

CURRICULUM VITAE

Philipp E. Scherer, PhD
Professor, Department of Internal Medicine
Gifford O. Touchstone Jr. and Randolph G. Touchstone
Distinguished Chair in Diabetes Research
Director, Touchstone Diabetes Center
The University of Texas Southwestern Medical Center
5323 Harry Hines Blvd.
Dallas, TX 75390-8549

Education:

1984-1988	Undergraduate studies in Biology II, Biocenter, University of Basel, Switzerland; BS degree Diploma thesis on: "Import of <i>cytochrome b₂</i> into yeast mitochondria; Advisor : Gottfried Schatz
1988	BS, University of Basel, Switzerland
1989-1992	Ph.D. Thesis in Biochemistry at the Biocenter, University of Basel, Switzerland: "Identification and characterization of novel components of the yeast mitochondrial protein import machinery"; Advisor: Gottfried Schatz
1992	PhD, University of Basel, Switzerland

Post-graduate training:

1992-1997	Post-doctoral Fellow at the Whitehead Institute/MIT in Cambridge, MA Topic: "Intracellular trafficking events in adipocytes" Advisor: H. F. Lodish
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Professional employment:

1997-2002	Assistant Professor for Cell Biology, Department of Cell Biology, Albert Einstein College of Medicine
2002-2006	Associate Professor for Cell Biology Department of Cell Biology Albert Einstein College of Medicine
2003-2006	Associate Professor of Medicine Division of Endocrinology
2006-3/2007	Professor of Cell Biology and Medicine Albert Einstein College of Medicine

3/2007- 2012	Adjunct Professor of Cell Biology and Medicine Albert Einstein College of Medicine
3/2007-present	Professor, Department of Internal Medicine and Cell Biology University of Texas Southwestern Medical Center Dallas
3/2007-present	Director, Touchstone Diabetes Center UTSW Medical Center, Dallas

Citizenship: USA and Switzerland

Professional Society Memberships: American Diabetes Association
The Endocrine Society
American Society for Microbiology
American Heart Association
American Cancer Society

Awards and Honors:

- Irma T. Hirschl/Monique Weill-Caulier Trust Research Award 2004
- **Outstanding Scientific Achievement Award** (“Lilly Award”) 2005
(American Diabetes Association)
- Recipient University of **Texas STARS Award** 2007
- Visiting Scholar, Warwick University, UK 12/2008
- Vladimir Nigrovic Award of Excellence, University of Toledo, 6/2010
- Pfizer Visiting Professorship, University of Washington, Seattle, 12/2010
- **2012 O’Donnell Award in Medicine from TAMEST**
(The Academy of Medicine, Engineering & Science of Texas)
Highest price in Medicine in the State of Texas
- 2012 J. Dennis McGarry Award for Outstanding Healthcare Professional
(American Diabetes Association North Texas)
- 2013 Visiting Professorship, Cleveland Clinic Lerner Institute, Dept. Cellular and Mol. Medicine
- **2013 Naomi Berrie Award for Outstanding Achievement in Diabetes Research,**
Columbia University
- **2015 Banting Medal, American Diabetes Association**
(Highest impact price in diabetes research worldwide)
- **2015 Britton Chance Memorial Award of the Agency for Science, Technology and Research (A*STAR), Singapore**
- **2017 Brenner/Dirks Lectureship.** Awarded by the International Society of Nephrology to a distinguished scientist of international reputation whose research has far reaching potential to transform the global practice of medicine.
- **2017 European Association for the Study of Diabetes (EASD) / Novo Nordisk Foundation Diabetes Prize for Excellence** (Highest impact price in diabetes research in Europe)
- **2017 Singapore Symposium on Metabolic Diseases Outstanding Achievements Award**
- **2018 Gerald M. Reaven Distinguished Leader in Insulin Resistance Award** (*International Committee for Insulin Resistance (ICIR)*)
- **2018 Manpei Suzuki International Prize for Diabetes Research, Japan** (Highest impact price in diabetes research in Japan)

For an overview of the Touchstone Center and Scherer Lab activities, see <http://touchstonelabs.org/>

Professional Activities:

NIH Review Panels:

- Study Section NIDDK ZDK1-GRB-1 (J1)
11/3/99 – 11/4/99
- Study Section ZRG1 SSS-T
02/21/2002; Special Emphasis Panel (Small Business Innovation Research (SBIR))
- Study Section ZRG F06 (20) Endocrinology, Metabolism and Reproductive Sciences
07/01/2002; 11/07/2002; 03/12-03/13/2003; 07/09-07/10/2003; 11/06-11/07/2003;
3/10-3/11/2004; 7/12-7/13/2004; 3/10-3/11/2005; 7/7-7/8/2005; 11/3-11/4/2005; 3/2-3/3/2006;
7/7/2006; 7/11/2008; **Chair of this Study Section: 2005-2006**
- External Scientific Contributor to the “Scientific Progress Report on the Diabetes Research Working Group’s Strategic Plan” NIDDK; 2004
- Metabolism Study Section 02/20-02/21/2003
- Study Section ZRG1 NMS 50 R Special Emphasis Panel Nutritional and Metabolic Sciences
“The Life Cycle of the Adipocyte” 6/24/2003
- Study Section ZAG1 ZIJ-2 (M1) Special Emphasis Panel
“The Adipogenic Phenotype in Aging Musculoskeletal Tissues” 2/13-2/14/06
- Integrative Physiology of Obesity and Diabetes (IPOD) Study Section
10/14-10/15/04; 2/10-2/11/05; 10/5/05-10/6/05; 10/5/06-10/6/06; 6/18-6/19/07; 10/4/07
Appointed as **Permanent Member for the period of 7/1/2006-6/30/2009**
Chair of this Study Section: 2009-2011
- Special Emphasis Panel ZRG1 EMNR E(02;03) M 6/29/06; 6/29/07
- **Chair**, ZDK1 GRB-W (O5) (7/9/09)
- NCI TREC Review Panel “Transdisciplinary Research in Energetics and Cancer” (7/6/10)
- NIDDK Strategic Planning Committee for Diabetes Research 2010
- **Chair**, ZDK1 GRB-J M1: R24 Editorial Board Review Panel (4/1/2011)
- **Chair**, ZDK1 EMNR-E 02 M: (12/14/2011); *Member*, ZRG1 EMNR-E (03) (1/26/2012)
- ZDK1 GRB-N M4: (1/16/2013) (Diverse Studies for Diabetes)
- NIA PPG Review Committee: (10/23/2013)
- ZRG1 F06-P (20) L Study Section, NIDDK (3/19/2014)
- ZRG1 EMNR-H (02) M Study Section, NIDDK (7/24/2014)
- ZRG1 EMNR-H (02) M Study Section, NIA (9/17/2014)
- **Chair**, Special Emphasis Panel ZRG1 EMNR-R(02) (4/2/2015)
- NCI ICI (Intercellular Interactions Study Section) (6/18/2015)
- NCI Study Section ZCA1 SLB-C (J1) Omnibus R03 & R21 (10/5-10/6/2015)
- ZDK1 GRB-2 (J3) Nutrition Obesity Research Centers (NORC) Review Section (11/18/2015)
- **Chair**, ZDK1 GRB-N (M1) PAR-16-126: High Impact, Interdisciplinary Science in NIDDK Research Areas (RC2) - Diabetes, Endocrinology and Metabolic Diseases (3/1/2017)
- ZDK1 GRB-N (J1) 1 High Impact, Interdisciplinary Science in NIDDK Research Areas (RC2) - Diabetes, Endocrinology and Metabolic Diseases (10/10/2017)

