

Virtual Conference

# The 11th Asia-Pacific Primary Liver Cancer Expert Meeting

August 13-15, 2021 | www.applecongress.org







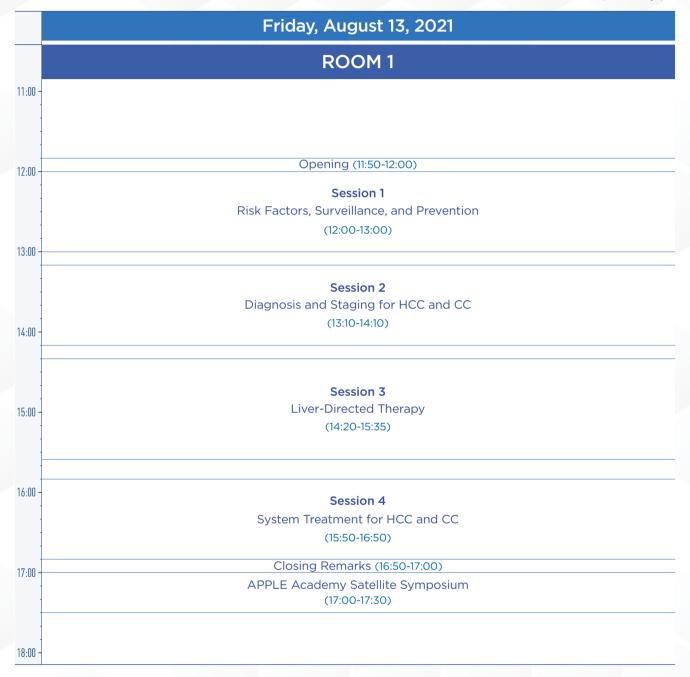






#### PROGRAM AT A GLANCE

GMT+09:00 (Seoul, Tokyo)



#### Room 1

#### SCIENTIFIC PROGRAM

GMT+09:00 (Seoul, Tokyo) FRIDAY, AUGUST 13, 2021

| 11:50-12:00 | Opening Remark                                                                                              |                  | Jinsil Seong (President)                         |
|-------------|-------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------|
| 12:00-13:00 | Session 1. Risk Factors, Surveillance and Preve                                                             | ntion Nar        | niki Izumi (Musashino Red Cross Hospital, Tokyo) |
| 12:00-12:15 | Risk Factors and Prevention (Primary, Secondary                                                             | , Tertiary)      | Junqi Niu (Jilin Univ., Jilin)                   |
| 12:15-12:30 | Biomarkers for HCC and CC                                                                                   |                  | Kwang-Hyub Han (NECA, Seoul)                     |
| 12:30-12:45 | Current Recommendation for HCC Surveillance                                                                 |                  | Young-Suk Lim (Univ. of Ulsan, Seoul)            |
| 12:45-13:00 | Discussion                                                                                                  |                  |                                                  |
| 13:00-13:10 | Break                                                                                                       |                  |                                                  |
| 13:10-14:10 | Session 2. Diagnosis and Staging for HCC and CC                                                             | ;                | Hirohisa Yano (Kurume Univ., Kurume)             |
| 13:10-13:25 | Pathological Diagnosis for HCC and CC: New WH                                                               | 0 Classification | Irene Ng (The Univ. of Hong Kong, Hong Kong)     |
| 13:25-13:40 | Imaging for HCC and CC:<br>Diagnosis and Response Evaluation                                                | Choon Hua Thn    | g (National Cancer Centre Singapore, Singapore)  |
| 13:40-13:55 | Treatment Algorithm of Current Guidelines                                                                   |                  | Ann-Lii Cheng (National Taiwan Univ., Taipei)    |
| 13:55-14:10 | Case Discussion                                                                                             |                  |                                                  |
| 14:10-14:20 | Break                                                                                                       |                  |                                                  |
| 14:20-15:35 | Session 3. Liver-Directed Therapy                                                                           | Pierce Cho       | w (National Cancer Centre Singapore, Singapore)  |
| 14:20-14:35 | Surgical Resection for HCC                                                                                  |                  | Kyung-Suk Suh (Seoul National Univ., Seoul)      |
| 14:35-14:50 | Liver Transplantation: Selection Criteria and Out                                                           | comes            | Albert Chan (The Univ. of Hong Kong, Hong Kong)  |
| 14:50-15:05 | Transarterial Chemoembolization (TACE)                                                                      |                  | Jin Wook Chung (Seoul National Univ., Seoul)     |
| 15:05-15:20 | Local Therapy Radiotherapy for HCC                                                                          | Jason            | Chia-Hsien Cheng (National Taiwan Univ., Taipei) |
| 15:20-15:35 | Case Discussion                                                                                             |                  |                                                  |
| 15:35-15:50 | Break                                                                                                       |                  |                                                  |
| 15:50-16:50 | Session 4. Systemic Treatment for HCC and CC                                                                |                  | Chiun Hsu (National Taiwan Univ., Taipei)        |
| 15:50-16:05 | Systemic Therapy for HCC                                                                                    | Han Chong To     | h (National Cancer Centre Singapore, Singapore)  |
| 16:05-16:20 | Systemic Therapy for Cholangiocarcinoma                                                                     | Stephen Lam Ch   | nan (The Chinese Univ. of Hong Kong, Hong Kong)  |
| 16:20-16:35 | Clinical Trial Design and Analysis:<br>Lessons from Trials of Targeted Therapy and<br>Immunotherapy for HCC | Masafumi lke     | da (National Cancer Center Hospital East, Tokyo) |
| 16:35-16:50 | Discussion                                                                                                  |                  |                                                  |
| 16:50-17:00 | Closing Remarks                                                                                             |                  | Irene Ng and Chiun Hsu (Education Chairs)        |
| 17:00-17:30 | APPLE Academy Satellite Symposium                                                                           |                  |                                                  |
|             |                                                                                                             |                  |                                                  |

#### **APPLE ACADEMY 2021**

This program is expected to become a stepping stone for our next generation of doctors and non-expert doctors who are interested in liver cancer.



