

[033]九州大学生体防御医学研究所年報 : 2018年

<https://hdl.handle.net/2324/6617896>

出版情報 : 九州大学生体防御医学研究所年報. 33, pp.1-, 2019. Medical Institute of Bioregulation, Kyushu University

バージョン :

権利関係 :



Ⅲ 国際シンポジウム

The 13th International Symposium of the Institute Network
for Biomedical Sciences joint with the 3rd Symposium
of the Inter-University Research Network for
Trans-Omics Medicine and the 28th Hot Spring Harbor Symposium



Biomedical Sciences in the Era of Big Data

October 18 [Thu] - 19 [Fri]
9:30-18:20 9:00-15:45

1F Main Hall, Centennial Hall, Hospital Campus, Kyushu University

九州大学病院キャンパス 百年講堂 1階大ホール <http://www.med.kyushu-u.ac.jp/100ko-do/>

Invited Speakers

Peer Bork

European Molecular Biology Laboratory
(Heidelberg, Germany)

Suhas Rao

Stanford University
(California, USA)

Rachel Rosenthal

University College of London
(London, UK)

Speakers

Toru Kondo

Institute for Genetic Medicine,
Hokkaido University

Koetsu Ogasawara

Institute of Development, Aging and Cancer,
Tohoku University

Seiya Imoto

The Institute of Medical Science,
The University of Tokyo

Shumpei Ishikawa

Medical Research Institute,
Tokyo Medical and Dental University

Chiaki Takahashi

Cancer Research Institute,
Kanazawa University

Junya Toguchida

Institute for Frontier Life and Medical Sciences,
Kyoto University

Daron M. Standley

Research Institute for Microbial Diseases,
Osaka University

Takahisa Furukawa

Institute for Protein Research,
Osaka University

Toyomasa Katagiri

Institute of Advanced Medical Sciences,
Tokushima University

Kei-ichiro Ishiguro

Institute of Molecular Embryology and Genetics,
Kumamoto University

Takeshi Inagaki

Institute for Molecular and Cellular Regulation,
Gunma University

Mikita Suyama

Medical Institute of Bioregulation,
Kyushu University

Access

空路：福岡空港→（地下鉄空港線）→「中洲川端駅」、貝塚方面へ乗換→（地下鉄箱崎線）→「馬出九大病院前駅」で下車
JR：「JR 博多駅」→（地下鉄空港線）→「中洲川端駅」、貝塚方面へ乗換→（地下鉄箱崎線）→「馬出九大病院前駅」で下車
「JR 博多駅」→「JR 吉塚駅」で下車
西鉄：西鉄福岡駅→（地下鉄）→馬出九大病院前駅で下車
高速バス：天神バスセンター下車→（地下鉄）→「馬出九大病院前駅」で下車

Contact

国際シンポジウム事務局

Tel:092-642-6562 E-mail : hshs2018@bioreg.kyushu-u.ac.jp

九州大学医学部百年講堂アクセスマップ
<https://www.med.kyushu-u.ac.jp/100ko-do/access/index.html>



Program

<http://www.bioreg.kyushu-u.ac.jp/mib/topics/symposium/2018program.pdf>



主催／九州大学生体防御医学研究所

共催／生命医科学研究所ネットワーク（13 共同利用・共同研究拠点）

<http://square.umin.ac.jp/network/>

トランスオミクス医学研究拠点ネットワーク形成事業

後援／内藤記念科学振興財団

共同利用・共同研究拠点「多階層生体防御システム研究拠点」

The 13th International Symposium of the Institute Network for Biomedical Sciences joint with the 3rd Symposium of the Inter-University Research Network for Trans-Omics Medicine and the 28th Hot Spring Harbor Symposium

Biomedical Sciences in the Era of Big Data

Medical Institute of Bioregulation, Kyushu University

October 18 - 19, 2018

Main Hall, Centennial Hall Kyushu University School of Medicine
in the Hospital Campus of Kyushu University, Fukuoka

Thursday, October 18, 2018

09:30 - 09:35 Opening Remarks:
Yusaku Nakabeppu (Director of Medical Institute of Bioregulation, Kyushu University)

