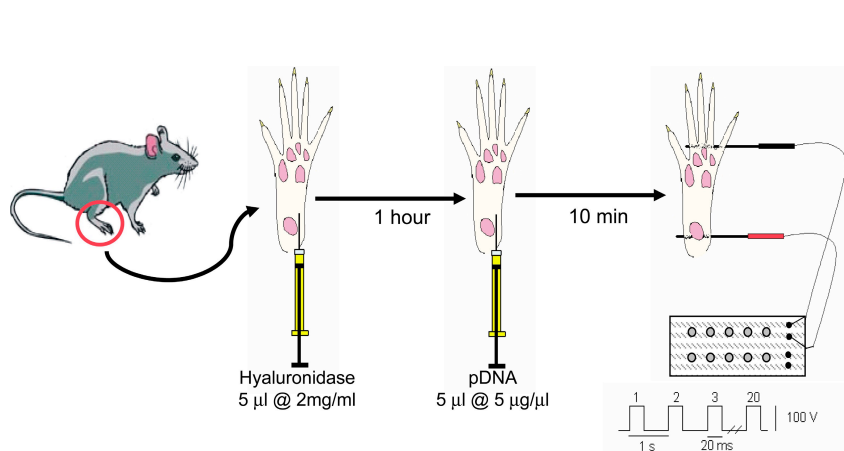


Isoform- and Species-specific Control of Inositol 1,4,5-Trisphosphate (IP₃) Receptors by Reactive Oxygen Species*

Received for publication, July 22, 2013, and in revised form, December 22, 2013. Published, JBC Papers in Press, January 27, 2014, DOI 10.1074/jbc.M113.504159

Száva Bánsághi^{‡1,2}, Tünde Golenár^{‡1}, Muniswamy Madesh^{‡1}, György Csordás[‡], Satish RamachandraRao[§], Kumar Sharma[§], David I. Yule[¶], Suresh K. Joseph[‡], and György Hajnóczky^{‡3}

From the [‡]MitoCare Center, Department of Pathology, Anatomy and Cell Biology, Thomas Jefferson University, Philadelphia, Pennsylvania 19107, the [§]Center for Novel Therapies for Kidney Disease, Department of Medicine, Thomas Jefferson University, Philadelphia, Pennsylvania 19107, and the [¶]Department of Pharmacology and Physiology, University of Rochester Medical Center, Rochester, New York 14642



Published April 21, 2014

JCB: Article

Mitochondrial fusion is frequent in skeletal muscle and supports excitation–contraction coupling

Verónica Eisner,¹ Guy Lenaers,² and György Hajnóczky¹

¹MitoCare Center, Department of Pathology, Anatomy, and Cell Biology, Thomas Jefferson University, Philadelphia, PA 19107

²Institut national de la santé et de la recherche médicale (INSERM) U1051, Institut des Neurosciences de Montpellier, 34091 Montpellier, France

Biophysics 2014 San Francisco



The winner of the 2014 Young Bioenergeticist Award



J Physiol. 2014 Nov 10. [Epub ahead of print]

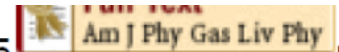


Adiponectin fine-tuning of liver regeneration dynamics revealed through cellular network modeling.

Correnti JM¹, Cook D², Aksamitiene E³, Swarup A⁴, Ogunnaike B⁵, Vadigepalli R⁶, Hoek JB⁷.

