

Educational Day

Wednesday 31.8.2022

"Getting the blood-derived EVs into the clinics. From single - to multicenter studies"

Moderator Rienk Nieuwland AMC, The Netherlands & TBA

9.00-13.00

Pre-analytics

- Consideration of blood sampling (anticoagulation)
- Effectors of plasma EV preparations (e.g. residual platelets, lipoproteins, protein)
- Roadmap to improve the quality towards QC

Refreshments and break

Analytics for different applications

- What determinants we need to monitor and how?
- Same EVs with different information: know your sample and your aim re isolation
- Approaching clinical feasibility?

LUNCH 13.00-14.00

14.00-18.00

Applications of blood-derived EVs

- Blood EVs as biomarkers
- Concentration, composition, function
- Blood product-derived EV -based products
- Reference materials, biologicals, drug formulations

Company presentations and results from blood EV analyses

19.00 Welcome reception in Hotel Arthur

ISEV WORKSHOP ON BLOOD EVs

DAY 1 Program Blood EVs as Biomarkers

Thursday 1.9.2022

Use of Blood - prerequisites

Moderator Pia Siljander & TBA, University of Helsinki

9.00-12.00 Morning Session

Summary from Educational day as an introduction: Blood as a matrix of EVs

- Different analyses give different information on EVs
- Sample quality and analytical choice based on aim
- Wrap-up of results from different analyses by companies

Selected talks based on abstracts

Roundtables:

• Blood as matrix, choosing the sample analytics, other based on abstracts

Wrap up the roundtables

LUNCH 12.00-13.00

13.00-17.00 Afternoon Session

Blood-derived EV Biomarkers - where are we at?

- Discovery of biomarkers
- Clinical use of diagnostics

Selected talks based on abstracts

Roundtable:

• Development of diagnostics towards clinical feasibility

Wrap up the roundtables

ISEV WORKSHOP on BLOOD EVs

DAY 2 Program Blood EVs as Therapeutics

Friday 2.9.2022

Moderator Saara Laitinen & TBA, Finnish Red Cross Blood Service

9.00 - 12.00 Morning session

Systemic delivery to target tissues – blood EVs

- Standing on the shoulders of giants, decades of transfusion knowledge
- Blood group and tissue type: challenge or opportunity?
- Artificial EV-inspired mimetics for drug delivery

Selected talks based on abstracts

Roundtable:

• Benefits and disadvantages of using blood EVs as therapeutics

Wrap up the roundtables

LUNCH 12.00 - 13.00

13.00-17.00 Afternoon Session

Red blood cell -derived nanobiotechnology

- Key benefits /disadvantages of RBC derived EV
- Technologies for loading and targeting of RBC EVs

Selected talks based on abstracts

Roundtables:

- Regulation of novel blood-based nanomedicines
- What should we have discussed and what next?
- Wrap up of the three days' into possible deliverables

Planned deliverables of the Workshop:

- Impact and considerations of technological choices on blood EV analyses (data from blood EVs and sponsor analytics, survey, roundtable outcomes)
- Therapeutic use of blood cell -derived EVs