



April 18-21 2012, Gothenburg, Sweden

Scientific program

Welcome to Gothenburg,
to attend the historic first scientific meeting of ISEV

More information about the meeting can be found on:

www.isevmeeting.org



UNIVERSITY OF GOTHENBURG

The Meeting is hosted by the University of Gothenburg

We like to thank our **4 silver sponsors** for their participation to the first ISEV meeting in Gothenburg:



Wednesday 18th April 2012

**8.30-10.00 Registration, Welcome coffee,
Setting up posters (Poster session 1)**

**10.00-11.00 Opening session, Wallenbergssalen
Chairs: Jan Lötvald and Clotilde Théry**

10.00-10.10 Welcome, Jan Lötvald, meeting chair and Olle Larkö, Dean Sahlgrenska Academy
10.10-10.20 How ISEV was established, Clotilde Théry and Jan Lötvald
10.20-10.50 Fifty years of extracellular vesicles research, Douglas Mulhall
10.50-11.00 NIH reaches out to the ISEV community, Elizabeth Wilder, NIH

**11.00-12.00 Symposium session 1, Wallenbergssalen
Chairs: Graça Raposo and Gunnar Ronquist**

Extracellular Vesicles as Communication Messages in biology

11.00-11.20 Production and Release of Exosomes and Extracellular Vesicles. Willem Stoorvogel
11.20-11.40 Exosome-based RNAi therapeutics for neurological disease, Matthew Wood
11.40-12.00 The Importance and Implications of RNA in Extracellular Vesicles, Xandra Breakfield

12.00-13.00 Lunch in the conference centre

Including poster viewing (posters non-attended), poster titles you can find further in the program.

13.00 – 14.00 Poster session and exhibition
**Poster session 1, posters
attended by authors.** Poster titles you can find further in the program.

**Exhibition
10.00 – 19.00**

Wednesday 18th April 2012

14.00-15.30 Symposium session 2

Production and Recovery

Wallenbergssalen

Chairs: Guillaume van Niel and Stephen Gould

14.00-14.15

The ESCRT machinery plays a critical role in the biogenesis of exosomes/ microvesicles. Stephen J. Gould.

14.15-14.30

The intracellular interactome of tetraspanin-enriched microdomains reveals their function as sorting machineries to exosomes. María Yáñez-Mó, Daniel Perez-Hernandez, Cristina Gutiérrez-Vázquez, Soraya López-Martín, Angeles Ursa, Inmaculada Jorge, Francisco Sánchez-Madrid, Jesús Vázquez.

14.30-14.45

miR-1289 and “zipcode”-like sequence enrich mRNAs in microvesicles. Mehmet Fatih Bolukbasi, Arda Mizrak, Gokhan Baris Ozdener, Sibylle Madlener, Thomas Ströbel, Erdogan Pekcan Erkan, Jian-Bing Fan, Xandra O. Breakefield, and Okay Saydam.

14.45-15.00

Characterisation of microvesicles released from cells constitutively and upon stimulation. Dan Stratton, Samuel Antwi-Baffour, Gareth Williams, Ryan Grant, Sigrun Lange, Jameel Inal.

Tissue Injury and Repair

Lyktan

Chairs: Sai Kiang Lim and Elzsbeth Ligeti

14.00-14.15

Procoagulant microparticles are elevated in acute traumatic injury. Curry N.S., Raja A., Brohi K., Stanworth S.J. and Harrison P.

14.15-14.30

Paracrine miRNA-crosstalk via exosomes between cardiac fibroblasts and cardiomyocytes. C. Bang, S. Dangwal, A. Zeug and T. Thum.

14.30-14.45

Serum microvesicle protein levels are associated with acute myocardial ischemia. Vince C de Hoog; Leo Timmers, J Karlijn van Keulen, Dominique PV de Kleijn, Arend Mosterd.

14.45-15.00

Effect of exosomes/microvesicles derived from CD133+ renal progenitors in renal repair and modulation by hypoxia. Aldo Moggio, Veronica Dimuccio, Giovanni Camussi and Benedetta Bussolati.

