

PROGRAM

MONDAY, September 4—7:00 PM

SESSION 1 MICROBIOME, IMMUNITY AND METABOLISM

Chairperson: **Zhihua Liu**, Institute of Biophysics, CAS, Beijing, China

KEYNOTE SPEAKER

Microbial metabolites that modify intestinal wound repair

Thaddeus Stappenbeck [35'+10']

Presenter affiliation: Washington University, St Louis, Missouri. 1

Host microbiome interactions in health and disease

Eran Elinav [20'+10']

Presenter affiliation: Weizmann Institute of Science, Rehovot, Israel. 2

TUESDAY, September 5—9:00 AM

SESSION 2 METABOLISM, IMMUNITY AND HUMAN MICROBIOME

Chairperson: **Kenya Honda**, Keio University, Tokyo, Japan

Regulation of white adipose tissue by the gut microbiota

Jorge Henao-Mejia [20'+10']

Presenter affiliation: University of Pennsylvania & The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania. 3

Crosstalk between diets and commensal bacteria for the creation of immunologic environment in the gut

Jun Kunisawa [20'+10']

Presenter affiliation: National Institutes of Biomedical Innovation, Health and Nutrition (NIBIOHN), Osaka, Japan; Osaka University, Osaka, Japan; The University of Tokyo, Tokyo, Japan; Kobe University, Kobe, Japan. 4

Microbial regulation of mucosal and extra-intestinal immunity in inflammatory bowel disease

Randy S. Longman [20'+10']

Presenter affiliation: Weill Cornell Medicine, Jill Roberts Institute for Research in IBD, New York, New York.

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Dusko Ehrlich [20'+10']

Presenter affiliation: INRA Centre of Jouy-en-Josas, Paris, France.

The role of genetics and host-microbe interactions in inflammatory bowel disease

Luke Jostins-Dean [20'+10']

Presenter affiliation: University of Oxford, Oxford, United Kingdom.

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A dietary fiber-deprived gut microbiota degrades the colonic mucus barrier and enhances pathogen susceptibility

Mahesh S. Desai, Anna Seekatz, Nicole Koropatkin, Nobuhiko Kamada, Christina Hickey, Mathis Wolter, Nicholas Pudlo, Sho Kitamoto, Nicolas Terrapon, Arnaud Muller, Vincent Young, Bernard Henrissat, Paul Wilmes, Thaddeus Stappenbeck, Gabriel Nunez, Eric C. Martens [10'+5']

Presenter affiliation: Luxembourg Institute of Health, Esch-sur-Alzette, Luxembourg.

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TUESDAY, September 5—2:00 PM

SESSION 3 POSTER SESSION

Comparison DNA-stabilizing collection kits on the microbial communities in feces

Rou-An Chen, Wei-Kai Wu, Suraphan Panyod, Ming-Shing Wu, Lee-Yan Sheen, Chieh-Chang Chen

Presenter affiliation: National Taiwan University, College of Bio-Resources and Agriculture, Taipei, Taiwan.

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Assessment of cPAS-based BGISEQ-500 platform for metagenomic sequencing

Chao Fang, Huanzi Zhong, Mo Han, Karsten Kristiansen, Huijue Jia, Junhua Li

Presenter affiliation: BGI-Shenzhen, Shenzhen, China.