Session 1: **Epigenetics**

*Chairs: Mitsuyoshi Nakao (Institute of Molecular Embryology and Genetics, Kumamoto University)
 Hiroyuki Sasaki (Medical Institute of Bioregulation, Kyushu University)*

09:35-10:00 S-01: **Toyomasa Katagiri** (Institute of Advanced Medical Sciences, Tokushima University)
 Comprehensive molecular features of triple negative breast cancers

10:00-10:15 Y-01: **Norifumi Shioda** (Institute of Molecular Embryology and Genetics, Kumamoto University)
 G-quadruplexes as a therapeutic target for ATR-X syndrome

10:15-10:40 S-02: **Takeshi Inagaki** (Institute for Molecular and Cellular Regulation, Gunma University)
 Epigenetic regulation of adipocyte function

10:40-10:55 Y-02: **Sumiyo Morita** (Institute for Molecular and Cellular Regulation, Gunma University)
 Epigenome editing: Manipulating DNA methylation of specific DNA loci using CRISPR/Cas9 and a repeating peptide array- based amplification.

10:55-11:10 Y-03: **Kazumitsu Maehara** (Medical Institute of Bioregulation, Kyushu University)
 Low-input Epigenomic Profiling Technology Toward the Identification of Myogenic Chromatin Structure

11:10-11:25 Coffee break

Special Lecture 1

Chair: Yasuyuki Ohkawa (Medical Institute of Bioregulation, Kyushu University)

- 11:25-12:05 **Suhas Rao** (Stanford University, USA)
Cohesin Loss Eliminates All Loop Domains
- 12:05-12:15 Photo Session
- 12:15-13:15 Lunch / Steering Committee Meeting of Institute Network for Biomedical Sciences
(members only)
- 13:15-14:15 Poster Session-1

Session 2: Cancer and immune system

Chairs: Sho Yamasaki (Research Institute for Microbial Diseases, Osaka University)

Yoshihiro Baba (Medical Institute of Bioregulation, Kyushu University)

- 14:15-14:40 S-03: **Toru Kondo** (Institute for Genetic Medicine, Hokkaido University)
A novel tumor suppressor Ecr4 acts as an immunosurveillance factor
- 14:40-15:05 S-04: **Seiya Imoto** (Institute of Medical Science, The University of Tokyo)
Immuno-genomic pancancer landscape reveals diverse immune escape mechanisms
and immuno-editing histories
- 15:05-15:30 S-05: **Shumpei Ishikawa** (Medical Research Institute, Tokyo Medical and Dental
University)
Genomic and Immunogenomics of Diffuse-type Gastric Carcinoma
- 15:30-15:45 Coffee break

Special Lecture 2

Chair: Mikita Suyama (Medical Institute of Bioregulation, Kyushu University)

- 15:45-16:25 **Peer Bork** (European Molecular Biology Laboratory, Germany)
Systemic analysis of the human gut microbiome and beyond
-

Session 3: Structure and drug discover

Chairs: Toshifumi Takao (Institute for Protein Research, Osaka University)

Daisuke Kohda (Medical Institute of Bioregulation, Kyushu University)

- | | |
|-------------|--|
| 16:25-16:50 | S-06: Daron M. Standley (Research Institute for Microbial Diseases, Osaka University)
High-throughput modeling of lymphocyte receptors and their antigens |
| 16:50-17:05 | Y-04: Yusuke Kato (Institute of Advanced Medical Sciences, Tokushima University)
Combined approach of computation and enzymology to investigate novel D-amino acid oxidase inhibitors |
| 17:05-17:20 | Y-05: Toshiki Takei (Institute for Protein Research, Osaka University)
Development and Application of One-Pot Four-Segment Ligation Method Using Selenoester: Chemical synthesis of Superoxide Dismutase |
| 17:20-18:20 | Poster Session-2 |
| 18:20-18:30 | Break |
| 18:30-20:30 | Mixer |

Friday, October 19, 2018

Session 4: Germ cells and stem cells

*Chairs: Tatsuya Takemoto (Institute of Advanced Medical Sciences, Tokushima University)
Atsushi Suzuki (Medical Institute of Bioregulation, Kyushu University)*

