The 46th

NIPS International Symposium

Homeostatic mechanisms among interacting organ systems - Key to understanding obesity

Session 1

10 月 2 日（金）　16：50～18：50　第 3 会場（1 号館 4F　レセプションホール西）

座長：Toshihiko Yada（Department of Physiology, Division of Integrative Physiology Jichi Medical University）

FeiFan Guo（Institute for Nutritional Sciences, Shanghai Institute for Biological Sciences, Chinese Academy of Sciences）

16：50～17：20

Session 1-1

The neurobiology of homeostatic hunger

Janelia Research Campus, HHMI, Ashburn, VA 20147 USA

○ Scott M. Sternson

17：20～17：38

Session 1-2

Pathophysiological roles of adipokine and epigenome dysregulation in obesity

Department of Diabetes and Metabolic Diseases, The University of Tokyo

○ Toshimasa Yamauchi

17：38～17：56

Session 1-3

Inter-organ neural network mediate the regulation of systemic energy metabolism

Department of Metabolism and Diabetes, Tohoku University Graduate School of Medicine

○ Tetsuya Yamada

17：56～18：14

Session 1-4

Regulation of skeletal muscle mass and fat mass by myokines and origin of ectopic fat accumulation in skeletal muscle.

Division for Therapies against Intractable Diseases, Institute for Comprehensive Medical Science, Fujita Health University

○ Kunihiro Tsuchida

18：14～18：32

Session 1-5

Hepatokine selenoprotein P and skeletal muscle receptor LRP1 induce exercise–insensitivity by inhibition of ROS and AMPK

[1]Department of Comprehensive Metabology, Kanazawa University Graduate School of Medical Sciences, [2]PRESTO, Japan Science and Technology Agency

○ Hirofumi Misu[1,2]

18：32～18：50

Session 1-6

Role of novel variants of PGC-1α in the regulation of energy metabolism

Kobe University Graduate School of Medicine, Department of Internal Medicine, Division of Diabetes and Endocrinology

○ Kazuhiro Nomura

Session 2

10 月 3 日（土）　8：10～9：34　第 3 会場（1 号館 4F　レセプションホール西）

座長：Shin-Ichiro Imai（Department of Developmental Biology, Department of Medicine (Joint), Washington University School of Medicine）

Michihiro Matsumoto（Departments of Molecular Metabolic Regulation, Diabetes Research Center, Research Institute, National Center for Global Health and Medicine）

8：10～8：28

Session 2-1

AMP–activated protein kinase in CRH neurons in the PVH controls food selection behavior

[1]Division of Endocrinology and Metabolism, National Institute for Physiological Sciences, Okazaki, Japan, [2]Department of Physiological Sciences, SOKENDAI (The Graduate University for Advanced Studies)

○ Shiki Okamoto[1,2], Tatsuya Sato[2], Yasuhiko Minokoshi[1,2]

8：28～8：58

Session 2-2

Discovery and characterization of a novel class of endogenous lipids

The Salk Institute for Biological Studies, Peptide Biology Laboratory

○ Alan Saghatelian, Mark M. Yore, Ismail Syed, Pedro M. Moraes-Vieira, Tejia Zhang, Mark A. Herman, Edwin A. Homan, Rajesh T. Patel, Jennifer Lee, Shili Chen, Odile D. Peroni, Abha S. Dhaneshwar, Ann Hammarstedt, Ulf Smith, Timothy E. McGraw, Barbara B. Kahn

8：58～9：16

Session 2-3

Role of dsRNA–mediated immunometabolic regulation in obesity

Divisions of Endocrinology and Developmental Biology, Cincinnati Children's Hospital Medical Center

○ Takahisa Nakamura

9：16～9：34

Session 2-4

The transcriptional coregulator CITED2 regulates adipose tissue mass by enhancing preadipocyte proliferation and PPARγ expression through Rb inactivation

Department of Molecular Metabolic Regulation, Diabetes Research Center, Research Institute, National Center for Global Health and Medicine

