

American Journal of Physiology—Endocrinology and Metabolism
Editorial Board
Beginning July 1, 2010
Areas of Expertise

EDITOR IN CHIEF

Charles H. Lang, PhD

Areas of Expertise

Cardiac protein metabolism
Trauma
Sepsis
Endotoxin and inflammation
Epinephrine
TNF
Insulin-like growth factors
Binding proteins and growth hormone
Nutrition
Protein synthesis and catabolism
Glucocorticoids
Glucose metabolism
Cytokine signaling
Alcohol
Thermal injury (burns)
Translation control of protein synthesis

ASSOCIATE EDITORS

Sue Bodine, PhD

Areas of Expertise

Skeletal muscle atrophy
Regulation of skeletal muscle mass
Protein synthesis and muscle hypertrophy
MuRF1 and MAFbx/Muscle E3 ligase
Metabolic diseases and muscle loss
IGF1 and skeletal muscle
Skeletal muscle function

Patricia Brubaker, PhD

Areas of Expertise

Synthesis, secretion, and bioactivity of regulatory peptides from the intestine, pancreas and brain
Intestinal growth and function
Islet growth and function
Glucagon and glucagon-like peptides (GLP-1, GLP-2)
Diabetes

Intestinal insufficiency
Satiety and obesity

Cheryl A. Conover, PhD

Areas of Expertise

Insulin-like growth factors (primary area of Expertise)
Aging
Cell physiology
Cardiovascular disease
Bone physiology

André Marette, PhD

Areas of Expertise

Nitric Oxide and AMPK in insulin action and resistance
mTOR/S6K1 pathway
Dietary proteins and insulin resistance
Phosphatases and insulin signaling
Obesity and inflammation
AMPK and exercise

Kelle H. Moley, MD

Areas of Expertise

Fertilization and implantation
Glucose transporters in reproductive tissues
Meiosis in oocytes
Maternal diabetes and oocyte maturation
Signaling in embryo
Blastocyst physiology and survival

Michael J. Quon, MD, PhD

Areas of Expertise

Insulin resistance
Insulin signaling
Endothelial dysfunction
Nitric oxide
Mathematical modeling
Clinical investigation
Metabolic syndrome
Glucose homeostasis
Vascular biology

Assaf Rudich, PhD, MD

Areas of Expertise

Adipose tissue biology
Regulation of lipolysis
Obesity and lipodystrophy

Adipokines
Oxidative stress

Gary J. Schwartz, PhD

Areas of Expertise

Obesity
Diabetes
Nervous system
Gut
Adipose
Pancreas
Liver

EDITORIAL BOARD

Steven Abcouwer, PhD

Areas of Expertise

Diabetes
Insulin signaling
Glucose metabolism
Glutamine metabolism
Ischemia-reperfusion
Cell death mechanisms (apoptosis, necrosis, necroptosis, autophagy, etc.)
Neurodegeneration
Mitochondrial function
Inflammation (esp. neural inflammation)
Macrophage
Microglia
Retinopathy

Kwangmi Ahn, PhD

Areas of Expertise

Biostatistics

Matthew Anderson, MD, PhD

Areas of Expertise

Ovarian cancer
Cervix cancer
Uterine sarcomas
Uterine fibroids
Gene therapy

Russell Anthony, PhD

Placenta
Fetus
Angiogenesis

Intrauterine growth restriction
Transcriptional regulation
Placental hemodynamics
Trophoblast

Tracy Anthony, PhD

Areas of Expertise

eIF2 kinases
mTOR signaling
Integrated stress response
ER stress or Unfolded Protein Response
Amino acids
Liver
Mammary gland
Protein synthesis
Nutrient deprivation

Philip Atherton, PhD

Areas of Expertise

Muscle
Protein turnover
Signaling
Metabolism
Exercise
Aging
Hypertrophy
Atrophy
Sarcopenia

Keith Baar, PhD

Areas of Expertise

Mitochondrial biogenesis
Anapleurosis
Endurance exercise
Concurrent exercise
Amino acids
Protein synthesis

Eugene J. Barrett, MD, PhD

Areas of Expertise

Insulin resistance in skeletal muscle
Microvascular function
Endothelial dysfunction
Muscle insulin signaling
Muscle perfusion
Insulin transport

Diabetic vascular disease
Endothelial vesicular transport

Steven Benoit, PhD

Areas of Expertise

Melanocortin
Central insulin
Reward
Mesolimbic
Orexin
Learning
Behavior
Central leptin
PKC

