

PRELIMINARY 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 24th

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 Recrutable 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

15:00 — 15:30 PAUSE / SPONSOR EXHIBITION

15:30 — 17:00 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 25th

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 to Approach the Adrenergic Control of Liver and Adipose Tissues

Alexandre CARON — Canada

Optogenetics to Investigate the Brain Control of Adipose Tissues

Lori ZELTSER — USA

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