

Program

Friday, 17 May, 2019

<Room "Amagi"> **Special Session 1**

8:35-9:05 **Chair:** Kinuko Mitani (*Dokkyo Medical University School of Medicine*)

SS-1 Precision medicine in pediatric acute lymphoblastic leukemia: a strategy to cure all patients and decrease adverse effects
Hiroto Inaba (*St. Jude Children's Research Hospital, USA*)

<Room "Amagi"> **Asia-Pacific Session 1 : Bone Marrow Failure**

9:15-10:35 **Chairs:** Yoshiyuki Takahashi (*Nagoya University Graduate School of Medicine*)
Shouichi Ohga (*Kyushu University Graduate School of Medical Sciences*)

9:15-9:35

APS I-1 Randomized trial of two dosages of rabbit antithymocyte globulin in patients with aplastic anemia
Atsushi Narita (*Nagoya University Graduate School of Medicine*)

9:35-9:55

APS I-2 Upfront alternate donor HSCT for patients with severe aplastic anemia: multi-center prospective clinical trial outcome
Jing Chen (*Shanghai Children's Medical Center, Shanghai Jiao Tong University School of Medicine, China*)

9:55-10:15

APS I-3 Factors affecting response to eltrombopag in patients with refractory aplastic anemia
Ken Ishiyama (*Kanazawa University Hospital*)

10:15-10:35

APS I-4 Safety and efficacy of romiplostim in aplastic anemia refractory to immunosuppressive therapy
Jong Wook Lee (*Seoul St. Mary's Hospital, The Catholic University of Korea, Korea*)

<Room "Shiosai"> **Asia-Pacific Session 2 : Neoplastic Lymphoid Cells**

9:15-10:35 **Chairs:** Shigeru Chiba (*Faculty of Medicine, University of Tsukuba*)
Motoko Yamaguchi (*Mie University Graduate School of Medicine*)

9:15-9:35

APS II-1 Establishment of a mouse model of B-cell lymphoma using an in vitro retroviral transduction system
Kotaro Arita (*Toyama University Graduate School of Medicine and Pharmaceutical Sciences*)

9:35-9:55

APS II-2 Exploiting weaknesses in the malignant lymphoid cell for targeted therapy
Constantine S Tam (*St. Vincent Hospital, Peter MacCallum Cancer Center and University of Melbourne, Australia*)

9:55-10:15

APS II-3 Genome-based medicine in peripheral T-cell lymphomas
Mamiko Sakata-Yanagimoto (*Faculty of Medicine, University of Tsukuba*)

10:15-10:35

APS II-4 Immune-Checkpoint Inhibition in T-cell and NK-cell Malignancies
Yok-Lam Kwong (*Queen Mary Hospital, China*)

10:35-10:45

Break (10min)

<Room "Amagi"> **Plenary Session 1 : T Cells (Normal, Pathologic, and Modified) and Antigen-Presenting Cells**

10:45-12:25 **Chairs:** Norimitsu Kadowaki (*Faculty of Medicine, Kagawa University*)
Itaru Matsumura (*Kindai University Faculty of Medicine*)

10:45-11:10

PS-I-1 In vivo modulation of regulatory and effector T cell homeostasis for maximization of GVL effect in allogeneic HSCT

Ken-ichi Matsuoka (*Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences*)

11:10-11:35

PS-I-2 Dendritic cell vaccination: correlation of clinical effects with T-cell response

Zwi N. Berneman (*Antwerp University Hospital and University of Antwerp, Belgium*)

11:35-12:00

PS-I-3 The activated conformation of integrin $\beta 7$ is a novel multiple myeloma-specific target for CAR T-cell therapy

Naoki Hosen (*Osaka University Graduate School of Medicine*)

12:00-12:25

PS-I-4 Targeting tissue residence and innate immunity towards protective immunity

Madhav Dhodapkar (*Emory University, USA*)

12:25-12:35

Break- Distribute box lunch (10min)

<Room "Amagi"> **Luncheon Seminar 1**

Co-Sponsored by Eisai Co., Ltd.

12:35-13:20 **Chair:** Kinuko Mitani (*Dokkyo Medical University School of Medicine*)

Precision medicine of lymphoma based on genetics

Ulrich Jäger (*Medical University of Vienna, Austria*)

<Room "Shiosai"> **Luncheon Seminar 2**

Co-Sponsored by Chugai Pharmaceutical Co., Ltd.