Production, Release and Function in Blood and Bone marrow

Thor Ahrnoff

Chairs: Peter Quesenberry and Peter Kurre

14.00-14.15

Human CD34+ Hematopoietic Stem Cells Induce Therapeutic Angiogenesis via Exosomes-mediated microRNA Transfer. Susmita Sahoo, Tina Thorne, Sol Misener, Aiko Ito, Douglas W. Losordo, Douglas E. Vaughan.

14.15-14.30

Microvesicle-mediated modulation of hematopoietic stem cell phenotype is influenced by stem cell cycle status. LR Goldberg, J Aliotta, D Lee, N Puente, E Sears, M Pereira, S Faradyan, A Amaral, E Papa, M Del Tatto, MS Dooner, and PJ Quesenberry.

14.30-14.45

Chronic lymphocytic leukemia-derived exosomes and microvesicles shuttle proteins and miRNA to influence bone marrow mesenchymal stem cells. Etienne Moussay, Jérôme Paggetti, Wibke Jochum, and Guy Berchem.

14.45-15.00

Megakaryopoiesis, platelet senescence and release of platelet-derived extracellular vesicles. Gerd Schmitz, Annika Pienimäki-Römer, Katharina Rübsaamen, Evelyn Orsó.

Wednesday 18th April 2012

14.00-15.30 Symposium session 2

Production and Recovery

Wallenbergssalen

Chairs: Guillaume van Niel and
Stephen Gould

15.00-15.15

Myotube but not myoblast secretes exosomes.
Ronne Wee Yeh Yeo and Sai Kiang Lim.

15.15-15.30

Active Caspase-3 is sorted into microparticles.
A.N. Böing, J. Stap, C.M. Hau1, G.B. Afink, C. Ris-
Stalpers, E.A. Reits, C.J.F. van Noorden, A. Sturk
and R. Nieuwland.

Tissue Injury and Repair

Lyktan

Chairs: Sai Kiang Lim and
Elzsébeth Ligeti

15.00-15.15

Therapeutic efficacy of human MSC exosomes is
mediated by injury-calibrated enzyme activities.
Sai Kiang Lim, Ruenn Chai Lai, Fatih Arslan, Soon
Sim Tan, Bin Zhang, Yijun Yin, Newman Siu Kwan
Sze, Andre Choo, and Dominique
P. de Kleijn.

15.15-15.30

Microvesicles (MVs) derived from mesenchymal
stem cells for treatment of kidney injury.
S. Bruno, C. Grange, F. Collino, M.C. Deregibus,
C. Tetta, G. Camussi.

Production, Release and Function in Blood
and Bone marrow

Thor Ahrnoff

Chairs: Peter Quesenberry and
Peter Kurre

15.00-15.15

Stromal Cell Regulation and Drug-Mediated miRNA
Recruitment by Acute Myeloid Leukemia Exosomes.
Noah Hornick, Jianya Huan, and
Peter Kurre.

15.15-15.30

Microparticle dependent procoagulant activity and
thrombin generation is increased in patients with
cirrhosis induced coagulopathy. V. Jairath, P.
Harrison, S.J. Stanworth, J.D. Collier,
M.F. Murphy, E.J. Barnes.

15.30-16.00 Coffee and Poster Session continued (posters not manned)

Poster titles are listed further in this program.

Wednesday 18th April 2012

16.00 - 17.00 Symposium Session 3

Inflammation and infection

Wallenbergssalen

Chairs: Annika Scheynius and Michiel Pegtel

16.00-16.15

Exosomes derived from HIV-1-pulsed cells induce apoptosis in Th17. Caroline Gilbert, Sébastien Simard, Gabrielle Beaulieu-Carbonneau and Caroline Subra.

16.15-16.30

Antigen specific exosomes: A new way to target delivery of selected siRNAs. Philip W. Askenase.

16.30- 16.45

Monocyte-derived microvesicles modulate proinflammatory response and TRAIL-mediated apoptosis of rheumatoid arthritis synovial fibroblasts. Frank Bertoncelj M, Gay RE, Michel BA, Distler O, Gay S, Jungel A.