- 09:00-09:25 S-07: **Kei-ichiro Ishiguro** (Institute of Molecular Embryology and Genetics, Kumamoto University)
A novel germ cell-specific factor, MEIOSIN, recruits STRA8 to direct initiation of meiosis in mammals
- 09:25-09:40 Y-06: **Yohei Hayashi** (Institute of Development, Aging and Cancer, Tohoku University)
Biological significance of metabolic shift in mouse germline differentiation
- 09:40-10:05 S-08: **Chiaki Takahashi** (Cancer Research Institute, Kanazawa University)
RB controls undifferentiated status through positive regulation of phosphoglycerate mutases
- 10:05-10:30 S-09: **Junya Toguchida** (Institute for Frontier Life and Medical Sciences, Kyoto University)
Application of iPS cells for disease modeling and drug discovery
- 10:30-10:45 Coffee break

Special Lecture 3

Chair: Yusaku Nakabeppu (Medical Institute of Bioregulation, Kyushu University)

- 10:45-11:25 **Rachel Rosenthal** (University College London, UK)
Cancer evolution and immune escape: TRACERx

Session 5: Cell biology

*Chairs: Ken Sato (Institute for Molecular and Cellular Regulation, Gunma University)
Keiichi Nakayama (Medical Institute of Bioregulation, Kyushu University)*

- 11:25-11:40 Y-07: **Tomohiro Yamazaki** (Institute for Genetic Medicine, Hokkaido University)
Functional domains of NEAT1 architectural lncRNA induce paraspeckle assembly through phase separation
- 11:40-12:05 S-10: **Takahisa Furukawa** (Institute for Protein Research, Osaka University)
Molecular control of light-dark adaptation in retinal photoreceptor cells
-

-
- 12:05-12:20 Y-08: **Kohsuke Tsuchiya** (Cancer Research Institute, Kanazawa University)
Caspase-1 can initiate two different forms of cell death, pyroptosis and apoptosis, depending on the signaling context
- 12:20-13:20 Lunch / Steering Committee Meeting of Inter-University Research Network for Trans-Omics Medicine (members only)

Session 6: Immunology

Chairs: Koichi Ikuta (Institute for Frontier Life and Medical Sciences, Kyoto University)
Yoshinori Fukui (Medical Institute of Bioregulation, Kyushu University)

- 13:20-13:45 S-11: **Kouetsu Ogasawara** (Institute of Development, Aging and Cancer, Tohoku University)
Identification of pathogenic T cells in metal allergy
- 13:45-14:00 Y-09: **Fumiji Saito** (Research Institute for Microbial Diseases, Osaka University)
Immune evasion of *Plasmodium falciparum* by RIFIN via inhibitory receptors
- 14:00-14:15 Y-10: **Jun-ichirou Yasunaga** (Institute for Frontier Life and Medical Sciences, Kyoto University)
Molecular mechanisms of oncogenesis by human T-cell leukemia virus type1
- 14:15-14:30 Coffee break

Session7: Cancer and Genetic disorders

Chairs: Kozo Tanaka (Institute of Development, Aging and Cancer, Tohoku University)
Hiroyuki Kubota (Medical Institute of Bioregulation, Kyushu University)

- 14:30-14:55 S-12: **Mikita Suyama** (Medical Institute of Bioregulation, Kyushu University)
Understanding gene regulation using chromosome conformation and epigenomic data
- 14:55-15:10 Y-11: **Fuyuki Miya** (Medical Research Institute, Tokyo Medical and Dental University)
Beyond the limitations of exome analysis for genetic disorders
- 15:10-15:25 Y-12: **Kiyoshi Yamaguchi** (Institute of Medical Science, The University of Tokyo)
Molecular features of colorectal cancer in patient with polymerase proofreading-associated polyposis
-

15:25-15:40 Early Career Investigator Award Ceremony

15:40-15:45 Closing Remarks:
Mikita Suyama (Medical Institute of Bioregulation, Kyushu University)