○ Michihiro Matsumoto

Session 3

10 月 3 日（土）　9：34～10：40　第 3 会場（1 号館 4F　レセプションホール西）

座長：Shingo Kajimura（University of California, San Francisco UCSF Diabetes Center and Department of Cell and Tissue Biology）

Takahisa Nakamura（Divisions of Endocrinology and Developmental Biology Cincinnati Children's Hospital Medical Center）

9：34～10：04

Session 3-1

Adipose tissue controls systemic NAD^+ biosynthesis through the secretion of extracellular nicotinamide phosphoribosyltransferase (eNAMPT)

Department of Developmental Biology, Department of Medicine (Joint), Washington University School of Medicine

○ Shin-ichiro Imai

10：04～10：22

Session 3-2

Engineering fat cell fate to fight obesity and metabolic diseases

University of California, San Francisco UCSF Diabetes Center and Department of Cell and Tissue Biology

○ Shingo Kajimura

10：22～10：40

Session 3-3

Regulation of higher–order chromatin structure during thermogenesis in brown adipocytes

[1]Division of Metabolic Medicine, Research Center for Advanced Science and Center, Technology, The University of Tokyo, [2]UCSF Diabetes Department of Cell and Tissue Biology, University of California, San Francisco

○ Takeshi Inagaki[1], Yohei Abe[1], Royhan Rozqie[1], Yoshihiro Matsumura[1], Shingo Kajimura[2], Juro Sakai[1]

Session 4

10 月 3 日（土） 14：20～15：32 第 3 会場（1 号館 4F レセプションホール西）

座長：Tetsuya Yamada（Department of Metabolism and Diabetes, Tohoku University Graduate Shcool of Medicine）

Takeshi Inagaki（Division of Metabolic Medicine, Research Center for Advanced Science and Technology, The University of Tokyo）

14：20～14：38

Session 4-1

Amino acid regulation of metabolism

Institute for Nutritional Sciences, Shanghai Institute for Biological Sciences, Chinese Academy of Sciences

○ FeiFan Guo

14：38～14：56

Session 4-2

Regulation of hepatic glucose production by central insulin action through vagus and kupffer cells

Metabolism and nutrition research unit, Innovative integrated bio-research core, Institute for frontier science initiative, Kanazawa university

○ Hiroshi Inoue

14：56～15：14

Session 4-3

Mechanisms by which PTP1B affects energy balance

Department of Endocrinology and Diabetes, Nagoya University Graduate School of Medicine

○ Ryoichi Banno

15：14～15：32

Session 4-4

Impact of successful leptin replacement therapy in Japan on adult and child, systemic and partial lipodystrophy

Faculty of Human Health Science, Kyoto University Graduate School of Medicine

○ Kiminori Hosoda, Toru Kusakabe, Daisuke Aotani, Ken Ebihara, Kazuwa Nakao

Session 5

10 月 3 日（土）　15：32～16：38　第 3 会場（1 号館 4F　レセプションホール西）

座長：Masamitsu Nakazato（Division of Neurology, Respirology, Endocrinology and Metabolism, Department of Internal Medicine University of Miyazaki）

Hiroshi Inoue（Metabolism and nutrition research unit, Innovative Integrated Bio-Research Core, Institute for Frontier Science Initiative, Kanazawa University）

15：32～16：02

Session 5-1

Neural dynamics underlying hunger

Department of Physiology, University of California, San Francisco

○ Zachary A. Knight

16：02～16：20

Session 5-2

Gut hormones regulating energy homeostasis

Division of Neurology, Respirology, Endocrinology and Metabolism, Department of Internal Medicine, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan

○ Masamitsu Nakazato

16：20～16：38

Session 5-3

Na^+,K^+–ATPase in the arcuate nucleus senses systemic energy states to regulate feeding behavior

Department of Physiology, Division of Integrative Physiology, Jichi Medical University School of Medicine, Shimotsuke, Tochigi 329-0498, Japan

○ Toshihiko Yada, Hideharu Kurita, Masanori Nakata