16.45-17.00

Structural and genetic analysis of exosomes using cryo-electron tomography and RNA-sequencing reveals distinct features correlating with prion infectivity. Andrew F. Hill, Bradley M. Coleman, Eric Hanssen, Victoria A. Lawson, Shayne Bellingham.

Isolation and characterization

Lyktan

Chairs: Marca Wauben and Romaric Lacroix

16.00-16.15

Lessons of the electron microscopic analysis of microvesicle preparations produced by routinely used protocols. Ágnes Kittel, Tamás Géza Szabó, Edit I Buzás.

16.15- 16.30

Purification and characterisation of two discrete exosome populations from the human colon cancer LIM1863 cell line. Richard J. Simpson, Bow J. Tauro, David W. Greening, Hong Ji, Suresh Mathivanan, and Rommel A. Mathias.

16.30-16.45

Isolation and characterization of distinct classes of prostasomes. Willem Stoorvogel, Marian Aalberts, Edita Sostaric, Richard Wubbolts, Marca W.M. Wauben, Esther N. Nolte-'t Hoen, Tom A.E. Stout.

16.45-17.00

Preanalytical and analytical factors influencing the assessment of extracellular vesicles. Edit I Buzás, Bence György, Tamás G Szabó, Krisztina Pálóczi, Ágnes Kittel, Mária Pásztói, Petra Misják, Katalin Szabó-Taylor, Balázs Szántó, Lilla Turiák, Károly Vékey, György Nagy, András Falus.

Nomenclature of extracellular vesicles

Thor Ahrnoff

GENERAL DISCUSSION

16.00-17.00

**Chairs and discussion coordinators:
GRACA RAPOSO & STEPHEN GOULD**

Wednesday 18th April 2012

17.00 - 19.00 **Poster session 1** continued, (posters manned until 18.00) **with** welcome Reception, courtesy of the City of Göteborg!



The city of Gothenburg (www.goteborg.se) is kindly inviting all ISEV delegates to the welcome reception at the [congress venue](#). We are very grateful to the city for this generous support! So Enjoy! Interact! Make new friends!

All Wednesday 18th April 2012 Posters:

Production, secretion and function

Discussion coordinators: Bas W.M. van Balkom and Leonora Balaj

1. Characterization of syndecan-syntenin-1 endosomal trafficking routes. Rania Ghossoub, Frédérique Lembo, Rudra Kashyap, Pascale Zimmermann.
2. Selecting markers to analyse plasma vesicles: lack of correlation between antigens expressed on vesicles and their parent cells.
Rebecca Dragovic, Jennifer Southcombe, Dionne Tannetta, Christopher Redman and Ian Sargent.
3. Towards tailored exosomes: The exosomal tetraspanin web contributes to target cell selection. Shijing Yue, Sanyukta Rana, Daniela Stadel, Margot Zöller.
4. The Pak kinases, Paxillin and lipid rafts are required to upload Microvesicles with activated ADAM17/10 proteases.
Jung-Hyun Lee, Florian S. Dreyer, Tanja Bräu, Andreas S. Baur.

5. Evi/WIs-mediated release of active Wnt proteins. Julia Christina Gross, Varun Chaudary and Michael Boutros.
6. Human adipose tissue-derived mesenchymal stem cells secrete neprilysin-bound exosome-like vesicles. Takeshi Katsuda, Reiko Tsuchiya, Nobuyoshi Kosaka, Yusuke Yoshioka, Kentaro Takagaki, Katsuyuki Oki, Fumitaka Takeshita, Yasuyuki Sakai, and Takahiro Ochiya.
7. Hypoxia increases Lysyl Oxidase Like 2 abundance on endothelial cell-derived extracellular vesicles. O.G. De Jong, Y. Chen, M. Gucek, M.C. Verhaar and B.W.M. van Balkom.
8. Interaction of erythrocyte microvesicles with activated endothelium. Raymond M. Schiffelers, Grietje Andringa, Richard van Wijk, Jerney Francois, Nikoleta Sachini, Pieter Vader.
9. 3D in vitro model of angiogenesis as a platform for analysis of endothelial cell derived microvesicles. Benjamin D. Zeitlin (1,2) and Jacques E. Nor.
10. Screening a library of shRNA to ESCRT components to analyze their effect on exosome secretion. Graça Raposo, Marina Colombo, Clotilde Théry.

