

NOVEMBER 16, 2009

...To Meet Your
Research Needs
In Diabetes,
Endocrinology,
and Diabetes
Complications...

NEW WEBSITE
<http://DERC.ucsd.edu>

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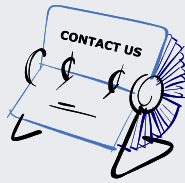
Please remember to cite the DERC Grant in all papers that utilize DERC Cores or are supported by the Pilot and Feasibility Awards:

"Our research utilized Core (or Research) support from the UCSD/UCLA NIDDK Diabetes and Endocrinology Research Center P30 DK063491."

USC Southern California Research Center for ALPD and Cirrhosis JOINT SYMPOSIUM with the UCSD/UCLA DERC

Keck School of Medicine of the University of Southern California
McKibben Hall (MCH), Room 149, Health Sciences Campus
1333 San Pablo Street, Los Angeles, CA 90033, Info: (323) 442-3121 or handan@usc.edu
DECEMBER 4, 2009 at USC in Los Angeles

8:30-9:00	Continental Breakfast
9:00-9:10	Welcoming Remarks, Hide Tsukamoto, DVM, Ph.D.
<u>Mechanisms of Liver Metabolism and Fatty Liver</u>	
9:10-9:35	Barry M. Forman, Ph.D., Professor and Director, Gene Regulation & Drug Discovery, The Beckman Research Inst., City of Hope Med Center <i>"FXR and Hepatic Metabolism: on the Fast Track"</i>
9:40-10:05	Marc Montminy, Ph.D. Professor, Clayton Foundation, The Salk Institute <i>"Regulation of Hepatic Gluconeogenesis by the TORC/CRTC Family of CREB Coactivators"</i>
10:10-10:35	Mark Czaja, M.D. Professor of Medicine, Albert Einstein College of Medicine <i>"Regulation of Cellular Lipid Accumulation by Macroautophagy"</i>
10:40-10:55	Break
11:05-11:20	Kuk-Wha Lee, M.D., Ph.D. Assistant Professor of Pediatrics, UCLA <i>"Contribution of the Growth Hormone/Insulin-Like Growth Factor Axis in the Pathophysiology of Hepatic Steatosis"</i>
<u>Pilot Projects</u>	
11:25-11:40	Ekihiro Seki, M.D., Ph.D., UCSD <i>"TLR Signaling in ASH vs. Non-ASH"</i>
11:45-12:00	Kinji Asahina, Ph.D., USC <i>"Hepatic Stellate Cell Precursors in Developing and Fibrotic Livers"</i>
12:05-12:20	Jenny Yuan, Ph.D. UCLA/West LA VA <i>"The Role of Protein Kinase D in Alcoholic Pancreatitis"</i>
12:25-12:40	Bernd Schnabl, M.D., UCSD <i>"Early Bacterial Translocation in Alcoholic Liver Injury"</i>
12:45-13:35	Lunch
13:35-13:45	Special Remarks : Samir Zakhari, Ph.D. Director, Division of Metabolism and Health Effects, NIAAA/NIH
13:45-14:30	Postdoc Presentations
<u>Oxidant Stress, Inflammation, and Cancer</u>	
14:30-14:55	David Brenner, M.D. Vice Chancellor for Health Sciences, Dean, UCSD School of Medicine <i>"ROS, NADPH oxidase, and liver fibrosis"</i>
15:00-15:25	Neil Kaplowitz, M.D. Professor and Director, USC Research Center of Liver Disease <i>"Mitochondrial and ER stress Coupling"</i>
15:30-15:55	Hide Tsukamoto, DVM, PhD Professor and Director, ALPD and Cirrhosis Research Center <i>"NASH Models"</i>
16:00-16:20	Keigo Machida, Ph.D. Assistant Professor, Dept of Mol. Microbiology and Immunology, USC <i>"Liver Cancer Stem Cells Generated by HCV, Alcohol, and Obesity"</i>
16:25-16:40	Break
16:40-17:05	Jerome Rotter, M.D. Professor, Pediatrics and Human Genetics, UCLA/Cedars Sinai <i>"Genome-Wide Association of IBD -- From Susceptibility to Therapy"</i>
17:10-17:35	Anna Gukovskaya, Ph.D. Professor and Senior Career Scientist, UCLA, West LA VA <i>"Autophagy in Pancreatitis"</i>
17:40-18:00	Simon Beaven, M.D., Instructor, Gastroenterology, UCLA <i>"LXR Signaling in Hepatic Inflammation and Fibrosis"</i>
18:05-18:15	Closing Remarks, Jerry Olefsky, M.D.
18:30-20:30	Reception and Dinner in the Seaver Residence Hall