Other Grant Review Panels:

- External Reviewer for Research Corporation (Foundation for the Advancement of Science) 2004; The **Swiss National Science Foundation** (1999-current), **Austrian Science Fund** (2001-2003), Marsden Fund, Royal Society of New Zealand (2004), **Wellcome Trust** (2004, 2005, 2013), Volkswagen Stiftung (2005), Italian Association for Cancer Research (AIRC) (2005)
- **American Diabetes Association** Grant Review Panels 7/2004-6/2006.
- **Department of Defense** Breast Cancer Pathobiology-2 grant review panel. 8/6-8/8 2006.
- **Annual JDRF Grant Review Panels** 2011-present
- **American Diabetes Association Pathway Grant Review Panel** 2013, 2014, 2015, 2016, 2017
- **LE&RN/FDRS Lipedema Postdoctoral Fellowship Awards Program Panel** 2015, 2016
- **German Research Foundation** "ExStra1_2017/0_B6_Life Sciences" 6/23/2017
Excellence Strategy by the German Federal and State Governments to Promote Science and Research at German Universities

Academic Advisory and Review Panels in the US and abroad:

- **University of Virginia**, Charlottesville, Department of Internal Medicine
P01 HL 55798 Dr. Jerry Nadler (2005-current) (8/23/05)
- **University of Copenhagen**, Denmark, Department of Infectious Diseases, Rigshospitalet
Center of Inflammation and Metabolism (CIM) Dr. Bente Klarlund Pedersen (2004-2010)
- **Society for Women's Health Research - Isis Network on Metabolism**
Washington, DC (2004-2009) 1/13-1/14/05; 8/25-8/26/05; 11/4-11/5/05; 1/20-1/21/06; 5/18-5/19/06; 10/3-10/4/06; 1/11-1/12/07; 4/12-4/13/07; 8/2/07-8/3/07; 12/5/07-12/6/07; 3/6-3/7/08; 6/23/08; 9/25-9/26/08; 3/23-3/24/09
- **University of Washington**, Seattle, Medicine/Endocrinology
"Pathobiology of Macrovascular Disease in Diabetes" Dr. Alan Chait (2006)
- **Member, External Advisory Board of the Pennington Biomedical Research Center (PBRC)**,
Baton Rouge, LA (2012).
- **Member, External Review Board, Dept. of Nutritional Sciences and Toxicology, UC Berkley**
Berkley, CA (2014).
- **German Centre for Diabetes Research (DZD)** External Review Board 2014
- **External Reviewer, Singapore Bioimaging Consortium (SBIC)** 2016
- **Member, Pennington NORC Advisory Panel** 2016 - current
- **Member, External Advisory Board, Indiana University Diabetes Center (P30)**, 2016 - current
- **External Advisory Board Oregon National Primate Research Center, Portland**, 2016-2020
- **Member, External Advisory Committee COBRE grant "Autophagy, Inflammation and Metabolism in Disease"**, University of New Mexico Health Sciences Center, 2017-current.
- **DFG, German Research Foundation, Review Panel Clusters of Excellence**, 2017-present
- **Chair, Helmholtz Foundation Review Panel, Munich site**, 2017/2018/2019
- **Member, External Advisory Board "Institute of Metabolic Medicine"**,
University of Hong Kong, 2018-current

Industry Experience:

Patents:

- US Patent No.: 5,869,330 Philipp E. Scherer and Harvey F. Lodish
“DNA encoding a novel serum protein produced exclusively in adipocytes”
- Patent filed and granted by AECOM on the C-terminal fragment of Collagen VI as a diagnostic and therapeutic target for breast cancer (2004).
- Patent jointly filed and granted by Merck and AECOM on the diagnostic use of circulating adiponectin complexes (2004).
- Patent filed and granted by UTSW Medical Center on endotrophin as a therapeutic target for breast cancer (2013).
- Patent filed by UTSW Medical Center on leptin antibodies as a therapeutic target weight loss

Companies Founded (2014):

- Co-founder of **PANAMAB**, a Houston-based monoclonal antibody company focused on therapeutic antibody development in the areas of breast cancer, fibrosis and metabolism. Other co-founders include Zhiqiang An (Brown Foundation Institute of Molecular Medicine and University of Texas Health Science Center, Houston) and Adan Rios (University of Texas Health Science Center, Houston). A joint venture between UT Southwestern Medical Center and UT Houston as equal partners.