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- Distinct microbiome profiles in Australian born Chinese children in Australia and Chinese children in China**
Jing Guo, Quanjun Lv, Amir Ariff, Christopher Peacock, Xiaoping Zhang, Xiajie Wen, Aarti Saiganesh, Yong Song, Phillip Melton, Gary Dykes, Eric Moses, Peter Le Souëf, Fengmin Lu, Guicheng Zhang
 Presenter affiliation: Curtin University, Perth, Australia; The University of Western Australia and Curtin University, Perth, Australia. 10
- Optimization of DNA preparation method from feces in guanidine thiocyanate solution for 16S rRNA-based profiling of human microbiota diversity**
Koji Hosomi, Haruka Murakami, Yayoi Natsume-Kitatani, Harumi Ohno, Chen Yi-An, Kumpei Tanisawa, Hitoshi Kawashima, Tomomi Nishino, Ayu Matsunaga, Soichiro Hirata, Hidehiko Suzuki, Takahiro Nagatake, Kenji Mizuguchi, Motohiko Miyachi, Jun Kunisawa
 Presenter affiliation: National Institutes of Biomedical Innovation, Health and Nutrition (NIBIOHN), Ibaraki, Japan. 11
- Comprehensive analysis of mobile genetic elements in the gut microbiome reveals a phylum-level niche-adaptive gene pool**
Xiaofang Jiang, Andrew Brantley Hall, Ramnik J. Xavier, Eric Alm
 Presenter affiliation: Massachusetts Institute of Technology, Cambridge, Massachusetts; Broad Institute of MIT and Harvard, Cambridge, Massachusetts. 12
- Taxonomic profiling and populational patterns of bacterial bile salt hydrolase (BSH) genes on worldwide human gut microbiome**
 Ziwei Song, Yuanyuan Cai, Jing Li
 Presenter affiliation: China Pharmaceutical University, NanJing, China. 13
- The role of allicin on the gut microbiota-liver-brain axis in alcoholic fatty liver mice model**
Suraphan Panyod, Wei-Kai Wu, Lee-Yan Sheen
 Presenter affiliation: National Taiwan University, Taipei, Taiwan; National Taiwan University, Taipei, Taiwan. 14
- N-acyl homoserine lactones quantitative analysis method based on MALDI-MS using Girard's reagent T**
Han-Gyu Park, Da-Hee Ann, Won-Suk Song
 Presenter affiliation: Soongsil University, Seoul, South Korea. 15

- Programmed cell death-1 (PD-1) regulates resistance to DSS-induced colitis through the alteration of colon microbiota**
 Seong Jeong Park, Ji-Hae Kim, Sook-Jin Moon, Sora Kim, Mi-Young Song, Young Chul Sung, Seung-Woo Lee, Yunji Park
 Presenter affiliation: POSTECH, Pohang, South Korea. 16
- The mechanism research of chronic inflammatory response and changes of blood lipid protein in pathogenesis of rheumatoid arthritis arteriosclerosis**
Na Shi, Yiyangzi Ma, Tianxing Liu, Haitao Niu
 Presenter affiliation: Institute of Laboratory Animal Sciences, CAMS&PUMC, Beijing, China. 17
- Diagnosis of atopic dermatitis in children based on skin microbiota**
Zheng Sun, Pengfei Zhu, Shi Huang, Xiaoquan Su, Jian Xu
 Presenter affiliation: Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences , Qingdao, China. 18
- Sini decoction alleviates colitis by modulating the composition of the gut microbiota in mice**
Yiwei Wang, Yu Zhang, Xueying Fan, Xiaodi Zhang, Tie Li, Jiawei Li, Qing Chang, Li Chen, Yishan Wang, Qingjie Li, Yu Song
 Presenter affiliation: Jilin University, Changchun, China. 19
- Establishing a modified carnitine challenge test to decipher TMAO-producing bacteria among human gut microbiota**
Wei-Kai Wu, Chieh-Chang Chen, Suraphan Panyod, Han-Chun Kuo, Po-Yu Liu, Rou-An Chen, Ching-Hua Kuo, Lee-Yan Lee, Ming-Shiang Wu
 Presenter affiliation: National Taiwan University Hospital Bei-Hu Branch, Taipei, Taiwan; National Taiwan University, Taipei, Taiwan. 20
- Role of the multidomain epigenetic regulator BRPF1 in leukemia development**
Kezhi Yan, Yuhao Yan, Michael Bruccoleri, Wen Yue Li, Xiang-Jiao Yang
 Presenter affiliation: Goodman Cancer Research Center, Montreal, Canada. 21

Intestinal lysozyme liberates Nod1 ligands from microbes to direct insulin trafficking in pancreatic beta cells

Qin Zhang, Ying Pan, Benhua Zeng, Xiaojiao Zheng, Wenxia Li, Haifang Wang, Wei Hong, Zhihua Liu
Presenter affiliation: Institute of Biophysics, Chinese Academy of Sciences, Beijing, China.

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Intestinal lysozyme modulates energy metabolism

Xiaojiao Zheng, Chuanlei Fang, Zhihua Liu
Presenter affiliation: Institute of Biophysics, Chinese Academy of Science, Beijing, China.

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TUESDAY, September 5—4:30 PM

Chinese Tea and Beer Tasting

TUESDAY, September 5—7:00 PM

SESSION 4 MICROBIOTA, FUNGI AND VIRUS

Chairperson: **Ivaylo Ivanov**, Columbia University, New York, USA

Host recognition of commensal fungi in health and disease

David M. Underhill [20'+10']
Presenter affiliation: Cedars-Sinai Medical Center, Los Angeles, California.

