金沢大学
KANAZAWA UNIVERSITY

hhu Heinrich Heine Universität Düsseldorf

The 2nd Japan - Germany Symposium on Advanced Preventive Medicine 2019

千葉大学
CHIBA UNIVERSITY

長崎大学
NAGASAKI UNIVERSITY

October 3-4, 2019 @Kanazawa, Japan

Welcome Message,

I would like to extend my warmest welcome to all the participants of the second Japan-Germany Symposium on Advanced Preventive Medicine, being held in Kanazawa, Japan, on October 2-3, 2019.

The Joint Graduate School of Advanced Preventive Medical Sciences among three universities: Chiba, Kanazawa, and Nagasaki Universities, was newly established in April 2016, in order to develop human resources who can practice tailor-made prevention based on various life stages and personal and environmental characteristics through elucidating genome-environment interactions in diseases and health. Our Joint Graduate School would like to establish a "double degree program" (DDP) with Heinrich-Heine University (HHU) in Germany as part of the globalization of the graduate school. For this purpose, we established an inter-university agreement with HHU, set up the Kanazawa University office at HHU, and held the first Germany-Japan Symposium at HHU in September 2018.

I would be very honored to hold the second Japan-Germany Symposium on Advanced Preventive Medicine here in Kanazawa, for facilitating scientific collaboration between our three universities and HHU. I believe that collaborative researches among these four universities will advance comparative sciences between Germany and Japan in the field of genome-environment interactions. I hope that the researchers will understand each other more deeply through interaction and discussion in this symposium, which leads to establishing the “double degree program" in near future.

Thank you for your participation and friendship.

October 2, 2019

Hiroshi Ichimura

Prof. Hiroshi ICHIMURA
Dean,
Graduate School of Advanced Preventive Medical Sciences, Kanazawa University

Program

１．Title of the symposium

The 2nd Japan - Germany Symposium on Advanced Preventive Medicine 2019

２．Host

Kanazawa University Graduate School of Advanced Preventive Medical Sciences

Kanazawa University Advanced Preventive Medical Sciences Research Center

３．Co-sponsored

The Juzen Medical Society (Kanazawa University), The Alumni Association of the Juzen Medical Society (Kanazawa University), 金沢大学法人主導（トップダウン型研究課題）「機械学習を用いた医療関連ビッグデータ解析研究：多目的コホート統合ビッグデータを用いた超スマート医療実現化プロジェクト」（研究代表：Prof. Atshushi TAJIMA），金沢大学戦略的研究推進プログラム「超然プロジェクト」（国際共同研究スタートアップ支援)（研究代表：Prof. Toshinari TAKAMURA）

４．Detail

1) Date: October 3rd (Thu)～October 4th(Fri), 2019

2) Place: Shiinoki Cultural Complex, Ishikawa Prefecture, 2-1-1Hirosaka, Kanazawa, Ishikawa

石川県政記念 しいのき迎賓館（石川県金沢市広坂 2 丁目 1 番 1 号）

Schedule for
the 2nd Japan - Germany Symposium on Advanced Preventive Medicine

Research progress

Date	Oct 3 (Thu), 2019
Place	Shiinoki Geihinkan (Garden Room)
Subject Matters	
9:15~ [In English and Japanese] @Shiinoki Geihinkan (Garden room)	Research progress (7 min + Q&A 3min); Oral presentation Targets: Graduate students from Kanazawa-Chiba-Nagasaki Graduate School of Advanced Preventive Medical Sciences Kanazawa University **Chair: Prof. Shuichi KANEKO** **1.** Serum aldo-keto reductase family 1 member B10 predicts advanced liver fibrosis and fatal complications of nonalcoholic steatohepatitis **Masataka Kanno**[1)], Kazunori Kawaguchi[2)], Masao Honda[3)], Shuichi Kaneko[1)] 1) Department of System Biology, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University 2) Gastroenterology, Department of Clinical Medicine, kanazawa University Hosopital 3) Laboratory Sciences, Faculty of Health Sciences, Institute of Medical, Pharmaceutical and Health Sciences, kanazawa University **Chair: Prof. Toshinari TAKAMURA** **2.** Pathological trajectories of non-alcoholic fatty liver disease in Japanese **Saori Sako**[1)] , Yumie Takeshita[1)], Hitoshi Ando[2)], Kiyoaki Ishii[3)], Hiromasa Tsujiguchi[4)], Eishiro Mizukoshi[5)], Tatsuya Yamashita[6)], Kuniaki Arai[7)], Masao Honda[8)], Hiroyuki Nakamura[9)], Ken-ichi Harada[10)] Shuichi Kaneko[11)], Toshinari Takamura[1)] 1) Department of Endocrinology and Metabolism, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University 2) Cellular and Molecular Function Analysis, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University 3) Endocrinology and Metabolism, Department of Internal Medicine, Graduate School of Medical Sciences 4) Department of Environmental and Preventive Medicine, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University 5) Gastroenterology, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University

6) Department of Gastroenterology, Advanced Preventive Medical Sciences Research Center, Kanazawa University
7) Gastroenterology, Department of Clinical Medicine, Kanazawa University Hospital
8) Laboratory Sciences, Faculty of Health Sciences, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University
9) Department of Public Health, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University
10) Human Pathology, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, kanazawa University
11) Department of System Biology, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University

3. Identification of a gene predicting glucose-lowering effect of metformin

Takeo Tanaka[1)], Yumie Takeshita[1)], Kiyoaki Ishii[2)], Shigeyuki Matsui[3)], Toshinari Takamura[1)]

1) Department of Endocrinology and Metabolism, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University
2) Endocrinology and Metabolism, Department of Internal Medicine, Graduate School of Medical Sciences
3) Department of Biostatistics, Nagoya University Graduate School of Medicine

Chair: Prof. Hiroyuki NAKAMURA

4. Dietary Calcium Intake and Hypertension: Importance of Serum Concentrations of 25-Hydroxyvitamin D

Haruki Nakamura[1)], Hiromasa Tsujiguchi[2)], Akinori Hara[2)], Yasuhiro Kambayashi[2)], Sakae Miyagi[2)], Thao Thi Thu Nguyen[2)], Keita Suzuki[1)], Yuichi Tao[3)] , Yuriko Sakamoto[3)], Yukari Shimizu[3)], Norio Yamamoto[4)], Hiroyuki Nakamura[1)]

1) Department of Public Health, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University
2) Department of Environmental and Preventive Medicine, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University
3) Environmental and Preventive Medicine, Department of Social and Environmental Medicine, Graduate School of Medical Sciences
4) Orthopaedic Surgery, Department of Surgery, Graduate School of Medical Sciences, kanazawa University

5. Association between serum concentrations of 25-hydroxyvitamin D and chronic pain: Effect of alcohol drinking habit

Keita Suzuki[1)], Hiromasa Tsujiguchi[2)], Sakae Miyagi[2)], Thao Thi Thu Nguyen[2)], Akinori Hara[2)], Haruki Nakamura[1)], Yukari Shimizu[3)], Koichiro Hayashi[1)], Yohei

Yamada[1)], Phat Minh Nguyen[3)], Yuichi Tao[3)] , Yuriko Sakamoto[3)], Masaharu Nakamura[3)] , Hiroyuki Nakamura[1)]

1) Department of Public Health, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University

2) Department of Environmental and Preventive Medicine, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University

3) Environmental and Preventive Medicine, Department of Social and Environmental Medicine, Graduate School of Medical Sciences

Chiba University

Chair: Dr. Kenichi SAKURAI

6. Elder Abuse and Social Capital in Older Adults: The Japan Gerontological Evaluation Study

Chie Koga[1)], Masamichi Hanazato[2)], Taishi Tsuji[2)], Norimichi Suzuki[2)], Katsunori Kondo[2) 3)]

1) Department of Social Preventive Medical Sciences, Advanced Preventive Medical Sciences, Graduate School of Medical and Pharmaceutical Sciences, Chiba University

2) Center for Preventive Medical Sciences, Chiba University

3) Center for Gerontology and Social Science, National Center for Geriatrics and Gerontology

7. Maternal gut microbiota is associated with fetal growth in a sex-specific manner

Yumi Sato[1)], Kenichi Sakurai[2)], Hiromi Tanabe[2)], Tamotsu Kato[3)], Yumiko Nakanishi[3)], Hiroshi Ohno[3) 4)], Chisato Mori[2) 5)]

1) Department of Nutrition and Metabolic Medicine, Advanced Preventive Medical Sciences, Graduate School of Medical and Pharmaceutical Sciences, Chiba University

2) Center for Preventive Medical Sciences, Chiba University, Chiba, Japan

3) Laboratory for Intestinal Ecosystem, RIKEN Center for Integrative Medical Sciences

4) Intestinal Microbiota Project, Kanagawa Institute of Industrial Science and Technology

5) Department of Bioenvironmental Medicine, Graduate School of Medicine, Chiba University

Chair: Prof. Chisato MORI

8. Indoor Air Quality and Health ～Chemires Town Project Phase III～

Kayo Tsumura[1)],Hiroko Nakaoka[2)], Norimichi Suzuki[2)], Yoshitake Nakayama[2)], Chisato Mori[2)]

1) Department of Global Preventive Medicine, Advanced Preventive Medical Sciences, Graduate School of Medical and Pharmaceutical Sciences, Chiba University
2) Center for Preventive Medical Sciences, Chiba University

9. Socio‐economic status and dementia onset among older Japanese: A 6- year prospective cohort study from the Japan Gerontological Evaluation Study.

T. Takasugi[1)2)], T. Tsuji[3)] , Y. Nagamine[3)] , Y. Miyaguni [4)] and K. Kondo [3)4)].
1) Department of Social Preventive Medical Sciences, Advanced Preventive Medical Sciences, Graduate School of Medical and Pharmaceutical Sciences, Chiba University
2) Business R&D Department, Risk Management Business Unit, Sompo Risk Management Inc
3) Department of Social Preventive Medical Science, Center for Preventive Medical Sciences, Chiba University
4) Department of Gerontological Evaluation, Center for Gerontology and Social Science, National Center for Geriatrics and Gerontology

Nagasaki University

Chair: Prof. Yuji NAGAYAMA

10. Intention to return to the town of Tomioka in residents 7 years after the accident at Fukushima Daiichi Nuclear Power Station.

H. Matsunaga[1)], M. Orita[2)], Y. Taira[2)], Y. Yamada[1)2)] and N. Takamura[2)]
1) Department of Global Health, Medicine and Welfare, Division of Advanced Preventive Medical Sciences, Graduate School of Biomedical Sciences, Nagasaki University
2) Department of Global Health, Medicine and Welfare, Atomic Bomb Disease Institute, Nagasaki University

11. Immunofluorescence analysis of 53BP1 expression in follicular lymphoma: comparison with benign lymphoid lesions.

TMH. Luong[1)], D. Niino[2)], K. Matsuda[1)], H. Kurohama[1)], M. Ito[3)],
M. Nakashima[1)]
1) Department of Tumor and Diagnostic Pathology, Division of Advanced Preventive Medical Sciences, Graduate School of Biomedical Sciences, Nagasaki University
2) Department of hology, Sasebo City Medical Center
3) Department of Pathology, National Hospital Organization Nagasaki Medical Center

	Chair: Dr. Yasuyo ABE **12.** Factors associated with parenting stress among mothers with infants aged one and a half years. **A. Kit**[1)], K. Arima[1)], S. Mizukami[1)], Y. Tomita[1)], T. Nishimura[1)], Y. Abe[1)], K. Aoyagi [1)] 1) Department of Public Health, Division of Advanced Preventive Medical Sciences, Graduate School of Biomedical Sciences, Nagasaki University **Chair: Prof. Atsushi KAWAKAMI** **13.** Preoperative detection of TERT promoter mutations in papillary thyroid carcinomas **T. Nakao**[1)], N. Mitsutake[2)], M. Matsuse[2)], A. Tanaka[3)], M. Hirokawa[4)], A. Miyauchi[5)], A. Kawakami[1)] 1) Department of Immunology and Rheumatology, Division of Advanced Preventive Medical Sciences, Graduate School of Biomedical Sciences, Nagasaki University 2) Department of Radiation Medical Sciences, Atomic Bomb Disease Institute, Nagasaki University 3) Department of Surgical Oncology, Department of Medical and Dental Sciences, Graduate School of Biomedical Sciences, Nagasaki University 4) Department of Diagnostic Pathology and Cytology, Kuma Hospital 5) Department of Surgery, Kuma Hospital, Kobe, Japan **14.** Expression of SLAMF6 and its functional significance in podocytes of lupus nephritis. **T. Igawa**[1)], K. Ichinose[1)], A. Umetsu[1)], K. Hara[1)], S. Nishihata[1)], M. Okamoto[1)], Y. Endo[1)], S. Tsuji[1)], Y. Tsuji[1)], A. Takatani[1)], T. Shimizu[1)], R. Sumiyoshi[1)], T. Koga[1)], S. Kawashiri[1)], N. Iwamoto[1)], M. Tamai[1)], H. Nakamura[1)], T. Origuchi[1)], A. Kawakami[1)] 1) Department of Immunology and Rheumatology, Division of Advanced Preventive Medical Sciences, Graduate School of Biomedical Sciences, Nagasaki University
12:00~ Lunch	Lunch box

The 2nd Japan - Germany symposium on advanced preventive medicine 2019

Opening remarks

13:00~ [In English] @Shiinoki Geihinkan (Garden Room)	**Opening remarks** 1. **Koetsu YAMAZAKI,** President , Kanazawa University 2. Prof. **Hiroshi ICHIMURA**, Dean, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University 3. Prof. **Heiner FANGERAU**, Director of Department of the History, Philosophy and Ethics of Medicine, Heinrich-Heine University 4. Prof. **Chisato MORI**, Director, Center for Preventive Medical Sciences, Chiba University 5. Prof. **Yuji NAGAYAMA**, Chief, Division of Advanced Preventive Medical Sciences, Graduate School of Biomedical Sciences, Nagasaki University <Photo session>

The 1st day

13:40~
[In English]
@Shiinoki Geihinkan (Garden Room)

Diabetes and Metabolism session

Special lecture

Chair: Prof. Toshinari TAKAMURA (Kanazawa U)

1. **The integrative biology of type 2 Diabetes- Lessons from studying humans**
   Prof. Michael RODEN (HHU) (30 min)
2. **Introduction to the research group Inflammation [DDZ]**
   Prof. Christian HERDER (HHU) (10 min)
3. **The Role of Mitochondrial Function for the Development of Insulin Resistance**
   Prof. Julia SZENDRÖDI (HHU) (10 min) +10 min Q&A

<Tea break 10 min>

Chairs: Prof. Julia SZENDRÖDI (HHU) and Prof. Norio ABIRU (Nagasaki U)

4. **Project S.H.I.P: a prospective genome-cohort study in Kanazawa**
   Prof. Atsushi TAJIMA (Kanazawa U) (15 min talk + 5 min Q&A)
5. **Lessons from NOD mouse as a model of human type 1 diabetes**
   Prof. Norio ABIRU (Nagasaki U) (15 min talk + 5 min Q&A)
6. **Lessons from type 2 diabetic liver**
   Prof. Toshinari TAKAMURA (Kanazawa U) (15 min talk + 5 min Q&A)
7. **Critical roles of gut microbiota in self-renewal of hematopoietic stem cells and leukemogenesis**
   Prof. Atsushi HIRAO (Kanazawa U) (15 min talk + 5 min Q&A)