Industry Advisory Panels in the US and abroad:

- **Metagenics/Metaproteomics**, Gig Harbor, WA: **SAB** 2006-2009
- **Spyglass Dx**, Boston, MA, **Consultant**: 2009
- **AMGEN**, Thousand Oaks, CA, **Consultant**: 2010
- **Kythera Biopharmaceuticals Inc.**, Calabasas, CA: **SAB** 2011
- **Amylin Pharmaceuticals**, San Diego, CA, **Cardiometabolic Advisory Group**: 2009-2012
- **Novo Nordisk**, Copenhagen, Denmark. **Diabetes Advisory Panel**: 2012
- **KinDex Therapeutics**, Seattle, WA, **Consultant**: 2011-2012
- **Astra Zeneca**, Gothenborg, Sweden: **CVGI iMed External Scientific Panel**, 2012
- **Regeneron**, Tarrytown, NY: **Consultant** 2013-2014
- **Merck**, Rahway, NJ: **Anacetrapib Advisory Panel**: 2012-2013
- **Jenrin Discovery**, Wilmington, DE, **Consultant**: 2012
- **Zealand Pharma A/S**, Glostrup, Denmark: **Consultant** 2014
- **Sanofi-Aventis Germany GmbH**, Frankfurt, Germany: **SAB Diabetes**, 2013-2014
- **Janssen Research & Development**, Raritan, NJ:
 - **Diabetes Advisory Panel**, 2014
 - **Obesity Advisory Panel**, 2016
- **Lilly Inc.**, Indianapolis, IN, 2015
- **Centaurus Therapeutics**, San Francisco, CA, 2016
- **Pfizer Adipocyte Advisory Board**, 2016
- **Merck Speaker Bureau**, 2015
- **CSL Behring Biotherapies for Life**, 2016

Industry Sponsored Research Agreements:

- **Pfizer:** Metabolic target discovery: 1997- 2002
- **Pharmacia:** 2003
- **Merck:** Metabolic target discovery in the area of adiponectin: 1999- 2010 with interruptions.
- **Eli Lilly Co.,** in the area of adiponectin, FGF21, ceramide biology and metabolism: 2011-2013
- **AMGEN:** 2012-2014
- **AstraZeneca Pharmaceuticals:** SRA on Ceramidases: 2015-2016
- **KinDex:** 2015-2016
- **Takeda:** SRA on Diabetic Nephropathy: 2014-2016
- **Eli Lilly Co.** on stellate cells and hepatic fibrosis: 2015-2017
- **Panamab:** SRA on Endotrophin as a breast cancer target: 2014-2016

Currently active:

- **Merck:** Consortium effort between Merck, Olefsky, Klein and Scherer research groups in the area of diabetes and obesity (OASIS): 2014-2018
- **Novici:** SRA on recombinant adiponectin analysis: 2018

Journal Editorial Boards:

- **Editorial Board of *Journal of Biological Chemistry*;** 2003-2008
- **Editorial Board of *Endocrinology*;** 2005-2009
- **Editorial Board, *Endocrine Reviews*** 2006-2010
- **Associate Editor, *Obesity*** 2007-2010
- **Ad hoc Associate Editor, *Diabetes*** 2008-2010
- **Associate Editor, *American Journal of Pathology*** 2008-2013
- **Editorial Board, *American Journal of Pathology*** 2008-2013
- **Editorial Board, *Mol. Endocrinology*** 2010-2014

Currently active:

- **Editorial Board of *Journal of Clinical Investigation*** 2012-present
- **Editorial Board of *Cell Metabolism*** 2012-present
- **Editorial Board of *Molecular Metabolism*** 2012-present
- **Editorial Board *Experimental and Molecular Medicine*** 2013-present
- **Editorial Board *Trends in Endocrinology & Metabolism*** 2014-present
- **Editorial Board *Oncotarget*** 2014-present
- **Editorial Board *Diabetes and Metabolism Journal*** 2018-present
- **Ad hoc Editor for *PNAS*** 2015-present

Regular ad hoc reviewer for the following Journals:

Cell, Molecular Cell, Science, Nature Medicine, Cell Metabolism, Cancer Cell, Cell, Nature, Circulation, Circulation Research, American Journal of Physiology, EMBO Journal, Diabetes, Trends in Cell Biology (TIBS), Molecular Endocrinology, Journal of Biological Chemistry, Endocrinology, PNAS, FEBS Letters, Journal of Clinical Endocrinology and Metabolism, Obesity Research, J. Clinical Inv., Public Library of Science (PLoS): ad hoc academic editor and reviewer, J. of Lipid Research, Gastroenterology, Hepatology, Cancer Research.

Conference Panels and Meeting Organization:

- American Diabetes Association Abstract Review Committees for the past 10 years
- American Diabetes Association ad hoc subcommittee on Adipocyte Biology ADA Meetings 2003, 2010, 2011.
- North American Ass. for the Study of Obesity 2003 Meeting Abstract Selection Committee
- American Diabetes Association Scientific Sessions Committee 2004-2006
- Organizer **Keystone Meeting** 2006 on *Adipogenesis, Obesity and Inflammation*.
- Symposium Chair, North American Vascular Biology Meeting Chicago 2005
- Organizer and Chairman of the “Adipokine Symposium” at the International Diabetes Foundation (IDF) meeting in Capetown, South Africa, Dec.3-7, 2006
- Co-Organizer 2006 Pennington Symposium on "Infection, Inflammation and Obesity" April 30 - May 2nd, 2006
- American Diabetes Association ad hoc Group: Modeling of the Metabolic Syndrome (“Archimedes”), New York City, 11/18/2005, Chicago, 4/26/2006
- Co-organizer McGarry Symposium, University of Texas Southwestern Medical Center 2009, 2010
- Co-organizer Experimental Biology 2010 symposium on “Role of Adipose Tissue Architecture and the Extracellular Matrix in Metabolism and Disease” 4/26/2010.
- Co-organizer **Keystone Meeting** on “Emerging Molecular Mechanisms for the Pathogenesis of Diabetes (J8)”; Santa Fe, 1/29-2/3/2012
- Organizer and Chair person for an Educational Session, entitled "Whole Body Metabolism and Cancer" at the American Association for Cancer Research Annual Meeting 4/6/2013
- **Board Member, Kern Aspen Lipid Conference** 2013-present
- Co-organizer **Kern Lipid Conference 2016**
- Co-organizer **Keystone Meeting** on “Obesity/Adipose Tissue Biology”; 2016
- **Miami Winter Symposium Advisory Board** for the 2017 meeting
- Co-organizer **Keystone Meeting** on “Obesity/Adipose Tissue Biology”; 2019