Supported by



#### **PROGRAM AT A GLANCE**

GMT+09:00 (Seoul, Tokyo)

| Saturday, Au                                                                            | gust 14, 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ROOM 1                                                                                  | ROOM 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Session 1 Epidemiology and Surveillance of HCC (08:30-10:00)                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Opening Remark (10:10-10:20)                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| (10:20-10:50)                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Session 2 Surgery and Liver Transplantation of HCC (11:00-12:30)                        | Session 3 Antiviral Therapy and HCC (11:00-12:30)                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Satellite Symposium - Eisai<br>(12:30-13:10)                                            | Satellite Symposium - J&J and Hengrui<br>(12:30-13:10)                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Session 4  Locoregional Therapy for HCC:  New Roles in Immunotherapy Era  (13:10-14:40) | Session 5  Molecular Pathogenesis and Pathology of HCC (13:10-14:30)                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Session 6 Systemic Therapy for Earlier-Stages of HCC (14:50-15:45)                      | Session 7 Imaging Diagnosis of HCC (14:50-16:10)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| State-of-the-Art Lecture 1 (15:55-16:35)                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| APPLE General Assembly<br>(16:40-17:20)                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Satellite Symposium - Roche<br>(17:20-18:00)                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                         | Session 1 Epidemiology and Surveillance of HCC (08:30-10:00)  Opening Remark (10:10-10:20) Presidential Lecture (10:20-10:50)  Session 2 Surgery and Liver Transplantation of HCC (11:00-12:30)  Satellite Symposium - Eisai (12:30-13:10)  Session 4 Locoregional Therapy for HCC: New Roles in Immunotherapy Era (13:10-14:40)  Session 6 Systemic Therapy for Earlier-Stages of HCC (14:50-15:45)  State-of-the-Art Lecture 1 (15:55-16:35)  APPLE General Assembly (16:40-17:20)  Satellite Symposium - Roche |





#### GMT+09:00 (Seoul, Tokyo) SATURDAY, AUGUST 14, 2021

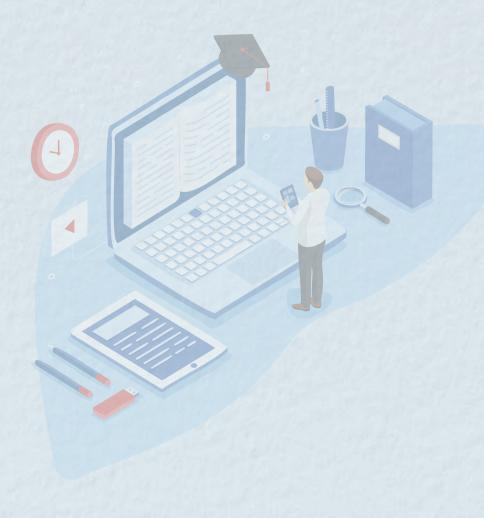
| 08:30-10:00 | Session 1. Epidemiology and Surveillance of HCC                                               | Takuji Torimura (Kurume Univ., Kurume),<br>Do Young Kim (Yonsei Univ., Seoul)                             |
|-------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 08:30-08:50 | Global Epidemiology and Risk Factors of HCC                                                   | Man-Fung Yuen (The Univ. of Hong Kong, Hong Kong,                                                         |
| 08:50-09:10 | HCC in Patients with NASH: Epidemiology, Risk Factors, and Surveillance                       | Ryosuke Tateishi (The Univ. of Tokyo, Tokyo)                                                              |
| 09:10-09:30 | Cost-Effectiveness of HCC Surveillance                                                        | Amit Singal (UT Southwestern Medical Center, Texas,                                                       |
| 09:30-09:50 | Outcome of National HCC Surveillance Program in Korea                                         | Do Young Kim (Yonsei Univ., Seoul,                                                                        |
| 09:50-10:00 | Discussion                                                                                    |                                                                                                           |
| 10:00-10:10 | Break                                                                                         |                                                                                                           |
| 10:10-10:20 | Opening Remark                                                                                | Jinsil Seong (President, APPLE)                                                                           |
| 10:20-10:50 | Presidential Lecture                                                                          | Ann-Lii Cheng (National Taiwan Univ., Taipei)                                                             |
| 10.20 10.00 | Radiotherapy of HCC: From Palliation to Cure                                                  | Jinsil Seong (Yonsei Univ., Seoul)                                                                        |
| 10:50-11:00 | Break                                                                                         |                                                                                                           |
| 11:00-12:30 | Session 2. Surgery and Liver Transplantation of HCC                                           | Etsuro Hatano (Kyoto Univ., Hyogo),<br>Linda Wong (Univ. of Hawaii Cancer Center, Hawaii,                 |
| 11:00-11:20 | The Updates and Future of Liver Surgery in the New Eras<br>TKI Drug and Immunotherapy         | of Kiyoshi Hasegawa (The Univ. of Tokyo, Tokyo,                                                           |
| 11:20-11:40 | Surgical Management beyond the BCLC Guideline                                                 | Tan To Cheung (The Univ. of Hong Kong, Hong Kong,                                                         |
| 11:40-12:00 | Minimally Invasive LDLT                                                                       | Kyung-Suk Suh (Seoul National Univ., Seoul,                                                               |
| 12:00-12:20 | Precision Therapies in Liver Transplantation for Cancer R<br>Biology, Genomics and Immunology | Pecurrence: Jian Zhou (Fudan Univ., Shanghai)                                                             |
| 12:20-12:30 | Discussion                                                                                    |                                                                                                           |
| 12:30-13:10 | Satellite Symposium - Eisai                                                                   |                                                                                                           |
| 13:10-14:40 | Session 4. Locoregional Therapy for HCC: New Roles in Immunotherapy Era                       | Namiki Izumi (Musashino Red Cross Hospital, Tokyo),<br>Guohong Han (Fourth Military Medical Univ., Xi'an) |
| 13:10-13:30 | Chemoembolization: Changing Role in the Real World with Introduction of New Systemic Agents   | Toshihiro Tanaka (Nara Medical Univ., Kashihara,                                                          |
| 13:30-13:50 | Future Role of Locoregional Therapy for HCC:<br>Hepatologist's Perspective                    | Joong-Won Park (National Cancer Center Korea, Goyang,                                                     |
| 13:50-14:10 | Local Radiotherapy as an Immunomodulator in HCC                                               | Jason Chia-Hsien Cheng (National Taiwan Univ., Taipei)                                                    |
| 14:10-14:30 | Abscopal Effect of Radiotherapy for HCC                                                       | Hee Chul Park (Sungkyunkwan Univ., Seoul,                                                                 |
| 14:30-14:40 | Discussion                                                                                    |                                                                                                           |
| 14:40-14:50 | Break                                                                                         |                                                                                                           |
|             |                                                                                               |                                                                                                           |