Michel Beylot, MD, PhD

Areas of Expertise

Stable isotopes
Lipid metabolism
Steatosis
Obesity
Insulin-resistance
Atheroma
Adipose tissue
Inflammation
Lipotoxicity

Philip J. Bilan, PhD

Areas of Expertise

Glucose transport
GLUT4
Insulin
Akt
AS160
Rab
AMPK
Glucose uptake
Exercise
Contraction
Type 2 diabetes

Gustavo Blanco, PhD

Areas of Expertise

Na,K-ATPase isozymes
Sodium and potassium transport
Ouabain

Male reproduction
Spermatozoa
Sperm motility
Sperm capacitation

Charlotte Boney, MD

Areas of Expertise

Adipogenesis
IGF-I
Insulin
Preadipocyte
Adipocyte
Src
Shc
MAPK
AKT
Childhood obesity
Metabolic syndrome

George A. Brooks, PhD

Areas of Expertise

Lactate metabolism
Lactate transporter expression
Exercise
Glucose fatty acid interactions
Mitochondria
Altitude
Exercise Metabolism
Gluconeogenesis
Glucose kinetics in exercise
Fatty acid kinetics in exercise
Lipid metabolism in exercise

Holly Brown-Borg, PhD

Areas of Expertise

Growth hormone
Insulin-like growth factor
Aging
Oxidative stress
Glutathione/methionine metabolism
Calorie restriction
Stress resistance

Christoph Buettner, MD, PhD

Areas of Expertise

Obesity, diabetes and insulin resistance
White adipose tissue physiology
Regulation of hepatic glucose and lipid metabolism
Autonomic regulation of metabolism
Brain control of nutrient fluxes and innate immunity
Glucose homeostasis
Insulin signaling and insulin action
Endocannabinoids

Wenhong Cao, MD

Areas of Expertise

Gluconeogenesis
Hepatic lipogenesis
Signal transduction
Insulin resistance
MAP kinases
Mitochondrial dysfunction

Patrick Catalano, MD

Areas of Expertise

Pregnancy
Diabetes
Fetal growth
Glucose metabolism
Body composition

Gregory D. Cartee, PhD

Areas of Expertise

Glucose transport
Insulin signaling
Exercise metabolism
Calorie restriction
Aging skeletal muscle

Bandana Chatterjee, PhD

Areas of Expertise

Gene regulation
Transcription
Nuclear receptor
Prostate
Prostate cancer
Liver
Aging

Naibedya Chattopadhyay, PhD

Areas of Expertise

Parathyroid hormone
Vitamin D
Bone
Hypercalcemia of malignancy
Calcium signaling

Alexander V. Chibalin, PhD

Areas of Expertise

Na,K-ATPase
Sodium pump
Potassium homeostasis
Skeletal muscle
GLUT4 traffic
Insulin resistance
Type 2 diabetes

Edward Chien, MD

Areas of Expertise

Pregnancy
Mechanisms of Preterm labor
Pregnant Cervix
Gene Regulation Gestational Uterus
Progesterone effects on Uterus
Androgens in Pregnancy
Biomechanics of Labor

Streamson C. Chua, Jr., MD, PhD

Areas of Expertise

Leptin
Leptin receptor
Genetics
Diabetes modifier genes
Obesity
Diabetes mellitus, type 2
Diabetic nephropathy
Hyperphagia
Neuropeptides

Wendie Cohick, PhD

Areas of Expertise

Growth factors
Apoptosis
IGF
Lactation
Mammary gland biology
Signal transduction

Estrogen receptor

Growth hormone

Kirk P. Conrad, MD

Areas of Expertise

Maternal cardiovascular and renal adaptations to normal and abnormal pregnancies (preeclampsia and intrauterine growth restriction)

Cardiovascular and renal actions of relaxin

Normal and pathological placentas (preeclampsia and intrauterine growth restriction)

Robert Considine, PhD

Areas of Expertise:

Obesity

Diabetes

Adipocytes

Adipokines

GI hormones

Regulation food intake

Greg Cooney, PhD

Areas of Expertise

Insulin resistance

Obesity

Energy expenditure

Type 2 diabetes

Animal models

John A. Corbett

Areas of Expertise

Beta cell biology

Cell death

Cell stress

Cytokines and cytokine signaling

Innate immunity

David D'Alessio, MD

Areas of Expertise

Incretin

GLP-1

Glucose tolerance

Insulin secretion

Gut hormones

Satiety

Sandra Davidge, PhD

Areas of Expertise

Vascular adaptations to pregnancy

Preeclampsia
Fetal programming
Vascular aging
Endothelium
Oxidative stress
Nitric oxide

Yves Deshaies, PhD

Areas of Expertise

Physiological effects and mechanisms of action of PPAR (alpha, beta, gamma) agonism
Adipose tissue metabolism
Liver lipid metabolism
Triglyceride-rich lipoprotein metabolism and its hormonal modulation
Impact of insulin resistance and inflammation on lipid metabolism

Nicolaas EP Deutz, MD, PhD

Areas of Expertise

Nutrition
Amino acids
Stable isotopes
Protein synthesis
Interorgan metabolism

Henry Donahue, PhD

Areas of Expertise

Bone
Osteoblast
Osteocyte
Osteoclast
Gap junctions
Connexins
Mechanobiology
Tissue engineering

Cunming Duan, PhD

Areas of Expertise

Insulin-like growth factors
IGF binding proteins
IGF signaling
IGF and muscle
Hypoxia
Hypoxia inducible factors
Development

Charles A. Ducasay, PhD

Areas of Expertise

Hypoxia
Fetus
Adrenal/glucocorticoids
Development
Fetal programming

Daniel Dumesic, MD

Areas of Expertise

Polycystic ovary syndrome (PCOS)
In vitro fertilization (IVF)
Androgen excess
Developmental programming
Infertility
Prenatal androgenization

Jeffrey S. Elmendorf, PhD

Areas of Expertise

Cytoskeletal systems and regulation
GLUT4 and other glucose transporters
Insulin signaling and insulin resistance
Hypercholesterolemia/plasma lipoproteins
Plasma membrane cholesterol/lipids
Exercise, AMPK, and insulin sensitivity

Shereen Ezzat, MD

Areas of Expertise

Pituitary
Growth hormone
Fibroblast growth factors (and receptors)
Endocrine oncology

Asgerally Fazleabas, PhD

Areas of Expertise

Reproductive Biology/Physiology
Uterine/endometrial function
Benign gynecological diseases
Signal Transduction in the uterus
Decidualization and stromal cell differentiation
Epigenetic modulation of the reproductive system
Hormone action – reproductive systems

Mark Febbraio, PhD

Areas of Expertise

Insulin resistance,
Inflammation,

Signal transduction
Obesity,
Cytokines

Dr. William Festuccia

Areas of Expertise

Obesity, diabetes and insulin resistance
Adipose tissue and liver physiology
Nuclear receptors and coregulators
Hormonal regulation of metabolism
Neural regulation of metabolism
PPAR biology
mTOR signaling pathway and metabolism
Lipogenesis, lipolysis and lipid transport and homeostasis
Glucose metabolism and homeostasis
Energy balance and thermogenesis

Jorge P. Figueroa, MD, PhD

Areas of Expertise

Fetal programming
Maternal obesity
Prenatal steroid exposure
Maternal under-nutrition
Childhood obesity
Metabolic syndrome
Adipose tissue
Adipokines

James D. Fluckey, PhD

Areas of Expertise

Protein synthesis or mRNA translation
Insulin signaling
Resistance exercise
Microgravity
Skeletal muscle protein metabolism

J. David Furlow, PhD

Areas of Expertise

Thyroid hormones
Steroid hormones (glucocorticoids, estrogens, androgens)
Nuclear receptors
Gene expression
Transcription
Developmental endocrinology

Dr. Nori Geary

Areas of Expertise

Eating
Satiation
Gut-brain communication
Vagus
Adiposity regulation
Sex differences
Glucagon
Glucagon-like peptide 1
Amylin

Adria Giacca, MD

Areas of Expertise

Lipotoxicity
Glucotoxicity
Hepatic insulin action and clearance
Oxidative stress
Glucose and insulin kinetics
Vascular effects of insulin

Benjamin Glaser, MD

Areas of Expertise

Diabetes
Beta-cell replication
Genetics of diabetes
Hyperinsulinism
Hypoglycemia
Monogenic diabetes
Pituitary disease
Acromegaly

Ira J. Goldberg, MD

Areas of Expertise

Lipases
Lipoproteins
Lipotoxicity
Cardiac energetics
Diabetes-atherosclerosis

Laurie J. Goodyear, PhD

Areas of Expertise

Skeletal muscle
Exercise
AMPK
Glucose transport
Type 2 diabetes

George H. Greeley, PhD

Areas of Expertise

Gastrointestinal

Pancreas

Molecular

Hormone

Secretion

Insulin

Philippe Halban, PhD

Areas of Expertise

Beta cell growth and survival

Islet inflammation

Beta cell function in type 2 diabetes

Proinsulin biosynthesis and processing

Beta cell glucotoxicity

Lisa Halvorson, MD

Areas of Expertise

Anterior pituitary gland/gonadotropes

GnRH neurons

Ovulation

Infertility

Uterine physiology

Ovulation

Fertility/infertility

Uterine physiology

Victor Han, MD

Areas of Expertise

Developmental endocrinology

Insulin-like growth factors and binding proteins

Transgenesis and gene targeting

Epigenetics

Placental development

Fetal development

Fetal or intrauterine growth restriction

Chad Hancock, PhD

Areas of Expertise

Skeletal muscle insulin resistance

AMPK

Exercise

Phosphocreatine and adenine nucleotides (ATP, ADP, AMP)

AMP deaminase

Mark Hargreaves, PhD

Areas of Expertise

CHO metabolism during exercise

Muscle glycogen

Glucose uptake

GLUT4

Metabolic factors in fatigue

John A. Hawley, PhD

Areas of Expertise

Exercise training

Insulin resistance

Lipid/fat metabolism

Carbohydrate metabolism

Cell signaling

William W. Hay, Jr., MD

Areas of Expertise

Metabolism and transport of glucose in the pregnant mother, fetus, placenta, and newborn

Metabolism and transport of amino acids in the pregnant mother, fetus, placenta, and newborn

Fetal and neonatal insulin action

Fetal and neonatal insulin production

Fetal and neonatal nutrition, metabolism, and growth

Fetal/developmental origins of adult disease

Hari Hundal, PhD

Areas of Expertise

Insulin signaling

Glucose transport

Amino acid transport

Skeletal muscle

Adipose tissue

Mahmood Hussain, PhD

Areas of Expertise

Chylomicron

Lipid absorption

apoB

MTP

VLDL

Lipoprotein assembly

Jørgen Jensen, PhD

Areas of Expertise

Muscle metabolism
Exercise-muscle contraction
Adrenalin
Insulin
Glycogen synthase
Glycogen phosphorylase
Glycolysis
Intracellular signaling
PKB, AMPK, GSK-3, PI 3-kinase
Training

Tianru Jin, MD, PhD

Areas of Expertise

Proglucagon
GLP-1
Wnt signaling
cAMP
Epac
Transgenic mice
Pancreatic beta cells
Insulin signaling
Transcription factors

Caleb Kallen, MD, PhD

Areas of Expertise

Reproduction
Estrogen
Obesity
mRNA stability
mRNA-binding proteins
Inflammation
Transcription
Adipokines
Nuclear Hormone Receptors

Gerard Karsenty, MD, PhD

Areas of Expertise

Bone physiology
Interplay between bone and energy metabolism
Central control of bone mass

Helen Kay, MD

Areas of Expertise

Pregnancy
Diabetes in pregnancy
Medical complications in pregnancy
Preeclampsia
Placental physiology
Imaging in pregnancy

Maureen Keller-Wood, PhD

Areas of Expertise

Hypothalamo-pituitary-adrenal axis
Pregnancy and/or placental hormones
Glucocorticoid or mineralocorticoid receptors
Fetus, development
Effects of hormones or hormone bioactivation/inactivation in lung, kidney or cardiovascular systems

Jason K. Kim, PhD

Areas of Expertise

Insulin resistance
Obesity
Inflammation
Heart
Metabolism

Jeonga Kim, PhD

Areas of Expertise

Insulin Signaling
Insulin resistance
Endothelial function
Oxidative stress
Cardiovascular disease
Nitric oxide
Inflammation
Mitochondrial dysfunction
Polyphenol
Obesity

Young-Bum Kim, PhD

Areas of Expertise

Insulin signaling and insulin action.
Insulin resistance.
Type 2 diabetes
obesity
Glucose metabolism
Leptin resistance

Scot R. Kimball, PhD

Areas of Expertise

Muscle
Protein synthesis
Translation initiation
mTOR
Amino acids
Insulin

Hilla Knobler, MD

Areas of Expertise

Insulin resistance
Obesity
Fatty liver
NASH
Leptin
Metabolic syndrome
Lipids

Daniel Konrad, MD, PhD

Areas of Expertise

Insulin resistance
Obesity
Adipokines
Adipose tissue inflammation
Insulin-mediated glucose uptake

Anjan Kowluru, PhD

Areas of Expertise

Pancreatic islet
Insulin secretion
Protein kinases and phosphatases
GTP-binding proteins
Signal transduction

Graciela Krikun, PhD

Areas of Expertise

Endometrium
Decidua
Endometriosis
Tissue Factor
Hemostasis and Thrombosis
Microparticles
Toll like Receptors in deciduas and endometrium
Endometrial angiogenesis

Anna Krook, PhD

Areas of Expertise

Insulin signaling

Glucose transport

Regulation of skeletal muscle metabolism

Type 2 diabetes

Insulin resistance

Effect of exercise/muscle contraction on skeletal muscle metabolism

Effect of cytokines on skeletal muscle metabolism

George Kunos, MD, PhD

Areas of Expertise

Obesity

Insulin resistance

Endocannabinoids

Alcoholic liver disease

NAFLD

Cardiovascular physiology

GPCR signaling

Irwin Kurland, MD, PhD

Areas of Expertise

Metabolic inflexibility

Metabolomics

Lipidomics

Stable isotope flux analysis

Liver metabolism

Adipose metabolism

Skeletal muscle metabolism

Sergio Lavandero, PhD

Areas of Expertise

Cell signaling

Growth factors-insulin

Peptide and steroid hormones

Cardiovascular physiology and pathology

Cardiac metabolism

Cell death

Autophagy

Mitochondrial dynamics

Kuk-Wha Lee, MD, PhD

Areas of Expertise

Growth factor biology (especially insulin-like growth factors and binding proteins)

Mitochondrial apoptosis

Prostate cancer

Todd Leff, PhD

Areas of Expertise

AMP-activated protein kinase (AMPK)

PPARs

HNF4

Transcriptional regulation

Hepatic gluconeogenesis

Gil Leibowitz, MD

Areas of Expertise

Diabetes

Insulin secretion

Beta-cells

Islets

Signal transduction

Stress

Apoptosis

Yannick LeMarchand-Brustel, PhD

Areas of Expertise

Insulin resistance

Animal models

Adipose tissue

Liver

NAFLD

Glucose transport

Barry Levin, MD

Areas of Expertise

Gary F. Lewis, MD

Areas of Expertise

Lipoprotein metabolism

In vivo insulin secretion and action

HDL metabolism

VLDL metabolism

Hung-Mo Lin, PhD

Area of Expertise

Biostatistics

Feng Liu, PhD

Areas of Expertise

Insulin signaling

Adiponectin
Kinase
Phosphorylation
Caloric restriction

Zhenqi Liu, MD

Areas of Expertise

Diabetes
Insulin signaling
Insulin resistance
Endothelial function
Cardiovascular complications

Gary Lopaschuk, PhD

Areas of Expertise

Fatty acid oxidation
Cardiac energy metabolism
Malonyl-CoA
Lipotoxicity
AMP-activated protein kinase

Xin-Liang Ma, MD, PhD

Areas of Expertise

Diabetic cardiac complications
Diabetic vascular complications
Advanced Glycation End Product (AGE)
Oxidative stress
Nitric oxide
Endothelial dysfunction
Apoptosis

Patrick MacDonald, PhD

Areas of Expertise

Insulin
Glucagon
Secretion
Islets of Langerhans
Signal transduction
Ion channels
Exocytosis
Electrophysiology
Cellular imaging
Calcium

Robert G. MacKenzie, PhD

Areas of Expertise

Energy homeostasis
Neurons
Hypothalamus
Neuropeptides
Dopamine
Appetite
Adipocytes
Leptin

Daniel J. MacPhee, PhD

Areas of Expertise

Focal adhesion signaling
Integrins
Extracellular matrix
Cell-cell adhesion
Uterus
Myometrium
Placenta
Trophoblast
Reproductive physiology

Daniel Marks, MD, PhD

Areas of Expertise

Obesity
Melanocortin
Orexin
Neuroendocrinology
Cachexia
Sarcopenia
Inflammation
Kisspeptin

Owen McGuinness, PhD

Areas of Expertise

Insulin sensitivity
Inflammation
Glucose metabolism
Lipid metabolism
Obesity
Diabetes

Joseph Messina, PhD

Areas of Expertise

Insulin action
Insulin signaling
Insulin resistance

Growth Hormone (GH) action
GH signaling
Trauma/injury -induced metabolic dysregulation
Intensive insulin therapy following injury/infection/critical illness
IGF-1 signaling

Raghu Mirmira, MD, PhD

Diabetes
Islet
Transcription
Chromatin
Inflammation
Insulin
Metabolism
Transcription Factors
Obesity

William E. Mitch, MD

Areas of Expertise
Protein metabolism
Cell signaling
Muscle metabolism
Insulin/IGF-1
Amino acid metabolism

Jane A. Mitchell, PhD

Areas of Expertise
Bone
Cartilage
Osteoblasts
Osteoclasts
Chondrocytes
Parathyroid hormone
Parathyroid hormone-related peptide
Calcitonin

Subburaman Mohan, PhD

Areas of Expertise
Insulin-like growth factors and their binding proteins
Factors influencing osteoblast proliferation and differentiation
Bone growth factors
Mouse models for osteoporosis research
Mechanical loading and bone
Bone regeneration

Patricia E. Molina, MD, PhD

Areas of Expertise

Neuroendocrine
Hypoglycemia
Counter regulation
Metabolism
Stress
Endocrine-Immune
Inflammation

Monica Montagnani, MD, PhD

Areas of Expertise

Insulin signaling
Adiponectin signaling
Endothelial dysfunction
Cardiovascular complications
Endothelial products

Christopher Morrison, PhD

Areas of Expertise

Leptin
Obesity
Hypothalamus
Food intake
High fat diet
Neuroendocrine

Heike Münzberg-Gruening, PhD

Areas of Expertise

Leptin
Leptin resistance
Obesity
Energy expenditure
Food intake
Neuroendocrinology
Neuroanatomy
Neuronal tracking
Behavior
Signaling

Ranganath Muniyappa, MD, PhD

Areas of Expertise

Insulin resistance
Insulin action and signaling
Hypertension

Endothelial dysfunction
Clinical investigation
Obesity

Amy Murtha, MD

Areas of Expertise

Pregnancy
Preterm birth
Inflammation
Premature rupture of membranes
Progesterone
Calcium-mediated apoptosis

Jan Nedergaard, PhD

Areas of Expertise

Brown adipose tissue
UCP1
Nonshivering thermogenesis
Diet-induced thermogenesis
Adrenergic thermogenesis
Adaptive thermogenesis
Basal metabolic rate
Norepinephrine
Metabolic efficiency
Mitochondria

Margaret Neville, PhD

Areas of Expertise

Mammary development\
Milk secretion
Regulation of milk lipid synthesis
Microarray analysis of lipid metabolism
MicroRNAs
Insulin action
Prolactin action

Kevin Niswender, MD, PhD

Areas of Expertise

Obesity
Diabetes
Metabolism
Lipids
Neural
Appetite

Silvana Obici, MD

Areas of Expertise

Hypothalamus
Glucose metabolism
Insulin action
Obesity
Leptin action
Endocannabinoids and energy balance
Endocannabinoids and insulin action
Metabolic effects of exercise

Robert O'Doherty, PhD

Areas of Expertise

Insulin resistance
Steatosis
Inflammation
Macrophages
Liver
Lipids
Immune cells
Obesity
Glucose homeostasis
Diabetes

Donal O'Gorman

Areas of Expertise

Insulin resistance
Exercise
Metabolism
Mitochondrial biogenesis
Gene expression

Youngman Oh, PhD

Areas of Expertise

Insulin-like growth factors
Cytokines
Cell death
Apoptosis
Fibrosis
Inflammation insulin resistance

Ann Louise Olson, PhD

Areas of Expertise

Insulin action
Glucose transport

Adipocyte
Myocyte
Transcriptional regulation

Kutluk Oktay, MD

Primordial follicle
Fertility preservation
Preservation
Ovary
Chemotherapy

David Olson, PhD

Areas of Expertise

Parturition
Preterm birth
Myometrium
Decidua
Fetal membranes
Uterine activation
Fetal development
Prostaglandins
Immune mediators

Michael Pagliassotti, PhD

Areas of Expertise

Liver
Glucose metabolism
Endoplasmic reticulum
Unfolded protein response
Non-alcoholic fatty liver disease
Dietary nutrients
Fructose

Jennifer Pell, PhD

Areas of Expertise

Antonio Pellicer, MD

Areas of Expertise

IVF clinical
Implantation
Ovarian hyperstimulation syndrome
Endometriosis

Gianluca Perseghin, MD

Areas of Expertise

Insulin resistance

Fatty acids metabolism
Ectopic and periorgan fat
Magnetic resonance imaging and spectroscopy
NAFLD/NASH
Cardiac energy metabolism

Kitt Falk Petersen, MD

Areas of Expertise

Insulin resistance
Fatty liver disease (NAFLD)
Obesity
Glucose metabolism
Lipid metabolism
Weight loss
Appetite regulation
Low birth weight
Aging

Daniele Piomelli, PhD

Areas of Expertise

Endocannabinoids
Cannabinoid receptors
Oleoylethanolamide and palmitoylethanolamide
Peroxisome proliferator activated receptor- α

Scott Pletcher, PhD

Areas of Expertise

Aging
Drosophila melanogaster
Invertebrate model systems
Insulin signaling
Molecular Genetics
Dietary restriction