Author information

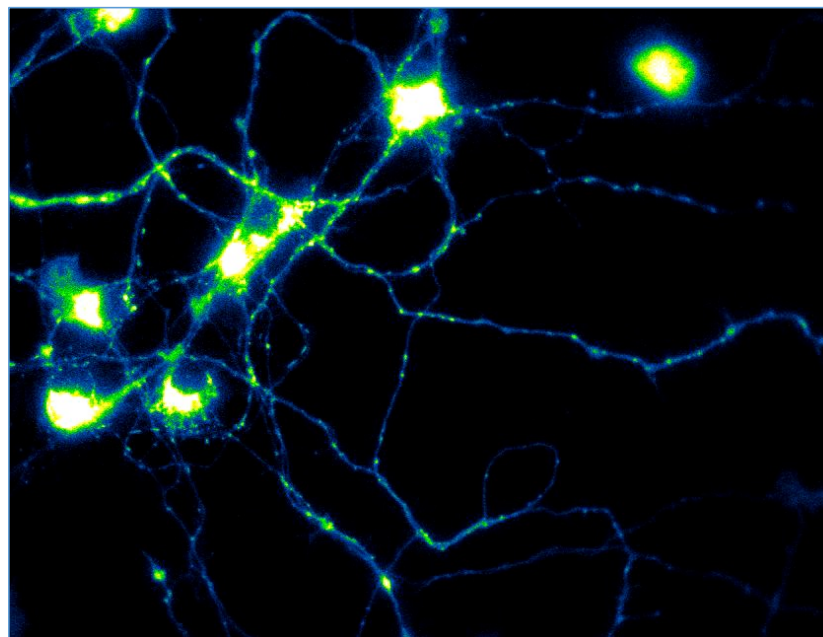
Am J Physiol Gastrointest Liver Physiol. 2014 Jun 1;306(11):G959-73. doi: 10.1152/ajpgi.00395.2013. Epub 2014 Apr 17.



Pharmacological ceramide reduction alleviates alcohol-induced steatosis and hepatomegaly in adiponectin knockout mice.

Correnti JM¹, Juskeviciute E¹, Swarup A¹, Hoek JB².

Arrival of the Miro1 knockout mouse to Jefferson



Loss of Miro1-directed mitochondrial movement results in a novel murine model for neuron disease

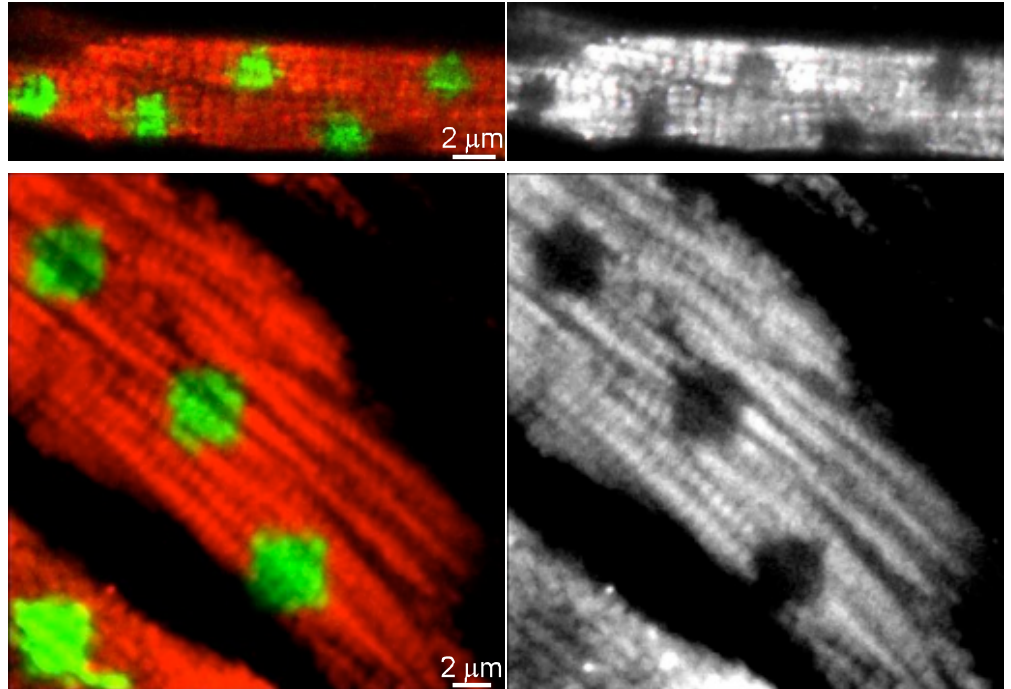
Tammy T. Nguyen^a, Sang S. Oh^b, David Weaver^c, Agnieszka Lewandowska^a, Dane Maxfield^d, Max-Hinderk Schuler^a, Nathan K. Smith^a, Jane Macfarlane^a, Gerald Saunders^e, Cheryl A. Palmer^f, Valentina Debattisti^c, Takumi Koshiba^g, Stefan Pulst^h, Eva L. Feldman^b, György Hajnóczky^c, and Janet M. Shaw^{a,1}