In-House Committee Activities at Albert Einstein (up to 2007):

- Member, **Division of Research (DOR)**, Albert Einstein College of Medicine. 2003-2007.
- Member, Graduate and Postdoctoral Subcommittee of the **Division of Research (DOR)** Albert Einstein College of Medicine. 2001-2006.
- Sue Golding Graduate Admissions Committee, Albert Einstein College of Medicine, 1998-1999, 2003-2006.
- Radioisotopes Committee for Non-Human Use, Albert Einstein College of Medicine 2001-2007.
- Member Associate Professors Committee on Appointments. & Promotions *ad hoc* member 2003, 2004, 2005; full member 2005-2006.
- Albert Einstein Patent Committee 2005-2007.
- Member, Advisory Committee GCRC (**General Clinical Research Center**), 2001-2002
Albert Einstein College of Medicine
- Graduate Committee Albert Einstein College of Medicine 1999-2001

Diabetes Research and Training Center (DRTC) - related activities AECOM:

- Associate Director for Biomedical Cores AECOM- DRTC (2003-2007).

- Member, Executive Committee AECOM- DRTC (2003-2007).
- AECOM-DRTC Internal Review Committee for Feasibility Studies (2003-2007)

In-House Committee Activities at UTSW (2007-current):

- Member, Endocrine Division Chief Recruiting Committee
- Member, Nephrology Division Chief Recruiting Committee
- Member, Physiology Chair Search Committee
- Member, University Lecture Committee

Trainer on the Following NIH Training Grants at AECOM (up to 2007):

- **Cell Biology** Training Grant (PI: Pamela Stanley)
- **Hormones/Membrane Interactions** Training Grant (PI: Suzanne Zukin)
- **Cardiology** Training Grant (PI: Rick Kitsis)
- **Ageing** Training Grant (PI: Luciano Rossetti)

Member of the following PhD Programs at UTSW Medical Center (2007-current):

- Integrative Biology
- Cell Regulation
- Co-Director TORS – Interdisciplinary Research Training Program (up to 2014)
- Member, Genetics and Cardiology Training Grants
- **Principal Investigator on Metabolism & Endocrinology Training Grant 2011-current**

Teaching Portfolio 1998-2007 (this refers to the list of courses taught every year):

- * MCFM lecture series for first year Medical Students
(2 Plenary Lectures; 3 minigroup discussions)
- * Summer course for 1st year Medical Students (2 Lectures)
- * Molecular Genetics Graduate Course (2 lectures)
- * Molecular and Cellular Biology Graduate Course (1 lecture)
- * Gene Expression Graduate Course (2 lectures)
- * Rad Onc Fellows Lecture series (1 lecture)

In addition, a significant number of smaller courses were taught that were taking place less regularly.

At UTSW: These lectures are taught annually unless indicated otherwise.

- Medical Biochemistry (2 Med School Lectures; section 3; Course organ.: Richard (Max) Wynn)
- Molecular Basis of Metabolic Regulation Graduate Course (Course organizer: Joel Elmquist)
- Medical Physiology Lectures (Endocrinology Section; taught for 1 year only)
- Response to Stress Graduate Course (Course organizer: Makoto Kuro-o)
- Cell Regulation Graduate Program: Semester long Journal Club (2008/2009; 2011/2012)
- CMB Training Grant Seminar 2012 (Course organizer: Melanie Cobbs)
- Ethics Sessions for Graduate Students (Course organizer Stuart Ravnik) - Group Leader
- Human Biology and Disease (Course Directors: Drs. Joel Elmquist and Orson Moe)

- Experimental Approaches to Complex Diseases (Course Directors: Drs. Lisa M. Monteggia and Joachim Herz)

Thesis Committees since move to UTSW in 2007:

- Jorge Durand, Albert Einstein; Mentor: Linda Jelicks; *Defended: 8/27/2008*
- Deborah Aronson, Albert Einstein; Mentor: Eric Snapp; *Defended: 8/25/2011*
- Angie Bookout, UTSW; Mentors: Mangelsdorf, Kliewer, Elmquist; *Defended 3/28/2012*
- Oludotun Adeyo, UTSW; Mentor: Joel Goodman; *Defended: 9/9/2011*
- Joshua Owen, UTSW; Mentors: Brown/Goldstein; *Defended: 7/11/2012*
- Kristi Lynn, UTSW; Mentor: Brekken; *Defended: 7/25/2011*
- Lilja Kjalarsdottir, UTSW; Mentor: Repa; *Defended 11/21/2011*
- Hyeonwoo Kim, UTSW; Mentor: Jin Ye; *Defended 2/18/2012*
- Swalpa Udit, UTSW; Mentors: Elmquist, Mangelsdorf; *Defended 6/4/2012*
- Jason Anderson, UTSW; Mentor: Coppari; *Defended 7/29/2013*
- Lauren Weill, UTSW; Mentor: Melanie Cobb; *Defended 10/2/2013*
- Verena Albert, University of Basel; Mentor : Michael Hall; *Defended 8/12/2015*
- Rubina Tuladhar, UTSW; Mentor: Lawrence Lum; *Defended 7/25/2017*
- Seonghwan Hwang, UTSW; Mentor: Russell DeBose-Boyd; *Defended 4/5/2017*
- Nick Norris, UTSW; Mentor: Steven Altschuler; *Moved to new program*
- Victoria Burton, UTSW; Mentor: Rolf Brekken; *Defended 7/10/2018*
- Noah Sorrelle, UTSW; Mentor: Rolf Brekken; *Current*
- William McAlpine, UTSW; Mentor: Bruce Beutler; *Current*
- Genaro Hernandez, UTSW; Mentors: David Mangelsdorf/Steven Kliewer; *Current*
- Hande Piristine, UTSW; Mentor: Joseph Hill; *Current*