Isolation and Characterization

Coordinators: Antonio Chiesi and Carolina Soekmadji

11. A novel method for trapping serum microvesicles. Chihchen Chen, and Nithin Devarajulu Palavalli.
12. The direct and real time visualisation, sizing, phenotyping and counting of exosomes; Principles and methodology of Nanoparticle Tracking Analysis (NTA). Bob Carr, Andrew Malloy, Agnieszka Siupa, Claire Hannell, Patrick Hole, Matthew Wright and Jeremy Warren.
13. Nanopore-based detection: Improved Multi-parameter Measurement of Extracellular Vesicles. Cara Williams.
14. Improvement of Microparticle detection using a new high-sensitivity routine flow cytometer: exploring the hidden part of the iceberg. L Statello, J Wahlgren, M Purrello, H Valadi.
15. Lectins as tools for exosome characterization. Maja M. Kosanovic, Miroslava M. Jankovic.
16. Preliminary studies: Preparation and handling of plasma samples for MP activity assays. Ditte Sørensen, Shona Pedersen and Søren Risom Kristensen.
17. Isolation of microvesicles and exosomes by filtration and estimation of normal reference range in blood plasma. Ryan Grant, Ephraim Ansa-Addoa, Dan Strattona, Samuel Antwi-Baffour, Samireh Jorfi, Sharad Kholia, Lizelle Krige, Sigrun Lange, Jameel Inal.
18. The pellet and the pellet cap of unfiltered extracellular vesicles have different characteristics and RNA content. Cecilia Lässer, Margareta Sjöstrand and Jan Lötvall.
19. Impact of pre-analytical parameters on the measurement of circulating microparticles: towards standardization of protocol. Romaric Lacroix, Coralie Judicone, Philippe Poncelet, Stephane Robert, Laurent Arnaud, José Sampol and Françoise Dignat-George

20. A crowdsourcing approach to find consensus on a reasonable methodology to isolate exosomes. Jan Lötval, Maria Eldh, Cecilia Lässer, Clotilde Thery for 263 members of the ISEV community.
21. Isolation of tumor associated exosomes from clinical samples using the ultra-filtration method. Wei-Lun Huang, Chien-Chung Lin, Wu-Chou Su.
22. Exosomes immunocapturing assay (EXOTEST™) enables accurate quantitative analysis of unfractionated plasma samples. Oja T, Kubo AL, Talpsepp K, Zarovni N, Chiesi A
23. The Effect of Red Blood Cells on Microparticle Transport to Glass Surfaces under Flow. Y-H. Lee, A. Fogelson, and V. Turitto.
24. The influence of low intensity resistance exercise on circulating endothelial microparticles (EMPs). Mark Ross, Antony Wekesa, John Phelan and Michael Harrison.
25. SMR-derived Peptide Disrupts HIV-1 Nef's Interaction with Mortalin and Blocks Virus and Nef Exosome Release. Vincent C Bond, Martin N Shelton, Ming-Bo Huang, Syed A Ali, Michael D Powell.
26. Interaction between exosomes and surfaces of materials. Kiyotaka Shiba and Kanako Suga.
27. Plasmatic microvesicles: their size, morphology, phenotype revealed by Cryo-Electron Microscopy and specific gold labeling. Alain R. Brisson, Sisareuth Tan, Nicolas Arraud, Céline Gounou.
28. Impact of sampling and isolation procedures on concentration of microvesicles in blood isolates. Ogorevc E, Štukelj R, Zavec-Bedina A, Šuštar V, Škufca U, Mrvar-Brečko A, Kralj-Iglič V.
29. Dynabeads – a versatile tool for exosome research. Marie Bosnes, Kirsten Lycke, Bente Kierulf, Ketil W. Pedersen, Anette Kullmann and Axl Neurauter.