#### GMT+09:00 (Seoul, Tokyo) SATURDAY, AUGUST 14, 2021

| Session 6. Systemic Therapy for Earlier-Stages of HCC                        | Pierce Chow (National Cancer Centre Singapore, Singapore),<br>Stephen Lam Chan (The Chinese Univ. of Hong Kong, Hong Kong)                                                                                                                                                |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Role of Systemic Therapy in Early HCC Patients:<br>Hepatologist Perspectives | Masatoshi Kudo (Kindai Univ., Osaka)                                                                                                                                                                                                                                      |
| Systemic Therapy for Earlier-Stages of HCC: IR F                             | Perspectives Jin Wook Chung (Seoul National Univ., Seoul)                                                                                                                                                                                                                 |
| Discussion                                                                   |                                                                                                                                                                                                                                                                           |
| Break                                                                        |                                                                                                                                                                                                                                                                           |
| State-of-the-Art Lecture 1. Ghass                                            | an Abou-Alfa (Memorial Sloan-Kettering Cancer Center, New York)                                                                                                                                                                                                           |
| Tumor Immune Microenvironment in HCC                                         | Tim Greten (National Cancer Institute, Bethesda)                                                                                                                                                                                                                          |
| Break                                                                        |                                                                                                                                                                                                                                                                           |
| APPLE General Assembly                                                       |                                                                                                                                                                                                                                                                           |
|                                                                              |                                                                                                                                                                                                                                                                           |
|                                                                              | Systemic Therapy for Earlier-Stages of HCC  Role of Systemic Therapy in Early HCC Patients: Hepatologist Perspectives  Systemic Therapy for Earlier-Stages of HCC: IR F Discussion  Break  State-of-the-Art Lecture 1. Ghass  Tumor Immune Microenvironment in HCC  Break |







#### GMT+09:00 (Seoul, Tokyo) SATURDAY, AUGUST 14, 2021

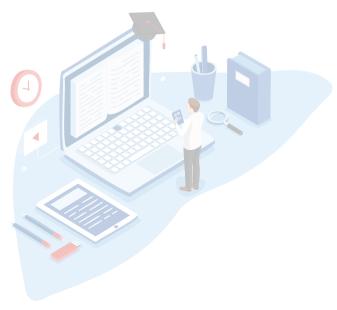
| 11:00-12:30 | Session 3. Antiviral Therapy and HCC Junqi Niu (Jilin Univ., Jilin), Yong Han Paik (Sungkyunkwan Univ., Seoul)                              |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00-11:20 | Risk Models for HCC Development under Antiviral Therapy in CHB Jia-Horng Kao (National Taiwan Univ., Taipei)                                |
| 11:20-11:40 | Comparison of Tenofovir vs Entecavir on Reducing Incidence of HCC in CHB  Jidong Jia (Capital Medical Univ., Beijing)                       |
| 11:40-12:00 | Antiviral Therapy in Immune-Tolerant CHB: Pros Young-Suk Lim (Univ. of Ulsan, Seoul)                                                        |
| 12:00-12:20 | Antiviral Therapy in Immune-Tolerant CHB: Cons Grace L. H. Wong (The Chinese Univ. of Hong Kong, Hong Kong)                                 |
| 12:20-12:30 | Discussion                                                                                                                                  |
| 12:30-13:10 | Satellite Symposium - J&J and Hengrui                                                                                                       |
| 13:10-14:30 | Session 5. Molecular Pathogenesis and Pathology of HCC  Michiie Sakamoto (Keio Univ., Tokyo), Irene Ng (The Univ. of Hong Kong , Hong Kong) |
| 13:10-13:30 | Intratumoural Immune Heterogeneity as a Hallmark of Tumour Evolution in HCC  Valerie Chew (Duke-NUS Medical School, Singapore)              |
| 13:30-13:50 | Pathological and Molecular Features Related to Cancer Stemness of HCC Young Nyun Park (Yonsei Univ., Seoul)                                 |
| 13:50-14:10 | HCC Genomics Using Single Cell Analysis Irene Ng (The Univ. of Hong Kong , Hong Kong)                                                       |
| 14:10-14:30 | Discussion                                                                                                                                  |
| 14:30-14:50 | Break                                                                                                                                       |
| 14:50-16:10 | Session 7. Imaging Diagnosis of HCC  Choon Hua Thng (National Cancer Centre Singapore, Singapore)                                           |
| 14:50-15:10 | LI-RADS: Pitfalls and Problems or How to Use LR-M and Ancillary Features  Victoria Chernyak (Albert Einstein College of Medicine, New York) |
| 15:10-15:25 | MR Imaging Phenotype of HCC and Histologic Correlation Jin-Young Choi (Yonsei Univ., Seoul)                                                 |
| 15:25-15:45 | Application of Radiomics for Primary Liver Cancer Seung Soo Lee (Univ. of Ulsan, Seoul)                                                     |
| 15:45-16:00 | Al for the Prediction, Diagnosis, and Treatment of HCC Jeong-Hoon Lee (Seoul National Univ., Seoul)                                         |
| 16:00-16:10 | Discussion                                                                                                                                  |