Research Grant Support

ACTIVE

P01 DK088761 (Scherer)	09/22/10-06/30/20	2.4 calendar
NIH/NIDDK		
“Novel Mechanisms Regulating the Adipocyte-Brain-Hepatocyte Axis”		
The major goals of this renewal are: 1: To determine whether adipocyte-specific manipulation of CAD, the rate-limiting enzymes for de novo uridine synthesis, has a physiological impact on adipose tissue physiology and systemic metabolic flexibility; 2: To evaluate the physiological importance of lipid sensing and transport via Toll-like Receptor 4 (TLR4) and the lipid transporter CD36 on adipose tissue Xbp1s activation and impact on uridine biosynthesis; 3: To assess the physiological effects of uridine on central and peripheral leptin signaling.		
Role: Overall PI; Admin Core & Project 1 PI		
R01 DK055758 (Scherer)	05/15/00-08/31/20	1.92 calendar
NIH/NIDDK		
“Acrp30/Adiponectin, a protein secreted from adipose tissue”		
The major goals of this renewal are: 1) To determine the consequences of adiponectin receptor overexpression in target cells; 2) To define the consequences of an acute loss of adiponectin in adipocytes and other cell types expressing adiponectin; 3) To elucidate the contributions of specific fat pads towards circulating adiponectin.		
R01 DK099110 (Scherer)	07/05/13-04/30/23	1.56 calendar
NIH/NIDDK		
“White Adipose Tissue Physiology, Mitochondrial Function and Adiponectin”		

The major goals of this project are 1) The manipulation of the generic mitochondrial program in white adipose tissue; 2) Direct manipulation of mitochondrial activity by manipulating mitoNEET and mDIC levels; 3) Analysis of an inducible model of mitochondrial dysfunction in the adipocyte.

1 P01 AG051459-01A1 (Dixit) 07/01/16-06/30/21 2.4 calendar

Yale/NIH/NIAIG

PI on Project 3

“Project3: Impact of the FGF21-Adiponectin-Ceramide Axis on Healthspan”

Major goals: 1) Is adiponectin a longevity gene?; 2) To determine the contributions of adiponectin on FGF21 mediated healthspan and lifespan; 3) To evaluate whether FGF21/adiponectin mediated lowering of age-related increases in ceramides controls adipose tissue inflammation and functional decline.

Role: Director Project 3

T32 DK007307-32 (Scherer) 07/11/11 - 06/30/23

NIH/NIDDK

Endocrine & Metabolism Training Grant

This is the main training grant mechanism for the metabolism program on Campus. The renewal is currently under review (PI: Scherer). I renewed this grant in 2011 for years 33-38.

Contract # 106448 (Scherer) 09/15/14-08/31/18 .36 calendar

Merck & Co.

“Insulin Sensitizer New Target Collaboration”

The major goals of this project are 1) Validation of adiponectin receptor as an insulin sensitizer target; 2) Nomination of additional target for validation; 3) Insulin Sensitizer New Target Collaboration.

2-SRA-2016-149-Q-R (Scherer/Holland) 02/01/16-01/31/20 .60 calendar

JDRF/ Eli Lilly and Company

Glucagon Receptor Antagonism in Beta Cell Survival and Proliferation

The major goals of this project are 1: We will analyze the efficacy of glucagon receptor ablation or antagonism on susceptibility to b-cell apoptosis and capacity for b-cell regeneration in Type-1 diabetes; 2: We will evaluate the origin of new b-cells in PANIC-ATTAC mice undergoing glucagon receptor antagonism; 3: We will assess the effects of glucagon receptor antagonism on proliferation of functional human β -cells.

Role: Co-Investigator

2 R24 DK092759-05 (Rosen) 9/1/2015-08/31/20 .36 calendar

Maine Medical Center Research Institute/NIH

“Interdisciplinary Study of Marrow Adiposity, Mineral Metabolism and Energy Balance”

Major Goal: Examine the role of bone marrow adipocytes on systemic adiponectin levels

Role: Sub-site PI

R01 HD028016 (Caprio) 03/01/15-02/29/20 .36 calendar

NIH/NICHD

“Metabolic Markers and Predictors of Childhood Obesity”

This is a competitive renewal of a grant started in 1991 aimed at understanding the mechanisms responsible for the insulin resistance associated with childhood obesity

Role: Sub Site PI

9 R01 GM116106-06 (Ye) 08/01/15-06/30/20 .36 calendar

NIH/NIGMS

“Proteolytic activation of CREB3L1 in treating cancers and tissue fibrosis”

Major Goal: This project is focused on cAMP response element binding protein 3-like 1 (CREB3L1), a transcription factor synthesized as an inactive transmembrane precursor and activated through a proteolytic process.

