

Abstracts of papers presented
at the 2026 Cold Spring Harbor Asia Conference

NEUROIMMUNOLOGY IN HEALTH & DISEASES

April 13–April 17, 2026

Arranged by

Hai Qi, *Tsinghua University, China*

Tak Mak, *University of Toronto, Canada*

Ana Domingos, *University of Oxford, United Kingdom*

Anna Molofsky, *University of California San Francisco, USA*

Chuan Wu, *National Institutes of Health, USA*



Cold Spring Harbor Conferences Asia
Cold Spring Harbor Laboratory



NEUROIMMUNOLOGY IN HEALTH & DISEASES

Monday, April 13– Friday, April 17, 2026

Monday	7:00 pm	1 CNS Border Immunity and Neuroinflammation
Tuesday	9:00 am	2 Microglia and Brain Innate Immunity
Tuesday	2:00 pm	Poster Session
Tuesday	7:00 pm	3 Neural Circuits and Peripheral Immune Regulation
Tuesday	10:15 pm	<i>Free Open Bar sponsored by Wiley</i>
Wednesday	9:00 am	Keynote Speaker 4 Neural Control of Peripheral Inflammation
Wednesday	1:30 pm	<i>Visit to Old Suzhou*</i>
Wednesday	7:00 pm	5 Gut Neuroimmune Circuits
Thursday	9:00 am	6 Neuroimmunity in Infection and Cancer
Thursday	2:00 pm	Keynote Speaker 7 Metabolic Neuroimmunology
Thursday	5:00 pm	<i>Cocktails and Banquet</i>
Friday		<i>Departure</i>

Oral presentation sessions are located in the CSHA Auditorium

Poster session is in the Lake Front Hall.

Cocktail social hour is held outside in the Suz Garden.

Old Suzhou visits depart from the CSHA lobby

**optional tour requires additional fee.*

Meal locations and times are as follows:

Lunch: Main Cafeteria 12:00pm - 1:30pm

Dinner: Main Cafeteria 6:00pm - 7:30pm

Banquet: Suz Garden 6:00pm

More information will be available at CSHA office.

(Map at the end of this abstract book)

PROGRAM

MONDAY, April 13—7:00 PM

SESSION 1 CNS BORDER IMMUNITY AND NEUROINFLAMMATION

Chairperson: Hai Qi, Tsinghua University, Beijing, China

A meningeal neural circuit enforces brain immune privilege and limits B-ALL CNS metastasis

Danyang He [20'+10']

Presenter affiliation: Westlake University, Hangzhou, China.

1

Border-associated macrophages—More than immune sentinels?

Rejane Rua [20'+10']

Presenter affiliation: Aix Marseille Université, CNRS, INSERM, CIML, Marseille, France.

2

Brain-immune communication in health and Alzheimer's disease

Xiaoying Chen [20'+10']

Presenter affiliation: Tsinghua University, Beijing, China.

3

TUESDAY, April 14—9:00 AM

SESSION 2 MICROGLIA AND BRAIN INNATE IMMUNITY

Chairperson: Chuan Wu, National Institutes of Health, Bethesda, Maryland, USA

Tracking reactive microglial state across the lifespan

Qingyun Li [20'+10']

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

4

Type I interferons in brain homeostasis and pathology

Anna Victoria Molofsky [20'+10']

Presenter affiliation: University of California- San Francisco, San Francisco, California.

5

Immune posturing by hypocretin neurons at the nexus of a prefrontal-hypothalamic-splenic pathway

Bo Liu, Jingmin Liu, Shangxuan Cai, Amy Rui, Bo Liu, Huanhuan Wang, Chenchen Li, Lisang Zhong, Ronghao Tang, Zhiwei You, Wenjuan Shi, Yang Bian, Hai Qi [20'+10']
Presenter affiliation: Tsinghua University, Beijing, China.

6

Break

Excitatory neuronal ERBB4 promotes early pathophysiology of Alzheimer's disease

Se Young Lee, Won-Suk Chung [10'+5']
Presenter affiliation: Institute for Basic Science (IBS), Daejeon, South Korea; Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea.