Departments of ^aBiochemistry, ^fPathology, ^hNeurology, University of Utah School of Medicine, Salt Lake City, UT 84112; ^bDepartment of Neurology, University of Michigan, Ann Arbor, MI 48109; ^cMitoCare Center, Department of Pathology, Anatomy, and Cell Biology, Thomas Jefferson University, Philadelphia, PA 19107; Departments of ^gBiology and ^ePharmacology and Toxicology, University of Utah, Salt Lake City, UT 84112; and ^dDepartment of Biology, Faculty of Sciences, Kyushu University, Fukuoka 812-8581, Japan



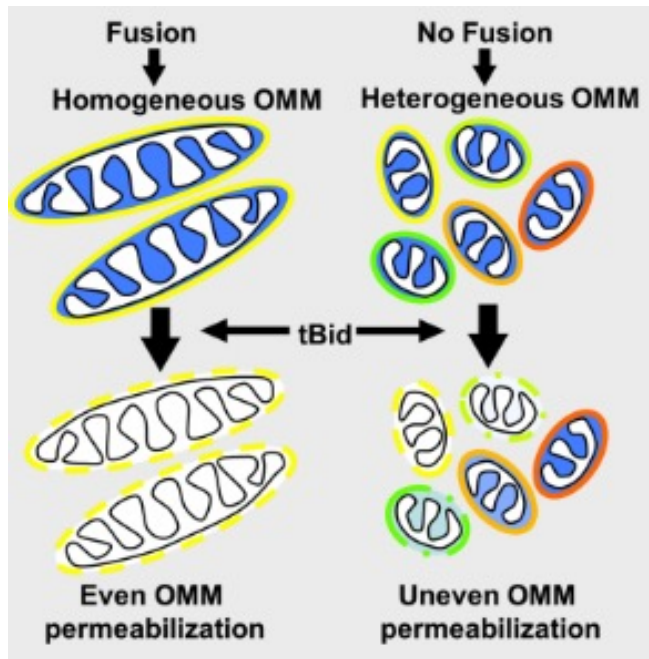
C

Cardiac Muscle



Imaging of mitochondrial fusion dynamics in heart





Distribution and Apoptotic Function of Outer Membrane Proteins Depend on Mitochondrial Fusion

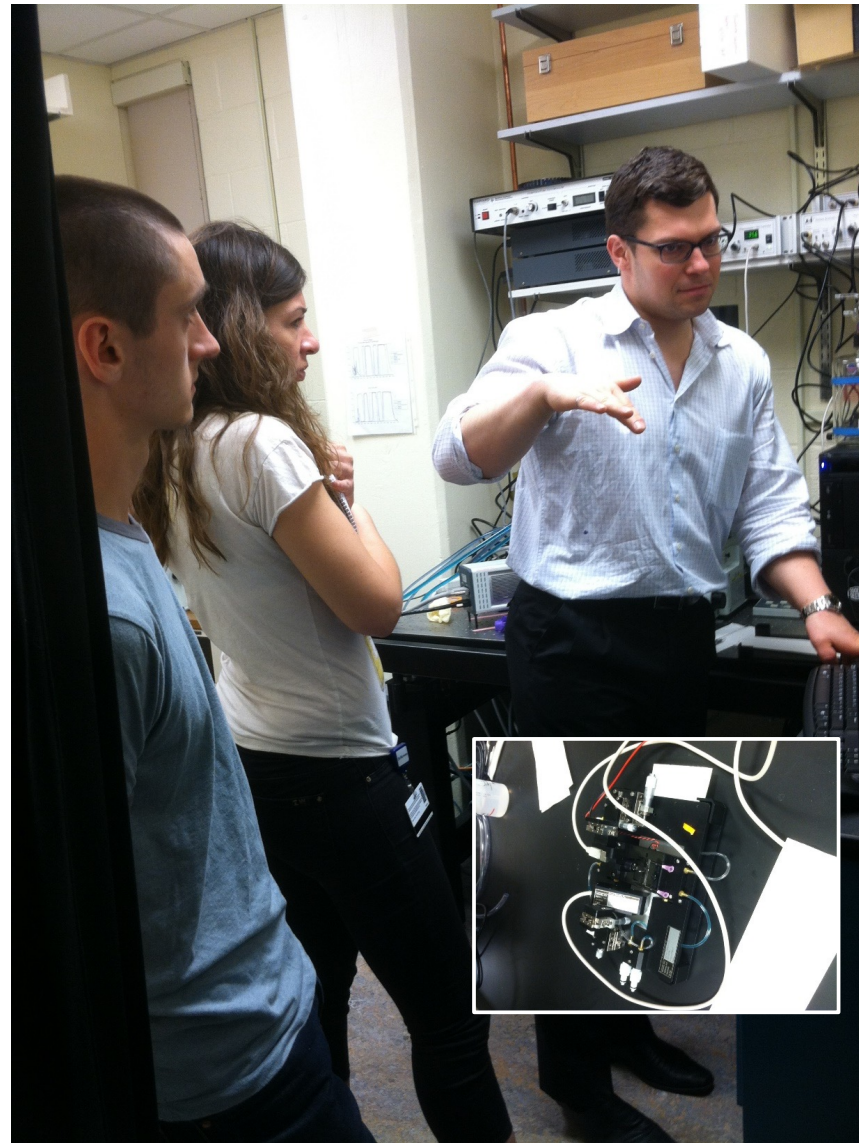
David Weaver,^{1,4} Verónica Eisner,^{1,4} Xingguo Liu,^{1,4} Péter Vármai,^{2,4} László Hunyady,² Atan Gross,³ and György Hajnóczky^{1,*}