#### **PROGRAM AT A GLANCE**

GMT+09:00 (Seoul, Tokyo)

|         | Sunday, Aug                                                                  | ust 15, 2021                                        |
|---------|------------------------------------------------------------------------------|-----------------------------------------------------|
|         | ROOM 1                                                                       | ROOM 2                                              |
| 08:00   | Satellite Symposium - Eisai<br>(08:00-09:00)                                 |                                                     |
| 10:00 - | Session 8  Multidisciplinary Approach in Vascular Invasive HCC (09:00-10:30) | Session 9 Cholangiocarcinoma (09:00-10:10)          |
| 11:00 - | Session 10 Systemic Therapy for Advanced HCC (10:40-12:10)                   | Session 11 Abstract Oral Presentation (10:40-12:00) |
| 13:00   | State-of-the-Art Lecture 2 (12:10-12:50) Wrap-up and Closing (12:50-13:00)   |                                                     |







#### GMT+09:00 (Seoul, Tokyo) SUNDAY, AUGUST 15, 2021

| 08:00-09:00 | Satellite Symposium - Eisai                                       |                      |                                                                                          |
|-------------|-------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------|
| 09:00-10:30 | Session 8. Multidisciplinary Approach in<br>Vascular Invasive HCC | Norihiro Kokudo      | Kwang-Hyub Han (NECA, Seoul),<br>(National Center for Global Health and Medicine, Tokyo) |
| 09:00-09:20 | Hepatologist Perspectives                                         |                      | Jeong Won Jang (The Catholic Univ. of Korea, Seoul)                                      |
| 09:20-09:40 | Surgeon Perspectives                                              | Norihiro Kokudo      | (National Center for Global Health and Medicine, Tokyo)                                  |
| 09:40-10:00 | Interventional Oncologist Perspectives                            |                      | Chien-An Liu (Taipei Veterans General Hospital, Taipei)                                  |
| 10:00-10:20 | Radiation Oncologist Perspectives                                 |                      | Laura Dawson (Univ. of Toronto, Toronto)                                                 |
| 10:20-10:30 | Discussion                                                        |                      |                                                                                          |
| 10:30-10:40 | Break                                                             |                      |                                                                                          |
| 10:40-12:10 | Session 10. Systemic Therapy for Advanc                           | ed HCC               | Sheng-Long Ye (Fudan Univ., Shanghai),<br>Masatoshi Kudo (Kindai Univ., Osaka)           |
| 10:40-11:00 | Systemic Therapy for HCC: What Will Be th                         | ne Next              | Ann-Lii Cheng (National Taiwan Univ., Taipei)                                            |
| 11:00-11:20 | Tumor Immune Microenvironment-Based                               | Immunotherapy        | Ghassan Abou-Alfa<br>(Memorial Sloan-Kettering Cancer Center, New York)                  |
| 11:20-11:40 | Combination Immunotherapy with Anti-VEGF Multikinase Inhibitor    |                      | Richard Finn (Univ. of California LA, LA)                                                |
| 11:40-12:00 | Combination Immunotherapy with Anti-CT                            | LA-4 Antibody        | Thomas Yau (The Univ. of Hong Kong, Hong Kong,                                           |
| 12:00-12:10 | Discussion                                                        |                      |                                                                                          |
| 12:10-12:50 | State-of-the-Art Lecture 2                                        |                      | Jinsil Seong (Yonsei Univ., Seoul,                                                       |
| 12:10-12:50 | Radiation and Checkpoint Blockade Immu                            | notherapy <i>And</i> | drew Sharabi (The Univ. California San Diego, San Diego)                                 |
| 12:50-13:00 | Wrap-up and Closing                                               |                      | Chih-Hung Hsu (Secretary General, APPLE)                                                 |
|             |                                                                   |                      |                                                                                          |





#### GMT+09:00 (Seoul, Tokyo) SUNDAY, AUGUST 15, 2021

| 09:00-10:10 | Session 9. Cholangiocarcinoma                                                                                                                           | Chiun Hsu (National Taiwan Univ., Taipei),<br>Masafumi Ikeda (National Cancer Center Hospital East, Tokyo) |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 09:00-09:20 | Update of Combined Hepatocellular-Cholangiocarcin                                                                                                       | oma Matthew Yeh (Univ. of Washington, Seattle)                                                             |
| 09:20-09:40 | Progress of Chemotherapy and Targeted Therapy in Cholangiocarcinoma                                                                                     | Masafumi Ikeda (National Cancer Center Hospital East, Tokyo)                                               |
| 09:40-10:00 | Immunotherapy for Cholangiocarcinoma: Hope or Hyp                                                                                                       | e? Andrew Zhu (Jiahui International Cancer Center, Shanghai)                                               |
| 10:00-10:10 | Discussion                                                                                                                                              |                                                                                                            |
| 10:10-10:40 | Break                                                                                                                                                   |                                                                                                            |
| 10:40-12:00 | Session 11. Abstract Oral Presentation                                                                                                                  | Chih-Hung Hsu (National Taiwan Univ., Taipei),<br>Do Young Kim (Yonsei Univ., Seoul)                       |
| 10:40-10:50 | Comparisons of Three Serum Biomarkers Alone and for Detection of HCC in Patients with Nonalcoholic Fatty Liver Disease: A Multicenter Case-Control Stud | Tian Yang (Second Military Medical Univ., Shanghai)                                                        |
| 10:50-11:00 | Single-Cell RNA Sequencing Shows the Immunosuppressive Landscape and Tumor Heteroge of HBV-Associated HCC                                               | Daniel Wai-Hung Ho<br>neity (The Univ. of Hong Kong, Hong Kong)                                            |
| 11:00-11:10 | Liver Transplantation vs Partial Hepatectomy for Stag<br>T2 Multifocal HCC: A Propensity-Score Matched Anal                                             |                                                                                                            |
| 11:10-11:20 | Combined Stereotactic Body Radiotherapy (SBRT) and<br>Immunotherapy vs SBRT in Locally Advanced HCC:<br>Propensity Score Matching Analysis              | d<br>Chiang Chi Leung (The Univ. of Hong Kong, Hong Kong)                                                  |
| 11:20-11:30 | Stereotactic Ablative Body Radiotherapy for Oligomet<br>A Multi-Institutional Retrospective Study (KROG 20-0                                            |                                                                                                            |
| 11:30-11:40 | Transcatheter Arterial Chemoembolization Therapy in<br>Strategy with Lenvatinib in Patients with<br>Unresectable HCC (TACTICS-L) in Japan: Interim Ana  | Issei Saeki (Yamaguchi Univ., Yamaguchi)                                                                   |
| 11:40-11:50 | IMbrave150: Efficacy and Safety of Atezolizumab Plus<br>Bevacizumab vs Sorafenib by Baseline Varices Status<br>Patients with HCC                        |                                                                                                            |
| 11:50-12:00 | Nivolumab Plus Ipilimumab (N+I) as Neoadjuvant<br>Therapy for Potentially Resectable HCC                                                                | Yung-Yeh Su (National Health Research Institute, Taiwan)                                                   |