7

Microglial EMC10–endothelial CD105 signaling orchestrates cerebrovascular homeostasis and prevents neurodegeneration

Yifei Qi, Dingding Han, Na Li, Hao Hu [10'+5']
Presenter affiliation: Guangzhou Medical University, Guangzhou, China.

8

Somatic cancer mutations in brain and blood macrophages as a novel genetic contributor to Alzheimer's disease

August Yue Huang, Zinan Zhou, Maya Talukdar, Liz Enyenihi, Jaejoon Choi, Kyung Sun Park, Yann Le Guen, Jong-Won Kim, Samuele Marro, Eirini Papapetrou, Eunjung Alice Lee, Christopher Walsh [10'+5']
Presenter affiliation: Boston Children's Hospital, Boston, Massachusetts; Harvard Medical School, Boston, Massachusetts.

9

Neuro-immune myelinating organoids (NIMOs) and interaction maps reveal microglial trophic programs, demyelination responses, and an astrocyte-defined residency niche

Julien Muffat, Ai Tian, Roseanne Nguyen, Afrin Bhattacharya, Yun Li [10'+5']
Presenter affiliation: The University of Toronto, Toronto, Canada; The Hospital for Sick Children, Toronto, Canada.

10

Skull base-derived macrophages drive neurodegeneration—a new therapeutic target for optic neuropathy

Yikui Zhang, Zhonghao Yu, Wei Li, Wencan Wu [10'+5']
Presenter affiliation: Eye Hospital, Wenzhou Medical University, Wenzhou, China.

11

POSTER SESSION

Plasticity of microglial reactivity in white matter injury

Kia M. Barclay, Songtao Wei, Darsh Singhanía, Jin Yang, Dvita Kapadia, Zuolin Cheng, Wandy Beatty, Guoqiang Yu, Qingyun Li
Presenter affiliation: Washington University in St. Louis, St. Louis, Missouri.

12

Microbial factors shape postnatal development of the choroid plexus

Ana Blas-Medina, Samir Ali-Moussa, Joseph M. Josephides, Olivier Mirabeau, Laetitia Travier, Aleksandra Deczkowska
Presenter affiliation: Institut Pasteur, Paris, France; Université Paris Cité, Paris, France.

13

A novel BAFFR-targeted CAR-T cell drive potent suppression of central nervous system lymphoma

Guoqiang Chang, Keyuan Xu, Lili Li
Presenter affiliation: Tianjin Medical University General Hospital, Tianjin, China.

14

Investigating the role of C-LTMR sensory neurons in skin inflammation

Théo Crosson, Ferdinand Jagot, Aziz Moqrich, Sophie Ugolini
Presenter affiliation: Centre d'Immunologie de Marseille-Luminy, INSERM, Marseille, France.

15

REST regulates hepatic stellate cell proliferation and metabolism

Wanmin Dai, Vladimir S. Shavva, Laura Tarnawski, Noah Moruzzi, Peter S. Gustafsson, Per-Olof Berggren, Carolina E. Hagberg, Osman Ahmed, Peder S. Olofsson
Presenter affiliation: Center for Molecular Medicine, Karolinska Institutet, Karolinska University Hospital, Stockholm, Sweden.

16

NKG2D licenses pathogenic bystander CD4⁺ T cell responses in neuroinflammation

Christoforos Dimitropoulos, Lucija Musak, Alba der Rio Serrato, Oliver C. Knight, Christina Stehle, Timo Rückert, Bojan Polic, Carmen Infante-Duarte, Marina Babic, Chiara Romagnani
Presenter affiliation: Charité – Universitätsmedizin Berlin, Berlin, Germany; German Rheumatism Research Centre – a Leibniz Institute, Berlin, Germany.

17

***Ramp1* reduction in smooth muscle cell trans-differentiation suggests a sensory nerve signalling axis in abdominal aortic aneurysm pathophysiology**

Qi Guo, Vladimir Shavva, Peter Holicek, Laura Tarnawski, Peder S. Olofsson

Presenter affiliation: Center for Bioelectronic Medicine, Division of Cardiovascular Medicine, Karolinska Institutet, Solna, Sweden.