¹MitoCare Center, Department of Pathology, Anatomy and Cell Biology, Thomas Jefferson University, Philadelphia, PA 19107, USA

²Department of Physiology, Semmelweis University, Budapest 1085, Hungary

³Department of Biological Regulation, The Weizmann Institute of Science, Rehovot 76100, Israel

Becoming Force-sensitive





**Meagan McManus at MitoCare
May 2014**

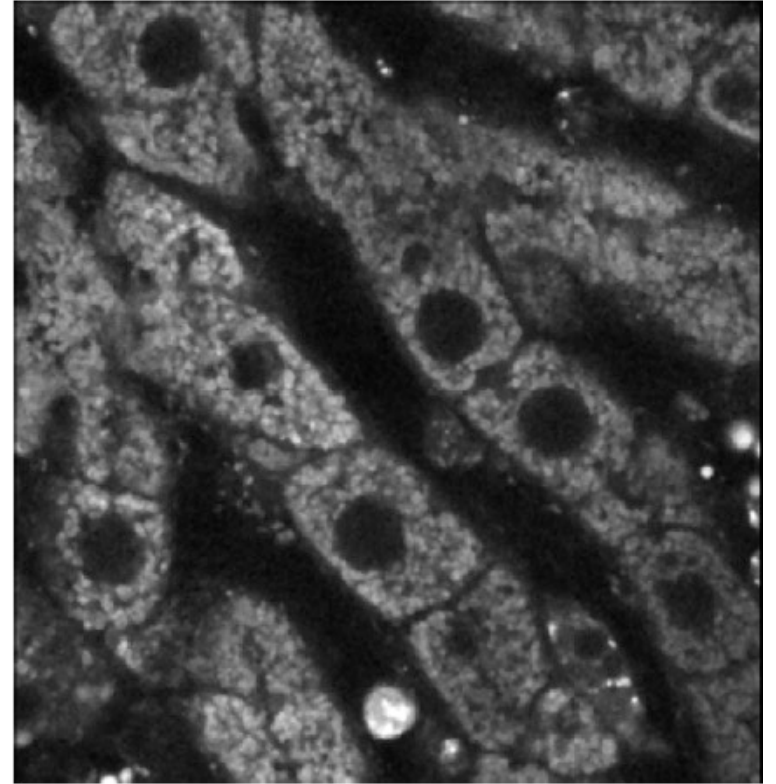
Inter-Mitochondrial Coordination of Cristae at Regulated Membrane Junctions

Martin Picard¹, Meagan J McManus¹, György Csordás², Péter Várnai³, Gerald W. Dorn II⁴,
Dewight Williams⁵, György Hajnóczky², Douglas C Wallace¹

¹ Center for Mitochondrial and Epigenomic Medicine, The Children's Hospital of Philadelphia and University of Pennsylvania, Philadelphia, PA 19104, USA

² MitoCare Center, Department of Pathology, Anatomy and Cell Biology, Thomas Jefferson University, Philadelphia, PA 19107, USA

