

Day 1

October 18, 2021

13:00-18:30

Okukubo Memorial Hall (Kumamoto University)

13:00- Registration

13:30- Opening remarks

Shuzo Matsushita (Kumamoto University)

Session I

13:40-14:20

Plenary

Chairperson: Shinya Suzu (Kumamoto University)

【40min】

1-01

Yasuhito Tanaka

Kumamoto University, Japan

Towards the elimination of hepatitis B and C by 2030

14:20-14:40 Break

Session II

14:40-16:10

Antiviral Immunity

Chairpersons: Takamasa Ueno (Kumamoto University)

Tetsuro Matano (NIID)

【30】

2-02

Takayuki Chikata

Huretro Kumamoto University, Japan

Mass spectrometry-based identification of HLA-C restricted immunodominant epitopes

【30】

2-03

Ai Kawana-Tachikawa

National Institute of Infectious Diseases,
Japan

T cell responses against viral infections

【30】

2-04

Stephanie Gras

La Trobe University, Australia

Fight against viral infection: functional & structural study of the T cell response

16:10-16:30 Break

Session III

16:30-18:00

Immune Pathogenesis

Chairpersons: Shuzo Matsushita (Kumamoto University)

Yosuke Maeda (Kumamoto University)

【30】

3-05

Takeo Kuwata

Huretro Kumamoto University, Japan

Isolation of potent monoclonal antibodies: anti-C1C2 antibody from a HIV-1 CRF02_AG-infected patient and neutralizing antibodies from COVID-19 patients

【30】

3-06

Takamasa Ueno

Huretro Kumamoto University, Japan

Unraveling HIV-host protein interactions by naturally occurring viral variations

【30】

3-07

Emily B. Wong

Africa Health Research Institute,
South Africa

MR1-restricted MAIT cells from the human lung mucosal surface have distinct phenotypic, functional, and transcriptomic features that are preserved in HIV infection

Day 2

October 19, 2021

9:00-18:30

Okukubo Memorial Hall (Kumamoto University)

Session IV

Young Investigators

9:00-9:25

Part 1 Plenary

Chairperson : Chihiro Motozono (Kumamoto University)

【25min】

4-08

Xiaoming Sun

Ragon Institute of MGH, MIT
and Harvard, USA

HIV-1 viral reservoir landscape and footprints of
immune selection in Elite Controllers

9:35-10:35

Part 2 Selected abstracts

Chairpersons : Takeo Kuwata (Kumamoto University)

Kenji Sugata (Kumamoto University)

【15min】

4-09

Toong Seng Tan

Huretro Kumamoto University, Japan

Aromatic side chain at position 412 of SERINC5 exerts
restriction activity toward HIV-1 and other retroviruses

【15min】

4-10

Takehisa Watanabe

Kumamoto University, Japan

Analysis of epigenomic changes in cccDNA during
Hepatitis B virus Reactivation

【15min】

4-11

Midori Nakamura-Hoshi

National Institute of Infectious Diseases

Analysis of immune responses after HTLV-1 infection
in cynomolgus macaques

【15min】

4-12

Sho Sugawara

Duke University School of Medicine,
USA

Novel multiplex analyses reveal disparate natural killer
cell signaling pathway activation during lentivirus
infection

16:35-16:50

Break

10:50-12:00

Part 3 Parallel sessions

A Chairperson: Ryusho Kariya (Kumamoto University)

B Chairperson: Naofumi Takahashi (Kumamoto University)

Please see the next page for details.

Lunch

Session V

13:30-15:00

Virus-Host Interaction

Chairpersons : Terumasa Ikeda (Kumamoto University)
Kazuaki Monde (Kumamoto University)

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|---------|------|---|---|
| 【30min】 | 5-13 | Shinya Suzu
Huretro Kumamoto University, Japan | Self-renewing macrophages: how they can proliferate, whether they exist in humans, and how they are involved in HIV-1 infection |
| 【30min】 | 5-14 | Yasumasa Iwatani
Nagoya Medical Center, Japan | Antiretroviral molecular mechanisms of APOBEC3 cytidine deaminases |
| 【30min】 | 5-15 | Kenji Maeda
National Center for Global Health and Medicine, Japan | Structural & functional analyses for recent nucleoside reverse transcriptase inhibitors toward functional HIV-1 eradication |

15:00-15:20

Break

Session VI

15:20-16:50

Retroviral Latency

Chairpersons : Mikako Fujita (Kumamoto University)
Kenzo Tokunaga (NIID)

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|---------|------|---|---|
| 【30min】 | 6-16 | Kotaro Shirakawa
Kyoto University, Japan | Molecular mechanisms how HIV-1 latency is established and maintained |
| 【30min】 | 6-17 | Yorifumi Satou
Huretro Kumamoto University, Japan | A new in-vitro model to monitor HIV-1 proviral transcription by timer-fluorescence protein |
| 【30min】 | 6-18 | Guangyong Ma
China Pharmaceutical University, China | Human retroviral antisense mRNAs are retained in the nuclei of infected cells for viral persistence |

16:50-18:10

Break

Session VII

17:10-18:10

Immune Profiling

Chairpersons : Yorifumi Satou (Kumamoto University)
Junichirou Yasunaga (Kumamoto University)

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| 【30min】 | 7-20 | Kenji Sugata
Huretro Kumamoto University, Japan | Integrated analysis of HTLV-1 specific CD8 T cells in peripheral blood and cerebrospinal fluid based on TCR sequences. |
| 【30min】 | 7-21 | Masahiro Ono
Imperial College London, UK | Investigating T-cell differentiation and activation in severe COVID-19 patients by single cell RNA-seq analysis |

18:10-

Closing Remarks

Session IV

Part 3 Parallel sessions

A Chairperson: Ryusho Kariya (Kumamoto University)

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|-----|------|--|---|
| [5] | 4-13 | Emmanuel Nkuwi
Huretro Kumamoto University, Japan | Differential sensitivity of Patient-derived Envelope Sequences to SERINC5-Mediated Restriction of HIV-1 Infectivity. |
| [5] | 4-14 | Hesham Nasser
Huretro Kumamoto University, Japan | Endogenous APOBEC3F contributes to HIV-1 restriction in the monocytic cell line THP-1 |
| [5] | 4-15 | Yuan Yue
Huretro Kumamoto University, Japan | Adaptation of HIV-1 with hypo-functional Vif obtained from HIV-1 infected patients to stable APOBEC3H |
| [5] | 4-16 | Youssef M. Eltalkhawy
Huretro Kumamoto University, Japan | iPS-derived myeloid line (iPS-ML) as a model to study HIV-1 infection in macrophages |
| [5] | 4-17 | Omnia Reda
Huretro Kumamoto University, Japan | A new in-vitro model to monitor HIV-1 proviral transcription by timer-fluorescence protein |
| [5] | 4-18 | Wajihah Sakhor
Huretro Kumamoto University, Japan | Establishment of HIV latency in primary human CD4+ T cells by utilizing HIV-Fluorescent Timer system |
| [5] | 4-19 | Akhinur Rahman
Huretro Kumamoto University, Japan | Investigation of full-length HIV-1 provirus latency mechanisms in different models |
| [5] | 4-20 | Daisuke Kurita
Kumamoto University, Japan | Epigenetic profiles induced by transient Tax expression mimic early phase of T-cell activation |
| [5] | 4-21 | Md Belal Hossain
Kumamoto University, Japan | Simplified detection method for the clonality of Bovine leukemia virus infected cells and early diagnosis of Enzootic Bovine Leukosis |
| [5] | 4-22 | Hiroataka Ode
Nagoya Medical Center | Characterization of HIV-1 recombinant forms through nanopore sequencing |
| [5] | 4-23 | Perpetual Nyame
Kumamoto University, Japan | Drug screening targeting the HIV-1 Gag |
| [5] | 4-24 | Katsuhiko Ono
Kumamoto University, Japan | Identification of β -lactam ring opened carbothioic S-acids mediated by cysteine hydropersulfide in bacteria |

B Chairperson: Naofumi Takahashi (Kumamoto University)

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| [5] | 4-25 | Hieu Trung Tran
Huretro Kumamoto University, Japan | Monitoring of pre-exposure prophylaxis (PrEP) in Vietnamese men who have sex with men (MSM) |
| [5] | 4-26 | Godfrey Barabona
Huretro Kumamoto University, Japan | Association of baseline degree of immunosuppression with plasma markers for fungal translocation and inflammation in long term treated HIV patients |
| [5] | 4-27 | Hung The Nguyen
Huretro Kumamoto University, Japan | Identification and characterization of HLA-B*15:02-restricted T cells associated with good clinical outcome in HIV-1 subtype A/E-infected individuals |
| [5] | 4-28 | Ntim Nana Afia Asante
Huretro Kumamoto University, Japan | Selection of multiple viral CD8+ T-cell escape mutations associated with a protective MHC-I haplotype in persistent SIV infection |
| [5] | 4-29 | Isaac Ngare
Huretro Kumamoto University, Japan | High HIV-1 Viral Load Associates with non-broad Neutralizers in a Cohort of HIV-1 infected Patients from Tanzania |
| [5] | 4-30 | Yuto Nomura
National Institute of Infectious Diseases, | Neutralizing antibody induction associated with a germline immunoglobulin gene polymorphism in SIVsmH635FC and SIVsmE543-3 infections |
| [5] | 4-31 | Kaho Matsumoto
Huretro Kumamoto University, Japan | The CD4 mimetic compound YIR-821-mediated enhancement of the neutralization activities of plasma IgG against autologous isolates in vitro |
| [5] | 4-32 | Hiroshi Tateishi
Kumamoto University, Japan | Discovery of another activity of anti-HIV heterocyclic compound |
| [5] | 4-33 | Gunya Sittithumcharee
Huretro Kumamoto University, Japan | Induction of apoptotic cell death in Adult T-cell leukemia/lymphoma by Dinaciclib. |
| [5] | 4-34 | Itanin Mongkon
Huretro Kumamoto University, Japan | The anti-tumor effect of doxycycline in Adult T-cell leukemia |
| [5] | 4-35 | Tingyo Gao
Kumamoto University, Japan | Production and characterization of anti-SARS-CoV-2 antibody by immunizing Spike-derived peptide with high affinity to HLA-DR4. |
| [5] | 4-36 | Mako Toyoda
Huretro Kumamoto University, Japan | Neutralizing antibody response in COVID-19 convalescents and vaccine recipient |