Listserv for DERC Members

Send announcements, communications, requests, etc., to your DERC colleagues:

DERC-L@UCSD.EDU

If you are receiving this news-letter directly, you are already subscribed. If you would like to subscribe, please email mellonadmin@ucsd.edu. This is a moderated listserv, so messages will be prescreened such that only relevant and important messages will reach you.

NEW WEBSITE

<http://DERC.UCSD.EDU>

Contact information for DERC Cores and Programs:

DERC PI/Director:

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DERC Co-PI and Director Pilot & Feasibility Program

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DERC Co-PI and Director Transgenic and Knockout Mouse CORE:

<http://cancer.ucsd.edu/tgm/>
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Core Director

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DERC P&F Grant Announcement

2010 Pilot and Feasibility Projects in Endocrinology & Diabetes

Pilot & Feasibility Program, Director: Pinchas Cohen

As part of the ARRA Funds awarded to our UCSD/UCLA DERC grant, the Pilot and Feasibility grant program will support ~8 grantees at approximately \$30,000-\$40,000 per year for 2010, double the number normally available. Thus, the 2010 competition will award \$300,000 in awards for P&F.

Applications DUE **March 5th 2010**

to Dr. Pinchas Cohen at: hassy@mednet.ucla.edu

As part of the UCSD/UCLA DERC grant, a mechanism to fund innovative new projects that will explore the feasibility of novel testable concepts and enhance the endocrine/diabetes research scope within the institutions is again available. A special emphasis on promoting promising junior faculty involved with diabetes research is key to the UCSD/UCLA P&F mission. It is expected that P&F studies will generate preliminary data that will be used by these investigators in diabetes/endocrinology-related RO1 applications in the years following their award.

P&F grant format

Failure to meet the requirements for grant format will lead to an administrative disqualification of the proposal. The P&F grant applications should include:

- Face page with the title of the grant, the name, email, academic title, department, and institution of the PI, the names of additional personnel and collaborators and a 200 word abstract.
- Biosketches for the PI and other key personnel.
- The scientific proposal (5-page limit).
- References.

The entire grant **must be submitted** as a single emailed pdf file less than 2 megabyte in size. If the grant includes high-resolution images, these must be reduced to meet the size requirement. Failure to provide a single pdf file or a file that is too big will result in disqualification. No budget is required, but the scope of the work should be appropriate for 1-year project and the funds cannot be used for the PI salary.

Eligibility

All eligible investigators must have faculty appointments at UCLA, Salk, Cedars, or UCSD and be independent investigators. To be eligible for a P&F grant you need to be eligible to submit an RO1 as a PI at the end of the grant period. A joint appointment at an affiliated institution is allowed. Investigators eligible for pilot and feasibility funding generally will be expected to fall into three categories:

- New investigators without current or past non-mentored NIH research support as a principal investigator (current or past support from other sources being modest).
- Established investigators with no previous work in diabetes that wish to apply their expertise to a problem in this area.
- Established investigators in diabetes/endocrinology research who propose testing innovative ideas that represent clear departure from ongoing research interests.

Interactions with other DERC components

It is expected that junior faculty will be able to rely on the advice and support of a senior DERC investigators and will have a priority access to DERC Cores, including an opportunity to discuss their projects in depth with the core directors in order to receive maximum benefits from their services. Similarly, investigators with no previous experience in diabetes/endocrinology research will be expected to have a DERC collaborator. P&F grantees will be encouraged and expected to utilize DERC core resources.