Nature Communications 2014 in press



Cell Reports

Report

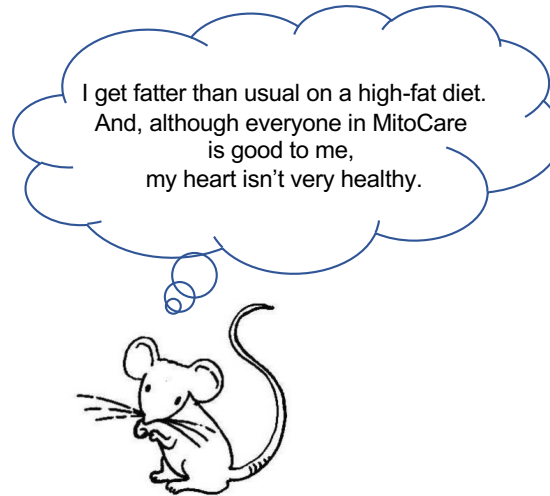
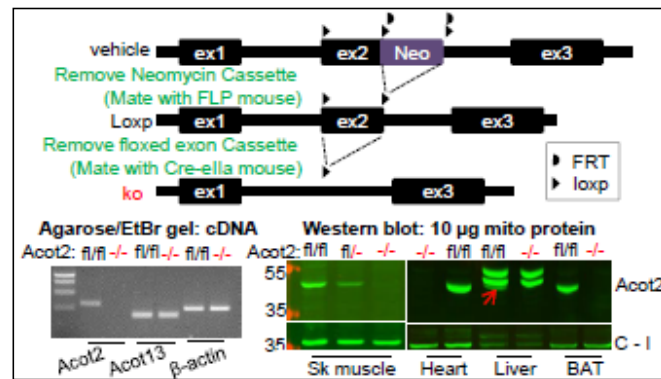
Hormone-Induced Calcium Oscillations Depend on Cross-Coupling with Inositol 1,4,5-Trisphosphate Oscillations

Lawrence D. Gaspers,^{1,4} Paula J. Bartlett,^{1,4} Antonio Politi,^{3,4} Paul Burnett,¹ Walson Metzger,¹ Jane Johnston,¹ Suresh K. Joseph,² Thomas Höfer,³ and Andrew P. Thomas^{1,*}

¹Department of Pharmacology and Physiology, New Jersey Medical School, Rutgers, The State University of New Jersey, 185 South Orange Avenue, Newark, NJ 07103, USA

²Department of Pathology, Anatomy and Cell Biology, Thomas Jefferson University, 1020 Locust Street, Philadelphia, PA 19107, USA

Jan. 2014: Welcome to Acot2 KO Mouse!



** We thank the gods of mouse phenotypes **

July 2014
Seifert lab awarded UMDF grant to study
human phosphate carrier mutations



Symbolic presentation of award by parents of mito disease-afflicted children,
and who also helped raise funds for UMDF

Aug. 2014

Seifert lab's first senior author paper !

Cynthia's first first author paper !

Acyl-CoA thioesterase-2 facilitates mitochondrial fatty acid oxidation in the liver^{SI}

Cynthia Moffat,^{*} Lavesh Bhatia,^{1,*} Teresa Nguyen,^{1,*} Peter Lynch,^{*} Miao Wang,[†]
Dongning Wang,[§] Olga R. Ilkayeva,[§] Xianlin Han,[†] Matthew D. Hirschey,[§]
Steven M. Claypool,^{**} and Erin L. Seifert^{2,*}

Department of Pathology, Anatomy, and Cell Biology,^{*} Thomas Jefferson University, Philadelphia, PA 19107;
Diabetes and Obesity Research Center,[†] Sanford-Burnham Medical Research Institute, Orlando, FL 32827;
Sarah W. Stedman Nutrition and Metabolism Center,[§] Duke University Medical Center, Durham, NC 27710;
and Department of Physiology,^{**} Johns Hopkins School of Medicine, Baltimore, MD 21205

2458 Journal of Lipid Research Volume 55, 2014

Congrats to the TJU Biotech students on the paper:
Lavesh, Teresa and Pete!

Collaborations: milestones

MICU1

Hajnóczky, Hoek,
Csordás labs

MICU1 mouse

Metabolic
coupling in
the retina

Nancy Philp
TJU Pathol
Anat Cell Biol

Adijanto et al.
2014 JBC
289: 20570

Mito respiration
in brain slices

Michael
Oshinsky
(now at NIH)

Fried et al.
2014 AJP Cell
307: C1017

Acot2 project

Renato Iozzo
Tom Neill
Atul Goyal

Recombinant
Acot2 protein
“wip”!