12:35-13:20 **Chair:** Norio Komatsu (*Juntendo University School of Medicine*)

Future prospects for targeting apoptosis in hematopoietic malignancies

Anthony G. Letai (*Dana-Farber Cancer Institute, Harvard Medical School, USA*)

<Room "Hiyori"> **Poster Viewing**

13:20-14:10

Hematopoiesis/Regenerative cell therapies

P1-1 Novel lymphoid pathway of human dendritic cells

Keiki Nagaharu (*Department of Hematology and Oncology, Mie University Graduate School of Medicine, Japan*)

P1-2 Three cases of aplastic anemia with abnormal karyotype treated with eltrombopag

Yusuke Uchibori (*Department of Hematology, NTT Medical Center Tokyo, Japan*)

P1-3 Adult human hematopoietic stem cells can produce B1 cells

Yuki Kageyama (*Department of Hematology and Oncology, Mie University Graduate School of Medicine, Tsu, Japan*)

P1-4 Notch signaling in nestin-expressing bone marrow stromal cells supports erythropoietic niche

Tatsuhiko Sakamoto (*Department of Hematology, Faculty of Medicine, University of Tsukuba / Department of Transfusion Medicine, University of Tsukuba Hospital, Japan*)

- P1-5 Regeneration of invariant NKT cells with three-dimensional culture system**
Sara Shiina (*Department of Cell Growth and Differentiation, Center for iPS Cell Research and Application (CiRA), Kyoto University, Kyoto, Japan*)
- Acute leukemia/MDs/MPN (basic and clinical)**
- P2-1 Prognostic impact of time from diagnosis to initial treatment for acute myeloid leukemia**
Yoshimasa Kamoda (*Department of Hematology, NTT Medical Center Tokyo, Tokyo, Japan*)
- P2-2 Expression of CD25 fluctuates in the leukemia-initiating cell population of CD25-positive AML**
Yuki Kageyama (*Department of Hematology and Oncology, Mie University Graduate School of Medicine, Tsu, Japan*)
- P2-3 MPL overexpression is a mechanism of ruxolitinib-resistance in CALR mutant cells**
Shunichiro Yasuda (*Department of Immunotherapy for hematopoietic disorders/hematology/comprehensive pathology, Tokyo Medical and Dental University (TMDU), Japan*)
- P2-4 S100A16 suppresses the growth and survival of leukaemia cells and correlates with relapse and relapse free survival in adults with philadelphia chromosome negative B-cell acute lymphoblastic leukaemia**
Jing Zhang (*Peking University Peoples Hospital, Peking University Institute of Hematology / Beijing Key Laboratory of Hematopoietic Stem Cell Transplantation / Collaborative Innovation Center of Hematology, Peking University, Beijing, China*)
- P2-5 First-line nilotinib therapy and FRET-based drug sensitivity test for patients with newly-diagnosed CML**
Takeshi Kondo (*Department of Hematology and Blood Disorders Center, Aikou Hospital, Japan / Department of Hematology, Faculty of Medicine and Graduate School of Medicine, Hokkaido University, Japan*)
- P2-6 Homeobox transcription factor HHEX promotes myeloid leukemia in cooperation with mutant ASXL1**
Reina Takeda (*Division of Cellular Therapy, Institute of Medical Science, The University of Tokyo, Tokyo, Japan*)
- P2-7 The link between IL-1 β and acute myocardial infarction in CML patients treated with TKI**
Hiroataka Mori (*Department of Hematology, Fukushima Medical University / Department of Hematology, Shirakawa Kosei General Hospital, Japan*)
- P2-8 Prognostic significance of a host-related factor in MDS patients treated with azacitidine**
Yasuyuki Takahashi (*Department of Hematology, Saitama Medical Center, Saitama Medical University, Japan*)
- P2-9 Mutations in epigenetic and splicing related genes among japanese overt and prefibrotic primary myelofibrosis using target sequencing**
Soji Morishita (*Department of Transfusion Medicine and Stem Cell Regulation, Juntendo University Graduate School of Medicine, Japan*)
- P2-10 Reduced-intensity treatment of RUNX1-RUNX1T1 acute myeloid leukemia in adult down syndrome**
Ichita Hasegawa (*Department of Pediatrics, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan*)
- P2-11 Optimal interval for detection of molecular relapse after stop of TKI in Ph⁺ leukemia calculating by MRD kinetics**
Koichi Miyamura (*Department of Hematology, Japanese Red Cross Nagoya First Hospital, Japan*)
- P2-12 Myeloproliferative hematopoiesis in calreticulin mutant mice**
Kazuhiko Ikeda (*Fukushima Medical University, Dept. Blood Transfusion and Transplantation Immunology, Japan*)
- P2-13 Haploinsufficiency of CALR confers HSCs with a clonal advantage over wild-type cells and compensates for the functions of HSCs impaired by the CALR mutation**
Kotaro Shide (*Department of Gastroenterology and Hematology, Faculty of Medicine, University of Miyazaki, Japan*)