Poster Presentation

Category 1: Cancer

- P-1 Analysis of calcium wave in epithelial homeostasis
Yasuto Takeuchi (Institute for Genetic Medicine, Hokkaido University)
- P-2 NRF2-NOTCH3 Axis Promotes Stem-like Phenotype of *KEAP1*-mutant Non-small Cell Lung Cancers
Keito Okazaki (Institute of Development, Aging and Cancer, Tohoku University)
- P-3 Role for efficient chromosome alignment in equal chromosome segregation
Kinue Kuniyasu (Institute of Development, Aging and Cancer, Tohoku University)
- P-4 Residual circulating tumor DNA status in relapse prediction post allogeneic hematopoietic stem cell transplantation
Sousuke Nakamura (Institute of Medical Science, The University of Tokyo)
- P-5 Sulfated-glycosaminoglycans as Major Humoral Tumor-antigens Identified by Immunogenetic Repertoire Profiling for Gastric Cancers
Hiroto Katoh (Medical Research Institute, Tokyo Medical and Dental University)
- P-6 The role of transcription factor Gli1 in maintaining invasive phenotype of melanoma
I- Ketut Gunarta (Cancer Research Institute, Kanazawa University)
- P-7 Involvement of aberrant GSK3 β in tumor-promoting autophagy in colorectal cancer
Takahiro Domoto (Cancer Research Institute, Kanazawa University)
- P-8 Active B cell division on plasma cell niche is required for lymphoma development
Tomoharu Yasuda (Medical Institute of Bioregulation, Kyushu University)
- P-9 Application of Pluripotent Stem Cells for In Vitro Sarcomagenesis
Sakura Tamaki (Institute for Frontier Life and Medical Sciences, Kyoto University)
- P-10 Pan-cancer analysis of intratumor heterogeneity associated with patient prognosis using multidimensional measures
Chie Kikutake (Medical Institute of Bioregulation, Kyushu University)

Category 2: Molecular mechanisms and techniques

- P-11 Alternative autophagy pathways conserved from yeast to mammals
Satoko Arakawa (Medical Research Institute, Tokyo Medical and Dental University)
- P-12 Neuronal SIRT1 regulates simple sugar selection through FGF21 and oxytocin signalling in mice
Sho Matsui (Institute for Molecular and Cellular Regulation, Gunma University)
- P-13 Synthetic Study of D-Ferredoxin-1
Yusuke Ishida (Institute for Protein Research, Osaka University)
- P-14 Development of an analytical system for single-cell metabolomics based on high-sensitive nano-LC/MS/MS
Kohta Nakatani (Medical Institute of Bioregulation, Kyushu University)

-
- P-15 Sperm-borne phospholipase C zeta-1 ensures monospermic fertilization in mice
Yuhkoh Satouh (Research Institute for Microbial Diseases, Osaka University)
- P-16 TRANSOMICS: Integrated Analysis Through Multiple Molecular Layers
Fumiko Matsuzaki (Medical Institute of Bioregulation, Kyushu University)
- P-17 Omics approaches in peroxisome biogenesis and human disorders
Kanji Okumoto (Medical Institute of Bioregulation, Kyushu University)
- P-18 Integrative approach combining electron microscopy and high-speed AFM revealed the dynamic conformational exchange of the oligosaccharyltransferase in lipid bilayers
Yuki Kawasaki (Medical Institute of Bioregulation, Kyushu University)

Category 3: Inflammation

- P-19 Skeletal abnormalities in mice with constitutively activated MDA5
Nobumasa Soda (Institute for Frontier Life and Medical Sciences, Kyoto University)
- P-20 A novel mechanism for induction of tissue-specific immune evasion
Tetsuya Sakurai (Medical Institute of Bioregulation, Kyushu University)

Category 4: Development and stem cell

- P-21 The effect of maternal diet and nutritional status on mammalian sex determination
Shingo Miyawaki (Institute of Advanced Medical Sciences, Tokushima University)
- P-22 Expansion of human iPS-derived nephron progenitors and modeling nephrotic disease
Shunsuke Tanigawa (Institute of Molecular Embryology and Genetics, Kumamoto University)
- P-23 Identification of transcription factors repressing direct conversion of mouse embryonic fibroblasts into induced hepatocyte-like cells
Masayoshi Yorino (Medical Institute of Bioregulation, Kyushu University)
- P-24 Mammalian Dmrt factors orchestrate cerebral cortical development *via* regional control of neural progenitor identity
Dai-jiro Konno (Medical Institute of Bioregulation, Kyushu University)