PiC project

Gyuri Hajnóczky

Invited PiC review
The rest: stay tuned!!



**Thanks to everyone
in the lab for all the
excellent and hard
work!!!**

Cynthia Moffat

Peter Lynch (TJU Biotech 2014)

Jared Deusch (TJU Biotech 2014)


Pat Rehfuss (TJU Biotech 2014)

Lauren Andersen (TJU Biotech 2015)

JeffNews

Jefferson
HEALTH CARE WE DO

Thursday, 07/17/2014
05:00 PM SKMC: Senior Portraits
JAH Eakins Lounge

Congratulations to
Melanie Paillard, PhD,
of Jefferson's MitoCare Center,
on receiving a **two-year fellowship**
from the
 **American Heart Association.**

Broadcast Notices
JSPH - Lunch/Learn on
7/29, 8/20-21, "Talking to
Kids about Mitochondrial
Health."
days p

ceeds \$500 million, federal prosecutors said Thursday

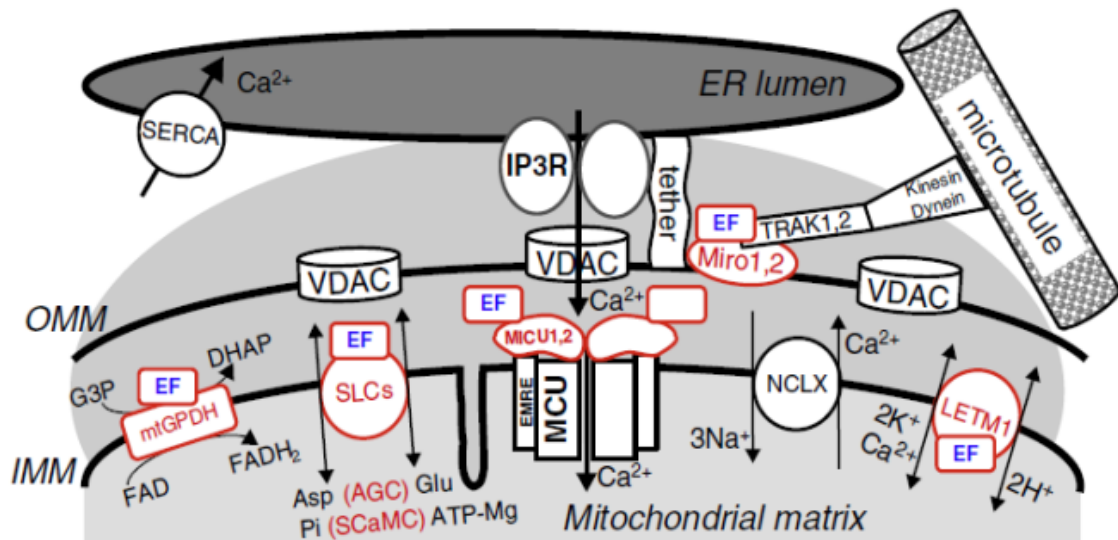
Jefferson
HEALTH CARE WE DO

Thursday, 07/17/2014
05:00 PM SKMC: Senior Portraits
JAH Eakins Lounge

Congratulations to
Erin L. Seifert, PhD,
of Jefferson's MitoCare Center,
recipient of a **two-year grant** from the
United Mitochondrial Disease Foundation
for her research project that explores
the mechanisms responsible for
mitochondrial disease.

Wednesday, 07/23/2014
07:00 AM Grand Rounds -
09:00 AM Otolaryngology Curtis 218
Grand Rounds Dept. of
Otolaryngology Thompson
DePalma
08:00 AM FCM: Grand Rounds BLSB
09:00 AM 105/107

...Weather Conditions for Philadelphia 05:34 PM



Not shown in map: S100A1, Calpain, Mytocalcin, Mylc2pl

Current Opinion in
Cell Biology

Reliance of ER–mitochondrial calcium signaling on mitochondrial EF-hand Ca²⁺ binding proteins: Miros, MICUs, LETM1 and solute carriers

György Hajnóczky, David Booth, György Csordás, Valentina Debattisti, Tünde Golenár, Shamim Naghdi, Nima Niknejad, Melanie Paillard, Erin L Seifert and David Weaver





Raphael Rubin Endowed Professorship ceremony