

◆ 理事長講演

日 時：9月4日（金）13：30～14：10
演 題：日本微小循環学会の過去・現在・未来
座 長：荒木 信夫（よみうりランド慶友病院）
演 者：鈴木 秀和（東海大学医学部内科学系 消化器内科学）

◆ 会長講演

日 時：9月5日（土）11：40～12：10
演 題：Microbiome, Microcirculation and Medicine
座 長：松尾 雅斗（神奈川歯科大学大学院・口腔科学講座・歯科形態学分野）
演 者：内藤 裕二（京都府立医科大学大学院医学研究科 消化器内科学）

◆ 特別講演

<特別講演 1 >

日 時：9月4日（金）17：00～17：50
演 題：潰瘍性大腸炎における便細菌叢移植と腸内細菌叢の解析
座 長：内藤 裕二（京都府立医科大学大学院医学研究科 消化器内科学）
演 者：飯田 宗穂（金沢大学附属病院 消化器内科）
第6回 Gut Microbiota 研究会・第45回日本微小循環学会総会 合同セッション

<特別講演 2 >

日 時：9月4日（金）17：50～18：40
演 題：イメージングメタボロミクスによるがんの代謝解析と医学応用
座 長：日比 紀文（北里大学北里研究所病院 炎症性腸疾患先進治療センター）
演 者：末松 誠（慶應義塾大学医学部 客員教授 医化学教室）
第45回日本微小循環学会総会・第6回 Gut Microbiota 研究会 合同セッション

<特別講演 3 >

日 時：9月5日（土）8：30～9：20
演 題：造血幹細胞と造血、骨を維持する骨髄の微小環境（ニッチ）
座 長：岡田 英吉（富山市医師会健康管理センター病理部）
演 者：長澤 丘司（大阪大学大学院 生命機能研究科 / 医学系研究科・医学部）

◆ 北島政樹先生追悼講演

日 時：9月5日（土）14：00～14：50
演 題：北島政樹先生による微小循環学とその展開－鋳型法から蛍光ガイド手術の確立へ－
座 長：韓 晶岩（北京大学医学部 中西医結合学）
演 者：吉田 昌（国際医療福祉大学病院 外科）

◆ 教育講演（モーニングセミナー）

日 時：9月5日（土）8：00～8：30
演 題：脳微小血管の役割とその疾患
座 長：内藤 裕二（京都府立医科大学大学院医学研究科 消化器内科学）
演 者：水野 敏樹（京都府立医科大学大学院医学研究科 神経内科学）
共 催：第一三共株式会社