#### **ORAL PRESENTATION**

| OP-01               | Comparisons of Three Serum Biomarkers Alone and in Combination for Detection of Hepatocellular Carcinoma in Patients with Nonalcoholic Fatty Liver Disease: A Multicenter Case-Control Study |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | Tian Yang (Second Military Medical University, China)                                                                                                                                        |
| OP-02               | Single-Cell RNA Sequencing Shows the Immunosuppressive Landscape and Tumor Heterogeneity of HBV-Associated Hepatocellular Carcinoma                                                          |
|                     | Daniel Wai-Hung Ho (The University of Hong Kong, Hong Kong)                                                                                                                                  |
| OP-03               | Liver Transplantation versus Partial Hepatectomy for Stage T2 Multifocal Hepatocellular Carcinoma:<br>A Propensity-Score Matched Analysis                                                    |
|                     | Kliment Bozhilov (Queen's Medical Center, USA)                                                                                                                                               |
| OP-04               | Combined Stereotactic Body Radiotherapy (SBRT) and Immunotherapy versus SBRT in Locally Advanced Hepatocellular Carcinoma: Propensity Score Matching Analysis                                |
|                     | CHIANG Chi Leung (The University of Hong Kong, Hong Kong)                                                                                                                                    |
| OP-05               | Stereotactic Ablative Body Radiotherapy for Oligometastatic Hepatocellular Carcinoma: A Multi-Institutional Retrospective Study (KROG 20-04)                                                 |
|                     | Tae Hyung Kim (Eulji University, South Korea)                                                                                                                                                |
| OP-06               | Transcatheter Arterial Chemoembolization Therapy in Combination Strategy with Lenvatinib in Patients with Unresectable Hepatocellular Carcinoma (TACTICS-L) in Japan: Interim Analysis       |
|                     | Issei Saeki (Yamaguchi University, Japan)                                                                                                                                                    |
| OP-07               | IMbrave150: Efficacy and Safety of Atezolizumab Plus Bevacizumab vs Sorafenib by Baseline Varices Status in Patients with Hepatocellular Carcinoma (HCC)                                     |
|                     | Philippe Merle (University Hospital La Croix-Rousse, France)                                                                                                                                 |
| OP-08               | Nivolumab Plus Ipilimumab (N+I) as Neoadjuvant Therapy for Potentially Resectable Hepatocellular Carcinoma (HCC)                                                                             |
| <i>3.</i> <b>33</b> | Yung-Yeh Su (National Health Research Institute, Taiwan)                                                                                                                                     |

#### FREE PAPER VOD PRESENTATION

# Artificial Intelligence (AI) FV-01 Automated Segmentation on Multiphasic Computed Tomography Simulation in Radiotherapy to Liver Cancer Using Three-Dimensional Deep Neural Networks Shao-Lun Lu (National Taiwan University, Taiwan)

| Cel   | Cell Biology and Translational Research                                                          |  |  |  |
|-------|--------------------------------------------------------------------------------------------------|--|--|--|
| FV-02 | YAP/TAZ Expression in Hepatocellular Carcinoma (HCC) and Effects of YAP/TAZ Inhibition on HCC    |  |  |  |
|       | Sojung Han (Eulji University, South Korea)                                                       |  |  |  |
| FV-03 | Orchestrating the Spatial and Single-Cell Immune Landscape of Colorectal Cancer Liver Metastasis |  |  |  |
|       | Yingcheng Wu (Fudan University, China)                                                           |  |  |  |

#### FREE PAPER VOD PRESENTATION

| FV-04 | CircTUBD1 Regulates Radiation-induced Hepatic Stellate Cell Activation and Profibrotic Response via a CircTUBD1/Micro-203a-3p/Smad3 Positive Feedback Loop  Hao Niu (Fudan University, China) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FV-05 | Long Non-Coding RNA LINC00601 Contributes to Oxaliplatin Resistance of Hepatocellular Carcinoma Cells via Targeting GADD45A Gene Pathways                                                     |
|       | Keshu Hu (Fudan University, China)                                                                                                                                                            |

#### **Diagnosis and Liver Imaging**

FV-06 Early Complete Tumor Response as a Survival Predictor In Hepatocellular Carcinoma Patients Receiving Stereotactic Body Radiation Therapy

Qi-Qiao Wu (Fudan University, China)

#### **Epidemiology and Surveillance**

FV-07 Portal Vein Thrombosis in Pakistani Population with Hepatocellular Carcinoma – Prevalence and Risk Factors

Tayyab Siddiqui (Aga Khan University, Pakistan)

#### **Molecular Pathogenesis and Pathology**

| FV-08 | Dysregulation of RalA Signaling through Dual Regulatory Mechanisms Exerts Its Oncogenic Functions in Hepatocellular Carcinoma                    |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Lu Tian (The University of Hong Kong, Hong Kong)                                                                                                 |
| FV-09 | Cancer Testis Antigen PAGE4 on Tumor-associated Macrophages Promotes Invasion and Metastasis of CTNNB1-mutated Hepatocellular Carcinoma via CD36 |
|       | Juan Zhang (Fudan University, China)                                                                                                             |
| FV-10 | Activation of the NLRP3 Inflammasome in Hepatitis C Virus-Related Hepatocellular Carcinoma: Relation to Oxidative Stress and Tumor Progression   |
|       | Hoda El Aggan (Alexandria University, Egypt)                                                                                                     |