Role: Co-Investigator

PENDING

2015 ADA Grant (Li)	04/01/16-03/31/19	.36 calendar
American Diabetes Association		
“Developing cytotoxic bioconjugates for human islet beta cells”		
Major goal: The strategy for this effort is to conjugate small molecule adipoR agonists with beta cell targeting peptides to achieve targeted delivery in order to efficiently and selectively activate adiponectin signaling in beta cells in vivo.		
Role: Co-Investigator		
<i>COMPLETED</i>		
RP140412 (Scherer) CPRIT		08/31/14-08/30/17
“Endotrophin and the Obesity/Cancer Nexus: Role in Growth and Chemoresistance”		
Goal 1) Define the mechanism by which endotrophin exerts its potent effects on tumor cells; 2) Endotrophin-mediated epithelial-mesenchymal transition (EMT): Determine relevance for chemo-therapeutic agents beyond cisplatin; 3) Identify regulatory mechanisms for the control of endotrophin levels.		
Contract # 105970 (Scherer)		03/01/14-12/01/16
PanaMab, Inc.		
“Discovery and characterization of novel anti-endotrophin monoclonal antibodies as drug leads for cancer therapy”		
The major goals of this project are 1) Generation of neutralizing anti human endotrophin-specific antibodies; 2) Physical, biochemical and functional characterization of neutralizing antibodies; 3) A development of a diagnostic ELISA		
Contract # 107141 (Scherer)		12/18/14-06/17/16
AstraZeneca AB		
“Application of Modified RNA Therapeutics to achieve hepatic overexpression of Acid Ceramidase and Adiponectin Receptor 2 to achieve improvement in insulin sensitivity”		
Inducing hepatic overexpression of neutral ceramidase and AdipoR1 and AdipoR2 via “modified RNA technology” induces a system-wide lowering of ceramide levels which in turn prompt an improvement in insulin sensitivity.		
Contract # 107738 (Scherer)		03/31/15-02/29/16
KinDex Pharmaceuticals		
“Impact of KDT 501 on the function of TLR-4 in adipocytes”		
Major goal: The goal here is to test the effects of KDT 501 on TLR4 activation in tissue culture.		
Contract # 105662 (Scherer)		03/01/14-08/24/16
Takeda Pharmaceuticals International, Inc.		
“The POD-ATTAC Mouse for Podocyte Regeneration and Chronic Kidney Disease”		
The major goals of this project are 1) Optimize podocyte loss/recovery protocol; 2) Use podocyte-specific genetic marker to formally demonstrate the recovery results from generation of new podocytes; 3) Perform “lineage tracing studies” to whether parietal epithelial cells are the source of nascent podocytes.		
Pennington Biomedical; LSU Sub-contract# 60408 (PI: Dhurandhar)		09/01/12-08/31/14
“Development of AD36 E4orf1 as an Anti-Diabetic Therapeutic Target”		
JDRF 17-2012-36 (PI: Scherer, P.E.)	JDRF	04/01/12 - 03/31/14
“Beta-Cytotrophic Actions on Islets” Goals: The goal of this project is to study the regenerative aspects of sphingolipids in pancreatic beta-cells.		
JDRF 17-2011-263 (PI: Newgard)	JDRF	12/01/10-11/30/12
“Novel Pathways for Expansion of beta Cell Mass”		
Goals: The goal of this project is to study the regenerative aspects of Nkx6.1 activation in pancreatic beta-cells. (PI of project 3 located at UTSW: Scherer, P.E.; overall PI is Chris Newgard at Duke)		
JDRF 37-2011-20 (PI: Ahn)	JDRF/UT Dallas	10/1/10-09/30/12
“Non-Invasive Imaging of Pancreatic Beta-Cells Using Novel GLP-1 Constructs”		
Role: Co-Investigator		
Contract#103172 (PI: Scherer, P.E.)	AMGEN	04/13/12-04/12/14
“Adiponectin Receptor Over Expression and Agonism as Therapeutic Anti-diabetic Approach”		
RC1 DK086629 (PI: Scherer, P.E.)	NIH/NIDDK	09/20/09–08/31/11
“Dissecting Adipose Depot-Selective Regulation of Gene Programs”		
Goals: Our ultimate goal is to understand and manipulate gene expression in distinct fat pads as distinct clusters of genes that are manipulated at the level of entire clusters rather than at the level of the individual gene.		
NY Stem Cell (PI: Pessin, J.)	NYS DH	01/01/09-12/31/11
“Regulation of Insulin Sensitivity and Metabolism”		
Goals: This study will demonstrate that the stromal-vascular compartment is populated by bone marrow derived precursors that are then subsequently recruited and induced to differentiate.		

Role: Co-Investigator

R01 CA112023 (PI: Scherer, P.E.) NIH/NCI 06/01/05-05/31/11

“Stromal Contributions of Adipocytes to Breast Cancer”

Goals: The objective is to understand the role of mammary adipocytes in mammary tumor growth by identifying the critical adipocyte-derived factors that contribute towards the local pro-mitogenic environment.

JDRF 1-2008-16 (PI:Scherer, P.E.) JDRF 03/01/08-02/28/11“*In vivo* regeneration of beta cell mass after targeted apoptosis in the islet”

Goals:The goal of this project is to study the regenerative aspects of pancreatic beta-cells.

JDRF 17-2007-1026 (PI: Newgard) JDRF 10/01/07-05/31/10“Novel Pathways to Expansion of Functional β Cell Mass”

Goals: The goal of this project is to perform pilot experiments to investigate the potential of various pathways to proliferation of pancreatic beta-cells.

Role: Sub Site PI

R01 076957-01 (PI: Mitsnefes) NIH/NIDDK 09/01/07-08/31/10

“Adiponectin and Cardiovascular Disease in CKiD Children”

Goals: Characterization of adiponectin complex distribution in children with chronic kidney disease

Role: Sub Site PI

JDRF Pilot Award (PI:Scherer, P.E.) JDRF 5/1/06 – 4/30/07

“The PANIC-ATTAC Mice, a Novel Model for beta Cell Regulation”

JDRF 17-2007-1026 (Newgard, PI) JDRF 06/01/07-05/30/09

“Novel Pathways to Expansion of Functional b Cell Mass”

Goals: The goal of this project is to perform pilot experiments to investigate the potential of various pathways to proliferation of pancreatic beta-cells.**R24 DK071030-01 (PI: Scherer, P.E.)** NIH/NIDDK 04/01/05 – 03/31/09

“Adiponectin and Resistin: Structure, Function and Effects on Hepatic Glucose Flux”

R21 DK075887 (PI:Scherer, P.E.) NIH/NIDDK 07/01/06 - 06/30/08

“Manipulating and Preventing Mitochondrial Oxidative Stress in the Adipocyte “

JDRF Pilot Award (PI:Scherer, P.E.)