18

Nuclear uPA in cancer cells promotes Schwann cell-mediated perineural invasion in pancreatic cancer

Yun He, Zonghua Su, Feng Ding, Zheng Chen, Xinxing Cui, Liu Yang, Shuangying Qiao, Yaru Hou, Aiping Lu, Fangfei Li

Presenter affiliation: Hong Kong Baptist University, Hong Kong, China.

19

Single-cell RNA and V(D)J profiling reveal T–B cell interactions in neuromyelitis optica spectrum disorder mediated by the CD40L–CD40 axis

Han Jin, Yali Han, Qiang Liu

Presenter affiliation: Tianjin Medical University General Hospital, Tianjin, China.

20

Shared neuroimmune gene networks in sensory, gut, and midbrain systems contribute to sporadic Parkinson’s disease

Yang Li, Changgeng Peng

Presenter affiliation: Shanghai Fourth People's Hospital Affiliated to Tongji University, Shanghai, China.

21

Spatial transcriptomic profiling identifies pathogenic microglia–T cell niches in chronic active multiple sclerosis lesions

Ruoqing Feng, Lena Spieth, Lu Liu

Presenter affiliation: Institute of Neuronal Cell Biology, Munich, Germany.

22

From bedside to bench and back—The IGF1–IGF1R axis restrains inflammation in the gut

Qingxia Lin, Ruichao E. Liu, Gregory F. Sonnenberg, Coco Chu, Lei Zhou#

Presenter affiliation: Tsinghua University, Beijing, China.

23

Microglia-sufficient spinal organoids effectively model ALS and elucidate neuro-immune crosstalk

Shiyang Liu, Stephanie Howe, Satish Tiwari, Hang Xu, Xiaohua Lu, Hongjie Zhang, Jinmiao Chen, Shuo-Chien Ling, Shyuan T. Ngo, Florent Ginhoux, Shi-Yan Ng
Presenter affiliation: Agency for Science, Technology and Research (ASTAR), Singapore.

24

Bidirectional interaction between sympathetic nerves and keratinocytes maintains skin homeostasis to suppress chronic itch

Lerong Lun, Xiru Tang, Chener Yang, Fang Wang
Presenter affiliation: The First Affiliated Hospital, Sun Yat-sen University, Guangzhou, China.

25

Transcriptomic profile and cerebral inflammatory status of LRRK2-R1441G knock-in mice—Therapeutic implications for Parkinson’s disease

Lingyi Luo, Eun-Seo Chang, Huifang Liu, Chun-Laam Ng, Yupeng Weng, Jinghan Liu, Wing-Lok Ho
Presenter affiliation: The Hong Kong Polytechnic University, Hong Kong SAR, China.

26

Enteric glial cells as early drivers of intestinal inflammation

Yonglin Mai, Julia Karjalainen, Mikel R. Artero, Daniel Petrossian, Franze Progzky
Presenter affiliation: University of Oxford, Oxford, United Kingdom.

27

Proteomic profiling of neuro-immune interactions in the human intracardiac nervous system in cardiac disease

Sandro Meunier, Manuel Zeitler, Andreas Metousis, Thierry M. Nordmann, Inga Sinicina, Matthias Mann, Karin A. Ziegler, Stefan Engelhardt
Presenter affiliation: Technical University of Munich, Munich, Germany; German Centre for Cardiovascular Research (DZHK), Munich, Germany.

28

Selective ROCK2 inhibitors ameliorate murine models of multiple sclerosis and demyelination by harnessing inflammation and restoring homeostasis

Julien Moretti, Wei Chen, Melanie Nyuydzefe, Danielle Keahi, Ace Alcantara, Carmen Melendez-Vasquez, Samuel D. Waksal, Alexandra Zanin-Zhorov
Presenter affiliation: Graviton Bioscience BV, Amsterdam, the Netherlands; Graviton Bioscience Corporation, New York, New York.