Environment and Health session

Chair: Prof. Michael RODEN (HHU)

8. **Air pollution and Health**
   Prof. Tamara SCHIKOWSKI (HHU) (20 min + 5 min Q&A)

<Tea break 10 min >

Chairs: Prof. Prof. Christian HERDER (HHU) and Prof. Chisato MORI (Chiba U)

9. **Japanese Birth Cohorts using Multi-omics Analysis: Exposome, Epigenome and Microbiome**
   Prof. Chisato MORI (Chiba U) (15 min + 5 min Q&A)
10. **Effects of Environmental Chemicals on Respiratory Disorders including Allergic Diseases**
    Prof. Hiroyuki NAKAMURA (Kanazawa U) (15 min + 5 min Q&A)
11. **An overview of the research focuses of the Institute for Health Services Research and Health Economics**
    Dr. Jana SOMMER (HHU) (15 min + 5 min Q&A)

[In English] @Shiinoki Geihinkan (Garden Room)	**Special lecture** *Chair:* Prof. Yuji NAGAYAMA (Nagasaki U) 12. **Inflammatory arthritis research through systemic autoimmunity, joint imaging and epidemiology field** Prof. Atsushi KAWAKAMI (Nagasaki U) (20 min + 5 min Q&A)
18:30~ [In English]	**Closing remarks** Vice president Shigeki OTAKE (Kanazawa U)

The 2nd day

Date	Oct 4 (Fri), 2019
Place	Shiinoki Geihinkan (Garden room)
Subject Matters	
AM (9:15~) [In English] @Shiinoki Geihinkan (Garden Room)	**Special lecture** *Chair:* Prof. Heiner FANGERAU (HHU) 13. **Knowledge translation for healthy ageing: lessons learnt from the Japan Gerontological Evaluation Study (JAGES)** Prof. Katsunori KONDO (Chiba U) (20 min + 5 min Q&A) **Immunology and infection session** *Chairs:* Prof. Makoto KURACHI (Kanazawa U) and Prof. Münk CARSTEN (HHU) 14. **HIV-1 cell biology: host factors and pharmacological inhibitors in sensing and restriction** Prof. Carsten MÜNK (HHU) (15 min + 5 min Q&A) 15. **Characterization of exosomes, endogenous nano-particles** Prof. Rikinari HANAYAMA (Kanazawa U) (15 min + 5 min Q&A) 16. **HIV infection among children in Kenya** Prof. Hiroshi ICHIMURA (Kanazawa U) (15 min + 5 min Q&A) <Tea break 10 min > **Neuronal disorders session** *Chairs: P*rof. Noriyuki OZAKI (Kanazawa U) and Dr. Bastian NONNENBERG (HHU) 17. **Dementia research in Kanazawa: From clinical and epidemiological studies to molecular pathogenesis and prevention** Dr. Moeko SHINOHARA (Kanazawa U) (15 min + 5 min Q&A) 18. **Non-verbal communications in humans** Prof. Kazuyuki SHINOHARA (Nagasaki U) (15 min + 5 min Q&A) **Special lecture** *Chair:* Prof. Atsushi KAWAKAMI (Nagasaki U) 19. **Combating hepatocellular carcinoma** Prof. Shuichi KANEKO (Kanazawa U) (20 min + 5 min Q&A)
12:15~ [In English]	**Closing remarks** Dean Hiroshi ICHIMURA (Kanazawa U)
12:20~	Departure

Collaboration meeting for each project
Participants from Heinrich-Heine University

Name (Last name, first name)	Position	Email	Introduction Link
1. Roden, Michael ローデン・ミハエル	Professor, Head of German Diabetes Center Düsseldorf	Michael.Roden@med.uni-duesseldorf.de	https://ddz.de/en/research-at-the-ddz/institute-for-clinical-diabetology/inflammation Diabetes
2. Herder, Christian ヘアダ・クリスチアン	Professor, (Team Prof. Roden) Research Team Leader at German Diabetes Center Düsseldorf	christian.herder@ddz.uni-duesseldorf.de	https://ddz.de/en/research-at-the-ddz/institute-for-clinical-diabetology/inflammation Diabetes
3. Szendrödi, Julia ゼンドレーディ・ユーリア	PD Dr. (PhD), (Team Prof. Roden) Principal Investigator at Diabetes Center Düsseldorf	Julia.Szendroedi@med.uni-duesseldorf.de	http://www.sfb1116.hhu.de/project-groups/project-group-b-metabolic-and-systemic-effectors/project-b05-szendroediwestenfeld.html Diabetes
4. Münk, Carsten ミュンク・カーステン	Professor, Leader of “Hans-Ansmann-Workgroup” for AIDS Research	Carsten.Muenk@med.uni-duesseldorf.de	https://www.uniklinik-duesseldorf.de/patienten-besucher/klinikeninstitutezentren/klinik-fuer-gastroenterologie-hepatologie-und-infektiologie/klinik/team/oberaerzte-und-arbeitsgruppenleiter APOBEC3B and USP18 in HIV
5. Sommer, Jana ゾマ・ヤーナ	PhD, (Team Prof. Icks and Prof. Roden) Researcher (German Diabetes Center and Institute for Health Services Research and Health Economics)	Jana.Sommer@hhu.de	https://www.uniklinik-duesseldorf.de/patienten-besucher/klinikeninstitutezentren/institut-fuer-versorgungsforschung-und-gesundheitsoekonomie/team Economic burden in diabetes
6. Schikowski, Tamara シコフスキ・タマラ	PhD, (Team Prof. Krutmann) Head of research group “Environmental epidemiology of lung, brain and skin aging“	Tamara.Schikowski@IUF-Duesseldorf.de	http://www.iuf-duesseldorf.com/schikowski-team.html influence of air pollution on lung function, inflammation and aging

7. Dukart, Jürgen デゥカート・ユァーゲン *absent*	PhD, (Team Prof. Eickhoff) Leader of the working group "Biomarker Development"	juergen.dukart@googlemail.com	https://www.fz-juelich.de/SharedDocs/Personen/INM/INM-7/EN/Dukart_j.html;nn=654218 biomarkers and therapeutic targets in neuronal diseases, neuroscience
8. Fangerau, Heiner ファンゲラウ・ハイナー	Professor, Director of Department of the History, Philosophy and Ethics of Medicine	heiner.fangerau@uni-duesseldorf.de	https://www.uniklinik-duesseldorf.de/patienten-besucher/klinikeninstitutezentren/institut-fuer-geschichte-theorie-und-ethik-der-medizin/team/ fangerau History and Ethics of Medicine
9. Krischel, Matthis クリシェル・マッティス	PhD, (Team Prof. Fangerau) Research fellow Department of the History, Philosophy and Ethics of Medicine	Matthis.Krischel@med.uni-duesseldorf.de	https://www.uniklinik-duesseldorf.de/en/department-of-the-history-philosophy-and-ethics-of-medicine/team/krischel History and Ethics of Medicine
10. Oommen-Halbach, Anne オーメンハルバハ・アンネ	PhD, (Team Prof. Fangerau) Research fellow Department of the History, Philosophy and Ethics of Medicine	AnneKristin.Oommen-Halbach@med.uni-duesseldorf.de	History and Ethics of Medicine
11. Shimada Shingo シマダ・シンゴ	Professor, head of the Department of Modern Japanese Studies II (Sociology)	shimada@phil.hhu.de	
12. Nonnenberg, Bastin ノネンベルグ・バスティアン	Associate Prof. @SHIMADA Lab		
13. Piekenbrock, Tómoki ピーケンブロック・トモキ	Master student @SHIMADA Lab		

The integrative biology of type 2 diabetes- Lessons from studying humans

Dr. Michael RODEN

Professor of Medicine, Endocrinology and Metabolic Diseases, Director, Division of Endocrinology and Diabetology, Heinrich-Heine University (HHU) and University Clinics Düsseldorf (UKD), Germany
Chief Scientific Executive Officer, German Diabetes Center (DDZ), Leibniz Center of Diabetes Research, Düsseldorf Germany
E-mail michael.roden@ddz.de

Research focus

My scientific interests comprise clinical-experimental and basic research on the (patho)physiology of energy metabolism with a focus on the understanding of insulin resistance, obesity, nonalcoholic fatty liver diseases (NAFLD) and diabetes mellitus. I have developed and employed methods to non-invasively trace metabolic fluxes using magnetic resonance spectroscopy and stable isotopes in cohorts with and without diabetes mellitus. With this technology, my group contributed paradigm-shifting studies on the regulation of glycogen turnover, ectopic fat stores and mechanism of lipid- and amino acid-induced insulin resistance in humans. More recently, I focused on the role of mitochondrial function in metabolic diseases.

15 Key publications

Nature 2019 (in press) (Review)**,** *Nat Commun* 2019 *(in press)***,** *Nature* 562(7725):128-132 (2018)**,** *Diabetes Care* 4:1235-1243 (2018)**,** *Physiol Rev* 98:1371-141 (2018) (Review)**.** *Lancet Diabetol Endocrinol* 7:684-694 (2019), *J Clin Invest* 27:695-708 (2017), *Cell Metab* 21:739-746 (2015)**,** *Nat Rev Gastro Hepat* 14:32-42 (2017) (Review)**,** *Proc Natl Acad Sci U S A* 111:9597-602 (2014)**,** *Lancet Diabetes Endocrinol* 3:208-219 (2013)**,** *Nat Rev Endocrinol* 13:92-103 (2011)**,** *Hepatology* 50:1079-1086 (2009)**,** *PLoS Med* 4:e154 (2007)**,** *J Clin Invest* 97:2859-2865 (1996)

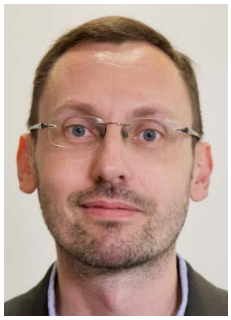
Professional education and training

1986	Graduation as Dr. med. univ., University of Vienna, Austria
1993/97/03	Certification in Internal Medicine, Endocrinology& Metabolism Clinical Pharmacology, Austria
1994-95	Max-Kade-Fellow, Austrian Academy of Science, Yale University, CT, USA
1997-06	Associate Professor, of Medicine, Univ. of Vienna, Austria
2003-08	Head, 1. Med. Dept., Hanusch Hospital, (Teaching Hospital of Medical Univ. Vienna), Vienna, Austria
2008-	Chair/Professor/Director, Div. of Metab. Diseases, later Endocrinol.&Diabetol., HHU/UKD, Düsseldorf
	Chief Scientific Executive Officer, DDZ, Head, Institute for Clinical Diabetology at DDZ, Düsseldorf
2009-	Boards of Speakers, National Health Center - Diabetes (DZD), Germany
2016-	Member, German Council of Science and Humanities (WR), appointed by the President of Germany
2017-	Head, Committee Medicine of the WR, Germany

Selected awards

2004	International Novartis Award for Innovative Patient Oriented Research, Young Investigator
2006	ESCI (Mack-Foster) Award for Excellence in Clinical Sciences, Europ. Soc. for Clin. Invest
2006	Oskar-Minkowski Prize, Europ. Assoc. for the Study of Diabetes (EASD)
2013	Honorary Doctorate, Dr. h. c., Medical Faculty, University of Belgrade
2014	Somogyi Award, Hungarian Diabetes Association
2016	Honorary Doctorate, Dr. h. c., Medical School, University of Athens
2017	Paul Langerhans Medal, German Diabetes Association
2018	19th Aretaeus lecture, Hellenic Diabetes Association
2018	G. B. Morgagni Prize - Gold Medal Career Achievement Association, Italy

Introduction to the research group Inflammation [DDZ]



Dr. Christian HERDER

Professor (Epidemiology), Medical Faculty, Heinrich Heine University Düsseldorf, Germany

Head of the research group Inflammation, Institute for Clinical Diabetology, German Diabetes Center (DDZ), Leibniz Center for Diabetes Research, Düsseldorf, Germany

Guest scientist, Division of Endocrinology and Diabetology (Director Prof. Dr. Michael Roden), Medical Faculty, Heinrich Heine University Düsseldorf, Germany

E-mail christian.herder@ddz.de

Research focus

We focus on epidemiological and mechanistic studies on the role of inflammation-mediated processes in the development and progression of type 2 diabetes. Our studies sharpened the concept that inflammation - as independent risk factor or induced by lifestyle and environmental factors - contributes to the development of type 2 diabetes and its chronic macro- and microvascular complications and therefore represents a promising therapeutic target in disease prevention and treatment. Recent publications included the first prospective studies on multiple inflammation-related biomarkers and pathways as predictors of incident sensorimotor polyneuropathy.

Key publications

Trends Endocrinol Metab 2019;30:286-298; Diabetes Care 2019;42:240-247; Endocr Rev 2019;40:153-192; Diabetes 2018;67:2434-2442; Psychoneuroendocrinology 2018;91:216-225; Arterioscler Thromb Vasc Biol 2017;37:1222-1227; Diabetes Care 2017;40:569-576; Heart 2017;103:63-70; Trends Endocrinol Metab 2015;26:551-563; Diabetologia 2015;58:2269-2277; Diabetes Care 2015;38:91-96; Diabetes 2014;63:4343-4359; Diabetes Care 2014;37:1401-1409; Diabetes Care 2013;36:3663-3670; Diabetes Care 2012;35:2540-2547; Lancet 2012;379:2279-2290; Diabetes Care 2011;34:2320-2322; Environ Health Perspect 2010;118:1273-1279; Diabetes 2010;59:1222-1227; Diabetes Care 2009;32:1921-1923; Diabetes Care 2009;32:421-423; Diabetes Care 2007;30:854-860; J Clin Endocrinol Metab 2007;92:1023-1033; Diabetologia 2006;49:921-929; Diabetes 2005;54:2932-2938.

Professional education and training

1993-1999	Heinrich Heine University Düsseldorf and University of Edinburgh (UK): Studies in Biology
1999	Diploma (Biology) Heinrich Heine University Düsseldorf
2003	Doctorate (Dr. phil. nat./Biochemistry), Johann Wolfgang Goethe University, Frankfurt am Main, Germany
2009	Master of Science (M.Sc.) in Epidemiology, Johannes Gutenberg University Mainz, Germany
2012	"Habilitation" in Epidemiology (highest academic qualification in Germany), Medical Faculty Heinrich Heine University Düsseldorf
2017	Professor (Apl. Prof.), Epidemiology, Medical Faculty, Heinrich Heine University Düsseldorf,

Selected awards

2007	Jühling Prize from the Anna Wunderlich-Ernst Jühling Foundation (Germany)
2009	Lecture in the Rising Star Symposium, Annual Meeting of the European Association for the Study of Diabetes (EASD)
2013	Ferdinand Bertram Prize (German Diabetes Association/DDG)
2016	Hans Christian Hagedorn Grant (German Diabetes Association/DDG)
2019	Menarini Grant from the German Diabetes Association (German Diabetes Association/DDG)

The Role of Mitochondrial Function for the Development of Insulin Resistance

Julia Szendroedi, MD., Ph.D.