◆ シンポジウム

＜シンポジウム 1 基礎＞

日 時：9月4日（金）14：50～16：50

テーマ：Microcirculation and Metabolism ～ Brainstorming technologies and ideas ～

未来の微小循環学を駆動する新兵器と革新的概念

座 長：梶村 真弓（慶應義塾大学 医学部 生物学教室）

福原 茂朋（日本医科大学 先端医学研究所 病態解析学部門）

「チトクロムCオキシダーゼ活性調節による新規治療薬開発」

新谷 泰範（国立循環器病研究センター研究所 分子薬理部）

「創傷治癒過程の血管新生において内腔圧は血管内皮細胞に伸展刺激を負荷することで血管伸長を制御する」

福原 茂朋（日本医科大学 先端医学研究所 病態解析学部門）

「腸内細菌に介入する心血管病治療」

山下 智也（神戸大学医学部附属病院）

「生体内でガス分子を操る多孔性材料の開発」

古川 修平（京都大学高等研究院 物質-細胞統合システム拠点）

＜シンポジウム 2 臨床＞

日 時：9月5日（土）15：00～16：30

テーマ：Microcirculation and Pathophysiology

座 長：伊藤 義彰（大阪市立大学大学院医学研究科 脳神経内科学）

永田 博司（けいゆう病院 名誉院長）

「骨格筋における微小循環障害と予防対策」

藤野 英己（神戸大学生命・医学系保健学域・神戸大学大学院保健学研究科）

「眼底微小循環検査の進歩」

辻川 明孝（京都大学大学院医学研究科 眼科学）

「虚血再灌流傷害に対するプレ・ポストコンディショニング」

鎌田 和浩（京都府立医科大学大学院医学研究科 消化器内科学）

◆ スポンサーセミナー

＜スポンサーセミナー 1＞

日 時：9月4日（金）14：10～14：40

演 題：レーザー光内視鏡を用いた消化管腫瘍診断の最前線－微小血管構築像の診断を中心に－

座 長：穂苅 量太（防衛医科大学校 内科学（消化器））

演 者：土肥 統（京都府立医科大学大学院医学研究科 消化器内科学）

共 催：富士フィルム株式会社

＜スポンサーセミナー 2＞

日 時：9月5日（土）12：20～13：10

演 題：消化管のマイグレーションと $\alpha 4 \beta 7$ インテグリン製剤への期待

座 長：鈴木 秀和（東海大学医学部内科学系 消化器内科学）

演 者：穂苅 量太（防衛医科大学校 内科学（消化器））

共 催：武田薬品工業株式会社

PROGRAM

Friday, September 4, 2020

Opening Remarks **13:25-13:30**

President : Yuji Naito
Department of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine

Keynote Lecture **13:30-14:10**

Chair : Nobuo Araki

KL The Japanese Society for Microcirculation: Past, Present & Future

Hidekazu Suzuki

President of Japanese Society for Microcirculation,
Division of Gastroenterology and Hepatology, Department of Internal Medicine, Tokai University School of Medicine

Sponsored Seminar 1 **14:10-14:40**

Chair : Ryota Hokari

SS1 Forefront of the endoscopic diagnosis using laser endoscopy for gastrointestinal tumors: focus on the diagnosis of microvascular architecture

Osamu Dohi

Department of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine

Sponsored by FUJIFILM corporation

Symposium 1

Microcirculation and Metabolism

~ Brainstorming technologies and ideas ~

14:50-16:50

Chair : Mayumi Kajimura

Shigetomo Fukuhara

SY1-1 Modulation of cytochrome c oxidase activity (CcO) is a novel therapeutic strategy

Yasunori Shintani

Department of Molecular Pharmacology, National Cerebral and Cardiovascular Center

SY1-2 Intraluminal pressure on injured blood vessels regulates wound angiogenesis through mechanical stretching of endothelial cells

Shigetomo Fukuhara

Department of Molecular Pathophysiology, Institutes of Advanced Sciences, Nippon Medical School

SY1-3 Alteration of gut microbiota could be a novel therapeutic strategy for preventing cardiovascular diseases

Tomoya Yamashita

Kobe University Hospital

SY1-4 Porous materials for controlling bioactive gases

Shuhei Furukawa

Institute for Integrated Cell-Material Sciences, Kyoto University

Special Lecture 1 **17:00-17:50**

Chair : Yuji Naito

SL1 Analysis of gut microbiota post fecal microbiota transplantation in patients of ulcerative colitis

Noriho Iida

Department of Gastroenterology, Kanazawa University Hospital

Joint Session : The 6th Gut Microbiota Research Society,

The 45th Annual Meeting of Japanese Society for Microcirculation

Special Lecture 2 **17:50-18:40**

Chair : Toshifumi Hibi

SL2 Imaging metabolomics for dissecting cancer metabolism

Makoto Suematsu

Department of Biochemistry, Keio University School of Medicine

Joint Session : The 45th Annual Meeting of Japanese Society for Microcirculation,

The 6th Gut Microbiota Research Society

Saturday, September 5, 2020**Educational Lecture (Morning Seminar)****8:00-8:30**

Chair : Yuji Naito

EL A role of cerebral small vessel and it's pathological state**Toshiki Mizuno**

Department of Neurology, Kyoto Prefectural University of Medicine

Sponsored by DAIICHSANKYO COMPANY, LIMITED

Special Lecture 3**8:30-9:20**

Chair : Eikichi Okada

SL3 Bone marrow microenvironmental niches for hematopoietic stem cells and hematopoiesis**Takashi Nagasawa**

Graduate School of Frontier Biosciences, Graduate School of Medicine, Osaka University

Applicants' Presentation for Young Investigator Award**9:20-10:20**

Chair : Toyotaka Yada

Masahiko Nakamura

Y-01 Platelet-rich fibrin application promotes vascularization and osteogenic differentiation in periodontal tissue**Masahiro To**, Satoko Wada-Takahashi, Shun-suke Takahashi, Masato Matsuo

Department of Oral Science, Graduate School of Dentistry, Kanagawa Dental University

Y-02 Indigo Naturalis increases ILC3 flowingthrough mesenteric lymphatic vasculature from intestinal mucosa**Rina Tanemoto**, Kazuki Horiuchi, Masaaki Higashiyama, Ryota Hokari