- P2-14** **The presence of minimal residual disease, as determined by highly sensitive quantitation of *NPM1*-mutatation, provided powerful prognostic information in acute myeloid leukemia**
 Atsushi Marumo (*Department of Hematology, Nippon Medical School, Tokyo, Japan*)
- P2-15** **¹⁸F-FLT PET for pancytopenia-initial experience**
 Toshiki Tasaki (*Hematology and Oncology, Faculty of Medical Sciences, University of Fukui, Japan*)
- P2-16** **Concurrent loss of *Tet2* and *Tet3* promotes leukemogenesis in mice**
 Raksha Shrestha (*Graduate School of Comprehensive Human Sciences, Department of Hematology, University of Tsukuba, Tsukuba, Japan*)
- P2-17** **Pharmacological activation of p53 enhances NK cell activity and inhibits the development of AML**
 Yasutaka Hayashi (*Division of Cellular Therapy, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan*)

Mature lymphoid neoplasms (basic and clinical)

- P3-1** **Clinical significance of myelofibrosis in newly diagnosed multiple myeloma in the era of novel drugs**
 Megumi Koshiishi (*Department of Hematology & Oncology, University of Yamanashi, Japan*)
- P3-2** **Tamoxifen enhances romidepsin-induced apoptosis in T-cell leukemia and lymphoma cells**
 Chinadol Wanitpongpun (¹*Departments of Oncology/Hematology, Faculty of Medicine, Shimane University, Izumo, Shimane, Japan,* ²*Hematology unit / Department of Internal Medicine, Faculty of Medicine, Srinagarind Hospital, Khon Kaen University, Khon Kaen, Thailand*)
- P3-3** **Infiltration of effector regulatory T cells is associated with poor prognosis in diffuse large B-cell lymphoma, not otherwise specified**
 Shoko Nakayama (*Division of Hematology and Rheumatology, Kindai University Faculty of Medicine, Japan*)
- P3-4** ***TFL* deletion induces incredible *CXCL13* secretion and cachexia in *VavP-Bcl2* transgenic mice**
 Yoshio Katayama (*Kobe University Graduate School of Medicine, Hematology, Department of Medicine, Japan*)
- P3-5** **Exosomes derived from cancer associated fibroblasts elicit drug resistance of B-cell lymphoma cells through modulation of drug transporter**
 Shunsuke Kunou (*Department of Hematology and Oncology, Nagoya University Graduate School of Medicine, Japan*)
- P3-6** **The analyses of expression levels, mutations, and methylation status of *CRBN*-related genes pre- and post-lenalidomide treatment in multiple myeloma**
 Takuto Tachita (*Department of Hematology and Oncology, Nagoya City University Graduate School of Medical Sciences, Japan*)
- P3-7** **Biallelic loss of *FAM46C* promotes the proliferation of multiple myeloma cells with concomitant upregulation of PI3K-AKT signaling**
 Akinobu Ota (*Department of Biochemistry, Aichi Medical University, Japan*)
- P3-8** **Low IP-10/*CXCL10* levels are associated with good responses to lenalidomide plus low-dose dexamethasone for relapsed and/or refractory multiple myeloma**
 Nami Sakamoto (*Division of Hematology, Hamamatsu University School of Medicine, Hamamatsu, Shizuoka, Japan*)
- P3-9** **Clinical factors to predict outcome after mogamulizumab monotherapy in adult T-cell leukemia-lymphoma**
 Jun Nakashima (*Department of Hematology, National Hospital Organization Nagasaki Medical Center, Nagasaki, Japan*)
- P3-10** **Comparison of different definition of GELF criteria in patients with follicular lymphoma treated with first-line immune chemotherapy**
 Toko Saito (*Department of Hematology and Cell Therapy, Aichi Cancer Center Hospital, Nagoya, Aichi, Japan*)
- P3-11** **Prognostic factors for smoldering-type adult T-cell leukemia-lymphoma**
 Ayumu Kubota (*Department of Hematology, Imamura General Hospital, Kagoshima, Japan*)

- P3-12** **Characteristics of nodular lymphocyte predominant Hodgkin lymphoma: A single center experience**
Harumi Kato (*Department of Hematology and Cell Therapy, Aichi Cancer Center Hospital, Nagoya, Japan*)
- P3-13** **Seven-year follow-up of 101 patients with advanced NK/T-cell lymphoma: NKEA study**
Kana Miyazaki (*Department of Hematology and Oncology, Mie University Graduate School of Medicine, Tsu, Japan*)
- P3-14** **Targeted sequencing and IgH rearrangement status revealed branching evolution pattern of SMZL and DLBCL**
Manabu Kusakabe (*Department of Hematology, Faculty of medicine, University of Tsukuba, Tsukuba, Japan*)

Non-malignant hematological disorders

- P4-1** **The first case of e-cigarette-induced polycythemia**
Marika Okuni-Watanabe (*Department of Hematology, Kobe City Medical Center West Hospital, Japan*)
- P4-2** **CD3+ B-1a cells as an indicator of disease progression in autoimmune-prone mice**
Hidemi Toyoda (*Department of Pediatrics, Mie University Graduate School of Medicine, Japan*)
- P4-3** **Combined iron chelation therapy in women with transfusion dependent thalassaemia during pregnancy: a single centre observational study**
Gilbert Wilfred (*Haematology Unit, Department of Medicine, Queen Elizabeth Hospital, Kota Kinabalu, Sabah, Malaysia*)
- P4-4** **The utility of revised diagnostic criteria for DIC in development of coagulopathy with hematological malignancies**
Kayo Harada-Shirado (*Department of Hematology, Fukushima Medical University, Japan*)
- P4-5** **Treatment of adult hemophagocytic lymphohistiocytosis adapting HLH-94 protocol with dose reduction or omission of etoposide**
Gilbert Wilfred (*Haematology Unit, Department of Medicine Queen Elizabeth Hospital, Kota, Kinabalu, Sabah, Malaysia*)
- P4-6** **A study of impact of haemophilia on state-trait anxiety in young adults in north india and some underlying factors**
Naresh Gupta (*Maulana Azad Medical College, Haemophilia Centre, Lok Nayak Hospital, New Delhi, India*)
- P4-7** **A comparison of the accuracy in detecting minor PNH clones in patients with bone marrow failure between two high-sensitivity flow cytometry assays: CLSI and OPTIMA**
Kohei Hosokawa (*Kanazawa University, Kanazawa, Japan / Japan PNH Study Group, Tokyo, Japan*)

Hematopoietic stem cell transplantation

- P5-1** **Upfront autologous hematopoietic stem cell transplantation for high-risk patients with double-expressor diffuse large B-cell lymphoma**
Jin Seok Kim (*Division of Hematology, Department of Internal Medicine, Yonsei University College of Medicine, Severance Hospital, Seoul, Republic of Korea*)
- P5-2** **A novel unfrac-based analytical method for determining sequential changes in gut microbiota after hematopoietic stem cell transplantation**
Shinsuke Kusakabe (*Department of Hematology and Oncology, Osaka University Graduate School of Medicine, Japan*)
- P5-3** **M2 macrophage attenuates severity of acute GVHD in murine model of allogeneic HSCT**
Ryo Hanaki (*Department of Pediatrics, Mie University Graduate School of Medicine, Mie, Japan*)
- P5-4** **Post-transplant cyclophosphamide treatment for murine MHC-haploidentical bone marrow transplant model using a recipient-derived tumor cell line**
Komei Nishimura (*Department of Hematology and oncology, Mie University Graduate School of Medicine, Japan*)
- P5-5** **Stability of tacrolimus concentration early after allogeneic hematopoietic stem cell transplantation reduces the risk of acute GVHD**
Motohito Okabe (*Japanese Red Cross Nagoya First Hospital, Department of Hematology, Nagoya, Japan*)

- P5-6 Ruxolotinib is effective in severe chronic graft versus host disease of skin**
Gilbert Wilfred (*Haematology Unit, Department of Medicine Queen Elizabeth Hospital, Kota Kinabalu, Sabah, Malaysia*)
- P5-7 Murine steroid refractory GVHD model**
Tomomi Toubai (*Department of Internal Medicine III, Division of Hematology and Cell Therapy, Yamagata University Faculty of Medicine, Yamagata, Japan*)
- P5-8 Low-dose interleukin-2 therapy activates circulating T follicular regulatory cells (cTFR) and suppresses circulating T follicular helper cells (cTFH) in patients with chronic Gvhd**
Yusuke Kamihara (*Division of Hematologic Malignancies, Dana-Farber Cancer Institute, Boston, MA, USA / Harvard Medical School, Boston, MA, USA / Department of Hematology, National Cancer Cancer Hospital East, Kashiwa, Chiba, Japan*)
- P5-9 Association between heparanase gene polymorphism and the development of acute and chronic GVHD**
Masahiro Ogasawara (*Department of Hematology, Sapporo Hokuyu Hospital, Japan*)
- Immunotherapies/gene therapies**
- P6-1 Clinical results and immunological features of WT1 short peptide vaccination against acute myeloid leukemia patients after chemotherapy**
Jun Nakata (*Department of Biomedical Informatics, Osaka University, Japan*)
- P6-2 A determining factor of susceptibility to oncolytic HSV-1 in hematologic malignancies**
Ryo Ishino (*Department of Hematology and Oncology, Graduate School of Medicine, Kyoto University, Kyoto, Japan / Department of Internal Medicine, Division of Hematology, Rheumatology and Respiratory Medicine, Faculty of Medicine, Kagawa University, Kagawa, Japan*)
- P6-3 Characteristics of cytotoxic T cells against myeloma cells for adoptive immunotherapy**
Saku Saito (*Division of Clinical Physiology and Therapeutics, Keio University, Faculty of Pharmacy, Tokyo, Japan*)
- P6-4 A multi-antigen recognition CAR-T cell system using protease mediated protein cleavage**
Satoru Aoyama (*Department of Immunotherapy for hematopoietic disorders, Tokyo Medical and Dental University (TMDU), Japan*)
- P6-5 Daratumumab, a novel CD38-targeting monoclonal antibody, demonstrates potent antitumor activity against primary effusion lymphoma**
Jutatip Panaampon (*Division of Hematopoiesis, Joint Research Center for Chronic Viral Infection, Kumamoto University, Japan*)
- P6-6 Novel treatment strategy using HTLV-1 p40tax-specific TCR gene-modified allogeneic $\gamma\delta$ -T cells for the treatment of adult T-cell leukemia/lymphoma**
Hiroshi Fujiwara (*Department of Personalized Cancer Immunotherapy / Department of Immuno-gene therapy, Mie University, Japan*)
- P6-7 Durvalumab disarms T-cell suppression via PD-L1 upregulation by immunomodulatory drugs on myeloma cells**
Mariko Ishibashi (*Department of Hematology, Nippon Medical School, Tokyo, Japan / Department of Microbiology and Immunology, Nippon Medical School, Tokyo, Japan*)
- P6-8 Development of adoptive cell therapy with allogeneic TCR gene-modified “stealth T cells” deficient in endogenous TCR and HLA class I molecules**
Hiroaki Ikeda (*Department of Oncology, Nagasaki University Graduate School of Biomedical Sciences, Japan*)
- P6-9 Utilization of a novel sendai virus vector for hemophilia a *in vivo* gene therapy**
Yuni Yamaki (*Department of Pediatrics, University of Tsukuba Hospital, Japan*)
- P6-10 A novel intracellular tumor antigen-targeted CAR-T therapy utilizing GITR signaling domain for enhanced therapeutic activity towards human solid tumors**
Yoshihiro Miyahara (*Department of Personalized Cancer Immunotherapy, Mie University Graduate School of Medicine, Tsu, Mie, Japan*)

- P6-11 Infiltrating CCR2⁺ monocytes and fibrocytes contribute to colon fibrosis by inhibiting degradation of collagen through the production of tissue inhibitor of matrix metalloproteinase-1**
Kensuke Hachiya (*Department of Hematology and Oncology, Mie University Graduate School of Medicine, Japan*)
- P6-12 Long-term eradication of extranodal NK/T cell lymphoma, nasal type, by iPSC-derived epstein-barr virus - specific rejuvenated T cells *in vivo***
Miki Ando (*Department of Hematology, Juntendo University School of Medicine, Japan / Division of Stem Cell Therapy, The Institute of Medical Science, The University of Tokyo, Japan*)
- P6-13 Monitoring of persistent CTLs over 10 years using MLPC after WT1 peptide vaccine in a CML patient**
Tatsuya Suwabe (*Department of Hematology, Endocrinology and Metabolism, Niigata University Faculty of Medicine, Niigata, Japan*)
- P6-14 The composite CD79A/CD40 costimulatory endodomain enhances CD19 chimeric antigen receptor T-cell proliferation and survival**
Jakrawadee Julamanee (*Department of Hematology and Oncology, Nagoya University Graduate School of Medicine, Japan*)
- Pediatric hematological disorders**
- P7-1 High-throughput drug screening by pluripotent stem cell derived disease models identify disease specific drug candidate of Nakajo-Nishimura syndrome**
Naoya Kase (*Department of Clinical Application, Center for iPS Cell Research and Application, Kyoto University, Kyoto, Japan*)

<Room "Amagi"> JSH/ASH Joint Session : Normal & Pathologic Hematopoietic Stem Cells
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- 14:10-15:50 **Chairs:** Yasushi Miyazaki (*Atomic Bomb Disease Institute, Nagasaki University Graduate School of Biomedical Sciences*)
Kazuya Shimoda (*Faculty of Medicine, University of Miyazaki*)
- 14:10-14:35
JSH-ASH-1 Developing therapeutic strategies for genetically-complex acute myeloid leukemia
Fumihiko Ishikawa (*RIKEN Center for Integrative Medical Sciences*)
- 14:35-15:00
JSH-ASH-2 Stem cells in human AML
Ravi Majeti (*Stanford University School of Medicine, USA*)
- 15:00-15:25
JSH-ASH-3 Germline DDX41 mutations in the Japanese populations
Seishi Ogawa (*Graduate School of Medicine, Kyoto University / Karolinska Institute, Sweden*)
- 15:25-15:50
JSH-ASH-4 Guiding blood cancer therapy with mitochondrial BH3 profiling
Anthony G. Letai (*Dana-Farber Cancer Institute, Harvard Medical School, USA*)
- 15:50-16:05
Break (15min)

<Room "Amagi"> Plenary Session 2 : Ex Vivo Generation of Blood Cells

- 16:05-17:45 **Chairs:** Akifumi Takaori-Kondo (*Graduate School of Medicine, Kyoto University*)
Kohshi Ohishi (*Mie University Hospital*)
- 16:05-16:30
PS-II-1 Establishment of a new therapeutic cancer vaccine inducing multifunctional immunity, "artificial adjuvant vector cells (aAVC)"
Shin-ichiro Fujii (*RIKEN Center for Integrative Medical Sciences (IMS) / RIKEN Drug Discovery and Medical Technology Platforms (DMP)*)
- 16:30-16:55
PS-II-2 Novel ways to activate NK cells with specificity to treat cancer
Jeffrey S. Miller (*University of Minnesota, Masonic Cancer Center, USA*)

16:55-17:20

PS-II-3 Turning stem cells into platelets for next generation transfusion

Koji Eto (*Department of Clinical Application, CiRA, Kyoto University, Graduate School of Medicine / Graduate School of Medicine, Chiba University*)

17:20-17:45

PS-II-4 Notch signaling: enhancing the ex vivo generation of cells for therapeutic application

Irwin D. Bernstein (*Fred Hutchinson Cancer Research Center, University of Washington, USA*)

17:45-17:55

Break (10min)

<Room "Amagi"> Oral Session from Poster Presentation : Hematological Malignancies and Their Therapies, Clonal Hematopoiesis
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17:55-18:25 **Chairs:** Masahiro Hirayama (*Mie University Graduate School of Medicine*)

Tetsuya Nosaka (*Mie University Graduate School of Medicine*)

17:55-18:05

OS-1 Detection of subclonal SETBP1 and JAK3 mutations in patients with juvenile myelomonocytic leukemia using droplet digital PCR

Manabu Wakamatsu (*Department of Pediatrics, Nagoya University Graduate School of Medicine*)

18:05-18:15

OS-2 Special AT-rich sequence binding protein 1 is involved in the formation of germinal center B cells in the murine spleen

Takayuki Ozawa (*Department of Hematology and Oncology, Osaka University Graduate School of Medicine*)

18:15-18:25

OS-3 STAP-1 is required for maintenance of leukemic stem cells in chronic myeloid leukemia

Jun Toda (*Department of Hematology and Oncology, Osaka University Graduate School of Medicine*)