Name: Julia Magdalena Szendrödi
email: julia.szendroedi@ddz.uni-duesseldorf.de

Education

10/1996-3/2002 University of Vienna Medical School, Austria

4/2002-4/2004 Post doc., Institute of Pharmacology, Medical University of Vienna
5/2004-10/2006 Post doc., Division of Endocrinology and Metabolism, Medical

4/2002-4/2004 Post doc., Institute of Pharmacology, Medical University of Vienna
5/2004-10/2006 Post doc., Division of Endocrinology and Metabolism, Medical
University of Vienna, Prof. Roden
11/2006-8/2008 Resident in Internal Medicine, Hanusch Hospital Vienna, Research fellow at the Karl Landsteiner Institute for Endocrinology and Metabolism
9/2008- Deputy working group leader, German Diabetes Center, Institute for Clinical Diabetology, Resident in Internal Medicine and Head of the outpatient care for Obesity, Heinrich Heine University Hospital, Department of Metabolic Diseases
1/2009- 11/2015: Resident in Internal Medicine, Department of Endocrinology and Diabetology, University Hospital Heinrich-Heine-University, Düsseldorf
9/2013- Leader Clinical Research Center, German Diabetes-Center, Institute for Clinical Diabetology
11/2017- Senior physician German Diabetes-Center
10/2018- Senior physician, Department of Endocrinology and Diabetology, University Hospital Heinrich-Heine-University, Düsseldorf

Qualifications:

3/2002 MD, University of Vienna Medical School, Austria
7/2007 PhD, University of Vienna Medical School, Austria, major field of study: Signal Transduction,
Title: “Speeding the Recovery from Ultra-Slow Inactivation of Voltage-Gated Na+ Channels by Metal Ion Binding to the Selectivity Filter: A Foot-on-the-Door?”
1/2014: Specialist in Internal Medicine, University Hospital Heinrich-Heine-University, Düsseldorf
11/2015: Specialist in Endocrinology and Diabetology, University Hospital Heinrich-Heine-University, Düsseldorf
07/2016: Habilitation, Venia legendi Internal Medicine, Title: “Cellular mechanisms of insulin resistance in skeletal muscle and the liver: the role of mitochondrial function and ectopic lipid deposition.”

Awards:

2007: Theodor Billroth-Price physicians combs of Vienna
2009: Jühling-Price, Anna-Wunderlich-Ernst-Jühling-Foundation
2010: Wewalka Price der Austrian Association for Gastroenterology
2011: Menarini Price, German Diabetes Association
2012: Karl-Oberdisse Price Nord-Rhine Westphalian Association of Endocrinology and Diabetology
2014: Young Investigator Award in Clinical Research of the European Association for the Study of Obesity (EASO)
2018: Ferdinand Bertram Price, Germand Diabetes Association

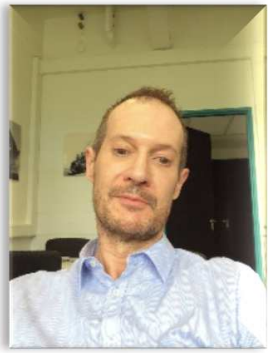
Presentations:

Over 40 presentations at annual meetings of the American Diabetes Association, European Association for the Study of Diabetes, European Society for Clinical Investigation, European Association for the Study of Obesity, Federation of International Danube Symposia on Diabetes mellitus, International Diabetes Federation

Publication Statistics:

84 original articles, 5 reviews, 1 editorial, total impact factors: 563, mean impact factor: 6.1, citations: 4138, HF: 32

HIV-1 cell biology: host factors and pharmacological inhibitors in sensing and restriction



Carsten Münk, PhD

Professor for AIDS Research, Clinic for Gastroenterology, Hepatology and Infectiology

University Hospital Düsseldorf, Heinrich-Heine-University Düsseldorf

E-Mail: carsten.muenk@med.uni-duesseldorf.de

Abstract: We are interested in early events until integration in HIV-1 replication and the Vif-APOBEC3 interaction. We try to develop pathways that interfere with the virus infection and explore new animal models for HIV-1. At the same time, we working on mechanisms of zoonosis of SIV of chimpanzee (SIVcpz) (see Fig. 1)

Research projects:

1. Vif- APOBEC3 interaction
2. Rolle of USP18 in HIV-1 replication
3. Mechanisms of resistance to integrase inhibitors
4. New animal models for HIV-1
5. Mechanism of restriction of rare HIV-1 N, O, P and SIVcpz

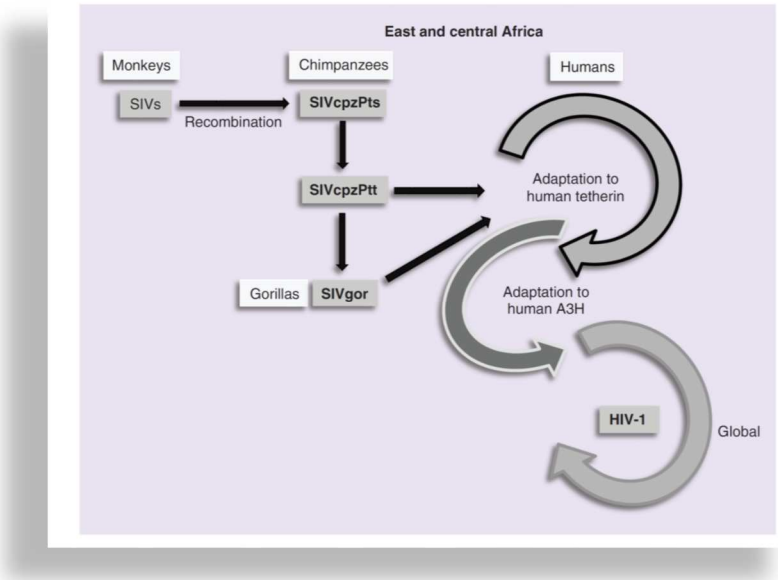


Fig 1 **A model of SIVcpz's evolutionary path to HIV.** SIVcpz to human cross-species transmission likely happened 100 years ago in central Africa. After spillover, SIV adapted to human cells. For high-level replication, SIVcpz had to adapt to human tetherin and evolve a Vif protein able to counteract human APOBEC3H (A3H). Only viruses that were able to adapt to these and possible other host-factors were able to spread globally.

Key publications:

1. mBio July/August (10) 4 2019
2. Virology (523): 52-63. 2018
3. Journal of Virology 92(20) 2018
4. *Retrovirology,* **15**:38 2018
5. PLoS Pathog. 13(12):e1006746 2017
6. Journal of Virology 90(23):10545-10557. 2016
7. Journal of Virology. 90(22):10193-10208. 2016
8. Science 343 (6176): 1221-8. 2014
9. Nucleic Acid Research: Jan 7; 42 (1): 396-416. 2014
10. Journal of Virology, 86(11):6097-6108. 2012
11. Proc. Natl. Acad. Sci. USA, Jul 21; 106(29):12079-84. 2009
12. Genome Biology, 9 (3): R48, 2008
13. J. of Virology, 81(13): 7048 – 7060. 2007
14. Nucleic Acid Res., 35(11):3784-96. 2007
15. Cell 114 (1):21-31. 2003

Educational background and professional experience:

2008 to present: Professor for AIDS Research, University Hospital, Clinic for Gastroenterology, Hepatology and Infectiology (Director Prof. Dr. D. Häussinger), Heinrich-Heine University Düsseldorf, Germany.
2003-2008: Research Group Leader, Department of Medical Biotechnology (Head Prof. Dr. K. Cichutek), Paul-Ehrlich-Institute, Langen, Germany.
1999-2003: Postdoctoral Fellow, Infectious Disease Laboratory (Prof. Dr. N. R. Landau), The Salk Institute for Biological Studies, La Jolla, USA.
1999: Graduation, Dr. rer. Nat, University Hamburg, Germany.

An overview of the research focuses of the Institute for Health Services Research and Health Economics

Dr. Jana SOMMER

Scientific Associate in the Junior Research Group Patients‘ needs and preferences, German Diabetes Center (DDZ), Leibniz Center for Diabetes Research, Düsseldorf Germany and at the Institute for Health Services Research and Health Economics, Centre for Health and Society, Faculty of Medicine, Heinrich-Heine-University Düsseldorf, Düsseldorf, Germany
jana.sommer@hhu.de

Research focus of the Institute (head: Prof Dr. Dr. Andrea Icks, MBA)
The Institute for Health Services Research and Health Economics focuses on the analysis of patient-relevant outcomes of prevention and care interventions as well as on the cost-benefit ratios of these interventions under everyday conditions. Particular attention is paid to the patient's perspective and the translation into routine care.

Diabetes-related healthcare research: Patient-relevant outcomes of prevention and care

- Clinical outcome research in diabetes
- Risk of late complications of diabetes at the population level: Analyses of the frequency of amputations, myocardial infarction, stroke, terminal renal insufficiency, blindness, pregnancy and birth complications
- Mental comorbidity: mental stress and depression in diabetes
- Gestational diabetes

Disease modeling and health economic evaluation

- Computer simulation models for the analysis of diabetes progression and its late complications
- Clinical and cost-effectiveness of preventive and curative interventions
- Patient time spent on diabetes self-management and associated costs

Needs and preferences of patients with diabetes and late complications

- Analysis of patients’ needs and preferences in observational studies, clinical cohorts and randomized controlled trials (RCTs) in cooperation with clinical partners
- Physical activity and quality of life after myocardial infarction
- Information needs of people with diabetes
- Patient-oriented research
- Analysis of lifestyle, time, and risk preferences
- Preferences for lifestyle changes, self-management, and telemedical coaching programs

Geriatric traumatology care research

- Epidemiology of fractures in old age
- Follow-up of trauma patients

Key publications of the Institute

The European Journal of Health Economics 20:45-57 (2019), *Diabetologia* 61:1966-1977 (2018), *Diabetes Care* 41:478-484 (2018), *Clinical Epidemiology* 10:499-509 (2018); *Clinical Epidemiology* 10:475-488 (2018); *Value in Health* 21:525-531 (2018), *Eur J Health Econ*. 18:155-165 (2017), *Journal of Clinical Epidemiology* 82:167-172 (2017), *J Bone Miner Res*. 32:1789-1801 (2017), *Value in Health* 19:1016-1025 (2016), *Clinical Rehabilitation* 30:865-77 (2016), *European Journal of Epidemiology* 29:899-909 (2014), *J Diabetes Complications* 27:467-72 (2013), *Medical Decision Making* 33:298-306 (2013), *European Journal of Health Economics* 14:1015-26 (2013), *Diabetes Care* 36:e53-4 (2013), *Diabetes Care* 36:e62 (2012), *Diabetes Care* 34:1350-06 (2011)

Educational background & professional experience:

2006–2011 Graduation in Psychology, Heinrich-Heine University Düsseldorf
2012–2016 Scientific Associate, Institute of Experimental Psychology, Department of Psychological Assessment and Differential Psychology, PhD (Dr. rer. nat.) in Psychology, Heinrich Heine University Düsseldorf
2016–2018 Consultant, Head Office of the German Council of Science and Humanities (Wissenschaftsrat), Cologne, Germany
2018– Scientific Associate, Institute for Health Services Research and Health Economics, German Diabetes Center, Düsseldorf

Air pollution and Health

Tamara Schikowski, MPH, PHD

Head of Research Group Environmental epidemiology of lung, brain and skin aging

IUF-Leibniz Research Institute for Environmental Medicine
E-mail tamara.schikowski@iuf-duesseldorf.de
Web site http://www.iuf-duesseldorf.com/schikowski-team.html

Abstract: The work of the research group focuses on epidemiological aspects of environmentally-induced aging of the lung, the brain and the skin. The main focus is the collection and analyses of data on the effect of long-term exposure to air pollution on chronic diseases (lung, skin and brain) as well as the complex interplay between the organs. We were able to show that chronic exposure to air pollution, in particular PM_{10} and NO_2 as well as living close to major roads, increases the risk of developing chronic obstructive pulmonary disease (COPD) and mild cognitive impairment (MCI) in elderly women. Furthermore, skin aging was enhanced. In addition, the working group could show that high exposure with traffic-related air pollution increases the risk of cardio-pulmonal mortality Worldwide the working group Schikowski was the first one to show that particle exposure from traffic-related sources was associated with diabetes and skin aging (pigment spots and wrinkles).

Research projects:

- Gene-Environment Interaction analyses
- Investigation of air pollution decline on aging and health
- Investigation of the effect of particle pollution on mild cognitive impairment in elderly women
- Investigation of air pollution effects on skin aging and inflammation in China
- Investigation of air pollution effects on skin/lung aging India
- Investigation of the effect of carbon black on health in Manila (
- Investigation of the effect of long-term air pollution on the development and incidence of COPD in particular in non-smoking women and interaction with reproductive factors and obesity

Key publications:

1. Benefits of improved air quality on aging lungs - Impacts of genetics and obesity. Eur Respir J. 2019 Feb 14.
2. Tropospheric ozone and skin aging: Results from two German cohort studies. Environ Int. 2019 Mar;124:139-144
3. Nonatopic eczema in elderly women: Effect of air pollution and genes. J Allergy Clin Immunol. 2019 Jan;143(1):378-385.e9. J Allergy Clin Immunol
4. The role of air pollution and lung function in cognitive impairment. Eur Respir J. 2018 Feb 21;51(2).
5. Atopic dermatitis: Interaction between genetic variants of GSTP1, TNF, TLR2, and TLR4 and air pollution in early life. Pediatr Allergy Immunol. 2018 Apr 6.
6. Impact of long-term air pollution exposure on metabolic control in children and adolescents with type 1 diabetes: results from the DPV registry. Diabetologia. 2018 Jun;61(6):1354-1361.

7. Long-term air pollution exposure and diabetes in a population-based Swiss cohort. Environ Int. 2014 Sep;70:95-105.
8. Association of ambient air pollution with the prevalence and incidence of COPD. Eur Respir J. 2014 Sep;44(3):614-26.
9. Effects of long-term exposure to air pollution on natural-cause mortality: an analysis of 22 European cohorts within the multicentre ESCAPE project. Lancet. 2014 Mar 1;383(9919):785-95
10. Improved air quality and attenuated lung function decline: modification by obesity in the SAPALDIA cohort. Environ Health Perspect. 2013 Sep;121(9):1034-9.