#### **Staging and Prognosis**

| FV-11 | Pattern and Clinical Significance of Lymph Node Metastasis from Hepatocellular Carcinoma                                                        |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Byung Min Lee (Yonsei University, South Korea)                                                                                                  |
| FV-12 | A New Tumor Burden Score and Albumin-Bilirubin Grade-Based Prognostic Model for Hepatocellular Carcinoma                                        |
|       | Shu-Yein Ho (Min-Sheng General Hospital, Taiwan)                                                                                                |
| FV-13 | Identification of a Pyroptosis-Related Gene Signature for Predicting Overall Survival and Response to Immunotherapy in Hepatocellular Carcinoma |
|       | Zheng Su Su (Fudan University, China)                                                                                                           |

#### FREE PAPER VOD PRESENTATION

| Treatment: Clinical Trials |                                                                                                                                                                      |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FV-14                      | Lenvatinib Plus Pembrolizumab for Patients with Previously Treated Biliary Tract Cancers in the Multicohort Phase 2 LEAP-005 Study                                   |
|                            | Hyun Cheol Chung (Yonsei University, South Korea)                                                                                                                    |
| FV-15                      | Atezolizumab Plus Bevacizumab (A+B) for Patients with Unresectable Hepatocellular Carcinoma (HCC) and Chronic Hepatitis B Virus (HBV) Infection with High Viral Load |
|                            | San-Chi Chen (Taipei Veterans General Hospital, Taiwan)                                                                                                              |

| Treatment: Novel Target or Experimental Therapy |                                                                                                                                            |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| FV-16                                           | Nano-delivery of Simvastatin to Liver Sinusoidal Endothelial Cells Inhibits Hepatocellular Carcinoma via Tumor Microenvironment Remodeling |
|                                                 | Zhuo Yu (Shanghai University of Traditional Chinese Medicine, China)                                                                       |
| FV-17                                           | Bufalin Stimulates Immune Response in Hepatocellular Carcinoma by Reprogramming Tumor-Infiltrating Macrophage toward M1 Phenotype          |
|                                                 | Hai Feng (Shanghai University of Traditional Chinese Medicine, China)                                                                      |

| Treatment: Surgical Resection and Transplantation |                                                                                                                                                                             |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FV-18                                             | Outcomes of Living Donor Liver Transplantation in Patients with a History of Ruptured Hepatocellular Carcinoma                                                              |
|                                                   | Suk Kyun Hong (Seoul National University, South Korea)                                                                                                                      |
| EV. 40                                            | Surgical Outcomes of Fibrolamellar Hepatocellular Carcinoma Patients: SEER Database Study                                                                                   |
| FV-19                                             |                                                                                                                                                                             |
|                                                   | Tomoki Sempokuya (University of Nebraska Medical Center, USA)                                                                                                               |
| FV-20                                             | Comparison of Clinical Outcome between Minimally Invasive and Open Hepatectomy at High Difficulty Score for Hepatocellular Carcinoma                                        |
|                                                   | Kelvin K.C. Ng (The Chinese University of Hong Kong, Hong Kong)                                                                                                             |
| FV-21                                             | Long-term Survival of Elderly Patients Undergoing Curative Liver Resection for Early-Stage Hepatocellular Carcinoma<br>An International Multicenter Competing Risk Analysis |
|                                                   | Tian Yang (Second Military Medical University, China)                                                                                                                       |

| Treatment: Systemic or Targeted Therapy |                                                                                                                                                     |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| FV-22                                   | Early Serum Tumor Marker Responses Predict the Efficacy of Lenvatinib Plus an Anti-PD-1 Antibody in Unresectable Hepatocellular Carcinoma           |
|                                         | Xiao-Dong Zhu (Fudan University, China)                                                                                                             |
| FV-23                                   | Prognosis and Second-Line Treatment Outcome of Advanced Hepatocellular Carcinoma after Failure of First-Line Atezolizumab and Bevacizumab Treatment |
|                                         | Ching-Tso Chen (National Taiwan University, Taiwan)                                                                                                 |
| FV-24                                   | Effects of Combination Therapy using Lenvatinib and an Anti-PD-1 Antibody on Liver Function in Patients with Advanced Hepatocellular Carcinoma      |
|                                         | Ying-Hao Shen (Fudan University, China)                                                                                                             |

#### FREE PAPER VOD PRESENTATION

| FV-25 | Chemoprevention of Recurrent Hepatocellular Carcinoma after Liver Resection May Be Possible with Aspirin in Diabetic Patients                                         |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Larry Ray Hromalik (University of Hawaii, USA)                                                                                                                        |
| FV-26 | Adjuvant Lenvatinib After Radical Resection in Patients with Hepatocellular Carcinoma (HCC): Preliminary Analysis of a Prospective, Multi-Center, Single-Arm Study    |
|       | Hui-Chuan Sun (Fudan University, China)                                                                                                                               |
| FV-27 | Lenvatinib (LEN) plus Anti-PD-1 Antibodies in Patients with Unresectable Hepatocellular Carcinoma (uHCC) Who Progressed on Front-Line LEN: Real-World Data from China |
|       | Yi Chen (Fudan University, China)                                                                                                                                     |