Department of Internal medicine, National Defense Medical College

Y-03 NLRP3 Inflammasome-derived interleukin-1 β attenuates stress-induced gastric injury via the COX-2/PGE₂ axis**Akira Higashimori**, Toshio Watanabe, Yuji Nadatani, Koji Otani, Tetsuya Tanigawa, Yasuhiro Fujiwara

Department of gastroenterology, Osaka City University Graduate school of Medicine

Y-04 NLRP3 inflammasome-mediated caspase-1 activation prevents gastric mucosal healing**Yuji Nadatani**^{1,2)}, Toshio Watanabe²⁾, Akira Higashimori²⁾, Koji Otani²⁾, Tetsuya Tanigawa²⁾

1) Department of premier preventive medicine, Osaka city University Graduate school of Medicine

2) Department of gastroenterology, Osaka City University Graduate school of Medicine

Free Paper 1**10:30-11:40**

Chair : Kazuto Masamoto

Takanori Yasu

F-01 Optogenetic manipulation of cerebral microcirculation by transcranial photostimulation to the channelrhodopsin-2 expressing mouse brains**Juri Murata**¹⁾, Miyuki Unekawa²⁾, Iwao Kanno³⁾, Yutaka Tomita^{2,4)},Kenji F. Tanaka⁵⁾, Jin Nakahara²⁾, Kazuto Masamoto^{1,6)}

1) Department of Mechanical Engineering and Intelligent Systems, University of Electro-Communications

2) Department of Neurology, Keio University School of Medicine

3) Department of Functional Brain Imaging Research, National Institute of Radiological Sciences

4) Tomita Hospital

5) Department of Neuropsychiatry, Keio University School of Medicine

6) Center for Neuroscience and Biomedical Engineering, University of Electro-Communications

F-02 Dynamic response of arterial diameter and red blood cell velocity in capillaries associated with cortical spreading depolarization/depression**Chunhua Tang**¹⁾, Miyuki Unekawa¹⁾, Yutaka Tomita¹⁾, Kazuto Masamoto²⁾,Iwao Kanno³⁾, Jin Nakahara¹⁾

1) Department of Neurology, Keio University School of Medicine

2) Brain Science Inspired Life Support Research Center, University of Electro-Communications

3) Department of Functional Brain Imaging Research, National Institute of Radiological Sciences

- F-03 Flow Velocity Mapping of the Human Nailfold Microcirculation Imaged with Capillary Flow Video Microscopy**
Tomoya Niizawa¹⁾, Takuma Sugashi¹⁾, Tomoya Kusaka¹⁾, Ichiro Miura^{2,3,4)}, Keiji Kawagoe^{4,5)}, Kazuto Masamoto^{1,6)}
 1) Graduate School of Informatics and Engineering, University of Electro-Communications
 2) Department of Clinical Laboratory, Obihiro Kyokai General Hospital
 3) Department of Human Pathology, School of Medicine, Juntendo University
 4) NPO Mousaikekkan Kenkyukai (Japanese Capillary Research Conference)
 5) Toku Corporation
 6) Center for Neuroscience and Biomedical Engineering, University of Electro-Communications
- F-04 Effects of Life Style Differences on the Human Nailfold Microcirculation**
Tomoya Kusaka¹⁾, Takuma Sugashi¹⁾, Tomoya Niizawa¹⁾, Ichiro Miura^{2,3,4)}, Keiji Kawagoe^{4,5)}, Kazuto Masamoto^{1,6)}
 1) Graduate School of Informatics and Engineering, University of Electro-Communications
 2) Department of Clinical Laboratory, Obihiro Kyokai General Hospital
 3) Department of Human Pathology, School of Medicine, Juntendo University
 4) NPO Mousaikekkan Kenkyukai (Japanese Capillary Research Conference)
 5) Toku Corporation
 6) Center for Neuroscience and Biomedical Engineering, University of Electro-Communications
- F-05 Effect of the infrared rays given to the neck on the capillary blood flow rate of the finger: video motion analysis**
Wasa Ueda¹⁾, Michio Aoki²⁾, Shigeo Ogasawara³⁾
 1) Kochi University
 2) Aoki Neurosurgery and Plastic Surgery Hospital
 3) Kochi High Power Senka
- F-06 Age-related changes in the facial skin blood flow in healthy women examined by laser speckle flowgraphy**
Yoshinao Nagashima^{1,2,3)}, Yuko Ohsugi^{1,3)}, Yoshifumi Niki¹⁾, Akira Fuji¹⁾, Takashi Okamoto²⁾, Masataka Majima³⁾
 1) Personal Health Care Products Research, Kao Corporation
 2) Department of Systems Design and Informatics, Kyushu Institute of Technology
 3) Kitasato University, School of Medicine
- F-07 Spatiotemporal Correlation Analysis of the Capillary Red Blood Cell Flow and Vessel Diameters in the Anesthetized Rat Cortex**
Ruka Sakuraba¹⁾, Tomoya Kusaka¹⁾, Takuma Sugashi¹⁾, Kazuto Masamoto^{1,2)}
 1) Department of Mechanical Engineering and Intelligent Systems, University of Electro-Communications
 2) Center for Neuroscience and Biomedical Engineering, University of Electro-Communications