Educational background & professional experience:

1996~ University of Cologne Medical School
2001~ Bachelor of Environmental Health, Swinburne University Melbourne
2004~ Master of Public Health, Monash University Melbourne
2008~ PhD Award Public Health, Heinrich-Heine University Düsseldorf
2009~ Postdoctoral Researcher, Swiss Tropical and Public Health Institute, Basel Switzerland
2013~ Working Group Leader, IUF Leibniz Institute for Environmental Medicine, Düsseldorf Germany

Award:

Vichy Exposome Award 2016, The combined effect of air pollution and sun exposome on extrinsic skin aging manifestation in the population-based SALIA study group by Vichy Laboratories, France

TGO Jordan Memorial Prize, Student with the highest academic results in.
the final year of the Bachelor of Health Science of 2002 by the Australian Institute of Environmental Health, Victorian Division

Heiner Fangerau (Prof. Dr. med., Dr. h.c. (Bucharest), ML) is Head and director of the Department of the History, Philosophy and Ethics of Medicine, Heinrich-Heine-University Duesseldorf. Before he went to Duesseldorf in 2016 he held chairs in the history, philosophy and ethics of medicine in Ulm (since 2008) and Cologne (2014). He has a strong research record in the history and ethics of modern medicine. He studied medicine at the University of Bochum. In 2000 he finished his doctorate on the history of eugenics at the Institute of the History of Medicine in Bochum (summa cum laude). His habilitation ("post doctoral thesis") on the history of the biomedical model was defended in 2008. He is a member of the German National Academy of Sciences Leopoldina

His main research fields are research ethics, history and ethics of psychiatry and neurology, child and adolescence psychiatry and historical network analyses. A particular focus of Prof. Fangerau has experience in collaborating in several interdisciplinary research projects, including BMBF and EU projects. Current works include the history and ethics of technology development in medicine including m-health and e-health applications.

Selected publications:

Hansson N, Halling T, Fangerau H (eds): Attributing Excellence in Medicine: The History of the Nobel Prize (Clio Medica 98). Brill & Rodopi, Leiden 2019

Görgen A, Nunez GA, Fangerau H (eds): Handbook of Popular Culture and Biomedicine. Knowledge in the Life Sciences as Cultural Artefact. Springer, Cham 2019

Karenberg A, Fangerau H, Steinmetz H, Berlit P, Grond M (2019): Historical review: a short history of German neurology – from its origins to the 1940s. Neurological Research and Practice 1:14 [6 pages].

Görgen A, Fangerau H (2018): Deconstruction of a taboo: press coverage of sexual violence against children in pedagogical institutions in Germany 1950–2013. Media, Culture and Society 40(7):973-991

Marazia C, Fangerau H (2018): Imagining the brain as a book: Oskar and Cécile Vogt's "library of brains". Progress in Brain Research 243:181-203

Fangerau H (2017): Scope for action at the psychiatric periphery around World War I. A public sanatorium for 'nervous diseases' in the Province of Hanover. In: Müller T (Hrsg.): Zentrum und Peripherie in der Geschichte der Psychiatrie. Regionale, nationale und internationale Perspektiven. Steiner, Stuttgart, S. 99-112.

Fangerau H (2017): Experimental Biology and the Biomedical Ideal around the Year 1900. In: Müller GB (ed): Vivarium. Experimental, Quantitative, and Theoretical Biology at Vienna's Biologische Versuchsanstalt. MIT Press, Cambridge Ma, pp. 77-94.

Fangerau H, Braune F, Lenk C (2017): Predictive Diagnostic Testing for Late-Onset Neurological Diseases in Asymptomatic Minors: 'Do No Harm' and the Value of Knowledge. In: Gadebusch Bondio M, Spöring F, Gordon J-S (eds): Medical Ethics, Prediction, and Prognosis: Interdisciplinary Perspectives. Routledge, New York/ London, S. 55-65

Fangerau H (2013): "Evolution of knowledge from a network perspective: recognition as a selective factor in the history of science". In Fangerau H, Geisler H, Halling T, Martin W (Hrsg.): "Classification and Evolution in Biology, Linguistics and the History of Science. Concepts, Methods, Visualization", Steiner, Stuttgart 2013, S. 11-32

Fangerau H (2009): "From Mephistopheles to Iesajah: Jacques Loeb, Science and Modernism", Social Studies of Science 39: 229-256.

Matthis Krischel, PhD

Lecturer, Institute for the History, Philosophy and Ethics of Medicine
Centre for Health and Society
Medical Faculty of Heinrich Heine University Düsseldorf
matthis.krischel@hhu.de
matthiskrischel.de

Research Interests

History and ethics of medicine and the life sciences, especially

- Nazi medicine and its commemoration
- History and ethics of anthropology, eugenics and human genetics
- History and ethics of urology, venereology and sexology
- Historical network research

Representative Publications (in English)

- Krischel M, Hansson N (2017) Ageing: Rejuvenation study stirs old memories. Nature 546 (7656), 33.
- Cuerda-Galindo E, López- Muñoz L, Krischel M, Ley A (2017) Study of Deaths by Suicide of Homosexual Prisoners in Nazi Sachsenhausen Concentration Camp. PLoS ONE 12 (4), e0176007
- Krischel M, Moll F, Van Kerrebroeck P (2014) A stone never cut for: A new interpretation of 'The cure of folly' by Jheronimus Bosch. Urologia Internationalis 93 (4), 389-393
- Krischel M (2014) German Urologists under National Socialism. World Journal of Urology 32 (4), 1055-1060
- Krischel M, Fangerau H (2013) Historical network analysis can be used to construct a social network of 19th-century evolutionists. In: Fangerau H, Halling T, Geisler H, Martin W (Hrsg) Classification and Evolution in Biology, Linguistics and the History of Science: Concepts – Methods – Visualization. Steiner-Verlag, Stuttgart, 45-65

Education and Experience

Since 2017: Member of the Clinical Ethics Committee, Düsseldorf University Hospital

Since 2016: Lecturer at the Department of History, Theory and Ethics of Medicine, Heinrich Heine University Düsseldorf

2013: PhD in History and Philosophy of Medicine, Ulm University, Germany

2013: Research Prize on the Role of Doctors during the Nazi Era, German Medical Association („Herbert Lewin Research Prize", second prize, with Friedrich Moll, Julia Bellmann, Albrecht Scholz und Dirk Schultheiss)

2007: M.A. in History of Science, University of Oklahoma, USA

Dr. Anne Oommen-Halbach

Licensed Paediatrician, Lecturer Department of the History, Philosophy and Ethics of Medicine, Centre for Health and Society, Medical Faculty, Heinrich-Heine University (HHU) and University Clinics Düsseldorf (UKD), Germany
E-mail anne.oommen-halbach@hhu.de

Research focus

My scientific interests are focused on medical history of the 19th/20th century with a special interest in questions on the history of medical historiography. My thesis contained a critical edition of letters of German medical historians at the beginning of the 20th century.
As I am a fully trained paediatrician I focused more recently on the history and ethics of paediatrics and paediatric psychiatry in various aspects. Actually I participate in a joint research project ("Testimony") concerning historical dimensions of medical and psychological care in former children's homes in the German Democratic Republic (1949-1990).

Key publications

- Oommen-Halbach, A, Fangerau, H, Selbstbestimmung von Kindern in der Medizin, in: Handbuch Philosophie der Kindheit, hrsg. von Johannes Drerup und Gottfried Schweiger, Stuttgart: J.B. Metzler 2019, 274-81.
- Oommen-Halbach, A, Schepker, K, "Denn im Verein stehen wir dem Nichts gegenüber". Der Vorstand des Deutschen Vereins zur Fürsorge für jugendliche Psychopathen e.V. zwischen gescheiterter Überlebensstrategie und Resistenz (1933-1935), in: Kinder- und Jugendpsychiatrie im Nationalsozialismus und in der Nachkriegszeit. Zur Geschichte ihrer Konsolidierung, hrsg. von Heiner Fangerau, Sascha Topp, Klaus Schepker, Berlin: Springer 2017, 225-52.
- Oommen-Halbach, A, Über die akademische Pädiatrie in Bonn in der Nachkriegszeit (1945-1960) und den dortigen Beginn der humangenetischen Forschung, in: Monatsschrift Kinderheilkunde 164 (2016) Suppl. 1, 53-8.
- Oommen-Halbach, A, Briefe von Walter von Brunn (1876-1952) an Tibor Győry (1869-1938) aus den Jahren 1924-1937. Ein Beitrag zum Korrespondentennetz Tibor Győrys (= Studien zur Geschichte der Medizingeschichte und Medizingeschichtsschreibung, Bd. 1), Remscheid 2004.

Professional education, training and awards

Since 2016	Postdoc at the Department of the History, Philosophy and Ethics of Medicine, University of Düsseldorf, Germany, Member of the Ethics Committee for clinical research, Medical Faculty Düsseldorf
2012-14	Postdoc at the Department of the History of Medicine, University of Bonn, Germany; Member of the Ethics Committee for clinical research, Medical Faculty Bonn
2011/12; 2015	Research Assistance: PD Dr. Thomas Rütten, Director of the Northern Centre for the History of Medicine, Newcastle, United Kingdom
2009	Research funding Wellcome Trust, Edition of the Letters of Karl Sudhoff to Tibor Győry (1898-1937)
2009	Certification in Paediatrics (Hamburg, Germany)
2002-2008	Resident in all paediatric fields at the Paediatric Clinic Wilhelmstift, Hamburg, Certificate electroencephalography (2007), special interest in Pediatric Neurology, Child-welfare and Child protection
2003	Graduation doctor medicinae (summa cum laude), Award for the best medical thesis at the University of Münster, Germany
2002	Full license to practise as physician (Arnsberg, Germany)
2001-2002	Resident at the Department of Pediatric Hematology and Oncology, University of Bonn, Germany
2000	State examination Medicine, University of Witten/Herdecke, Germany
1992-1999	Studies of Medicine, University of Münster and Witten/Herdecke, comprising study visits in Bayonne (France), Melbourne (Australia), Cleveland/Ohio (USA)

Prof. Dr. Shingo Shimada

Chairholder Department of Modern Japanese Studies II

Since 2005 Prof. Dr. Shingo Shimada is head of the Department of Modern Japanese Studies II (Sociology) at Heinrich-Heine-University Dusseldorf. Before that, he was professor at the Institute for ethnology at Halle University.

Research focus

Cross-cultural sociology

Ageing society of Japan

Education and career

July 1988	Magister Artium, Westfälische Wilhelms-University of Münster
December 1991	PhD, Friedrich-Alexander University Erlangen-Nuremberg
July 1997	Habilitation, Friedrich-Alexander University Erlangen-Nuremberg
1988 - 1992	Research fellow, research center for sociology, University Erlangen-Nuremberg
1992 - 1998	Research assistant, research center for sociology, University Erlangen-Nuremberg
1994 - 1995	Stand-in C3 professorship "Comparative social structure analysis with focus on Japan", University of Duisburg
1997	Appointment as visiting professor, Scuola Superiore die Studi Universitari e die Perfezionamento Sant'Anna" in Pisa/Italy
1997 - 1998	Stand-in C3 professorship "Sociology with with focus on Japan", University of Duisburg
1998 - 2002	Assistant professor, research center for sociology, University Erlangen-Nuremberg
2000	Appointment as visiting professor, Scuola Superiore die Studi Universitari e die Perfezionamento Sant'Anna" in Pisa/Italy
2000 - 2001	Stand-in C4-professorship "Economy, politics, society of modern Japan" Wirtschaft, Politik, Gesellschaft des modernen Japans an der University of Halle-Wittenberg
2002-2004	Professorship "Cross-cultural sociology", University of Halle-Wittenberg
since 2005	Professorship and chairholder Department of Modern Japanese Studies II, Heinrich-Heine University Dusseldorf

Key Publications

Grenzgänge - Fremdgänge. Japan und Europa im Kulturvergleich. Frankfurt/New York : Campus, 1994.

Die Erfindung Japans. Kulturelle Wechselwirkung und nationale Identitätskonstruktion. Frankfurt/New York : Campus, 2000.

(in cooperation with Christian Tagsold) Alternde Gesellschaften im Vergleich. Solidarität und Pflege in Deutschland und Japan. Bielefeld: transcript, 2006

(in cooperation with Joachim Renn und Jürgen Straub) *Übersetzung. Medium des Kulturverstehens und der sozialen Integration.* Frankfurt/New York : Campus, 2002.

(in cooperation with Ilja Srubar) *Development of Sociology in Japan . Jahrbuch für Soziologiegeschichte*. Wiesbaden: VS Verlag für Sozialwissenschaften, 2005.

(in cooperation with Richard Rottenburg und Burkhard Schnepel) *The Meking and Unmaking of Differences. Anthropological, Sociological and Philosophical Perspectives*. Bielefeld : transcript, 2006.

(in cooperation with Cappai, Gabriele; und Straub, Jürgen) *Interpretative Sozialforschung und Kulturanalyse. Hermeneutik und die komparative Analyse kulturellen Handelns*. Bielefeld: transcript (2010).

(in cooperation with Annette Schad-Seifert) *Demographic Change in Japan and the EU – Comparative Perspectives. Proceedings of the VSJF Annual Conference 2008*. Düsseldorf: Düsseldorf University Press (2010).

(in cooperation with Theresa Sieland) Japan der Regionen: Demografischer Wandel, Revitalisierung und Vielfalt der Peripherie (Kultur- und Sozialwissenschaftliche Japanforschung, Band 3). Düsseldorf: university press, 2019

Articles in edited volumes (only the latest 5 articles)

„Kultur und Technik“ in: Schulz, Reinhard (Hg.) Zukunft ermöglichen. Denkanstöße aus fünfzehn Jahren Karl Jaspers Vorlesungen zu Fragen der Zeit. Würzburg: Königshausen & Neumann, 2008, S. 391-398.

„Shakaiteki hiyoke to arata naru rentai ni mukete - nihon to doitsu”. In: *Kumamoto gakuen daigaku fuzoku shakai fukushi kenkyûsho no 2008 rento dai ni kai kenkyûkai kiroku*. Kumamoto Universität, 2009.

„Demokratie und religiöse Erinnerungskultur in Japan: Das Beispiel des Yasukuni-Schrein“. In: Werkner, Ines-Jacqueline u.a. (Hg.): *Religion und Demokratie. Beiträge zu Genese, Geltung und Wirkung eines aktuellen politischen Spannungsfeldes.* Wiesbaden: VS Verlag für Sozialwissenschaften (2009), S. 133-144.

„Honyaku no zure. ›shakai‹ toiu gainen wo reini [Bedeutungsverschiebung durch Übersetzung. Am Beispiel des Begriffs ›Gesellschaft‹]“. In: *Hôsei daigaku kokusai nihon kenkyûsho* [Institut für internationale Japanforschung der Hôsei Universität] (Hg.) „Honyaku no Fukanô sei“ [Unmöglichkeit der Übersetzung], Tokyo (2010), S. 159-164.

„Biographie, Kultur, sozialer Wandel“. In: Cappai, Gabriele; Shimada, Shingo; Straub, Jürgen (Hg.) *Interpretative Sozialforschung und Kulturanalyse. Hermeneutik und die komparative Analyse kulturellen Handelns*. Bielefeld: transcript (2010), S. 159-176.

Articles in magazines (only the latest 5 articles)

„Wissenssoziologie der kulturellen Wechselwirkungen. Eine Skizze zur Methodologie einer interkulturell angelegten qualitativen Sozialforschung“, in: Zeitschrift für Qualitative Bildungs-, Beratungs- und Sozialforschung, Heft 3, 2001, S. 37-48.