29

Investigating the neuroimmune regulation of sickness behavior in zebrafish <u>Flavia Terumi Nakashima</u> , Mercyana Abigail, Hoai Bao Pham, Ruey K. Cheng, Stefan H. Oehlers, Ajay S. Mathuru, Caroline L. Wee Presenter affiliation: Agency for Science, Technology and Research (ASTAR), Singapore; Yong Loo Lin School of Medicine, National University of Singapore, Singapore.	30
Regulatory T cells maintain olfactory neuronal homeostasis and regenerative capacity <u>Haewon Park</u> , Ji Heui Kim, Ho-Keun Kwon Presenter affiliation: Yonsei University College of Medicine, Seoul, South Korea.	31
Distinct roles of astrocytic phagocytic receptors in modulating neuroinflammation <u>Jungjoo Park</u> , Se Young Lee, Juwon Park, Won-Suk Chung Presenter affiliation: Institute for Basic Science (IBS), Daejeon, South Korea; Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea.	32
Glutamatergic control of sympathetic excitability and metabolic adaptation via mGluR7 <u>Ji Qu</u> , David Sidarta-Oliveira, Paulo De Melo, Samson W. Cheung, Gitalee Sarker, Ana Luisa Ferraz, Marcela R. Simões, Bruna Bombassaro, Licio A. Velloso, Luiz Osório Leiria, Dan Li, Ana I. Domingos Presenter affiliation: University of Oxford, Oxford, United Kingdom.	33
Effects of early-life inflammation on NDNF+ neurons in cortical layer1 <u>Giulia Sansone</u> , Marina Lipnitskaia, Leena A. Ibrahim Presenter affiliation: King Abdullah University of Science And Technology, Thuwal, Saudi Arabia.	34
Vagal regulation of experimental pulmonary fibrosis <u>Jérôme J. Vacquié</u> , Lamija Coric, Patrícia T. Mendes, Maxime Villet, April S. Caravaca, Peder S. Olofsson Presenter affiliation: Karolinska Institutet, Stockholm, Sweden.	35

Mapping context-dependent spatiotemporal orchestration of chemokine dynamics and cell migration

Chenyu Wang

Presenter affiliation: Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing, China; Chinese Institute for Brain Research, Beijing, China; Capital Medical University, Beijing, China.

36

IL-33–ST2 signaling promotes neuronal survival under amyloid- β stress

Xiaochuan Wang, Holly Brown, Michal Baran, Huirong Jiang, Xinhua Shu

Presenter affiliation: University of Strathclyde, Glasgow, United Kingdom.

37

Intracranial pyroptosis stimulates the cDC1-CD8 T cells axis leading to improved survival and sensitization to immune checkpoint blockade in murine GBM models

Michael Westerveld, Shayla Verbarg, Sarah Worfolk, Kaslyn Kallio, Samuel Workenhe

Presenter affiliation: University of Guelph, Guelph, Canada.

38

TRIM33 deficiency drives inflammatory and senescent microglial states underlying cognitive decline

Tao Wu, Yuanhao Wang, Zhouyuan Ji, Jingwen Huang, Li Wu

Presenter affiliation: Tsinghua University, Beijing, China.

39

Multipotent neural stem cells are found in the mouse periphery and contribute to early peripheral neural development

Wan Xu, Dong Han, Pentao Liu

Presenter affiliation: The University of Hong Kong, Hong Kong, China.

40

Microglial NLRP3-gasdermin D axis drives neutrophil chemotaxis and blood-brain barrier disruption

Sung-Hyun Yoon, Chae youn Kim, Eunju Lee, Kyung-Seo Lee, Inhwa Hwang, Seunghee Hong, Je-Wook Yu

Presenter affiliation: Yonsei University College of Medicine, Seoul, South Korea.

41

6-Hydroxydopamine activates antitumor immunity through macrophage remodeling independently of sympathetic ablation

Jialin Yu, Hao Zhang, Wei Shi

Presenter affiliation: Chinese Institute for Brain Research(CIBR), Beijing, China; Capital Medical University, Beijing, China.

42

Immune-neural interactions underlying defenses against psychological and physiological insults

Jiabin Lan, Mengyu Xia, Xiaofei Yu

Presenter affiliation: Fudan University, Shanghai, China.