4/30/07

5/1/06-

“The PANIC-ATTAC Mice, a Novel Model for beta Cell Regulation”

P30 DK026687 (PI: Pi-Sunyer, X.) NIH/NIDDK 04/01/06 – 03/31/07

“New York Regional Obesity Center Grant “ (Adipose Tissue Core) Role: Core Director-Scherer, P.E.

Currently active fellowship support obtained for laboratory members and other mentees:

Sophie Carter	Canadian Institute for Health Research Fellowship (<i>declined</i>)	(9/1/15-8/31/18)
Shangang Zhao	Le Fonds de recherche du Québec - Santé (FRQS)	(9/1/16-8/31/18)
Terry Combs	Career Reentry Fellowship, NIH - NIDDK (<i>declined</i>)	(7/1/17-6/30/21)
Clair Crewe	F32 Postdoctoral NIH Fellowship	(9/1/17-5/30/20)
Nolwenn Joffin	Lipedema Foundation	(9/1/17-8/31/19)
Toshiharu Onodera	Japan Research Foundation	(5/1/17-4/30/19)

Career Development Awards:

Yi Zhu	K99 (ongoing)
Jennifer Stern	K99 (ongoing)
Annabel Qiong Wang	K01 (ongoing)
William Holland	K99 / R00 (ongoing)
Joseph Rutkowski	American Heart Career Development Award (ongoing)
Tiemin Liu	American Heart Career Development Award (ongoing)
Kevin Williams	K01 (co-mentoring with Joel Elmquist)
Congcong He	K99 (co-mentoring with Beth Levine) (ongoing)

Carrie Elks K01 (co-mentoring with Jacky Stephens, Pennington Biomedical research Center) (ongoing)
 Zhao Zhang K99 (co-mentoring with Bruce Beutler) (ongoing)

Past Fellowship Support obtained for laboratory members:

Yi Zhu	LIFA Fellowship, Elly Lilly Co.	(11/1/14-10/30/17)
Jennifer Stern	F32 Postdoctoral NIH Fellowship	(8/1/15-7/31/17)
Jonathan Xia	F30 Predoctoral NIH Fellowship	(9/1/13-8/30/17)
Jeff Risheng Ye	Columbia Berrie Diabetes Price Fellowship	(1/1/14-12/32/15)
	JDRF Postdoctoral Carrer Development Fellowship (declined)	(7/1/17-6/30/19)
Annabel Qiong Wang	American Diabetes Association Mentored Post-Doctoral Fellowship	(7/1/11-6/30/14)
Jeff Risheng Ye	American Heart Association Post-Doctoral Fellowship	(7/1/11-6/30/13)
Ingrid Wernstedt	VINNMER Marie Curie International Fellowship (K99 equivalent)	(9/1/11-8/30/13)
Yingfeng Deng	American Diabetes Association	(7/1/08-6/30/11)
Jiyoun Park	Department of Defense Breast Cancer Program	(8/15/09-9/14/12)
William Holland	National Research Service Award, National Institutes of Health	(5/1/09-4/30/11)
Joseph Rutkowski	National Research Service Award, National Institutes of Health	(3/1/10-2/28/12)
Kathryn Davis	National Research Service Award, National Institutes of Health	(7/1/08-12/31/10)
Christine Kusminski	Juvenile Diabetes Foundation	(9/1/08-8/28/10)
Nils Hallberg	University of Copenhagen Fellowship	(8/1/04-7/31/08)
Ingrid Wernstedt	Henning and Johan Throne-Holst's Foundation and Swedish Research Council Post-doctoral Fellowship	(3/1/07-2/28/08) (3/1/08-2/28/09)
Jae-Wan Huh	University of Ulsan College of Medicine Fellowship	(3/1/08-2/28/09)
Todd Schraw	American Heart Association Post-Doctoral Fellowship	(7/1/06-1/31/08)
Andrea Nawrocki	American Heart Association Post-Doctoral Fellowship	(7/1/04-6/30/06)
Maria Trujillo	American Diabetes Association Post-Doctoral Fellowship	(7/1/05-6/30/08)
Deborah Brancho	Harry Eagle Scholar Award Department of Cell Biology American Cancer Society Post-Doctoral Fellowship	(8/1/05-7/31/07) (7/1/06-6/30/08)
Pernille Keller	University of Copenhagen Fellowship	(8/1/2004-7/31/2005)
Terry Combs	F32 (National Research Service Award, National Institutes of Health)	(7/1/2002-6/30/2004)
Andrea Nawrocki	Swiss National Science Foundation Post-Doctoral Fellowship	(11/1/2002-10/30/2003)
Maria Trujillo	Minority Supplement for NIDDK R01-DK55758	(12/01/03-4/30/05)
Martin Fischer	European Association for the Study of Diabetes Fellowship	(2003)
Anders Berg	American Diabetes Association Medical Scientist Training Award	(7/1/2001-6/30/2003)
Ying Lin	Juvenile Diabetes Foundation (2 years)	(1/1/2000-12/31/2001)
Kallol Das	Cancer Research Institute (3years)	(1998-2001)

Current Lab Members:

Christine Kusminski	Assistant Professor
Yingfeng Deng	Assistant Professor
Dawei Bu	Instructor
Yi Zhu	Instructor
Jennifer Stern	Instructor
Yu Aaron An	Post-Doctoral Fellow
Clair Crewe	Post-Doctoral Fellow
Nolwenn Joffin	Post-Doctoral Fellow
Shaogang Zhao	Post-Doctoral Fellow
Qingzhang Zhu	Post-Doctoral Fellow
Zhuzhen Zhang	Post-Doctoral Fellow
Toshiharu Onodera	Post-Doctoral Fellow
Leon Straub	Post-Doctoral Fellow
Alexandra Ghaben	MD PhD Student
Na Li	PhD Student

Support Personnel:

Lannette Strange	Division Administrator
Cyndi Fairfield	Sr. Administrative Assistant
Kristin Dyer	Sr. Grants Specialist
Clinton Myrick	Computer Hardware/Biocomputing
Shiuhwei Chen	Research Associate
Paula Timmons	Research Associate
Steven Connell	Lab Manager
Blake Turns	Lab Helper

Past Lab Members:

- Terry Combs, PhD, Postdoc 2000-2004
Initial position: **Assistant Professor**, Univ. North Carolina, Chapel Hill
- Anders Berg, MD-PhD student 1998-2002
Current position: **Assistant Professor** of Pathology at Harvard Medical School; Assistant Director of Clinical Chemistry at Beth Israel Deaconess Medical Center, Boston; recently accepted position at Cedars Sinai, Los Angeles
- Puneeth Iyengar, MD-PhD student 1999-2003
Current position: **Assistant Professor**, Dept. of Radiation Oncology University of Texas Southwestern Medical Center, Dallas, Texas
- Michael Rajala, MD-PhD student 1999-2003
Current position: **Assistant Professor**, Department of Medicine University of Pennsylvania, Philadelphia
- Utpal Pajvani, MD-PhD student 1999-2003
Current position: **Assistant Professor**, Columbia-Presbyterian Hospital Department of Medicine, Columbia University
- Kathryn Davis, PhD, Postdoc 2007-2011
Current Position: **Assistant Professor**, Department of Plastic Surgery, UT Southwestern Medical Center, Dallas
- Todd Schraw, PhD, Postdoc 2004-2008
Current Position: **Assistant Professor** of Biology, Southeastern University, Lakeland, FL
- William Holland, PhD, Postdoc 2008-2013
Current position: **Assistant Professor**, Touchstone Diabetes Center UT Southwestern Medical Center, Dallas; recently accepted position at the University of Utah
- Ingrid Wernstedt-Asterholm, PhD Postdoc 2008-2013
Current position: **Assistant Professor**, Department of Physiology, University of Gothenburg, Sweden
- Jiyoung Park, PhD Postdoc 2008-2013
Current position: **Assistant Professor**, Ulsan National Institute of Science and Technology, South Korea
- Kai Sun, PhD Post-Doc 2011-2015
Current position: **Assistant Professor**, University of Texas Houston
- Zhao Wang, PhD student Student 2003-2008
Current position: **Assistant Professor**, Cardiology, UT Southwestern Medical Center

- Nils Halberg, PhD student Student 2006-2010
Current position: **Assistant Professor**, University of Bergen, Norway
- Joseph Rutkowski, PhD Post-Doc 2012-2016
Current Position: **Assistant Professor**, Texas A&M, College Station, TX
- Annabel Qiong Wang, PhD, Post-Doc 2012-2017
Current Position: **Assistant Professor**, City of Hope Diabetes and Metabolism Research Institute, Duarte, CA
- Risheng Ye, PhD Post-Doc 2013-2017
Current Position: El Paso Medical School
- Jonathan Xia MD PhD Student 2012-2015
Current Position: Residency Northwestern Medical School Chicago
- Fang Zhang Visiting Assistant Professor 2016-2017
Current Position: **Associate Professor**, Institute for Nutritional Sciences SIBS, CAS - Shanghai
- Thomas Morley MD PhD Student 2012-2016
Current Position: Residency Vanderbilt University

Industry and other Academic Positions:

- Andrea Nawrocki PhD, Postdoc **Director Pharmacology**, The Janssen Pharmaceutical Companies of J&J
- Maria Trujillo, PhD, Postdoc **Principal Scientist, Merck & Co, Inc.**
- Tayeba Khan, PhD student **Senior Research Scientist**, Alexion Pharmaceuticals
- Michale Bouskila, PhD student **Biomedical Research Centre IP Manager**, University of Cambridge, UK
- Shoba Shetty, PhD, Postdoc **Biologics Toxicology**, The Janssen Pharmaceutical Companies of J&J
- Shira Landskroner-Eiger, PhD student Post-Doctoral Fellow, Yale University;
Current position: **Senior Research Scientist**, Alexion Pharmaceuticals
- Ja-Young Kim, PhD student Post-Doctoral Fellow, Columbia University
Current position: **Senior Research Scientist**, PFIZER
- Caroline Tao, PhD student Current position: **Post-Doctoral Researcher**, GENENTECH
- Min Kim Current position: **Senior Research Scientist**, National Research Laboratory for Mitochondrial Signaling, Inje University, Busan Korea
- Deborah Brancho, PhD, Postdoc Research Scientist, AECOM
- Ying Lin, PhD, Postdoc **Senior Scientist**, New York City Department of Health & Mental Hygiene
- Kallol Das, PhD, Postdoc Current position: Visiting Scientist, Indian Institute of Chem. Biology

Bibliography as of August 1st, 2018

Publications in 2017/2018 in BOLD

For Touchstone Center activities, see <http://touchstonelabs.org/>

Current h-factor: 104 (Scopus & Thompson Reuters); 45'000 citations; Google Scholar h-factor 127; 390 publications in PubMed under the unique identifier Scherer PE;

see separate section with Review Articles and Commentaries at the end

**Listed in Thomson Reuters 2004-2014 “Worlds Most Influential Scientific Minds”:
List of the 200 most highly cited individuals in Biology and Biochemistry**

A. Original Communications in Peer-Reviewed Journals (in bold 2017/2018)

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**Apostolopoulou, M., Gordillo, R., Koliaki, C., Gancheva, S., Jelenik, T., De Filippo, E., Herder, C., Markgraf, D., Jankowiak, F., Esposito, I., Schlensak, M., Scherer, P.E. and M. Roden. 2018.
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