Final report and presentation at the annual retreat

A report on each pilot and feasibility study conducted will be due at the end of the study period and an update will be requested yearly for four years after the completion of the award. These brief reports will contain professional career status at the time of the award and at the time of the report; an overview of the project including its significance and salient results; a list of resulting publications; and peer-reviewed subsequent funding in the same or related areas. Funded P&F investigators will be expected to attend the annual DERC retreat as well as in a meeting of Regional P&F awardees, and present the results of their work in the year immediately following their award. Travel to these meetings will be charged to the individual P&F awards. **ALL PAPERS MUST CITE P30 DK063491**

Notification procedure:

After approval of the funding decisions by the DERC executive committee, funded and unfunded investigators will be notified and, when appropriate, a brief summary of the reviews will be sent to them by email (not a detailed critique). **Expected activation date is 5/1/2010.**

Mouse Phenotyping CORE:**Rajendra Tangirala, PhD**

Core Director

Pinchas Cohen, MD

Core Co-Director

Andrea Hevener, PhD

Core Co-Director

David Hwang, PhD

Core Co-Director

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Transcriptional Genomics CORE:<http://www.microarrays.ucsd.edu>**Chris Glass, Ph.D.**

Core Director

Gary Hardiman, Ph.D.

Core Co-Director

BIOGEM Core Facility

Nicholas Webster, Ph.D.

Core Co-Director

VA Genechip Core

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DERC Co-PI and Director**Human Genetics CORE:****Jerome Rotter, M.D.****Leslie Raffel, M.D.**

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Core Co-Director

Kent D. Taylor, Ph.D.

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Core Director

Rajendra Tangirala, PhD

Core Co-Director

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REPORT: Clinical Investigation Institute/Nature Medicine Mtg

Bench to Bedside: Metabolism; October 8-10, 2009

On October 8-10, 2009, an outstanding meeting was hosted by Nature Medicine and UCSD focused on Metabolic Diseases. The meeting was held at the Hilton Torrey Pines in La Jolla and featured a stellar group of speakers, including: Gokhan Hotamisligil, Peter Libby, Helen Hobbs, Michael Karin, Steve Shoelson, Paresh Dandona, Gerry Shulman, Ira Goldberg, Philipp Scherer, Barbara Kahn, Christopher Newgard, Tony Lam, Zofia Zukowska, Daniel Drucker, David Cummings, and Francesco Rubino. The meeting was divided into several interrelated sessions, including: (1) Lipids and Atherosclerosis, (2) Metabolic Disease and Inflammation, (3) Muscle Function and Metabolism, (4) Mechanisms of Obesity, (5) CNS Hormone Regulation, and (6) Diabetes/Metabolic Surgery. In addition to the invited speakers, over 100 abstracts were submitted to the meeting. Several were selected for short talks given during the program and the others were exhibited as poster presentations. The meeting spanned a wide range of research in metabolic diseases, ranging from very basic investigation all the way up to clinical research, including the use of bariatric surgery to treat diabetes. This range of talks revolved around the theme of the overall program, which was Bench to Bedside Research in Metabolism. Wolfgang Dillmann and Jerrold Olefsky from our UCSD/UCLA DERC, as well as Gary Firestein, were the organizing Committee from UCSD, partnering with Juan Carlos Lopez and Randy Levinson from Nature Medicine.

Keynote Speaker: Michael Brown (U Texas)

The highlight of the meeting was the opening Keynote Presentation by Dr. Michael Brown. His talk covered 30 years of research from the Brown and Goldstein lab, and was a true tour de force. The science underlying his talk was at the absolutely highest level and the presentation itself was magnificent. He discussed their Nobel prize-winning work on the discovery of the LDL

receptor, its regulation by intracellular cholesterol levels and how this led to the recognition of Familial Hypercholesterolemia. Their findings were instrumental in the discovery and development of HMG-Co-A reductase inhibitors ("statins"), which are the most widely prescribed pharmaceuticals in the world. Dr. Brown then went on to describe their work on the detailed mechanisms of intracellular cholesterol regulation through the coordinated interactions between SREBP, SCAP, and INSIG1. Junior faculty and fellows attending were inspired, and many commented that this talk motivated them to fully pursue careers in biomedical science. Based on the success of this symposium, it is likely that Nature Medicine will go on to sponsor another meeting on this topic within the next two years. This meeting was immediately followed by the Western Section DERC symposium in the same hotel, which contributed to the success of our DERC meeting.



Meeting REPORT: The First Western DERC Meeting

Oct. 10, 2009; Keynote Speaker: Professor Ron Evans, Salk Institute

In an effort to advance the scientific and mentoring collaborations among the four Western DERCs, initiated a new venue for early career investigators who received a P&F grant from their DERC in which members of the four Western DERCs (UCSD/UCLA, University of Washington, Baylor College of Medicine, and University of Colorado at Denver) interacted and presented data. Over seventy DERC members attended the meeting, which began with a superb presentation by Dr. Ron Evans and included 10 outstanding oral presentations (two each from the five Universities), followed by a Wine & Cheese Poster session. The general feedback from the attendees suggests that the forum was a great success and allowed enriching interactions and discussions. We expect to hold similar meetings in collaboration with these institutions in the future.