43

Neurotransmitter receptor expression in acute myeloid leukemia—Implications for therapeutic targeting

Ann Xin Zhang, Wenjing Zhou, Chantal Tobin, Logan Smith, Hanae Ida, Tak Mak

Presenter affiliation: University Health Network, Toronto, Canada.

44

Deoxyhypusine synthase exacerbated neuroinflammation by enhancing the antigen-presenting functions of macrophages

Wenjun Zhang, Jinyi Li, Yali Han, Qiang Liu

Presenter affiliation: Tianjin Medical University General Hospital, Tianjin, China.

45

TUESDAY, April 14—7:00 PM

SESSION 3 NEURAL CIRCUITS AND PERIPHERAL IMMUNE REGULATION

Chairperson: Bing Zhang, Westlake University, Hangzhou, China

Neural mechanisms linking nutrition and immunity in early life

Ivan E. De Araujo [20'+10']

Presenter affiliation: Max-Planck Institute for Biological Cybernetics, Tübingen, Germany.

46

Immunomodulation of the sympathetic nervous system in cardiac disease

Karin A. Ziegler, Andrea Ahles, Manuel Zeitler, Sandro Meunier, Inga Sinicina, Stefan Engelhardt [20'+10']

Presenter affiliation: Technical University of Munich, Munich, Germany; Max Planck Institute for Heart and Lung Research, Bad Nauheim, Germany; DZHK (German Centre for Cardiovascular Research), Munich, Germany.

47

Behavioral adaptations synchronize internal and external states

Andrew Wang [20'+10']

Presenter affiliation: Yale University, New Haven, Connecticut.

48

Break

Decoding antigen-specific T cell repertoire in neurodegeneration and beyond

Jenny Jiang [10'+5']

Presenter affiliation: University of Pennsylvania, Philadelphia, Pennsylvania.

49

Sympathetic-epithelial crosstalk governs tissue-resident memory T cell immunosurveillance in the skin

Peng Zhang, Juju Miao, Haoyue Yu, Ting Zhou, Bing Zhang [10'+5']

Presenter affiliation: Westlake University, Hangzhou, China.

50

Engineered T cell therapy for central nervous system injury and its underlying mechanisms

Wenqing Gao, Min Woo KIM, Jonathan Kipnis [10'+5']

Presenter affiliation: Washington University in St. Louis, St. Louis, Missouri; Hong Kong University of Science and Technology, Hong Kong, China.

51

Engineered T cells achieve robust brain engraftment through calibrated signaling and state-governed persistence

William H. Xie, Mina Negahban, Sanemnur Goktas, Xinlan Wen, Justin Eyquem, Andrew C. Yang [10'+5']

Presenter affiliation: Gladstone Institute, San Francisco, California; University of California, San Francisco (UCSF), San Francisco, California.

52

SPONSOR TALK

From discovery to impact—Publishing and disseminating neuroimmunology research

Antonia Eisenkoeck [20'+10']

Presenter affiliation: John Wiley & Sons, Inc, London, United Kingdom.

53

Free Open Bar
Sponsored by **Wiley**

SESSION 4 NEURAL CONTROL AND PERIPHERAL
INFLAMMATION

Chairperson: **Ana Domingos**, University of Oxford, Oxford,
United Kingdom

KEYNOTE SPEAKER

**Regulation of the immune response in the central nervous system
by astrocytes**

Francisco J. Quintana [35'+10']

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

54

Peripheral neuroimmune ecosystems

Henrique Veiga-Fernandes [20'+10']

Presenter affiliation: Champalimaud Foundation, Lisboa, Portugal.

55

Break

**Neuroimmune interactions in vascular microenvironment
pathophysiology**

Peder Olofsson [20'+10']

Presenter affiliation: Karolinska Institutet, Stockholm, Sweden.

56

**A skin nociceptive-to-brain axis instructs macrophage-driven
dermal vascular repair**

Pierre-Vincent Barbon, Bilal El Wali, Ferdinand Jagot, Lea Chabot,
Rachel Calmels, Ninon Bretaud, Theo Crosson, Tiphaine Forher,
Laurine Gils, Ana Reynders, Vincent Feuillet, Aziz Moqrich, Sophie
Ugolini, Guillaume Hoeffel [10'+5']

Presenter affiliation: Centre d'immunologie Marseille Luminy,
Marseille, France.