Function in Blood and Bone marrow

Discussion coordinators: Evelyn Orsó and Jason M. Aliotta

30. Characterization of platelet-derived microvesicles. Maria Aatonen, Mikaela Grönholm, Pia Siljander.
31. High-density lipoproteins (HDL) and the plasticizer DINCH suppress formation of platelet-derived extracellular vesicles. Annika Pienimäki-Römer, Astrid Fischer, Maria Tafelmeier, Evelyn Orsó, Gerd Schmitz.
32. Microparticle-associated tissue factor activity measured with the Zymuphen MP-TF kit and the calibrated automated thrombogram (CAT) assay. M Høllum, R Øvstebø, AM S Trøseid, JP Berg, P Brandtzaeg, CE Henriksson.
33. Disseminated intravascular coagulation in critically ill patients; in vitro functional analysis of related changes in microparticle- induced clot formation. M. van Schilfgaarde, S.V. Oussoren, P.J. Molenaar, R. Nieuwland, A. Sturk, A. Leyte and J.P.J. Wester.

34. Spectroscopic analysis of Microvesicles in Clotted and Non-clotted Blood and Urine in Healthy, Diabetic Hypertensive and Prostate Cancer patients. Wilfred G. Chen.
35. Persistence of Microvesicle-Induced Gene Expression Changes in Murine Marrow Cells Using an In Vitro and In Vivo Model. M. Pereira, J. M. Aliotta, A. Amaral, M.S. Dooner, K. Brilliant, A. Sorokina, D.C. Hixson and P.J. Quesenberry.
36. Role of microvesicles in the adipocyte conversion of osteoblasts inside bone marrow. Perrine J. Martin, Aline Clabaut, Olfa Ghali, Odile Broux, Pierre Hardouin.
37. Characterization of osteoblast-secreted vesicles: a new mode of intercellular communication. J. Morhayim, R. Burggraaf, J.A. Demmers, M. Buitenhuis, M. van Driel, J. van de Peppel, J. van Leeuwen.

Inflammation and Infection

Discussion coordinators: Marcel I Ramirez and Apostolos Bossios

38. Reticulocyte-derived exosomes from malaria infections are involved in antigen presentation and modulation of immune responses. Lorena Martin-Jaular, Ernesto Nakayasu, Mireia Ferrer, Igor C. Almeida, Hernando A. del Portillo.
39. Microvesicles of Dictyostelium discoideum as a model of eukaryotic extracellular vesicles. Irène Tatischeff, Sergei Kruglik, Eric Larquet, Monique Cheron and François Treussart.
40. Interaction of Trypanosoma cruzi infective forms and monocytes produces microvesicles that increase parasite infection. Poliana Deolindo, PhD. Post doc fellow Marcel I Ramirez.
41. Microvesicles secreted by Trypanosoma cruzi are linked to small RNA machinery and function as a system of intercellular communication and life cycle regulation. Garcia Silva MR, Sanguinetti, Cabrera-Cabrera, Neves, Souto-Padron, De Souza, Parodi, Rovira, Robello, and Cayota A.
42. The intracellular parasite, Trypanosoma cruzi, utilises microvesicle release to invade host cells. Jameel M. Inal, Ephraim A. Ansa-Addo, Igor Cestari, Paras Pathak, Maria V. McCrossan, Sigrun Lange, Marcel I. Ramirez.
43. Toxoplasma gondii: qualified to secrete Exosomes? Marbel Torres, Céline Ducournau, Isabelle Dimier-Poisson.
44. Exosomes in the interaction host-parasitic trematodes. Antonio Marcilla, María Trelis, Alba Cortés, Javier Sotillo, M. Luz Valero, Manuel M. Sánchez del Pino, Carla Muñoz-Antoli, J. Guillermo Esteban, Rafael Toledo, Dolores Bernal.
45. Characterization of the exosome-associated prion protein in hamster plasma. Properzi F, Logozzi MA, Abdel-Haq H, Cristofaro I, Azzarito T, Cardone F, Federici C, Lugini L, Fais S and Pocchiari M.
46. Small RNA sequencing of Neuronal Exosomes identifies a distinct miRNA Signature associated with Prion Disease. Shayne A. Bellingham, Bradley M. Coleman, Belinda B. Guo, Robyn A. Sharples and Andrew F. Hill.