Organizer: Dr. Pinchas Cohen.

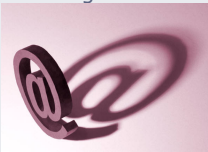
VISIT OUR WEBSITE:
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Find many great features:

CHECK OUT OUR MEMBERSHIP DIRECTORY

It allows easy searching by name, keywords, or location, and ONE-CLICK EMAILING to all of your DERC colleagues.



CHECK OUT OUR CORES' WEB PAGES

Find services offered by each Core with leadership and contact information to facilitate your core usage.

CHECK OUT OUR ANNOUNCEMENTS PAGES

See meeting schedules and announcements and one-click connections to the meeting sites and information.



CHECK OUT THE PILOT AND FEASIBILITY PROGRAM PAGES

Apply for P&F grants from the DERC. See the past awardees and get application instructions.

CHECK OUT OUR RESEARCH PAGES

Find important papers by your DERC colleagues & read summaries of their recent work.

DERC Transcriptional Genomics Core

CORE Director: Chris Glass, MD, Ph.D.

Core Co-Director: Gary Hardiman, Ph.D.

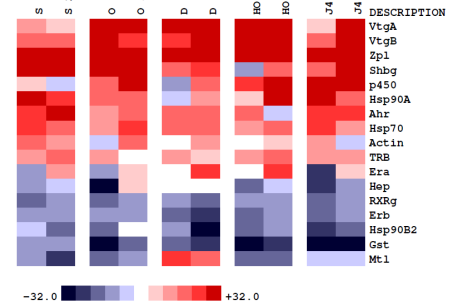
BIOGEM Core Facility

Core Co-Director Nicholas Webster, Ph.D.

VA Genechip Core

The **DERC Transcriptional Genomics Core** is a state-of-the-art facility that facilitates high throughput genomic experimentation. Data acquisition and analysis require expensive instrumentation and reagents and a highly skilled team of individuals who are experts in specific components of the overall procedure. These technologies therefore lie beyond the scope of most individual laboratories. The DERC Transcriptional Genomics Core (comprised of the Biomedical Genomics Microarray (BIOGEM) and VA Gene Chip Facilities at UCSD) has been instrumental in providing DERC investigators access to genomics technologies for over 10 years. This includes Microarray studies using Illumina, Agilent, Nimblegen and Affymetrix platforms and next-gen sequencing using Illumina (Solexa) and Roche (454) technologies. The Core contains three 'Illumina 1G Analyzer instruments' in addition to a 'Roche 454 Genome Sequencer FLX Instrument'.

The Illumina 1G Analyzer (Solexa) is based on the massively parallel sequencing of millions of fragments using a proprietary clonal single molecule array technology coupled to a novel reversible terminator-based sequencing chemistry. For short sequence reads, the approach has been determined to be highly robust and accurate. Applications in whole-genome association studies, expression analysis, and sequencing in addition to genome wide location studies have been reported. Read lengths, are currently up to 150 bp in length. The Roche (454 Life Sciences) sequencing technology is capable of sequencing 500 million bases in a ten-hour period. In this method DNA is amplified using a 'clonal' emulsion bead PCR approach and DNA is pyrosequenced using a micro-fabricated, massively parallel platform. This generates sequencing reads 500 bp in length. Amongst others, applications in genome and transcriptome sequencing, sequence capture targeted region analysis, and small RNA, have been reported.



SERVICES

1. Expression microarray technology; Affymetrix, Agilent, NimbleGen, and Illumina microarray platforms for analysis of large scale gene expression.
2. MicroRNA analysis using Agilent, Invitrogen NCode and Exiqon microarray platforms
3. Next Generation Sequencing Technologies; Illumina 1G Analyzer, Roche 454 (Chip-seq, RNA-seq)
4. Bioinformatics support: assistance in experimental design and data analysis.

More detail on services offered is available at the following url:
<http://derc.ucsd.edu/cores/transcriptional-genomics.shtml>

Core Contacts:

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 Solexa Sequencing
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