57

**Sensory neuron MyD88 signaling delays the resolution of
psoriatic inflammation**

Wenjing Jiang, Xiru Tang, Lerong Lun, Fang Wang [10'+5']

Presenter affiliation: Southern Medical University, Guangzhou, China;
Sun Yat-sen University, Guangzhou, China.

58

A brainstem circuit underlying vagal modulation of somatic pain and affective states

Yuan Tang, Ruixinzhu Shao, Liuxinyu Luo, Liqiang Liao, Xiaoyu Wang, Hangfei Zhu, Xiong Xiao, Hanfei Deng [10'+5']

Presenter affiliation: State Key Laboratory of Brain Function and Disorders, MOE Frontiers Center for Brain Science Institutes of Brain Science, Shanghai, China.

59

Leptin signaling maintains autonomic stability during severe influenza infection in mice

Adam C. Wang, Andrés R. Muñoz-Rojas, Lisa E. Pomeranz, Elizabeth L. Reizis, Heather W. Stout-Delgado, Ileana C. Miranda, Krishnan Rajagopalan, Tadiwanashe Gwatiringa, Roger R. Fan, Ahmad A. Huda, Neha Maskey, Roseline P. Olumuyide, Aryan S. Patel, Jeffrey M. Friedman, Diane Mathis, Kartik N. Rajagopalan [10'+5']

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

60

WEDNESDAY, April 15—1:30 PM

Visit to Old Suzhou

WEDNESDAY, April 15—7:00 PM

SESSION 5 GUT NEUROIMMUNE CIRCUITS

Chairperson: **Wenqing Gao**, Hong Kong University of Science and Technology, Hong Kong, China

Neuro-immune-epithelial interactions during helminth infections

Zachary Kerner, Huixian Li, Daniel Mucida [20'+10']

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

61

Neuro- and stromal-immune interactions in the intestine

Coco Chu [20'+10']

Presenter affiliation: Tsinghua University, Beijing, China.

62

Outside the brain—How glial cells orchestrate gastrointestinal tissue immunity

Fränze Progatzyk [20'+10']

Presenter affiliation: Kennedy Institute of Rheumatology, Oxford, United Kingdom.

63

Break

Investigating the role of interferon signaling on vagal neurons during influenza infection

Pailin Chiaranunt, Sarah R. Anderson, Jacqueline Roberts, Ethan Hung, Ahilan Eraniyan, Sofia E. Caryotakis, Anna V. Molofsky, Ari B. Molofsky [10'+5']
Presenter affiliation: University of California San Francisco (UCSF), San Francisco, California.

64

Neuroimmune regulation in obesity and diabetic neuropathy

Pierre-Vincent Barbon, Rachel Calmels, Sophie Ugolini, Aziz Moqrich, Ana Reynders, Guillaume Hoeffel [10'+5']
Presenter affiliation: Aix-Marseille Université, CNRS, INSERM, Centre d'Immunologie de Marseille-Luminy, Marseille, France.

65

Non-neuronal cholinergic signaling by T cells restrains hepatocellular carcinoma

Chunxing Zheng, Guanghai Liang, Tak W. Mak [10'+5']
Presenter affiliation: Centre for Oncology and Immunology, Hong Kong, China.

66

CNS-resident regulatory T cells established early in life control neuroimmune homeostasis and long-term brain function

Leechung Chang, Seoyeong Kim, Jiwon Kim, Juli Choi, Meng Li, Zuqing Nie, Eunkyun Hwang, Yeo-Jin Jeong, Haewon Park, Lin Zhao, Sungji Ha, Suhyun Yoon, Keun-Ah Cheon, Jongshin Kim, Hyo-Bin Jung, Eunee Lee, Xia Cao, Ho-Keun Kwon [10'+5']
Presenter affiliation: Yonsei University College of Medicine, Seoul, South Korea.

67

THURSDAY, April 16—9:00 AM

SESSION 6 NEUROIMMUNITY IN INFECTION AND CANCER

Chairperson: **Jenny Jiang**, University of Pennsylvania, Philadelphia, Pennsylvania, USA

Neuroimmune interactions shaping disease outcomes in cancer and infection

Scott Mueller [20'+10']
Presenter affiliation: The University of Melbourne, Melbourne, Australia.