Thursday 19th April 2012

8:30-10.00 Symposium Session 4

Characterisation of extracellular vesicles by High Resolution Microscopy and flowcytometry

Wallenbergssalen

Chairs: Hjalmar Brismar and Muriel van Schilfgaarde

8.30-9.00

Advances in nanoscale superresolution microscopy – relevance for extracellular vesicles research. Hjalmar Brismar (no abstract)

9.00-9.15

The Atomic Force Microscopy a suitable technique to characterize microvesicles in the nanometer scale. Julie Hardij, Francesca Cecchet, François Mullier, Christian Chatelain, Bernard Chatelain, Jean-Michel Dogné.

9.15-9.30

Label-free identification of extracellular vesicles by Raman microspectroscopy. van der Pol, Hau, Otto, Lenferink, Sturk, van Leeuwen and Nieuwland.

Diagnostic and Treatment of Malignancy *Lyktan*

Chair: Safinur Atay and Peter Altevogt

8.30-8.45

Exosomes from neuroblastoma differentiated cells enclose an integrated and transmissible acetylcholine signalling. Parolini, Manfredi, Coscia, Camerini, Zanetti, Cardarelli S, Poiana, Sargiacomo.

8.45-9.00

Exosomes are effective tumor antigen sources for dendritic cell-based immunotherapy against malignant mesothelioma.

Jacqueline S. Dekkers, Margaretha E.H. Lambers, Rudi W. Hendriks, Joachim G.Aerts, Henk C. Hoogsteden, Joost P. Hegmans.

9.00-9.15

RNA profile of exosomes from the isolated hepatic perfusion of uveal melanoma patients with liver metastases. Cecilia Lässer, Maria Eldh, Serena O'Neil, Per Lindnér, Margareta Sjöstrand, Roger Olofsson, Joar Svanvik and Jan Lötval.

9.15-9.30

Exosomes from mutant KRAS cells transfer KRAS and transform wild-type KRAS recipient cells. Jeffrey L. Franklin, Michelle Demory Beckler, James N. Higginbotham and Robert J. Coffey.

Proteomics and Biomarkers

Thor Ahrnoff

Chairs: Richard Simpson and Fred Hochberg

8.30-9.00

The future of advanced proteomics - implications for low - abundance proteins. Christian Scharf, Greifswald, Germany (no abstract)

9.00-9.15

Multi-omics biomarker identification and characterization of human cell-derived extracellular vesicles. Evelyn Orsó, Markus Peer, Stefan Wallner, Annika Pienimaeki-Roemer, Oliver Kenyon, Alexander Sigrüener and Gerd Schmitz.

9.15 - 9.30

The proteome of nasal exosomes. O'Neil SE, Lässer C, Lötval J.

Thursday 19th April 2012
8:30-10.00 Symposium Session 4

Characterisation of extracellular vesicles by High Resolution Microscopy and flowcytometry
Wallenbergssalen
Chairs: Hjalmar Brismar and Muriel van Schilfgaarde

9.30-9.45

High resolution flow cytometry-based multiparameter analysis of nano-sized cell-derived vesicles. Marca H. M. Wauben¹, Els J. van der Vlist, Willem Stoorvogel, Ger J.A. Arkesteijn and Esther N. M. Nolte-'t Hoen.

9.45-10.00

Characterisation of extracellular vesicles by multi-parameter Nanoparticle Tracking Analysis. C. Gardiner, R.A. Dragovic, D.S. Tannetta, P. Harrison, C.W.G. Redman, I.L. Sargent.

Diagnostic and Treatment of Malignancy
Lyktan
Chair: Safinur Atay and Peter Altevogt

9.30-9.45

HIV and Cancer cells induce TNF-alpha secretion by Tace and ADAM10-uploaded microvesicles. Andreas Baur, Jung-Hyun Lee, Florian Dreyer, Sebastian Wittki, Tanja Bräu, Jochen Dindorf.