Presidential Lecture

11:40-12:10

Chair : Masato Matsuo

PL Microbiome, Microcirculation and Medicine
 Yuji Naito

Department of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine

Sponsored Seminar 2

12:20-13:10

Chair : Hidekazu Suzuki

SS2 Migration of the digestive tract and expectation of the $\alpha 4\beta 7$ integrin preparation in Ulcerative Colitis
 Ryota Hokari

Gastroenterology Director, Department of Internal Medicine, National Defense Medical College

Sponsored by Takeda Pharmaceutical Company Limited

Council Meeting and General Assembly

13:20-14:00

Memorial Lecture
 ~ Remembrance of Prof. Masaki Kitajima ~

14:00-14:50

Chair : Jing-Yan Han

ML Expansion of Prof. Masaki Kitajima's achievements on the field of the microcirculation – From silicon rubber cast to the developments of the fluorescence guided surgery –
 Masashi Yoshida

Department of Surgery, International University of Health and Welfare Hospital

Symposium 2 Microcirculation and Pathophysiology

15:00-16:30

Organizer : Yoshiaki Ito
Hiroshi Nagata

SY2-1 Therapeutic countermeasures to attenuate microcirculation disorders in skeletal muscle

Hidemi Fujino

Kobe University Graduate School of Health Sciences

SY2-2 Evolution of Examination Devices for Human Retinal Microcirculation

Akitaka Tsujikawa

Department of Ophthalmology and Visual Sciences, Kyoto University Graduate School of Medicine

SY2-3 Effect of pre and postconditioning on ischemic/reperfusion injury

Kazuhiro Kamada, Yuji Naito

Department of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine

Free Paper 2

16:30-17:30

Chair : Toshihiro Nishizawa
Toshio Watanabe

F-08 Intercellular transport of Amyloid β *in vivo* Observed with Multiphoton Microscopy

Itsuki Hasegawa, Norie Kimura, Shinobu Minatani, Takato Abe, Yoshiaki Itoh

Department of Neurology, Osaka City University Graduate School of Medicine

F-09 Morphologic Classifications and Locations of Microaneurysms and Clinical Relevance in Branch Retinal Vein Occlusion

Yuva Esaki, Yoshio Hirano, Yuichiro Ogura

Department of Ophthalmology & Visual Science, Nagoya City University Graduate School of Medical Sciences

F-10 Immunohistochemical observation of the microvasculature of the human mammary tissue

Eikichi Okada

Department of Pathology, Toyama City Medical Association Health Control Center

F-11 Translocation Route of bacteria detected in liver and lung in the *Helicobacter suis*-infected mouse

Masahiko Nakamura¹⁾, Hidekazu Suzuki²⁾

1) School of Pharmacy, Kitasato University

2) Department of Gastroenterology and Hepatology, Tokai University School of Medicine

F-12 The effects of a new carbon monoxide (CO)-releasing molecule (CORM401) in microcirculation

Ken Inoue¹⁾, Gediminas Cepinskas²⁾, Kazuhiro Kamada¹⁾, Kazuhiro Katada¹⁾,

Kazuhiko Uchiyama¹⁾, Takeshi Ishikawa¹⁾, Tomohisa Takagi¹⁾, Yuji Naito¹⁾, Yoshito Itoh¹⁾

1) Department of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine

2) Centre for Critical Illness Research, LHRI

F-13 YangXue QingNao Wan, a Compound Chinese Medicine, Attenuates Cerebrovascular Hyperpermeability and Neuron Injury in Spontaneously Hypertensive Rat

Jing-Yan Han^{1,2)}

1) Department of Integration of Chinese and Western Medicine, School of Basic Medical Sciences, Peking University

2) Tasy Microcirculation Research Center, Peking University Health Science Center

Awards ceremony

17:30-17:40

Closing Remarks

17:40-17:50

President : Yuji Naito

Department of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine