

# **ISEV WORKSHOP – Blood EVs**

**September 4-6, 2024**

**Royal Hotel Seoul**

(04538) 61, Myeongdong-gil, Jung-gu, Seoul  
+82-2-756-1112, www.royal.co.kr

## **Education Day (Hybrid)**

**September 4, 2024**

### **Understanding blood EVs and their clinical applications**

Moderator: Rienk Nieuwland (Academic Medical Centre Amsterdam), Moon Jisook (CHA University)  
& Minh Le (National University of Singapore)

**9:00-9:15 General welcome to the Education day & Blood EV workshop** (Moon Jisook & Minh Le)

**9:15-9:40 Introduction to blood EVs, research activities and guidelines for the field** (Rienk Nieuwland, Academic Medical Centre Amsterdam)

**9:40-10:05 Origin and physiology of blood EVs** (Pia Siljander, University of Helsinki)

**10:05- 10:30 Uptake and clearance of EVs in the blood** (Buzas Edit, Semmelweis University)

**10:30-11:00 Coffee break**

**11:00-11:25 Blood sample collection and preparation for blood EV purification** (Juntaro Matsuzaki, Keio University, Japan)

**11:25- 11:50 Understanding the variability of blood EVs** (Metka Lenassi, University of Ljubljana)

**11:50-12:15 State-of-the-art technologies for purification of blood EVs and separation of EV subpopulations** (Hou Han Wei, Nanyang Technological University, Singapore)

**12:15-13:30 LUNCH**

**13:30 - 13:55 New methods for high-throughput detection of EV-based biomarkers in clinical blood samples** (Judy Yam, The University of Hong Kong))

**13:55-14:20 Advanced characterization methods for blood EVs** (Tijana Jovanovic-Talisman, City of Hope, USA)

**14:20 – 14:45 TBD** (Kenneth Witwer, Johns Hopkins University)

**14:45-15:10 Profiling EVs and mining EV databases** (Jinhwan Eugene Lee, Korea Research Institute of Standards and Science)

**15:10- 15:40 Coffee break**

**15:40-16:05 Native therapeutic potentials of blood EVs** (Brian Dobosh, Emory University, USA)

**16:05-16:30 Engineering blood EVs for therapeutic usage** (Saara Laitinen, Finnish Red Cross Blood Service, Finland)

**16:30-17:30 Summary and discussion** (Rienk Nieuwland, Moon Jisook and Minh Le)

**19.00 Welcome reception** (TBD)

## **DAY 1. Technologies for EV isolation, characterization and EV-based biomarkers** Sep 5 - 2024

### **Session 1. Methods for isolation and characterization of EVs**

Moderators: Jaesung Park (Postech) & Metka Lenassi (University of Ljubljana)

**9:00-9:05 Introduction to the workshop**, Jaesung Park and Metka Lenassi

**9:05-9:35 Introduction to the topic:**

Keynote speaker: Hubert Yin, Tsinghua University, China

**9:35-10:05: 10 minute-talks selected from abstracts\*.**

10:05-10:15 questions (for all speakers)

10:15-10:30 Coffee break to avoid collapse of the timetable

**10:30-11:00: 10 minute-talks selected from abstracts\*.**

11:00-11:10 questions

11:10-11:15 Break and organization into 3-4 roundtables

**11:15-12:30 Roundtable discussions** (60'+ 15' wrap-up in writing by the moderators)

Table 1: Moderator: Saara Laitinen, topic: EV purification methods

Table 2: Moderator: Moon Jisook, topic: EV characterization methods

Table 3: Moderator: Judy Yam, topic: proteomics and sequencing methods

12:30-13:30 LUNCH

**13:30-14:00 Highlights from the morning discussions by roundtable moderators** (3 x 5 minutes & audience)

### **Session 2: Biomarker discovery and application in clinical diagnosis**

Moderators: Moon Jisook (CHA University) and Judy Yam (The University of Hong Kong)

**14:00-14:30 Introduction to the topic:**

Keynote speaker: Yong Song Gho (POSTECH)

**14:30-15:00: 10 minute-talks selected from abstracts\*.**

15:00-15:10 Questions

15:10-15:25 Coffee break

15:25 -15:55: 10 minute-talks selected from abstracts\*

15.55-16:05 questions

16:05 – 16:10 moving to roundtables

**16:10-17:25 Roundtable discussions** (60'+ 15' wrap-up in writing by the moderators)

Table 1: Moderator: Takahiro Ochiya, topic: Sample preparation and collection

Table 2: Moderator: Moon Jisook, topic: EV databases and data mining

Table 3: Moderator: Judy Yam, topic: high throughput detection of EV based biomarkers

17:25- 17:30 break & moving to main room

**17:30-18:00 Highlights shared from the afternoon discussions by round table moderators** (4 x 5 min & audience)

## **DAY 2 – Functionality and therapeutic potential of blood EVs**

Sep 6 – 2024

### **Session 1. Functional characterization of blood EVs and applications of their native therapeutic potential**

Moderators: Takahiro Ochiya, Tokyo Medical University & Pia Siljander, Helsinki University

**9:00-9:05 Introduction to working in the workshops**, Takahiro Ochiya & Pia Siljander

**9.00-9.30 Introduction to topics:**

Keynote speaker: Naohiro Seo, Tokyo University

**9.30 - 10.30: 10 minute-talks selected by abstracts\***

10:30- 10:45 questions

10:45-11:00 Coffee Break and organization into three roundtables

**11:15-12:30 Roundtable discussions**

Table 1 – Moderator: Metka, topic: EVs from immune cells

Table 2 - Moderator: Minh Le, topic: EVs from RBCs

Table 3 – Moderator: Pia Siljander, topic: EVs from platelets

Table 3 - Moderator: Saara Laitinen, topic: large-scale production of EVs for therapeutics

**12:30 – 13:30 LUNCH**

**13:30-14:00 Wrap-up the Roundtables**

### **Session 2: Engineering blood EVs for drug delivery**

**Moderators: Minh Le, National University of Singapore and Saara Laitinen, Finnish Red Cross Blood Service**

**14:00-14:30 Introduction to the topic:**

Keynote speaker: Wenwei Tu, University of Hong Kong

14:30-15:30: 10 minute-talks selected by abstracts\*

15:30-15:45 Questions

15:45– 16:00 coffee break and moving to roundtables

**16:00-17:00 Roundtable discussions** (45' + 15' wrap-up in writing by the moderators)

Table 1: Moderator: Minh Le, topic: post-purification engineering methods

Table 2: Moderator: Saara Laitinen: regulatory requirements for EV therapeutics

Table 3: Moderator: Takahiro Ochiya, topic: cell engineering for EV therapeutics

17:00- 17:10 coffee break & moving to main room

**17:10-17:40 Highlights shared from the afternoon discussions by round table moderators** (4 x 5 min & audience)

**17:40-18:30 Summary of the Workshop Days 1 & 2** (Moderators of each day)

Wrap up of the three days into deliverables (Moon & Minh)

Phototime

19:00 Night tour/dinner: TBD

\*Each session of 10 minute-talks may include 1 sponsor's talk