68

Cholinergic T cells revitalize the tumor immune microenvironment—TIME to ChAT

Chunxing Zheng, Shaofeng Liu, Nastaran Fazel Modares, Michael St. Paul, Tak W. Mak [20'+10']

Presenter affiliation: Hong Kong Science Park, Hong Kong, China; The University of Hong Kong, Queen Mary Hospital, Hong Kong, China; University Health Network, Toronto, Ontario, Canada; University of Toronto, Toronto, Ontario, Canada.

69

Sensory neurons regulate immune responses and promote disease tolerance during viral infection

Sophie Ugolini [20'+10']

Presenter affiliation: Aix-Marseille Université, Marseille, France.

70

Break

Nasal anti-CD3 as a novel immunotherapy for cognitive dysfunction in long COVID

Peiwen Lu, Saef Izzy, Taha Yahya, Patrick da Silva, Howard L. Weiner, Akiko Iwasaki [10'+5']

Presenter affiliation: Yale University, New Haven, Connecticut.

71

6-Hydroxydopamine promotes antitumor immunity through macrophage remodeling beyond sympathetic ablation

Wei Shi [10'+5']

Presenter affiliation: Chinese Institute for Brain Research, Beijing, China.

72

Acetylcholine-producing B cells drive inflammatory cytokine cascades in septic kidney injury

Hui Chen [10'+5']

Presenter affiliation: The University of Hong Kong, Hong Kong, China.

73

JAK signaling epigenetically rewires hematopoietic stem cells to drive neuroinflammation

Handong Li, Tongxiao Xu, Wenyan Zhang, Tingyu Yin, Ting Chang, Qiang Liu [10'+5']

Presenter affiliation: Tianjin Medical University General Hospital, Tianjin, China.

74

SESSION 7 METABOLIC NEUROIMMUNOLOGY

Chairperson: **Anna Molofsky**, University of California-San Francisco, San Francisco, California, USA

KEYNOTE SPEAKER

Anatomy of “brainwashing” in healthy and diseased brain

Jonathan Kipnis [35'+10']

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

75

Neuroimmunometabolism

Ana Domingos [20'+10']

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

76

Break

Sympathetic regulation of energy balance and pathophysiology

Wenwen Zeng [20'+10']

Presenter affiliation: Tsinghua University, Beijing, China.

77

Perturbed plasma cell homeostasis in the skull promotes Alzheimer’s disease pathology

Mariángeles Kovacs, Tamara Matijevic, Joseph Josephides, Raphael Bourgeois, Olivier Mirabeau, Samir Ali-Moussa, Ana Blas Medina, Amaia Domínguez-Belloso, Aleksandra Deczkowska [10'+5']

Presenter affiliation: Brain-Immune Communication Lab, Institut Pasteur, Université Paris Cité, INSERM, Paris, France.

78

A molecular pathway for cancer cachexia revealed at single nucleus resolution in mice and humans

Yichi Zhang, Matthieu Dos Santos, Puneeth Iyengar, Ning Liu, Eric Olson, Matthew Vander Heiden [10'+5']

Presenter affiliation: Massachusetts Institute of Technology, Cambridge, Massachusetts.

79

A perineurial leptin-sympathetic axis limits obesity

Gitalee Sarker, Anandhakumar Chandran, Cyrielle Maroteau, Sofia Lundh, Karin Ziegler, Miguel Lopez, Philipp E. Scherer, Matteo Iannacone, Enrique M. Toledo, Ana Domingos [10'+5']

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

80

X-linked chemokine receptor CXCR3 drives sex-specific monocyte-derived macrophage responses in tauopathy

Ching-Yung Wang, Min-Hao Kuo, Hong-Ru Chen [10'+5']

Presenter affiliation: National Yang Ming Chiao Tung University, Taipei, Taiwan, China.

81

THURSDAY, April 16—5:00 PM

COCKTAILS and BANQUET

FRIDAY, April 17

Departure