## Treatment: Transarterial Approach/Percutaneous Ablative Therapy /Radiation Therapy

| FV-28 | Liver-Directed Concurrent Chemoradiotherapy Versus Sorafenib in Hepatocellular Carcinoma with Portal Vein Tumor Thrombus                                                                                                                                 |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Jina Kim (Yonsei University, South Korea)                                                                                                                                                                                                                |
| FV-29 | Etiology-Dependent Tumor Control Probability Model after Stereotactic Body Radiation Therapy for Hepatocellular Carcinoma: A Pooled Analysis of an Asian Liver Radiation Therapy Group Study                                                             |
|       | Nalee Kim (Sungkyunkwan University, South Korea)                                                                                                                                                                                                         |
| FV-30 | Hepatocellular Carcinoma with Tumor Thrombus in the Inferior Vena Cava and Right Atrium Treated with Palliative Radiation Therapy and Lenvatinib                                                                                                         |
|       | Adeodatus Vito Nicanor (Makati Medical Center, Philippines)                                                                                                                                                                                              |
| FV-31 | Development and Validation of A Novel Online Calculator for Estimating Survival Benefit of Adjuvant Transcatheter Arterial Chemoembolization in Patients Undergoing Surgery for Hepatocellular Carcinoma Undergoing Surgery for Hepatocellular Carcinoma |
|       | Tian Yang (Eastern Hepatobiliary Surgery Hospital, China)                                                                                                                                                                                                |
| FV-32 | Development of a Prognostic Scoring System for Hepatocellular Carcinoma Patients with Main Portal Vein Tumor<br>Thrombus Undergoing Conventional Transarterial Chemoembolization: An Analysis of 173 Patients                                            |
|       | Jing-huan Li (Fudan University, China)                                                                                                                                                                                                                   |
| FV-33 | Development of a Prognostic Score for Recommended TACE Candidates with Hepatocellular Carcinoma Spontaneous Rupture                                                                                                                                      |
|       | Jixue Zou (Fudan University, China)                                                                                                                                                                                                                      |
| FV-34 | Establishment of a Nomogram for Prognostic Prediction in Patients with Unresectable Hepatocellular Carcinoma Undergoing Transarterial Chemoembolization                                                                                                  |
|       | Zhongchen Li (Fudan University, China)                                                                                                                                                                                                                   |

#### **Other Hepatobiliary Diseases**

| FV-35 | Via mTOR Signaling Pathway LONP1 Protects Hepatocyte Oxidative Damage through Increase of Gluconeogenesis |
|-------|-----------------------------------------------------------------------------------------------------------|
|       | Mu-Chen Wu (Beijing You-An Hospital, China)                                                               |

| Biomarkers |                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| PE-01      | Sarcopenia and Myosteatosis Are Associated with Survival Outcomes in Patients with Hepatocellular Carcinoma<br>Receiving Immunotherapy   |
|            | Bang-Bin Chen (National Taiwan University, Taiwan)                                                                                       |
| PE-02      | An Immune-Related Gene Signature Predicts Prognosis and Immunotherapy Response in Hepatocellular Carcinoma                               |
|            | Feng Zhang (Fudan University, China)                                                                                                     |
|            | Matrix Stiffness Up-regulates the expression of SCD1 and Promotes the Invasion of Hepatocellular Carcinoma Cells                         |
| PE-03      |                                                                                                                                          |
|            | Hua-Hua Liu (Fudan University, China)                                                                                                    |
| PE-04      | Role of Interleukin-7 in the Development of and Recovery from Radiation-Induced Lymphopenia: A Post-Hoc Analysis of a Prospective Cohort |
|            | Hwa Kyung Byun (Yonsei University, South Korea)                                                                                          |
| PE-05      | Expression of USP46 and Its Prognostic Role in Hepatocellular Carcinoma: Analysis Based on the Data-Mining                               |
|            |                                                                                                                                          |
|            | WU Yanfang (Fudan University, China)                                                                                                     |

| Cell Biology and Translational Research |                                                                                                                                 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| PE-06                                   | Single-Cell Transcriptomic Analysis Reveals Two Molecularly and Clinically Distinct Subtypes of Intrahepatic Cholangiocarcinoma |
|                                         | Guohe Song (Fudan University, China)                                                                                            |
| PE-07                                   | Significance of TERT Genetic Alterations and Telomere Length in Hepatocellular Carcinoma                                        |
|                                         | Jin Seoub Kim (The Catholic University of Korea, South Korea)                                                                   |

#### **Cirrhosis and Related Complications**

PE-08 Comparison of the AIMS65 to Liver Severity Score in Predicting Mortality and Rebleeding in Liver Cirrhosis Patients with Acute Variceal Bleeding

Myeong Jun Song (The Catholic University of Korea, South Korea)

| Diagnosis and Liver Imaging |                                                                                                                                                                  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PE-09                       | Imaging Findings of Liver MRI with Liver-Specific Contrast and the Risk of Hepatocellular Carcinoma                                                              |
|                             | Jong-In Chang (Sungkyunkwan University, South Korea)                                                                                                             |
| PE-10                       | Category M of the Liver Imaging Reporting and Data System Version 2018 using MRI: A Systematic Review and Meta-Analysis                                          |
|                             | Sunyoung Lee (Yonsei University, South Korea)                                                                                                                    |
| PE-11                       | Utility of Ancillary Magnetic Resonance Imaging Features in Liver Imaging and Reporting Data System Treatment<br>Response Algorithm for Hepatocellular Carcinoma |
|                             | Yeun-Yoon Kim (Yonsei University, South Korea)                                                                                                                   |

| Molecular Pathogenesis and Pathology |                                                                                                             |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------|
| PE-12                                | Lung and Lymph Node Metastases from Hepatocellular Carcinoma: Comparison of Pathological Aspects            |
|                                      | Ha Young Woo (National Cancer Center, South Korea)                                                          |
| PE-13                                | Nrf2 Imparts Ferroptosis Resistance in Hepatocellular Carcinoma Via ASPH/PI3K/Akt Axis                      |
|                                      | Jing Wu (Capital Medical University, China)                                                                 |
| PE-14                                | YAP Inactivation in Estrogen Receptor Alpha-Positive Hepatocellular Carcinoma with Less Aggressive Behavior |
|                                      | Taek Chung (Yonsei University, South Korea)                                                                 |
|                                      | Fast Computational Viral Integration Detection in HBV-Associated Hepatocellular Carcinoma                   |
| PE-15                                | Xueying Lyu (The University of Hong Kong, Hong Kong)                                                        |

| Staging and Prognosis |                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| PE-16                 | Prognostic Nomogram of Recurrent Hepatocellular Carcinoma Treated with Radiofrequency Ablation                                    |
|                       | Diyang Xie (Fudan University, Hong Kong)                                                                                          |
| PE-17                 | Prognostic Significance of TGR in Patients with Huge Hepatocellular Carcinoma undergoing Transcatheter Arterial Chemoembolization |
|                       | Guobin Chen (Fudan University, China)                                                                                             |
|                       | The Overall Survival of Henatocellular Carcinoma after Resection according to the Cause of Liver Disease                          |