„Demokratie im Widerstreit – am Beispiel der japanischen Nachkriegsgesellschaft“, in: *Handlung Kultur Interpretation. Zeitschrift für Sozial- und Kulturwissenschaften*, 11. Jahrgang, Heft 1, 2002, S. 118-133.

„Das kulturelle Selbst – die Kultur im Selbst. Eine Skizze“, in: *Journal für Psychologie. Theorie, Forschung, Praxis*, 1/2006, 14. Jahrgang, S. 76-92.

„Voneinander Lernen – von Umweltkonflikten zu Lösungen. Deutsch-japanische Begegnungen“ (Autorenschaft mit Martin Held; Kenji Toyota; Hubert Weiger). In: *Bund Naturschutz Forschung* 10. Nürnberg: BUND Bayern (2008).

„Japan goes West: Reflections on Diaspora”. (Autorenschaft mit Christian Tagsold) In: *Sonderband der Zeitschrift Pan-Japan: The International Journal of Japanese Diaspora*. 6, 1&2. (2009) Normal Illinois: Illinois State University.

Bastian Nils Nonnenberg, M.A.

Nonnenberg has studied Modern Japanese Studies, English and American literature and Old English studies at Heinrich-Heine University Dusseldorf and Bunkyō University. He finished his studies with a Magister degree in 2011. Among his research interests are the demographic change in Japan with focus on family structures, Japanese movie studies and history of the Japanese Self-Defense-Forces. He currently writes his PhD-Thesis about the discourse concerning the justification of the existence of Japanese Self-Defense-Forces in contemporary Japanese movies.

Education	
04.2003 – 09.2011	Student - Heinrich Heine University Dusseldorf
03.2006 – 03.2007	Exchange student - Bunkyo University in Saitama
Career	
10.2004 – 02.2006	Student assistant, Dusseldorf airport for “Blue Wings” airline
04.2007 – 09.2011	Student assistant for Prof. Christian Tagsold and Prof. Annette Schad-Seifert at the department of modern Japanese studies, Heinrich-Heine University Dusseldorf
08.2008 – 09.2011	Freelance Collaborator, NIO Field Service GmbH
10.2011 – 09.2015	Assistant Professor for German language studies at the department of foreign language studies, Kanazawa University
04.2013 – 03.2015	Teaching assignment as lecturer for German language and literary studies, Fukui University
11.2015 – 09.2018	German teacher, Nihon Dialog Dusseldorf
01.2016 – 09.2018	Research fellow at the department of modern Japanese studies, Heinrich-Heine University Dusseldorf
10.2018-present	Research fellow and head of the Kanazawa liaison office at the department of modern Japanese studies, Heinrich-Heine University Dusseldorf

Basic Information

Full Name:	Tómoki Johann Piekenbrock
Place of Birth:	Mainz, Germany
Nationality:	German and Japanese

Education

2000 – 2006:	Elementary School in Tokyo, Japan
2006 – 2009:	St. Ursula Gymnasium, Düsseldorf
2009 – 2011:	Scarborough College, UK – International Baccalaureate Diploma
2011 – 2015:	University of Freiburg, GER – Bachelor of Arts in Archaeology
2015 – 2016:	Voluntary Social Service Program (FSJ) in Ramallah, Palestine
Since Oct. 2016:	Düsseldorf University – Master of Arts in Modern Japanese Studies
	→ Projected Time of Graduation: Mar. 2020
Apr. 2018 – Mar. 2019:	Exchange program at Kanazawa University, Japan

Language Proficiency

Native:	*German, Japanese*
Fluent:	*English*
Intermediate:	*Arabic, French, Italian*

Experience in professional Interpretation

Mar. 2017 – Feb. 2018:	Chimz GmbH (Japanese Restaurant “Sumi”) in Düsseldorf – business communication assistance (Japanese – German)
Dec. 2018 – Feb. 2019:	White Ring Co. (tourist bus operator) in Kanazawa, Japan – tour guide interpretation (Japanese – English)

Contact Information

Tómoki Johann Piekenbrock

Graf-Recke-Str. 209b - 28, 40237, Düsseldorf, Germany

Tel: +49 176 23657976 e-mail: tomoki.piekenbrock@gmx.de

Kanazawa University

HIV infection among children in Kenya

Hiroshi ICHIMURA, MD & PhD

Professor, Department of Viral Infection and International Health;
Dean, Graduate School of Advanced Preventive Medical Sciences/
Graduate School of Medical Sciences, Kanazawa University
E-mail: ichimura@med.kanazawa-u.ac.jp
Web site: http://virus.w3.kanazawa-u.ac.jp/

Abstract: Since 1996, I have collaborated with Kenya Medical Research Institute on (i) the prevention of mother-to-child transmission of human immunodeficiency virus type 1 (HIV), (ii) viral and host factors influencing on disease progression in children with HIV infection, (iii) monitoring of HIV vertically infected children in Kenya on antiretroviral therapy (ART), and so on. Some of these results will be introduced.

Research projects:

1. Viral and host factors associated with disease progression in children with HIV infection
2. Impact of anti-retroviral therapy (ART) on the immune status and gut microbiota of HIV-infected children
3. Viral and host factors associated with the virulence of enterovirus 71 that causes Hand-Foot-and-Mouth disease

Key publications:

1. Low concordance of oral and genital HPV infection among male patients with sexually transmitted infections in Vietnam. *BMC Infect Dis* 19(1):578, 2019.
2. Effects of Short-term Probiotic Ingestion on Immune Profiles and Microbial Translocation among HIV-1-Infected Vietnamese Children. *Int J Mol Sci 18*(10), 2185, 2017.
3. Discrepancies in prevalence trends for HIV, hepatitis B virus, and hepatitis C virus in Haiphong, Vietnam from 2007 to 2012. *PLoS One* 12(6):e0179616, 2017.
4. A functional polymorphism in the NKG2D gene modulates NK-cell cytotoxicity and is associated with susceptibility to Human Papilloma Virus-related cancers. *Sci Rep* 6:39231, 2016
5. Impact of HIV infection and anti-retroviral therapy on the immune profile of and microbial translocation in HIV-infected children in Vietnam. *Int J Mol Sci* 17: 1245, 2016.
6. Positive correlation of HIV infection with Giardia intestinalis assemblage B but not with assemblage A in asymptomatic Kenyan children. *AIDS* 30(15):2385-87, 2016.
7. Lower prevalence of *Entamoeba* species in children with vertically transmitted HIV infection in Western Kenya. *AIDS* 30(5):803-805, 2016.
8. Comparison of HIV-1 *nef* and *gag* Variations and Host HLA Characteristics as Determinants of Disease Progression among HIV-1 Vertically Infected Kenyan Children. *PLoS One* 10(8):e0137140, 2015.
9. Geographic and Temporal Trends in the Molecular Epidemiology and Genetic Mechanisms of Transmitted HIV-1 Drug Resistance: an Individual Patient and Sequence-level Meta-Analysis. *PLoS Medicine* 12(6):e1001845, 2015.
10. Genetic analyses of HIV-1 strains transmitted from mother to child in Northern Vietnam. *AIDS Res Hum Retroviruses* 31(8):797-805, 2015.

Educational background & professional experience:

1974–1980	Yamaguchi University School of Medicine. License of Medical Doctor (No. 251554).
1980–1984	Tottori University Graduate School of Medical Sciences, Doctor of Medical Science.
1985–1987	Research Associate, Department of Biochemical Virology, Baylor College of Medicine, USA.
1991–1992	International Scholarship Doctor for 1991 of the Japan Ministry of Health, Labor and Welfare; Cancer Research Institute, University of California, San Francisco, School of Medicine, USA.
1994–1994	Assistant Professor, Department of Microbiology, Kyoto Prefectural University of Medicine.
1994–1999	Associate Professor, Department of Microbiology, Kyoto Prefectural University of Medicine.
1999–	Professor, Department of Viral Infection and International Health, School of Medicine, Kanazawa University
2018–	Dean, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University.

Award: 2016 "Medal for People's Health" from the Ministry of Health, Vietnam.

2011 Honorary Professor of Hanoi Medical University, Vietnam (No. 156/QD-DHYHN)

2012 Honorary Professor of Hai Phong Medical University, Vietnam (No. 720/QD-DHYHP)

Effects of Environmental Chemicals on Respiratory Disorders including Allergic Diseases

Hiroyuki NAKAMURA, MD & PhD
Professor, Department of Environmental and Preventive Medicine, Kanazawa University School of Medicine
E-mail: hnakamu@staff.kanazawa-u.ac.jp
Web site: http://publichealth.w3.kanazawa-u.ac.jp/home/aisatu.html

Abstract: The opportunities of the exposure to various environmental chemicals have been increased recently. We have demonstrated that several chemicals have produced allergy or allergy-like detrimental effects on health. The urban atmospheric environment was found to be involved in the increase in **Japanese cedar pollinosis**. Rhinoconjunctival sensitization to hydrolyzed wheat protein (HWP) in facial soap (Cha no Shizuku; Yuka) induced wheat-dependent exercise-induced **anaphylaxis** (WDEIA) from 2009 in Japan. Parabens, which are a class of widely used preservatives in cosmetic and pharmaceutical products, were observed to be associated with the development of allergic diseases including **atopic dermatitis** in infants. We have found effects of environmental chemicals including Asian dust and polyaromatic hydrocarbon (PAH) on respiratory symptoms including **chronic cough**. At the same time, we are exploring to develop the preventive methods for effects of environmental chemicals by means of the clarification of the pathogenesis for the health effects.

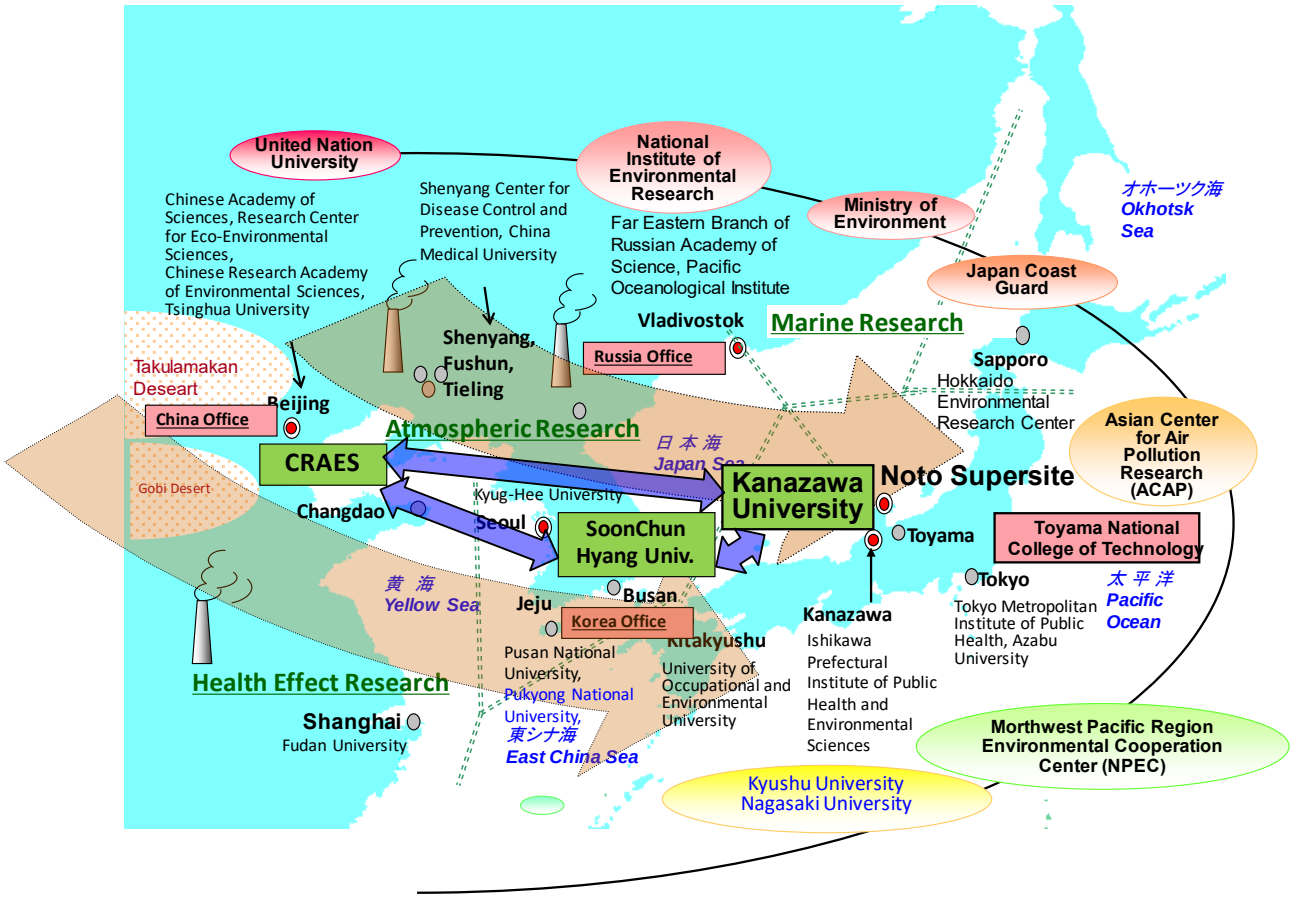


Fig. East Asia PAHs Monitoring Network (Colaboratory studies with Prof. K. Hayakawa)

Research projects:

1. Basic and epidemiologic research on the effects of ambient chemicals on allergic diseases
2. Epidemiology on the effects of lifestyles on non-communicable disease including obesity, diabetes, vertebral and cardiovascular, renal, and respiratory diseases and musculoskeletal systems
3. Effects of physical and chemicals and stress assessment in workplaces

Key publications:

1) Mitsui-Iwama M et al, Asia Pac Allergy. 2019 Jan 21;9(1):e5.
2) Hirota R et al,. Allergy. 2018
3) Nakamura H et al, Nutrition. 2018 26;61:8-15.
4) Nakamura H, et al Nutrients. 2018 24;10(12).
5) Shimizu Y, et al. J-Multidisciplinary Scientific Journal 2018, 1, 148-155
6) Anyenda EO et al, 2016 Int J Environ Res Public Health. 13(8)
7) Anyenda EO et al, 2016 Atmospheric Environment. 140, 34-41
8) Nguyen TTT et al, 2016 Int J Environ Res Public Health. 13 (1)
9) Ogino K et al, 2016 Free Radic Res. 50 (11) 1165-1172
10) Watanabe T et al, 2016 PLoS One 23;11(3)
11) Fukutomi Y et al, 2014 Allergy. 69 (10) 1405-11
12) Higashi T et al, 2014 Atmospheric Environment. 92, 506-513
13) Higashia T et al,. 2014 Atmospheric Environment. 97, 537-543
14) Tanaka T, et al, Allergol Int. 2012;61(1):57-63
15) Fukutomi Y, et al, Clin Exp Allergy. 2012, 42(5):738-46
16) Fukutomi Y, et al, J Allergy Clin Immunol. 2012,129(3):860-863.e3
17) Nakamura H et al, Int Arch Allergy Immunol. 2007;142(4):329-34
18) Nakamura H et al, Int Arch Allergy Immunol. 2004, 135(1):40-3
19) Nakamura H et al, J Allergy Clin Immunol. 2003, 112(6):1127-31.

Educational background & professional experience:

1985	Graduate from Kanazawa University School of Medicine
1988-86	Researcher at Johannes Gutenberg-Universität Mainz. FRG
1989	Graduated from Kanazawa University Graduate School of Medicine (PhD)
2003-07	Professor of Kochi University School of Medicine (Department of Environmental Medicine)
2007-	Professor of Kanazawa University School of Medicine (Department of Environmental and Preventive Medicine
2016-18	Dean, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University
2017-	Director of Center of Advanced Preventive Medical Sciences, Kanazawa University
2018-	Dean, School of Medical, Pharmaceutical and Health Sciences, Kanazawa University

Awards:

1991: Incentive Award from Japanese Hygiene Society
2004: Prize of the Society of Fitness, Nutrition and Immunity

Combating hepatocellular carcinoma

Shuichi Kaneko, MD

Professor, Department of system biology,
Kanazawa University Graduate School of Medical Sciences
Director, WHO Collaborating Center for Chronic Hepatitis and Liver Cancer E-mail: skaneko@med.kanazawa-u.ac.jp
Web site: http://www.m-kanazawa.jp/ichinai/english/index.html

Abstract: Worldwide, approximately 325 million people have viral hepatitis, responsible for 1.34 million deaths in 2015. WHO advocated targets that seek to reduce incidences of chronic hepatitis infection and annual deaths from chronic hepatitis by 2030. In addition to viral hepatitis, another liver disease attracts attention. Global prevalence of nonalcoholic fatty liver disease (NAFLD) is estimated to be over 20%. NAFLD often progresses to nonalcoholic steatohepatitis (NASH), and finally develops to HCC. Given the high burden of NAFLD, the number of patients with NAFLD- and NASH-related HCC will continue to increase. As the global epidemic of obesity fuels metabolic conditions, the clinical and economic burden of NAFLD will become enormous. We focus on virus- and NAFLD-related HCC research collaborating with WHO as the collaborating center.

Research projects:

1. Research on clinical epidemiology of hepatitis and HCC.
2. Understanding of carcinogenesis of HCC.
3. Development of new diagnosis and treatment for HCC.

Key publications:

1. Hepatology 69(2):653-665, 2019.
2. Nat Commun 9(1):30, 2018.
3. Gastroenterology 152(6):1395-1406, 2017.
4. Nature Med 23(4):508-516, 2017.
5. Hepatology 61(4):1343-56, 2015.
6. Hepatology 60(5):1519-30, 2014.
7. Hepatology 60(5):1674-85, 2014.
8. Hepatology 59(3):828-38, 2014.
9. Nat Med 19(11):1542-6, 2013.
10. Hepatology 58(3):1133-42, 2013.
11. Hepatology 57(4):1484-97, 2013.
12. Hepatology 57(4):1448-57, 2013.
13. Hepatology 56(5):1792-803, 2012.
14. Gastroenterology 141(1):128-140, 2011.
15. Hepatology 53(4):1206-16, 2011.
16. Cell Metab 12(5):483-95, 2010.

Education:

1982 Graduate from Kanazawa University School of Medicine (MD)

Honors:

2004 Industry-Academia-Government Collaboration Service Award from Minister
2014 Science and Technology Award from Japanese Ministry of Education, Culture, Sports, Science and Technology
2015 The “Khubilai Khan” Gold Medal of the Mongolian Academy of Sciences
2015 Industry-Academia-Government Collaboration Service Award Minister Award of Japanese Ministry of Economy, Trade and Industry

Lessons from type 2 diabetic liver

Toshinari TAKAMURA, MD & PhD

Professor, Department of Endocrinology and Metabolism,
Kanazawa University Graduate School of Medical Sciences
E-mail ttakamura@med.kanazawa-u.ac.jp
Web site https://metabology.w3.kanazawa-u.ac.jp/english/

Abstract: We aim to elucidate the pathophysiology of and establish new diagnosis and treatment methods for metabolic diseases such as diabetes and obesity. Overnutrition disrupts inter-organ networks to keep energy homeostasis governed by the liver. Our group has identified key pathways and molecules (hepatokines) through comprehensive gene expression analyses of the liver from type 2 diabetic people. Through functional analyses of these pathways/hepatokines, we aim to create medical systems for preclinical diagnosis and preemptive/tailor-made medicine.

Research projects:

1. Basic and clinical research on pathophysiology and treatment of diabetes, obesity, and their complications
2. Pathological trajectories of non-alcoholic fatty liver disease
3. Hepatokine-mediated inter-organ networks in diabetes and obesity

Key publications:

1. *Cell Host Microbe* 25:588-601.e7, 2019
2. *Sci Rep* 8:16727, 2018
3. *PLoS One* 13:e0194798, 2018
4. *Nat Commun* 8:1658, 2017
5. *Nat Med* 23:508-16, 2017
6. *J Biol Chem* 292:10791-800, 2017
7. *Diabetes* 63:1649-64, 2014
8. *Diabetologia* 57:1968-76, 2014
9. *PLoS ONE* 9:e92170, 2014
10. *Diabetologia* 57:878-90, 2014
11. *Diabetes* 62:811-24, 2013
12. *Endocr J* 59:745-63, 2012 (Review).
13. *Cell Metab* 12:483-95, 2010
14. *Obesity* (Silver Spring). 16:2601-9, 2008
15. *Hepatology* 46:1392-1403, 2007
16. *Diabetologia* 50:268-277, 2007
17. *Diabetologia* 47:638-647, 2004

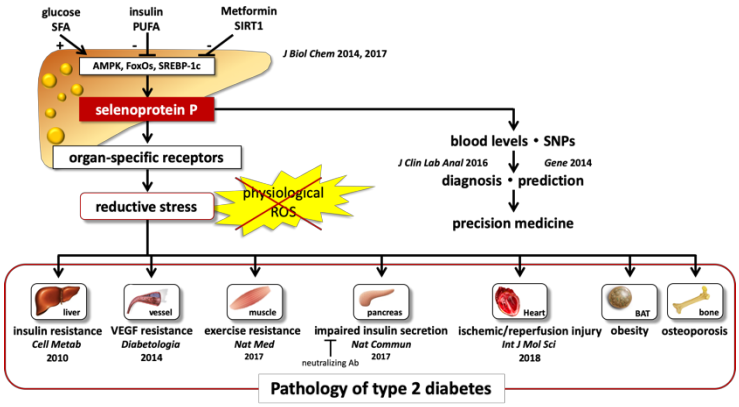


Figure: The hepatokine selenoprotein P causes multi-signal resistances via reductive stress leading to pathology of type 2 diabetes such as insulin resistance, angiogenesis resistance, exercise resistance, and insulin secretory failure.

Educational background & professional experience:

1988~ Kanazawa University Graduate School of Medical Science
1992 Awarded the degree of PhD in Internal Medicine)
1993~ Department of Biochemistry, Tohoku University (Prof. Hiroshi Okamoto)
1994~ Special Researcher, Japan Society for the Promotion of Science
1997~ Assistant Professor, Department of Endocrinology and Metabolism, Kanazawa University Hospital
2001~ Associate Professor
2014~ Professor, Department of Endocrinology and Metabolism, Kanazawa University Graduate School of Medical Sciences

Award: 2018 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology

Project S.H.I.P: a prospective genome-cohort study in Kanazawa

Atsushi Tajima, Ph.D.

Professor, Department of Bioinformatics and Genomics,
Graduate School of Advanced Preventive Medical Sciences, Kanazawa University
E-mail: atajima@med.kanazawa-u.ac.jp
Web site: http://big.w3.kanazawa-u.ac.jp/

Abstract: Most human disease and traits result from complex interactions of genetic and environmental factors. The main objective of our study is to identify novel factors that contribute to inter-individual differences in disease susceptibility and quantitative traits, considering both genetic and environmental variables. In this presentation, as one of our recent studies, I will introduce our efforts to build a population-based genome-cohort (called Project S.H.I.P) in Noto area in Ishikawa prefecture, Japan, and discuss its pivotal role in establishing causality and developing new diagnostic and preventive strategies for human disease.

Education:

1990	B.Pharm., Faculty of Pharmaceutical Sciences, Kyoto University, Japan
1992	M.Pharm., Department of Pharmacology, Kyoto University, Japan
2002	Ph.D., Department of Biosystems Sciences, The Graduate University for Advanced Studies (SOKENDAI), Japan

Professional experience:

1992 - 1999	Researcher, Toray Industries, Inc., Japan
2002 - 2004	Postdoctoral Fellow, The Graduate University for Advanced Studies (SOKENDAI), Japan
2004 - 2006	Project Research Associate, Institute of Medical Science, The University of Tokyo, Japan
2006 - 2007	Project Research Associate, School of Medicine, Tokai University, Japan
2007 - 2009	Research Associate, School of Medicine, Tokai University, Japan
2009 - 2010	Lecturer, School of Medicine, Tokai University, Japan
2010 - 2014	Associate Professor, Department of Human Genetics, Institute of Health Biosciences, The University of Tokushima Graduate School, Japan
2014 -	Professor, Department of Bioinformatics and Genomics, Graduate School of Advanced Preventive Medical Sciences, Kanazawa University, Japan

Recent publications (selected):

1. ***J Diabetes Investig*** 10(3):817-826, 2019
2. ***Science*** 361(6397):88-92, 2018
3. ***J Med Genet*** 55(6):415-421, 2018
4. ***Clin Cancer Res*** 24(10):2357-2369, 2018
5. ***Cell Rep*** 20(9):2131-2143, 2017
6. ***Blood*** 129(21):2908-2916, 2017
7. ***Endocr J*** 64(4):463-475, 2017
8. ***J Hum Genet*** 61(11):911-915, 2016
9. ***J Neurol Neurosurg Psychiatry*** 87(6):656-662, 2016
10. ***J Hum Genet*** 60(11):665-673, 2015 (Review)
11. ***Hum Reprod*** 30(6):1510-1514, 2015
12. ***Hum Reprod*** 30(6):1505-1509, 2015

Characterization of exosomes, endogenous nano-particles

Rikinari HANAYAMA, MD & PhD

Professor, WPI Nano Life Science Institute (NanoLSI) &
Department of Immunology, Graduate School of Medical Sciences,
Kanazawa University
E-mail hanayama@med.kanazawa-u.ac.jp
Web site http://immunology.w3.kanazawa-u.ac.jp/index2.html

Abstract: Exosomes are secreted small membrane vesicles, composed of a lipid bilayer with inserted transmembrane proteins, enclosing cytosolic components derived from the exosome-producing cells. Recently, exosomes have received much attention as messengers of intercellular communication networks, allowing the exchange of proteins and lipids between the exosome-producing cells and target cells to trigger various cellular responses. Exosomes were also shown to carry mRNAs and microRNAs inside them, raising the possibility that exosomes transfer genetic information between cells. However, it is not clear whether these processes occur under physiological conditions. Therefore, our lab is aimed at clarifying physiological and pathophysiological functions of exosomes and their secretory mechanisms.

Research projects:

1. Molecular mechanisms of exosome secretion
2. Physiological and pathophysiological functions of exosomes
3. In vivo imaging of exosomes

Key publications:

1. *J Exp Med.* 216(5):1027-37, 2019
2. *J Immunol.* 201(10):3051-7, 2018
3. *JCI Insight.* 3(8):e99680, 2018
4. *EBioMedicine.* 22:89-99, 2017
5. *Oncotarget.* 8:24668-78, 2017
6. *Sci Rep.* 6:33935, 2016
7. *Sci Rep.* 5:7989, 2015
8. *Mol Cell Biol.* 32:118-25, 2012
9. *Cell.* 140:704-16, 2010
10. *Cell.* 140:619-30, 2010 (Review)
11. *PNAS.* 102:16886-91, 2005
12. *J Exp Med.* 200:459-67, 2004
13. *Science.* 304:1147-50, 2004
14. *J Immunol.* 172:3876-82, 2004
15. *Nature.* 417:182-7, 2002

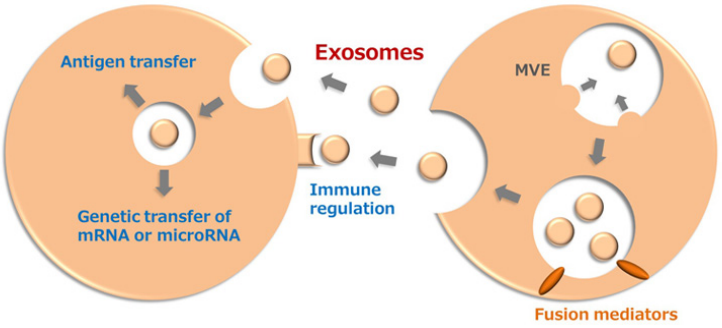


Figure: Exosomes are generated inside intracellular compartments, called multivesicular endosomes (MVE), and are subsequently secreted by the fusion of MVE with cell plasma membrane. Exosomes carry various proteins, lipids, mRNAs and microRNAs derived from secretory cells and may participate in many aspects of immunity, aging, cancer and viral infection. However, the physiological functions of exosomes remain largely elusive.

Educational background & professional experience:

1999	M.D., Osaka University
2004	Ph.D., Osaka University (Advisor: Dr. Shigekazu Nagata)
2005~	HFSP Fellow, Harvard Medical School (Supervisor: Dr. Michael E. Greenberg)
2008~	Assistant Professor, Graduate School of Medicine, Kyoto University
2011~	Associate Professor, WPI Immunology Frontier Research Center (IFReC), Osaka University
2015~	Professor, Kanazawa University

Award: Yamamura Award, Osaka University (1999 & 2004), GE and Science Prize for Young Life Scientist (2006), MEXT Young Scientist's Prize (2009), HFSP Career Development Award (2011), Astellas Biomedical Award (2012), Osaka University Presidential Award (2014), Kanazawa University Commendation for Achievements (2019)

Critical roles of gut microbiota in self-renewal of hematopoietic stem cells and leukemogenesis

Atsushi HIRAO, MD & PhD

Professor, Department of Molecular Genetics,
Cancer Research Institute, Kanazawa University
E-mail ahirao@staff.kanazawa-u.ac.jp
Web site https:// ganken.cri.kanazawa-u.ac.jp/eng/about/cscr07/

Abstract: Nutrients, such as amino acids, glucose and lipids, are critical determinants of cell survival, proliferation and differentiation processes in normal and malignant tissues. It has been shown that metabolic control is critical for maintenance of hematopoietic stem cell (HSCs) functions. HSCs utilize glycolysis to sustain undifferentiated status, whereas oxidative phosphorylation becomes dominant in progenitors. Unlike HSCs, leukemia stem cells (LSCs) appear to have low glycolytic flow, indicating that there are critical differences in metabolic regulation between these cell types. Therefore, knowledge of the molecular mechanisms of metabolic regulation will provide novel therapeutic approaches for eradiation of LSCs.