Category 5: Genome science

- P-25 Accurate and Robust Base-calling for Nanopore Raw Reads with Variation of Species Exploiting Neural Machine Translation Model
Hiroki Konishi (Institute of Medical Science, The University of Tokyo)
- P-26 Elucidation of roles of the linear form of chromosomes in eukaryotes
Ami Takeuchi (Institute for Protein Research, Osaka University)
- P-27 *Ddhd1* knockout mice as a model system of hereditary spastic paraplegia
Takuya Morikawa (Medical Institute of Bioregulation, Kyushu University)
-

-
- P-28 HLA controls clinical conversion of Hashimoto Thyroiditis to Graves Disease
Xin Tun (Medical Institute of Bioregulation, Kyushu University)

Category 6: Degenerative disorders

- P-29 Impact of HPGCD administration into the cerebral ventricle for Niemann-Pick disease type C
Minami Soga (Institute of Molecular Embryology and Genetics, Kumamoto University)
- P-30 G-quadruplexes as a therapeutic target for ATR-X syndrome
Norifumi Shioda (Institute of Molecular Embryology and Genetics, Kumamoto University)
- P-31 ICF syndrome proteins CDCA7 and HELLS promote non-homologous end joining
Motoko Unoki (Medical Institute of Bioregulation, Kyushu University)

Category 7: Others

- P-32 Immune evasion of *Plasmodium falciparum* by RIFIN via inhibitory receptor
Fumiji Saito (Research Institute for Microbial Diseases, Osaka University)
- P-33 Overproduction of ATP and Reactive Oxygen Species in Mitochondria by Excessive Magnesium
Osamu Hashizume (Research Institute for Microbial Diseases, Osaka University)
- P-34 Molecular mechanisms of oncogenesis by human T-cell leukemia virus type 1
Jun-ichirou Yasunaga (Institute for Frontier Life and Medical Sciences, Kyoto University)
- P-35 Molecular features of colorectal cancer in patient with polymerase proofreading-associated polyposis
Kiyoshi Yamaguchi (Institute of Medical Science, The University of Tokyo)
- P-36 Epigenome editing: Manipulating DNA methylation of specific DNA loci using CRISPR/Cas9 and a repeating peptide array-based amplification
Sumiyo Morita (Institute for Molecular and Cellular Regulation, Gunma University)
- P-37 Beyond the limitations of exome analysis for genetic disorders
Fuyuki Miya (Medical Research Institute, Tokyo Medical and Dental University)
- P-38 Low-input Epigenomic Profiling Technology Toward the Identification of Myogenic Chromatin Structure
Kazumitsu Maehara (Medical Institute of Bioregulation, Kyushu University)
- P-39 Caspase-1 can initiate two different forms of cell death, pyroptosis and apoptosis, depending on the signaling context
Kohsuke Tsuchiya (Cancer Research Institute, Kanazawa University)
- P-40 Neural stem cell-specific *Itpa* knockout mouse as a model of human epileptic encephalopathy caused by ITPA deficiency
Daisuke Tsuchimoto (Medical Institute of Bioregulation, Kyushu University)
- P-41 Oligodendrocyte dysfunction due to *Chd8* mutation shapes the core autistic phenotypes in mice
Atsuki Kawamura (Medical Institute of Bioregulation, Kyushu University)
- P-42 Biological significance of metabolic shift in mouse germline differentiation
Yohei Hayashi (Institute of Development, Aging and Cancer, Tohoku University)
-

-
- P-43 Functional domains of NEAT1 architectural lncRNA induce paraspeckle assembly through phase separation
Tomohiro Yamazaki (Institute for Genetic Medicine, Hokkaido University)
- P-44 Combined approach of computation and enzymology to investigate novel D-amino acid oxidase inhibitors
Yusuke Kato (Institute of Advanced Medical Sciences, Tokushima University)
- P-45 Development and Application of One-Pot Four-Segment Ligation Method Using Selenoester: Chemical Synthesis of Superoxide Dismutase
Toshiki Takei (Institute for Protein Research, Osaka University)



The 13th International Symposium of the Institute Network for Biomedical Sciences joint with the 3rd Symposium of the Inter-University Research Network for Trans-Omics Medicine and the 28th Hot Spring Harbor Symposium

Biomedical Sciences in the Era of Big Data

October 18 - 19, 2018

Main Hall, Centennial Hall Kyushu University School of Medicine in the
Hospital Campus of Kyushu University.