

Advances and Novel Targets in

# ENERGY BALANCE & OBESITY



HARVARD  
MEDICAL SCHOOL  
DIVISION OF NUTRITION  
and  
NUTRITION OBESITY  
RESEARCH CENTER  
AT HARVARD

HARVARD SCHOOL  
OF PUBLIC HEALTH  
DEPARTMENT OF NUTRITION



## July 9–10, 2014

## DAY 1: Wednesday, July 9, 2014—7:15 a.m.–4:30 p.m.

### REGISTER NOW!

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260 LONGWOOD AVENUE  
BOSTON, MA

#### Presented by

HARVARD MEDICAL SCHOOL  
DIVISION OF NUTRITION  
and NUTRITION OBESITY  
RESEARCH CENTER AT HARVARD

*in conjunction with*

THE DEPARTMENT OF NUTRITION  
HARVARD SCHOOL OF PUBLIC  
HEALTH

*and*

BOSTON NUTRITION OBESITY  
RESEARCH CENTER

Welcome W. Allan Walker, MD - Harvard Medical School  
Steven Grinspoon, MD - Harvard Medical School

### SESSION I: Determinants of Energy Expenditure and Balance

Moderator: Hideo Makimura, MD, PhD - Harvard Medical School

#### Leptin Signaling in Central Appetite Pathways

Rexford S. Ahima, MD, PhD - University of Pennsylvania

#### Brown Fat: Critical Determinant of Energy Expenditure

Aaron Cypess, MD, PhD - Harvard Medical School

#### Metabolic Flexibility and Substrate Partitioning in Energy Balance

Eric Ravussin, PhD - Pennington Biomedical Research Center

#### Gastric Peptides in Energy Balance

David E. Cummings, MD - University of Washington

#### The Effect of Sleep on Energy Balance

Eve Van Cauter, PhD - The University of Chicago

### SESSION II: Current Therapies for Obesity and Fat Accumulation

Moderator: Scott Butsch, MD, MSc - Massachusetts General Hospital

#### Recently Approved Therapeutics for Obesity

Caroline M. Apovian, MD, FACP, FACN - Boston University School of Medicine

#### Targeting of Visceral and Ectopic Adipose Depots

Steven Grinspoon, MD - Harvard Medical School

#### Dietary Strategies for Weight Loss; More than Just Calories

David S. Ludwig, MD, PhD - Harvard Medical School

#### Behavioral Modification in Weight Loss Therapy

John P. Foreyt, PhD - Baylor College of Medicine

#### A Perspective on the FDA Approval Process

Abraham Thomas, MD, MPH - Henry Ford Hospital

## DAY 2: Thursday, July 10, 2014—7:30 a.m.–11:45 a.m.

Welcome George L. Blackburn, MD, PhD - Harvard Medical School

### SESSION III: Novel Therapeutics to Alter Energy Balance

Moderator: Miguel Alonso-Alonso, MD, MPhil - Beth Israel Deaconess Medical Center

#### A Novel Muscle Protein Regulating Energy Balance: Irisin

Bruce M. Spiegelman, PhD - Harvard Medical School

#### Effects of Gastric Bypass on Energy Therapeutics

Lee M. Kaplan, MD, PhD - Massachusetts General Hospital

#### Novel Effects of Bile Acids on Energy Regulation

Karen K. Ryan, PhD - University of Cincinnati

#### Potential Effects of Altered Gut Microbiota on Energy Balance

Jonathan Krakoff, MD - National Institutes of Health

#### Sirtuins in Metabolism and Energy Balance

Marcia C. Haigis, PhD - Harvard Medical School

#### Closing Remarks

### OBJECTIVES

- 1 Review the basic aspects of biological, neurological, nutritional, and behavioral sciences that are relevant to food intake and energy balance regulation.
- 2 Describe the recent advances on the mechanisms influencing food intake and energy balance regulation.
- 3 Identify the novel approaches for obesity prevention and treatment.
- 4 Provide top researchers, opinion leaders, and educators with the newest scientific findings related to nutrition and energy balance across the lifespan.