While numerous epidemiologic studies have reported that significant relationships exist between cancers and obesity-related parameters, it has not been unclear how abnormal diet affects stem cell homeostasis. We have recently shown that Spred1, a negative regulator of RAS-MAPK signaling, safeguards HSC homeostasis under high-fat diet (HFD) conditions by modulating HSC self-renewal. HFD induces ERK hyperactivation and aberrant self-renewal in Spred1-deficient HSCs, resulting in functional failure associated with severe anemia and myeloproliferative neoplasm-like disease. In addition, HFD-induced hematopoietic abnormalities are partly due to altered gut microbiota. These data indicate that altered gut microbiota as microenvironments dramatically affect HSC system, leading to development of hematopoietic neoplasms. In this symposium, I would like to present recent data regarding how gut microbiota controls stem cell fate in normal and malignant hematopoiesis.

Research projects:

1. Self-renewal control of hematopoietic stem cells in aging and leukemogenesis
2. Metabolic control of stemness of cancers
3. Discovery of targeting molecules for cancer therapy

Key publications:

1. *Cell Stem Cell.* 22:713-725, 2018
2. *J Biol Chem*, 291:21496-21509, 2016
3. *Proc Natl Acad Sci U S A.* 111:3805-10, 2014
4. *J Clin Invest.* 122:2114-29, 2012
5. *Nature*, 463:676-80, 2010
6. *Cell Stem Cell.* 1:101-12, 2007

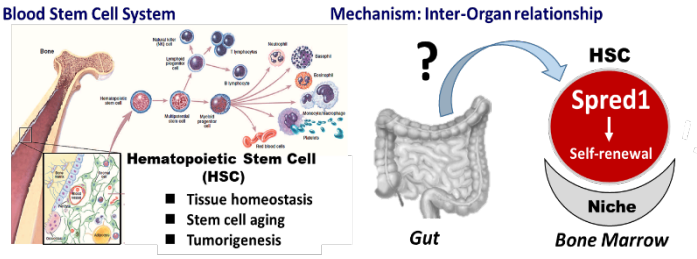


Figure: Regulation of self-renewal of HSCs by gut microbiota.

Educational background & professional experience:

1988 Jichi Medical University (MD)
1994 Tokushima University (PhD)
1995 Postdoctoral fellow, Japan Society for the Promotion of Science (Kumamoto University)
1997 Postdoctoral fellow, Ontario Cancer Institute, University of Toronto, Canada
2001 Assistant professor, Institute of Molecular Embryology and Genetics, Kumamoto University
2002 Assistant professor, Keio University School of Medicine
2004 Associate professor, Keio University School of Medicine
2005~ Professor, Cancer Research Institute, Kanazawa University
2017~ Director, Cancer Research Institute, Kanazawa University

Award:

2007 The JSPS PRIZE, 2010 The Commendation for Science and Technology by the MEXT

Dementia research in Kanazawa: From clinical and epidemiological studies to molecular pathogenesis and prevention

Moeko Noguchi-Shinohara, MD & PhD, Junji Komatsu, MD & PhD, Kenji Sakai, MD & PhD, Tsuyoshi Hamaguchi, MD & PhD, Masahito Yamada, MD & PhD

Department of Neurology & Neurobiology of Aging, Kanazawa University Graduate School of Medical Sciences
E-mail m-yamada@med.kanazawa-u.ac.jp
Web site http://neurology.w3.kanazawa-u.ac.jp/english/

Abstract: Our mission is to overcome dementia through clinical, epidemiological, and laboratory studies of dementing diseases and related disorders such as Alzheimer's disease (AD), cerebral amyloid angiopathy (CAA), prion diseases, and dementia with Lewy bodies (DLB). In 1996, we discovered a novel dementing disease, "senile dementia of the neurofibrillary tangle type (SD-NFT)", currently also known as dementia due to "primary age-related tauopathy (PART)" pathology. We established the value of ^{123}I-MIBG myocardial scintigraphy for the diagnosis of DLB, and incorporated it into the 2017 revised consensus criteria for DLB. Our population-based cohort study in Nakajima (Nakajima Study) indicated significant associations between green tea consumption and reduced risk of future cognitive decline, and also between serum vitamin C levels at baseline and reduced risk of future cognitive decline in women with apolipoprotein E (ApoE) E4. Our *in vitro* and *in vivo* studies revealed anti-AD effects of some dietary polyphenols (**Figure**); a community-based intervention trial with rosmarinic acid-rich lemon balm extract for prevention of dementia is ongoing. Our group has identified all the patients with prion diseases in Japan since 1999; our prion research further extended to basic and clinical studies of prion-like transmission of protein aggregates of neurodegenerative diseases. Our CAA studies revealed the role of ApoE in CAA pathogenesis and the epidemiology of CAA-related intracerebral hemorrhage and inflammation in Japan.

Research projects:

1. Epidemiological, clinical, pathological, imaging, and magnetoencephalography (MEG) studies of dementia and dementing diseases (AD, DLB, CAA, prion diseases, and related disorders).
2. *In vitro* and *in vivo* experimental studies with models of AD and related disorders focusing on amyloidogenesis and prion-like transmission of aggregated proteins.
3. Development of the method for dementia prevention using dietary factors that showed significant reduction of dementia risk in prospective longitudinal cohort studies and anti-AD effects in experimental AD models.

Key publications: 1. ***Eur J Neurol*** (doi: 10.1111/ene.14031) 2019; 2. ***Sci Rep*** 9:8711, 2019; 3. ***J Neurol Neurosurg Psychiatry*** 89:1167, 2018; 4. ***J Alzheimers Dis*** 63:1289, 2018; 5. ***Neurology*** 89:88, 2017; 6. ***Acta Neuropathol*** 132:313, 2016; 7. ***Proc Natl Acad Sci USA*** 113:5835, 2016; 8. ***Acta Neuropathol*** 128:755, 2014; 9. ***PLoS One*** 9:296013, 2014; 10. ***J Biol Chem*** 287:14631, 2012; 11. ***Nat Med*** 17:175, 2011; 12. ***Brain*** 133:3043, 2010; 13. ***Am J Pathol*** 175:2557, 2009; 14. ***Lancet*** 36:874, 2006; 15. ***Neuropathology*** 16:89, 1996

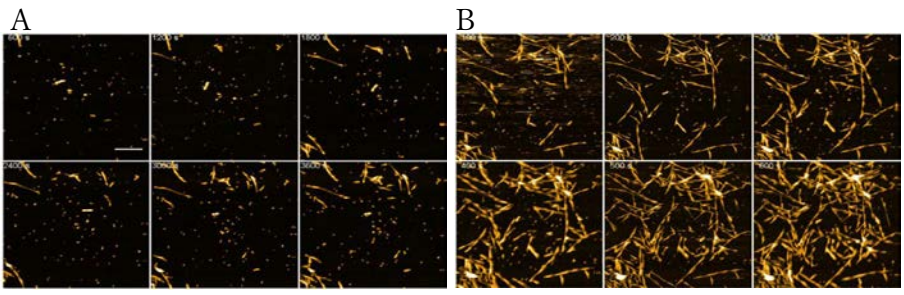


Figure: High-speed atomic force microscopy (HS-AFM) revealed inhibition of the $A\beta_{1-42}$ fibril growth by myricetin, a kind of natural polyphenols. **(A)** Serial images of the HS-AFM stage on which reaction mixtures of $A\beta_{1-42}$ fibril seeds and myricetin. **(B)** Serial images of the same surface after the removal of myricetin. See the reference (***PNAS*** 113:5835, 2016) for details.

Chiba University

Japanese Birth Cohorts using Multi-omics Analysis: Exposome, Epigenome and Microbiome

Chisato Mori, M.D., Ph.D.,

Professor, Department of Bioenvironmental Medicine, Graduate School of Medicine, Chiba University; Director, Center for Preventive Medical Sciences, Chiba University; Director, Chiba Regional Center, Japan Environment and Children's Study (JECS)

In recent, some epidemiological studies have shown that environmental factors, like maternal nutrition, smoking habit and economic stability during the period from the fetal to early childhood stage might affect the risk of non-communicable diseases (NCD) in adulthood. This is referred to as the 'developmental origins of health and disease' (DOHaD) concept. In addition, exposure to chemicals is also an important risk factor for fetal development. A birth cohort study, Chiba Study of Mother and Children's Health (C-MACH), focusing on environmental health effects on fetuses and involving multiomics analysis has been conducted to identify potential biomarkers. Almost four hundred women were recruited, and now we are following their children. We perform several omics analyses. Preliminary, we performed epigenome, microbiome, metabolome analyses. Chemical exposure assessment is assessed by PCB measurement. We are now trying to establish a health examination system to detect highly contaminated women at the reproductive age. If we can decrease the level of contamination of mothers, we can expect that the exposure to fetuses and babies also will decrease, then future generations will be able to enjoy a higher quality of life.

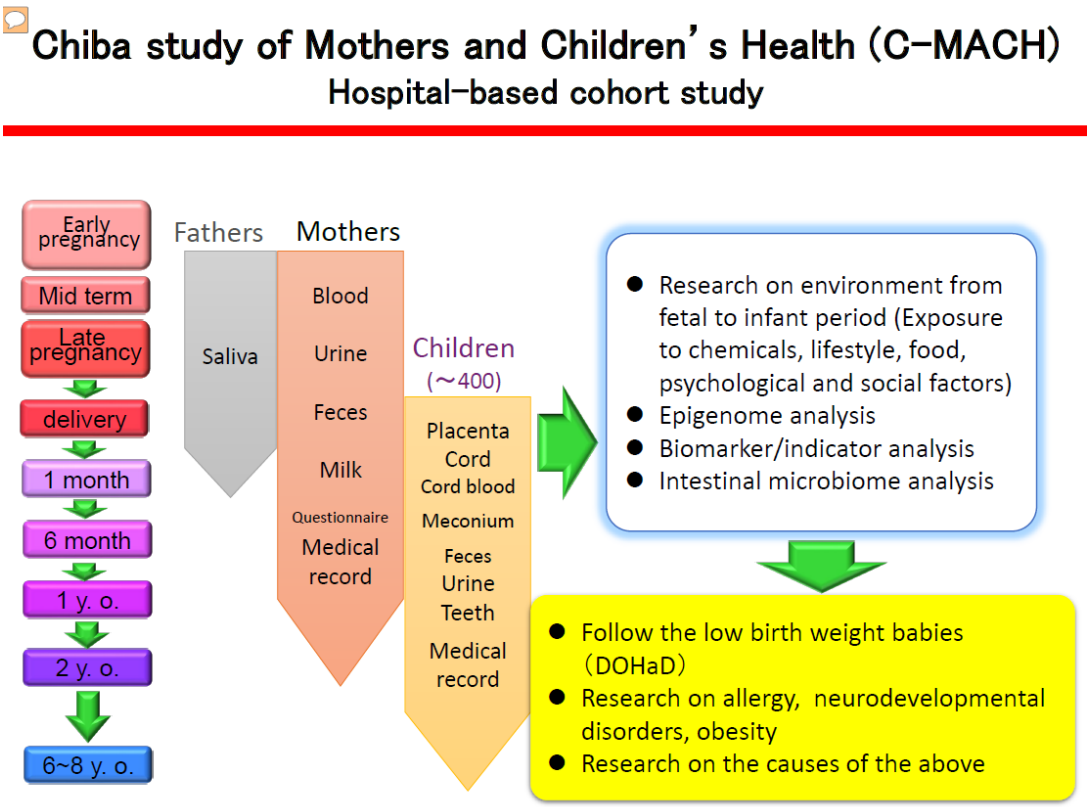
研究テーマリスト: Proposal collaborate research fields from Chiba University

Field	Contact person in charge
1, Environmental medicine	Prof. Mori
2, Non-communicable diseases (NCD) in modern society	Dr. Sakurai
3, Aging and Aging society	Prof. Kondo
4, Healthy town planning Landscape and health	Dr. Hanazato

Curriculum Vitae: Professor Mori graduated from Asahikawa Medical College in 1984, and became an assistant professor at Faculty of Medicine, Kyoto University. After working as a visiting associate at National Institute of Health (USA) and then as an associate professor at Kyoto University, he became a professor at Chiba University School of Medicine in 2000. He has been a professor at Department of Bioenvironmental Medicine, Graduate School of Medicine, Chiba University since 2001. He has been appointed as a director of Center for Preventive Medical Sciences, Chiba University since 2008. Professor Mori has been appointed as a member of International Linkage Committee of Japan Environment and Children's Study (JECS) by the Ministry of the Environment of Japan. In 2014, he started cooperative work with the Department of Public Health, Environmental and Social Determinants of Health, World Health Organization (WHO) in Geneva, Switzerland.

Key publication:

1, Mori et al: Polychlorinated biphenyl levels in the blood of Japanese individuals ranging from infants to over 80 years of age. Environ Sci Pollut Res Int. 2014.5.21. 10. 6434-9. **2,** Michikawa et al: The Japan Environment and Children's Study (JECS): A Preliminary Report on Selected Characteristics of Approximately 10 000 Pregnant Women Recruited During the First Year of the Study. J Epidemiol 2015;25(6):452-8. **3,** Sakurai et al: Chiba study of Mother and Children's Health Group: Chiba study of Mother and Children's Health (C-MACH): cohort study with omics analyses. BMJ Open. 2016.1.29. 6:1.e01053. **4,** Mori and Todaka: For healthier future: a virtuous cycle for reducing exposure to persistent organic pollutants. J Epidemiol Community Health. 2017 Jul; 71(7): 660–662. **5**, Sakurai and Mori: Current Findings in a Birth Cohort Study with Omics Analysis: Chiba Study of Mother and Child Health (C-MACH): in Pre-emptive Medicine: Public Health Aspects of Developmental Origins of Health and Disease (eds Fumio Sata, Hideoki Fukuoka, & Mark Hanson) Ch. 10, 165-174 (Springer Nature Singapore Pte Ltd., 2019).



Knowledge translation for healthy ageing: lessons learnt from the Japan Gerontological Evaluation Study (JAGES)

Katsunori Kondo, M.D., Ph.D.,

Professor of Social Epidemiology and Health Policy, Department of Social Preventive Medical Sciences, Center for Preventive Medical Sciences and the Graduate School of Medicine, Chiba University.

Japanese society, which has one of the longest life expectancies in the world, are implementing policies for healthy ageing. While many studies gather scientific evidence that could inform such policies, less attention has been given to how to translate research findings to government policies and practices.

The Japan Gerontological Evaluation Study (JAGES) initiative originally started in 1999 and expanded to 41 collaborating municipalities across Japan with approximately 200,000 respondents by 2016–17. As the research findings from JAGES have been continuously translated into national and local government policy for healthy ageing, WHO published a monograph summarizing process and analyzing key driving factors of JAGES initiative.

To produce high quality and large longitudinal data are needed to build scientific bases. To develop a data visualization tool, the JAGES Health Equity Assessment and Response Tool, were useful for knowledge translation into users. Having a long-term vision and commitment to strengthen research, knowledge translation, and community-based participatory researches were essential factors of JAGES initiative. The lessons learned from the JAGES initiative could be useful for other countries.