Stephan Plymate, MD

Areas of Expertise

Androgens
Androgen receptor
Prostate cancer
IGF receptor
Aging
Extracellular matrix
Endocrine-related cancer

Dr. Lucilla Poston

Areas of Expertise

Developmental programming of adult disease
Obesity in pregnancy
Nutrition in pregnancy
Maternal Physiology (Cardiovascular)
Pre-eclampsia

Marc Prentki, PhD

Areas of Expertise

Insulin secretion
Fuel signaling
Type 2 diabetes
Beta-cell failure
Glucolipotoxicity
Metabolism

Jerry Radziuk, PhD, MD

Areas of Expertise

Carbohydrate and intermediary metabolism
Mathematical modeling of metabolic and hormonal systems
Diabetes and metabolism (pathophysiology, pharmacology etc)
Insulin kinetics and dynamics
Tracers and tracer kinetics

Sasanka Ramanadham, PhD

Areas of Expertise

Beta-cell physiology
Apoptosis
Diabetes
Insulin resistance
Phospholipases
Bone metabolism

Michael Roden, MD (6 papers a year only)

Areas of Expertise

Mitochondrial function muscle/liver
Free fatty acids and intracellular lipids (muscle, liver)
Glucose metabolism in humans
Insulin resistance
Magnetic resonance spectroscopy
Exercise in humans

Michael Rosenbaum, MD

Areas of Expertise

Richard A. Roth, PhD

Areas of Expertise

Akt substrates
mTOR substrates
PRAS40
AKT1S1

Liangyou Rui, PhD

Areas of Expertise

Leptin signaling and resistance
Insulin signaling and resistance
Liver and adipose tissue regulation of glucose/lipid metabolism
Obesity
Regulation of energy/glucose metabolism by SH2B- and JAK2-pathways

Mario J.A. Saad, MD

Areas of Expertise

Insulin resistance
Obesity
Insulin signaling
Molecular mechanisms of insulin resistance

Kei Sakamoto, PhD

Areas of Expertise

Muscle and energy metabolism
Cellular signaling
Insulin resistance and diabetes
Exercise/muscle contraction
AMP-activated protein kinase (AMPK)

Toshiyasu Sasaoka, MD, PhD

Areas of Expertise

Phosphatases and insulin signaling
Renin-angiotensin-aldosterone system (RAAS) and insulin signaling
Sex hormone and insulin signaling
Inflammatory cytokines and insulin resistance
Hepatic glucose homeostasis
Central insulin signaling
Neuroendocrine signaling in hypothalamus

Leslie Satin, PhD

Areas of Expertise

Insulin secretion
Pancreatic islets
Ion channels

Calcium signaling
Metabolism
Oscillations
Diabetes

David Savage, MD

Areas of Expertise

Lipodystrophy
Extreme insulin resistance
Magnetic resonance spectroscopy
Energy expenditure
Non-alcoholic fatty liver disease

Jonathan Schertzer, PhD

Areas of Expertise

Inflammation
Diabetes
Insulin resistance
Obesity
Skeletal muscle

Heidi Scrable, PhD

Areas of Expertise

p53
IGF-1 receptor
Insulin-like growth factors
aging
embryonic stem cells
preimplantation embryogenesis

James Segars, MD

Areas of Expertise

Estrogen action
Non-classical steroid receptor action
Uterine leiomyoma
Hormone action
Endometrium
Oocyte
Gametes
LH
FSH
Molecular mechanisms of hormone action

Colin Sibley, PhD

Areas of Expertise

Placental biology

Fetal growth

David Sigalet, MD, PhD

Areas of Expertise

Enteric hormones

Nutrient absorption

Satiety

Growth

Glucagon-like peptides

Gregory R. Steinberg, PhD

Areas of Expertise

Insulin resistance

Fatty acid metabolism

Cytokines

Lipids

AMP-activated protein kinase

Gary Sweeney, PhD

Areas of Expertise

Adiponectin

Leptin

Glucose metabolism

Signaling & crosstalk

Heart failure

Cardiac remodeling

Nobuhiko Takahashi, MD, PhD

Areas of Expertise

Triglyceride metabolism

Adipocytes

Gut metabolism

Skeletal muscle

Non-alcoholic fatty liver disease

André Tchernof, PhD

Areas of Expertise

Adipose tissue

Visceral fat

Adipocyte

Sex hormones

Androgen

Estrogen

Hydroxysteroid dehydrogenase

Karen Teff, PhD

Areas of Expertise

Clinical research
Obesity
Insulin resistance
Diabetes
Autonomic nervous system
Food intake

