22-25 October 2020 Québec City, Canada

# **PROGRAM**

# LOCAL ORGANISING COMMITTEE

Denis BLONDIN, André CARPENTIER, François HAMAN, Denis RICHARD, Angelo TREMBLAY

# THURSDAY OCTOBER 22th

17:30 - 19:30

#### **WELCOME RECEPTION**

Dinner on your own in Québec City

# FRIDAY OCTOBER 23th

# MORNING

08:00 - 08:15

**WELCOME TO QUÉBEC CITY!** 

Contribution of Québec to Field of Energy Metabolism

Denis RICHARD — Canada

08:15 - 08:30

**WELCOME TO RACMEM 2020** 

**Contribution of RACMEM to Energy Metabolism** 

Ed MELANSON — USA

08:30 - 10:30

PET/CT, MRI AND ISOTOPIC TRACERS IN ENERGY METABOLISM AND HOMEOSTASIS

Chairs: TBD

MR Spectroscopy and Imaging of Fat Deposition in Organs

Vera SCHRAUWEN-HINDERLING — Netherlands

Using MRI and Stable Isotope Tracers to Image and Phenotype Liver Metabolism

Leanne HODSON — United Kingdom

fMRI for Assessing the Brain Contribution to Energy Homeostasis

Alain DAGHER — Canada

**Emerging Technologies to Image Tissue Metabolism** 

Kevin K BRINDLE — United Kingdom

10:30 — 11:00 PAUSE / SPONSOR EXHIBITION

11:00 — 11:45 THE SHAPES (AND MOVES) OF TRACERS:

APPLYING POSITRON EMISSION TOMOGRAPHY
TO ENERGY METABOLISM

André CARPENTIER — Canada Chair: Denis RICHARD

12:00 — 13:00 LUNCH / SPONSOR EXHIBITION

#### **AFTERNOON**

13:00 — 15:00 ENVIRONMENT CONDITIONS AND ENERGY METABOLISM/HOMEOSTASIS

Chairs: TBD

**Modifying Thermogenic Pathways in Cold Exposed** 

François HAMAN — Canada

Sleep, Circadian Rhythmicity and its Impact on Energy Metabolism

Eve van CAUTER - USA

Vulnerability to Heat-Related Illnesses in Older Adults and Individuals with Chronic Diseases – A Calorimetric Perspective

Glen KENNY — Canada

**Energy Metabolism in Severe Exercise** 

Guy PLASQUI — Netherlands

15:00 -15:30 PAUSE

15:30 — 17:30 ENERGY METABOLISM/HOMEOSTASIS IN MOTHERS, CHILDREN AND ADOLESCENTS

Chairs: TBD

**Energy Homeostasis in Pregnant and Postpartum Women** 

Leanne M REDMAN — USA

Energy Expenditure in Women: The Effects of Oestrogens and Exercise

Ed MELANSON — USA

**Energy Homeostasis in Children and Adolescents** 

Shigeho TANAKA — Japan

Investigation of NALFD/NASH in Children and Adolescents

Melanie CREE-GREENE — USA

17:30 — 19:00 COCKTAIL / POSTER SESSION 1 / SPONSOR EXHIBITION

#### **EVENING**

Dinner on your own in Québec City

SATURDAY OCTOBER 24<sup>th</sup>

#### MORNING

08:00— 10:00 HEAT-PRODUCING ORGANS, ORGANITES AND PATHWAYS

Chairs: TBD

Thrifty Mechanisms that Drive the Recovery of the Body's Fat Reserves: From a Multi-Organ Perspective Abdul DULLOO — Switzerland

Examining Futile Cycles as Recruitable Forms of Heat Production – Is it Fruitless?

Denis BLONDIN — Canada

Regulatory Thermogenesis: UCP1 and Beyond

Lawrence KAZAK — Canada

mTOR System in Brown Fat Thermogenesis

Mathieu LAPLANTE — Canada

10:00 — 10:30	PAUSE / SPONSOR EXHIBITION	
10:30 — 12:00	SHORT ORAL COMMUNICATIONS 1	
	6 Presentations (15 min each)	
12:00 — 13:00	LUNCH / SPONSOR EXHIBITION	

#### **AFTERNOON**

13:00 — 15:00 ENERGY METABOLISM/HOMEOSTASIS IN OBESE INDIVIDUALS

Chairs: TBD

Thermogenic Flexibility in Response to Weight Loss and Regain

Paul S MACLEAN — USA

Permanence of Thermogenic Changes Induced by Weight Loss in Obese Individuals

Eric RAVUSSIN — USA

The Effects of Variations in Energy Expenditure on Appetite Control

Eric DOUCET — Canada

Low Capacity to Oxidize Fat and Body Weight

François PÉRONNET — Canada

<b>15:00 — 15:30</b>	PAUSE / SPONSOR EXHIBITION	
<b>15:30 — 17:00</b>	SHORT ORAL COMMUNICATIONS 2	

6 Presentations (15 min each)

17:00 - 18:00

#### Update on Doubly-Labelled Water

Chair John R SPEAKMAN

#### **Total Energy Expenditure Through the Life Course**

Klaas WESTERTERP (on behalf of the IAEA DLW database group) — Netherlands

#### The Relation Between Water Turnover and Energy Expenditure

Yosuke YAMADA (on behalf of the IAEA DLW database group) — Japan

## **Energy Demands of Traditional Lifestyles**

Herman PONTZER (on behalf of the IAEA DLW database group) — USA

18:00 — 19:30 COCKTAIL / POSTER SESSION 2 / SPONSOR EXHIBITION

#### **EVENING**

19:30 — 22:30 BANQUET

## SUNDAY OCTOBER 25<sup>th</sup>

#### MORNING

08:00— 09:00 CHANGES IN ENERGY BALANCE DURING
HIGH PROTEIN DIETS — THE PREVIEW PROJECT

Chairs: TBD

#### **PREVIEW Population Studies**

ANGELO TREMBLAY — Canada

Protein as a Source for Body-Weight Maintenance — The Role of Quantity and Quality (The PREVIEW Study)

Anne RABEN — Denmark

High-Protein Diet and Circadian Rhythm, Insulin Sensitivity, Energy Balance, and Prevention of Adaptive Thermogenesis (A PREVIEW Respiratory Chamber Study)

Margriet WESTERTERP-PLANTENGA — Netherlands

09:00— 10:00 ENERGY METABOLISM/HOMEOSTASIS:
NOVEL AND INNOVATIVE APPROACHES

Chairs: TBD

Chemogenetics/Optogenetics to Approach Energy Homeostasis

Alexandre CARON — Canada

Metagenomics and Microbiomics to Investigate Energy Metabolism and Cardiometabolic Risk TBD

10:00 — 10:30 PAUSE / SPONSOR EXHIBITION

# 10:15— 12:30 ASSESSING ENERGY EXPENDITURE AND THERMOGENESIS: A RELENTLESS CHALLENGE

Chairs: TBD

**Energy Expenditure-Body Size Associations** 

Steve HEYMSFIELD — USA

**Measurement of Cold-Induced Thermogenesis** 

Kong CHEN — USA

**Unraveling Inter-Individual Variability in Energy Metabolism** 

Jennifer MILES-CHAN — New-Zealand

Measuring at or Below Thermoneutrality — A Persistent Debate

Jan NEDERGAARD and John SPEAKMAN — Sweden and UK (45-minute debate)

12:30

#### **CONCLUDING REMARKS PLUS THANKS**

Denis RICHARD