Potential research topics collaborated with the JAGES initiative

1. Social Determinants of Health
2. Social Capital, Social Participation and Health
3. Built Environment and health
4. Aging and Aging society

Dr. Kondo is also the head of Department of Gerontological Evaluation at the Center for Gerontology and Social Science, National Center for Geriatrics and Gerontology.

He is the Principal Investigator of the Japan Gerontological Evaluation Study (JAGES) Project, which is one of the first prospective cohort studies to investigate the influence of social determinants of health and community social capital on health outcomes among older people. He is the author of bestselling books, “Health Gap Society - what undermining mental health and society? “, Igaku-Shoin, 2005, which is awarded in 2006 by The Society for the Study of Social Policy. He also edited and wrote “Health Inequalities in Japan: An Empirical Study of the Older People”, Trans Pacific Press, Melbourne, 2010; ”Social Determinants of Health - reviews of 'health disparities' in Non Communicable Diseases”, Japan Public Health Association, 2013; wrote “Beyond 'healthcare crisis' - future of health and long term care in the UK and Japan”, Igaku-Shoin, 2012; “Prescriptions for Health Gap Society”, Igaku-Shoin, 2017

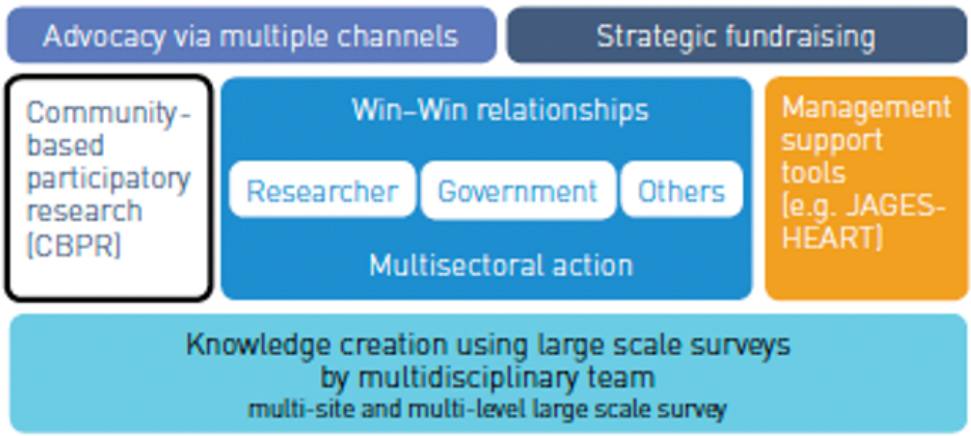
Key publication:

1. Saito J, Haseda M, Amemiya A, Takagi D, Kondo K, Kondo N: Community-based care for healthy ageing: lessons from Japan. Bulletin of the World Health Organization.2019;97:570-574.
2. Kondo K, Rosenberg M, editors: Advancing universal health coverage through knowledge translation for healthy ageing: lessons learnt from the Japan Gerontological Evaluation Study. Geneva: World Health Organization; 2018
3. Tani Y, Suzuki N, Fujiwara T, Hanazato M, Kondo K: Neighborhood Food Environment and Dementia Incidence: the Japan Gerontological Evaluation Study Cohort Survey. Am J Prev Med 56: 383-392, 2019
4. Kondo K: Progress in aging epidemiology in Japan: the JAGES project. J Epidemiol. 2016; 26(7):331–6
5. Hikichi H, Kondo N, Kondo K, Aida J, Takeda T, Kawachi I. Effect of a community intervention programme promoting social interactions on functional disability prevention for older adults: propensity score matching and instrumental variable analyses, JAGES Taketoyo study. J Epidemiol Community Health. 2015 Sep;69(9):905–10.

Kondo K, Rosenberg M, editors.
Advancing universal health coverage through knowledge translation for healthy ageing: lessons learnt from the Japan Gerontological Evaluation Study (JAGES)
World Health Organization 2018

Japan Gerontological Evaluation Study
JAGES

Figure 2. Key driving factors of JAGES' knowledge translation



Nagasaki University

Inflammatory arthritis research through systemic autoimmunity, joint imaging and epidemiology field

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Dean, Nagasaki University Graduate School of Biomedical Sciences
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Department of Immunology and Rheumatology,
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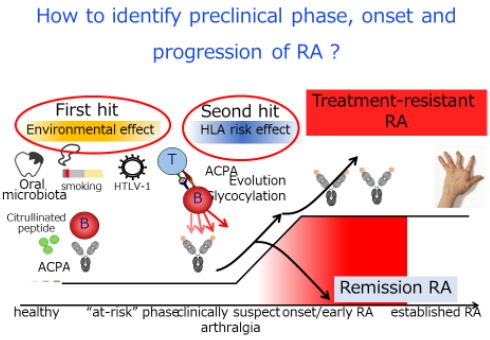
Abstract: Title of talk
Inflammatory arthritis research through systemic autoimmunity, joint imaging and epidemiology field
Rheumatoid arthritis (RA) is a prototype of inflammatory arthritis in humans. Although the prognosis of RA has greatly improved due to the progress of therapeutic drugs, the understanding of mechanism of onset as well as disease's process are unclear. Also, there still stand clinical questions, i.e., which type of RA patients is responsive to specific type of therapeutic drugs including biologics through serum biomarkers as well as imaging biomarkers. Anti-citrullinated protein antibodies (ACPA), exhibiting remarkably high specificity for the disease and showing a well-established association with a severe, erosive phenotype, is a characteristic hallmark of RA. In this symposium, we are going to discuss our research trying to identify "RA-prone pathways", especially ACPA-positive RA.

Research projects:
1. Inflammatory arthritis: Genetic, environmental, immunological and imaging analysis
2. Autoinflammatory diseases: Genetic and inflammasome analysis leading to drug discovery
3. Sjögren's syndrome: Pathological analysis especially role of HTLV-1
4. Systemic lupus erythematosus: Pathological analysis especially identification of autoantigen
5. Immuno-related adverse events: Identification of susceptibility through whole-genome analysis



Key publications:
1. *Ann Rheum Dis* 78(10):1320-1332, 2019
2. *Virus Res* 269:197643, 2019
3. *Arthritis Rheumatol* 71(5):766-772, 2019
4. *Ann Rheum Dis* 77(4):602-611, 2018
5. *Arthritis Care Res* 26,2018
6. *Frontiers in Immunology* 8;8: 1958, 2018
7. *Arthritis Rheumatol* 70(7):1014-1021, 2018
8. *Clin Infect Dis* 2;67(2):291-294, 2018
9. *Rheumatology* 1;57(4):718-726, 2018
10. *Arthritis Res Ther* 25;19(1):108, 2017
11. *Arthritis Rheumatol* 68(8):1981-8, 2016
12. *Arthritis Rheumatol* 67(4):1096-106, 2015
13. *Blood* 1;94(11):3847-54, 1999

Educational background & professional experience:

1985	First Department of Internal Medicine, Nagasaki University School of Medicine
1987~1991	Department of Immunology and Rheumatology, Nagasaki University Graduate School of Biomedical Sciences
1991~1993	Post-Doctoral Fellow, Division of Tumor Immunology, Dana-Farber Cancer Institute, Boston (Supervised by Prof. Paul Anderson)
1991~1993	Post-Doctoral Fellow, Division of Tumor Immunology, Dana-Farber Cancer Institute, Boston (Supervised by Prof. Paul Anderson)
2000	Assistant Professor, Unit of Translational Medicine, Department of Immunology and Rheumatology, Nagasaki University Graduate School of Biomedical Sciences
2009	Associate Professor
2010	Professor and Chairman
2016	Professor and Chairman, Department of Immunology and Rheumatology, Unit of Advanced Preventive Medical Sciences, Division of Advanced Preventive Medical Sciences, Nagasaki University Graduate School of Biomedical Sciences
2017	Professor and Chairman, Department of Immunology and Rheumatology, Division of Advanced Preventive Medical Sciences, Nagasaki University Graduate School of Biomedical Sciences
2019	Dean, Nagasaki University Graduate School of Biomedical Scien

Award:

2000	Japan College of Rheumatology Scientific Award
2001	7th The Japanese Society of Inflammation and Regeneration Promotion Award
2004	32 th Japan Clinical Immunology Society of the General Assembly Best Poster Award

Non-verbal communications in humans

Kazuyuki SHINOHARA, MD & PhD

Professor
Department of Neurobiology & Behavior
Division of Advanced Preventive Medical Sciences
Graduate School of Biomedical Sciences, Nagasaki University
E-mail kazuyuki@nagasaki-u.ac.jp
Web site http://www.med.nagasaki-u.ac.jp/physlgy2/

Abstract: We aim to elucidate the neural mechanism of non-verbal communications in humans including autistic spectrum disorder (ASD). We will present neural correlate of family love by means of near-infrared spectroscopy (NIRS) in the conference. Neural correlates of paternal and maternal love are determined by interaction between gene and environment. We also study successful aging with circadian clock and exercise.

Other research projects:

1. Exercise physiology for brain health: Our research focuses on the exercise-mediated regulation of neural functions via myokines, which is hormones and metabolites secreted from skeletal muscles
2. Successful aging with Circadian clock: A wide array of evidence has emerged that dysregulation of circadian clock accelerates aging process in humans and rodents. Our research goal is to contribute to successful aging in human by revealing molecular mechanisms of how the circadian clock regulates aging process.

Key publications:

1. Horm Behav. 2019 Feb;108:1-9.
2. PERSONALITY AND INDIVIDUAL DIFFERENCES 135 45-50 2018
3. BMC Pediatr. 2018 Oct 18;18(1):331.
4. INFANT BEHAVIOR & DEVELOPMENT 52 89-96 2018
5. Psychoneuroendocrinology. 2018 Nov;97:94-103.
6. Infant Behav Dev. 2018 Aug;52:89-96.
7. MMArt&ACM@ICMR 2018 26-29
8. PERSONALITY AND INDIVIDUAL DIFFERENCES 125 106-111 2018
9. Res Dev Disabil. 2018 Nov;82:20-26.
10. PLoS One. 2018 Feb 15;13(2):e0192757.
11. Dev Psychobiol. 2018 Apr;60(3):333-339.
12. ICCE-Berlin 2017 3-4
13. BMC Res Notes. 2017 Dec 8;10(1):717.
14. Neurosci Res. 2018 Aug;133:21-27.
15. Data Brief. 2017 Jul 5;13:742-748.
16. Front Hum Neurosci. 2017 Apr 12;11:137.
17. J Sports Sci. 2018 Feb;36(4):393-397.
18. Behav Brain Res. 2017 May 15;325(Pt B):87-89.
19. Front Physiol. 2017 Feb 28;8:111.
20. Breastfeed Med. 2017 Mar;12:103-109.

Educational background & professional experience:

1984~ Residency (Psychiatry)
National Center Hospital, National Center of Neurology and Psychiatry, Japan
1990~ Lecturer, Department of Child Psychiatry, Tokai School of Medicine, Japan
1993~ Lecturer, Department of Chronobiology, Hokkaido University Graduate School of Medicine, Japan
1995~ Assistant Professor, Department of Physiology, Yokohama City University School of Medicine, Japan
1997~ Visiting Assistant Professor, Physiology Department, University of Groningen, Netherlands
Visiting Assistant Professor, Department of Biology, National Science Foundation Center for Biological Timing, University of Virginia, USA.
2001~ Associate professor, Department of Physiology, Dokkyo Medical School, Japan
2002~ Professor, Chair, Department of Neurobiology and Behavior.
Nagasaki University Graduate School of Biomedical Sciences

Lessons from NOD mouse as a model of human type 1 diabetes

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Nagasaki University Graduate School of Biomedical Sciences
E-mail abirun@nagasaki-u.ac.jp
Web site http://www.med.nagasaki-u.ac.jp/intmed-1/

Abstract: We aim to elucidate the mechanisms of development of type 1 diabetes. Firstly, we have studied an insulin B chain peptide as a primary epitope in non-obese diabetic (NOD) mouse. Secondly, our group have established several gene-targeted NOD mouse to seek the target molecule for the intervention to inhibit the autoimmune β cell destruction. We found that haploinsufficiency of pioneer transcription factor-IRF4 gene strongly protects against autoimmune diabetes. We currently investigate the relevance of IRF4 expression to the differentiation and metabolism in the autoreactive T cells or other immune cells in the pathogenesis of diabetes in NOD mouse.

Research projects:

1. Basic research of investigation of relevance of IRF4 to acquired or innate immunity in type 1 diabetes.
2. Clinical research to explore the genetic polymorphisms or mutations associated with type 1 diabetes induced by immune checkpoint inhibitor; nivolumab

Key publications:

1. Diabetologia. 58(11): 2606-2614, 2015.
2. Diabetologia. 56(8): 1773-1780, 2013.
3. Clin Exp Immunol.173(3): 411- 418, 2013.
4. Apoptosis. 44(4): 438-48, 2011.
5. Autoimmunity. 44(6):504-10, 2011
6. BBRC. 367(4): 719-724, 2008.
7. J Immunol 179(4): 2082-2088, 2007.
8. Nature 435(7039): 220-223, 2005.
9. PNAS.100(18): 10376-10381, 2003.
10. J Autoimmun 17(1): 1-6, 2001
11. Diabetes 50(6): 1274-1281, 2001.
12. J Autoimmun. 14(3):231-7, 2000

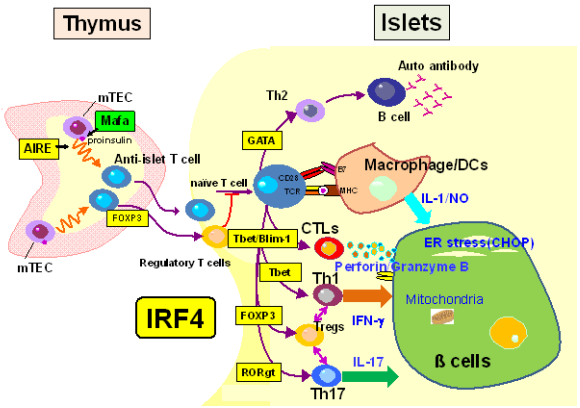
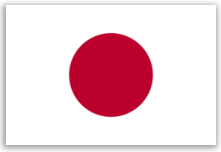


Figure: Candidate molecules for autoimmune destruction of β cells in the pathogenesis of type 1 diabetes in NOD mouse

Educational background & professional experience:

1990~ Nagasaki University School of Medicine
1997 PhD in Nagasaki University Graduate school of Biomedical Science
1997~2000 Research fellow in Barbara Davis center (GS Eisenbarth Labo.), Denver CO USA
2007~ Assistant professor, Nagasaki University Graduate School of Biomedical Sciences, Translational Medical Sciences.
2012~ Associate Professor
2016~ Associate Professor, Nagasaki University Graduate School of Biomedical Sciences, Division of Advanced Preventive Medical Sciences.

Award: 2004 Nagasaki University School of Medicine, 21st The Tsunoo Award for Scientific Excellence
2019 Japan Association for Diabetes Education and Care, Juvenile Diabetes Lifetime Achievement Award



October 3-4, 2019 @Kanazawa, Japan