Debbie Thurmond, PhD

Areas of Expertise

Insulin Exocytosis
Insulin signaling
GLUT4 vesicle translocation
Insulin resistance
Small Rho family GTPases
Actin remodelling

Amir Tirosh, MD, PhD

Areas of Expertise

Endoplasmic reticulum (ER) stress
Autophagy
Insulin signaling
Adipocyte inflammation
Clinical diabetes
Impaired fasting glucose
Dietary intervention

Michael J. Toth, PhD

Areas of Expertise

Protein metabolism
Single muscle fiber
Myosin heavy chain
Cachexia
Heart failure
Sarcopenia

Frederic Tremblay, PhD

Areas of Expertise

Obesity
Type 2 diabetes
Insulin resistance
Insulin signaling
Amino acids and dietary proteins
Nutrient sensing

Glucose transport/metabolism
Adipocyte differentiation
mTOR complex 1 (mTORC1) signaling

Matthias H. Tschöp, MD

Areas of Expertise

Obesity
Diabetes
Ghrelin
GLP
Glucagon
GIP
Hypothalamus
Neuroendocrinology

Robert Tsushima, PhD

Areas of Expertise

Islet biology
Insulin secretion
Exocytosis
Electrophysiology
Ion channels
Cardiac physiology
Ischemic heart disease

Allen Volchuk, PhD

Areas of Expertise

Pancreatic beta-cells
Endoplasmic reticulum stress
Insulin biosynthesis
Insulin secretion
Protein degradation

Qinghua Wang, MD, PhD

Areas of Expertise

Islet cell crosstalk
Islet cell growth
Insulin
Glucagon
GLP-1
Gene therapy
Peptide therapy

Rennian Wang, MD, PhD

Areas of Expertise

Stem cell differentiation to endocrine cells

Beta cell differentiation
Beta cell regeneration
Human pancreas and diseases
Integrin and Extracellular matrix
Enteroendocrine cells

Matthew J. Watt, PhD

Areas of Expertise

Adipose tissue
Lipolysis
Skeletal muscle
Fatty acid
Fat metabolism
Insulin resistance
Obesity
Exercise
Triglyceride
Ceramide
Triglyceride lipase
Endocrine regulation of metabolism

Ram Weiss, MD, PhD

Areas of Expertise

Childhood obesity
Insulin secretion
Insulin resistance
Modeling of beta cell function
Bariatric surgery
Type 1 diabetes
Glucagon
Adipocytokines
Glucose tolerance

William Winder, PhD

Areas of Expertise

AMP-activated protein kinase
LKB1-STRAD-MO25
Endurance training
Muscle fatty acid oxidation
Metabolism

Minna Woo, MD, PhD

Areas of Expertise

Mechanisms of apoptosis and cell cycle in pancreatic islets
Genetic mouse models for pathogenesis of type 1 and type 2 diabetes
Immunology of type 1 diabetes
Insulin signaling and insulin resistance in mouse models

Innate/adaptive immunity in type 1 and type 2 diabetes
Adipocyte and hepatocyte biology in the pathogenesis of insulin resistance/type 2 diabetes

Toru Yamaguchi, MD, PhD

Areas of Expertise

Osteoblast
Bone
Calcium-sensing receptor
Osteoporosis
Calcium
Fracture
Parathyroid
Not cartilage

Kevin E. Yarasheski, PhD

Areas of Expertise

Mass spectrometry
Protein/amino acid metabolism
Sarcopenia
Proteomics/Metabolomics
Stable isotope tracer methodologies
Insulin resistance/T2DM
HIV/AIDS cardiometabolic complications

Jianping Ye, MD

Areas of Expertise

Signal transduction
Transcriptional regulation
Inflammation
Insulin resistance
Obesity
Diabetes

Yiying Zhang, PhD

Areas of Expertise

Mouse model of obesity
Molecular biology of obesity and diabetes
Leptin and leptin receptor biology
Adipose tissue biology
Insulin resistance
Molecular biology of nutrition

Yehiel Zick, PhD

Areas of Expertise

Insulin signaling

Insulin resistance
More of action of mammalian lectins

Teresa Zimmers, PhD

Areas of Expertise

Cachexia
Muscle atrophy
Inflammation
STAT proteins
Cytokines
TGF-beta superfamily proteins
SMAD proteins
Myostatin
Liver regeneration
Acute phase response
Burn injury
Organ growth regulation

Antonio Zorzano, PhD

Areas of Expertise

Mitochondrial function and morphology
Insulin and exercise signaling
Muscle metabolism
Adipocyte biology
Gene expression and gene function
Nuclear coregulators
Insulin resistance