Hyun Woong Lee (Yonsei University, South Korea)

The Predictive Value of Enhanced Liver Fibrosis (ELF) Score for the Patient with Hepatocellular Carcinoma after Liver Resection

#### Treatment: Novel Target or Experimental Therapy

PE-20 Mid-Line 1 Interacting Protein 1 (MID1IP1) Promotes Metastasis via AMPK-Mediated MMP9 Signalling in Hepatocellular Carcinoma

Elley Yung-Tuen Chiu (The University of Hong Kong, Hong Kong)

#### **Treatment: Systemic or Targeted Therapy**

Munseok Choi (Yonsei University, South Korea)

PE-18

PE-19

| PE-21 | TACE Treatment in Combination with or without Sorafenib in HCC Patients with BCLC Stage B: A Systematic Review                    |
|-------|-----------------------------------------------------------------------------------------------------------------------------------|
|       | Aldi Nanda Kurniawan (Pelita Harapan University, Indonesia)                                                                       |
| PE-22 | Modified ALBI Grade for Predicting Hepatocellular Carcinoma Prognosis among Who Treated with ICI plus TKI – A Real-World Practice |
|       | Hong Chen (Fudan University, China)                                                                                               |

PE-23

Combination Therapy of Tyrosine Kinase Inhibitor and Immunotherapy for Patients with Unresectable Hepatocellular Carcinoma: Single Center Experience

Shou-Wu Lee (Taichung Veterans General Hospital, Taiwan)

### Treatment: Transarterial Approach/Percutaneous Ablative Therapy /Radiation Therapy

| PE-24  | Efficacy of Radiofrequency Ablation vs Percutaneous Ethanol Injection in Hepatocellular Carcinoma Patients:<br>A Systematic Review                                                              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | Audrey Hadisurya (Pelita Harapan University, Indonesia)                                                                                                                                         |
| PE-25  | Successful Hepatocellular Carcinoma Downstaging with Preoperative Stereotactic Body Radiotherapy: Retrospective Evaluation of Pathologic Response  Gong Li (Beijing Tsinghua University, China) |
| PE-26  | Efficacy and Safety of Stereotactic Body Radiation Therapy for Hepatocellular Carcinoma in Elderly Patients                                                                                     |
|        |                                                                                                                                                                                                 |
|        | Jinhong Jung (University of Ulsan, South Korea)                                                                                                                                                 |
| PE-27  | Local Intervention for Skull Base Metastasis in Hepatocellular Carcinoma                                                                                                                        |
|        |                                                                                                                                                                                                 |
|        | Kangpyo Kim (Yonsei University, South Korea)                                                                                                                                                    |
| PE-28  | Applying a Thoracoabdominal Aorta CTA-Based Nomogram Model to Identify Good Candidats for<br>Transradial Approach Chemoembolization in Patients with Liver Cancer: A Pilot Study                |
| 1 L-20 | Miao Li (Fudan University, China)                                                                                                                                                               |
|        | Adjuvant Radiotherapy for Extrahepatic Cholangiocarcinoma: A Quality Assessment-Based Meta-Analysis                                                                                             |
| PE-29  |                                                                                                                                                                                                 |
|        | Seo Hee Choi (Yonsei University, South Korea)                                                                                                                                                   |
| PE 00  | A Comparative Study of Microwave and Radiofrequency Ablation Therapy for Hepatocellular Carcinoma                                                                                               |
| PE-30  | Soon Kyu Lee (The Catholic University of Korea, South Korea)                                                                                                                                    |
| PE-31  |                                                                                                                                                                                                 |
|        | Ultrasound Fusion Imaging (UFI) 101 for Liver Tumours                                                                                                                                           |
|        | Sudharsan Madhavan (Singapore General Hospital, Singapore)                                                                                                                                      |
|        | Stereotactic Body Radiotherapy using Helical Tomotherapy for Hepatocellular Carcinoma as Treatment Stage                                                                                        |
| PE-32  | Alternative Approach                                                                                                                                                                            |
|        | Sun Hyun Bae (Soonchunhyang University, South Korea)                                                                                                                                            |
| PE-33  | Radiofrequency Ablation versus Combined Transarterial Chemoembolization for Massive Recurrence of Early Unifocal Hepatocellular Carcinoma                                                       |
|        | Weike Chu (Tianjin Medical University, China)                                                                                                                                                   |

#### **Viral Hepatitis**

PE-34

A Nationwide Prospective Cohort Study on Chronic Hepatitis B in Korea: An Interim Analysis

Jae Seung Lee (Yonsei University, South Korea)

PE-35

Comparison of the Occurrence of Hepatocellular Carcinoma in Patients of Chronic Hepatitis B Treated with Entecavir and Tenofovir

Tae Hyung Kim (Korea University, South Korea)

#### Other Hepatobiliary Diseases

| PE-36 | Role of Adjuvant Chemoradiotherapy in Perihilar Bile Duct Cancer: A Single Institutional Long-Term Follow up Analysis                                      |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Choong-won Lee (Seoul National University, South Korea)                                                                                                    |
| PE-37 | Phase 2 Multicohort Study of Lenvatinib Plus Pembrolizumab in Patients with Previously Treated Selected Solid<br>Tumors: LEAP-005 Pancreatic Cancer Cohort |
|       | Hyun Cheol Chung (Yonsei University, South Korea)                                                                                                          |
|       | Benefit of Adjuvant Radiotherapy for Gallbladder Cancer: A Comparability-Based Meta-Analysis                                                               |
| PE-38 |                                                                                                                                                            |
|       | Seo Hee Choi (Yonsei University, South Korea)                                                                                                              |
|       | Gall Bladder Perforation In Cardiac Patient                                                                                                                |
| PE-39 |                                                                                                                                                            |
|       | Muhammad Zakria (Wapda Medical Complex, Pakistan)                                                                                                          |

#### Miscellaneous

PE-40

Hepatectomy for Liver Cancer under Influence of COVID-19 in a Regional Hospital in Hong Kong

Yue Sun Cheung (North District Hospital, Hong Kong)