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Transkingdom interactions in the gut

Ken Cadwell [20'+10']
Presenter affiliation: New York University School of Medicine, New York, New York.

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Gut fungal metabolites in control of peripheral lymphoid system

Jianjian Li, Huiyun Lju, Yu Tian, Ruifang Pang, Yi Ding, Yan Shi [20'+10']
Presenter affiliation: Tsinghua University, Beijing, China.

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**Cell surface polysaccharides of rationally selected
Bifidobacterium bifidum generates functionally active inducible
regulatory T cells**

Ravi Verma, Changhon Lee, Seo Hyun Byun, Jaeu Yi, Charles Surh,
Sin-Hyeog Im [10'+5']

Presenter affiliation: Institute for Basic Science (IBS), Pohang, South
Korea.

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WEDNESDAY, September 6—9:00 AM

SESSION 5 MICROBIOTA AND MUCOSAL IMMUNITY I

Chairperson: **Gabriel Nunez**, University of Michigan Medical School,
Ann Arbor, Michigan, USA

**Foxo1 regulates commensalism via modulating goblet cell mucus
secretion**

Zuojia Chen, Scott Snapper, Vijay Kuchroo, Chuan Wu [20'+10']

Presenter affiliation: Brigham and Women's Hospital, Boston,
Massachusetts; National Institutes of Health, Bethesda, Maryland.

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**Structural and functional characterization of host-microbiota
interactions**

Ivaylo I. Ivanov [20'+10']

Presenter affiliation: Columbia University, New York, New York.

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Activation of CD8 T cells by the gut microbiota

Kenya Honda, Takeshi Tanoue [20'+10']

Presenter affiliation: Keio University School of Medicine, Tokyo, Japan;
RIKEN Center for Integrative Medical Sciences, Yokohama, Japan.

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Natural products from uncultured bacteria

Sean Brady [20'+10']

Presenter affiliation: Rockefeller University, New York, New York.

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**Bap180/Baf180 is required to maintain the homeostasis of
intestinal innate immune response in Drosophila and mice**

Xiaomeng He, Junjing Yu, Min Wang, Yang Cheng, Lei Pan, Hong
Tang [10'+5']

Presenter affiliation: Institute of Biophysics, Beijing, China.

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Microbiota remodeled by hyperactive NLRP3 mutation neutralizes inflammation in the gut

Xiaomin Yao, Chenhong Zhang, Yue Xing, Guang Xue, Qianpeng Zhang, Fengwei Pan, Guojun Wu, Yingxin Hu, Qihong Guo, Ailing Lu, Rongbin Zhou, Zhigang Tian, Benhua Zeng, Hong Wei, Warren Strober, Liping Zhao, Guangxun Meng [10'+5']

Presenter affiliation: Institut Pasteur of Shanghai, Chinese Academy of Sciences, Shanghai, China.

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WEDNESDAY, September 6—1:30 PM

Visit to Old Suzhou

WEDNESDAY, September 6—7:00 PM

SESSION 6 NEW METHOD DEVELOPMENTS IN MICROBIOTA AND MICROBIOME

Chairperson: **Eran Elinav**, Weizmann Institute of Science, Rehovot, Israel

Tuning the microbiota

Andrew L. Goodman [20'+10']

Presenter affiliation: Yale University, New Haven, Connecticut.

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GARDing the Golgi apparatus via Golgi quality control

Yifat Merbl [20'+10']

Presenter affiliation: Weizmann Institute of Science, Rehovot, Israel.

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Jose Clemente [20'+10']

Presenter affiliation: Icahn School of Medicine at Mount Sinai, New York, New York.

Host- vs diet-derived nutrient balance, and carbon vs nitrogen limitation, determines the effect of dietary intervention on the microbiome

Mark N. Read, Andrew J. Holmes [10'+5']

Presenter affiliation: The University of Sydney, Sydney, Australia.

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SESSION 7 MICROBIOTA, METABOLISM AND BARRIER

Chairperson: **Andy Goodman**, Yale University, New Haven, Connecticut

Gut microbe dynamics, responding to diet and exercise, supporting organ function in an age dependent manner

Sven Pettersson [20'+10']

Presenter affiliation: Nanyang Technological University, Singapore. 37

Control of pathogen colonization by host Immunity and the microbiota in the gut

Gabriel Nunez [20'+10']

Presenter affiliation: University of Michigan, Ann Arbor, Michigan. 38

Mechanism for separation of microbiota and the host in the colon

Kiyoshi Takeda [20'+10']

Presenter affiliation: Osaka University, Suita, Japan; Osaka University, Suita, Japan. 39

Oxidative stress and functional dysbioses in the inflammatory bowel disease (IBD) gut microbiome

A. Brantley Hall, Moran Yassour, Xiaofang Jiang, Hera Vlamakis, Ramnik Xavier, Curtis Huttenhower [10'+5']

Presenter affiliation: Broad Institute of Harvard and MIT, Cambridge, Massachusetts; Massachusetts General Hospital and Harvard Medical School, Boston, Massachusetts. 40

Impact of age and geography on defining caries microbiota

Shi Huang, Fei Teng, Fang Yang, Jian Xu [10'+5']

Presenter affiliation: Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences, Qingdao, China. 41

Identification of three pneumotypes in metatranscriptome data

Lili Ren, Yan Xiao, Depan Cao, Bin Yang, Mingkun Li, Zhancheng Gao, Jianwei Wang [10'+5']

Presenter affiliation: Institute of Pathogen Biology, Beijing, China. 42

SESSION 8 MICROBIOTA AND MUCOSAL IMMUNITY II

Chairperson: **Andrew Macpherson**, University of Bern, Switzerland

Intestinal lysozyme releases Nod1 ligands to direct insulin trafficking in beta cells

Zihua Liu [20'+10']

Presenter affiliation: Institute of Biophysics, Beijing , China.

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Epithelial Hes1 maintains gut homeostasis by preventing microbial dysbiosis

Xue-Kun Guo, Jiayao Ou, Shaonan Liang, Xin Zhou, Xiaoyu Hu [20'+10']

Presenter affiliation: Tsinghua University, Beijing, China.

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High-throughput and cost-effective microbiome analysis using a novel microbial detection array

Crystal Jaing, James Thissen, Nicholas Be, Kevin McLoughlin, Tom Slezak [10'+5']

Presenter affiliation: Lawrence Livermore National Laboratory, Livermore, California.

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Gnotobiotic mouse model of microbial succession in the human infant gut

Lihui Feng, Jiye Cheng, Matthew C. Hibberd, Nicolas W. Griffin, Dmitry A. Rodionov, Andrei L. Osterman, Jeffrey I. Gordon [10'+5']

Presenter affiliation: Washington University School of Medicine, St. Louis, Missouri.

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Quantitative metagenomics reveals unique gut microbiome biomarkers in ankylosing spondylitis

Nan Qin [10'+5']

Presenter affiliation: Realbio Genomics Institute, Shanghai, China; Zhejiang University, Hanzhou, China.

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A gut commensal controls pulmonary mycobacterial infection through targeting gut-lung axis

Chuan-Sheng Lin, Hsin-Chih Lai [10'+5']

Presenter affiliation: Chang Gung University, Taoyuan, Taiwan.

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THURSDAY, September 6—6:00 PM

COCKTAILS and BANQUET

FRIDAY, September 8—9:00 AM

SESSION 9 MICROBIOTA, HEALTH AND DISEASE

Chairperson: **Sven Pettersson**, Karolinska Institutet, Stockholm, Sweden

The impact of the maternal microbiota on the early-life immune system of her offspring

Andrew Macpherson [20'+10']

Presenter affiliation: University of Bern, Bern, Switzerland.

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Integration of microbiome and epigenome to decipher the pathogenesis of autoimmune diseases

Beidi Chen, Luxi Sun, Xuan Zhang [20'+10']

Presenter affiliation: Peking Union Medical College Hospital, Beijing, China.

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The impact of host microbiome alteration on CV-A16 infection

Hongzhe Li, Heng Li, Jingjing Wang, Lei Guo, Xing Huang, Huiwen Zheng, Zening Yang, Haitao Fan, Longding Liu [10'+5']

Presenter affiliation: Institute of Medical Biology, Chinese Academy of Medical Sciences and Peking Union Medical College, Kunming, China.

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The role of gut microbiota in the pathogenesis and treatment of systemic lupus erythematosus

Yiyangzi Ma, Haitao Niu [10'+5']

Presenter affiliation: Chinese Academy of Medical Sciences (CAMS) & Peking Union Medical College (PUMC), Beijing, China.

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