9.45-10.00

Protein typing of circulating microvesicles allows real-time monitoring of glioblastoma therapy. Huilin Shao, Jaehoon Chung, Leonora Balaj, Alain Charest, Darell D. Bigner, Bob S. Carter, Fred H. Hochberg, Xandra O. Breakefield, Ralph Weissleder, Hakho Lee.

Proteomics and Biomarkers
Thor Ahrnoff
Chairs: Richard Simpson and Fred Hochberg

9.30-9.45

Characteristic and proteomic analysis of exosomes derived from ovarian cancer cell line, Bing Liang, Peng Peng, Xialu Li, Shen keng.

9.45 -10.00

Oncogenic Ras-induced epithelial-mesenchymal transition in MDCK cells alters proteome profiles of secreted exosomes. Bow Tauro, Rommel Mathias, David Greening, Viet Phuong Anh Le, Hong Ji, Suresh Mathivanan, Hong Jian Zhu and Richard J. Simpson.

10.00-12.00 Coffee & Poster session

Poster Session 2, posters attended by authors

Poster titles are listed further in this program.

Exhibiton

10.00-17.00

12.00-13.00 Lunch & Poster viewing

Thursday 19th April 2012

13.00-15.00 Symposium Session 5
Extracellular vesicle RNA Content and Delivery

Wallenbergssalen

Chairs: Jan Lötvall and Johan Skog

13.00-13.15

Identification and characterization of exosome-encapsulated small RNA populations by deep sequencing; the foundation for a novel exosome-based cancer diagnostic platform. Danijela Koppers-Lalic, Michael Hackenberg, Monique van Eijndhoven, Daoud Sie, Bauke Ijstra, Jaap Middeldorp, Michiel Pegtel.

13.15-13.30

Deep sequencing of RNA in cell-derived vesicles reveals the selective incorporation of specific sets of small noncoding RNA s with potential regulatory function. Esther N. M. Nolte-'t Hoen, Henk P. J. Buermans, Maaïke Waasdorp, Willem Stoorvogel, Peter A. C. 't Hoen, and Marca H. M. Wauben.

13.30-13.45

Exosomes as gene delivery vehicles - limits of size and chemistry with electroporation. Yiqi Seow, Yan Teng Yew, Wei Mei Guo.

Nanotechnology meets biology – the next leap in exosomes and microvesicles biology?

Lyktan

Chair: Fredrik Höök and Willem Stoorvogel

13.00-13.30

Nanotechnology meets Biology, Fredrik Höök, Chalmers, (no abstract)

13.30-13.45

Microfluidic crossflow filtration system to isolate exosomes from blood. Ryan Davies, Junho Kim, Yongsong Gho, Jaesung Park.

Tissue function and remodelling in relation extracellular vesicles

Thor Ahrnoff

Chairs: Margot Zoeller and Gerd Schmitz

13.00-13.15

Production of extracellular vesicles by cancer cells harbouring oncogenic epidermal growth factor receptor (EGFR): Impact of the microenvironment and epithelial-to-mesenchymal transition. J. Rak, D. Garnier, C. Milsom, V. Bentley, T-H. Lee, L. Montermini, K. Al-Nedawi, B. Meehan.

13.15-13.30

Angiogenic activity of tumor-derived extracellular vesicles. Yong Song Gho, Yae Jin Yoon, Dong-Sic Choi, Choi EJ, Kim JH, Kim YK, and Kim KP.

13.30-13.45

Cardiomyocyte progenitor cell and mesenchymal stem cell derived exosomes stimulate angiogenesis in vivo and in vitro. Krijn R Vrijnsen, Steven A.J. Chamuleau, C.H.G. Metz, J.C. Deddens, Pieter A.F.M. Doevendans, Joost P.G. Sluijter.

Thursday 19th April 2012

13.00-15.00 Symposium Session 5
Extracellular vesicle RNA Content and Delivery

Wallenbergssalen

Chairs: Jan Lötvald and Johan Skog

13.45-14.00

Delivery of miRNA to the EGFR-expressed tumor by systemic injection of targeted exosomes. Shin-ichiro Ohno, Masakatsu Takanashi, Katsuko Sudo, Takayuki Mizutani, Takahiro Ochiya, Masahiko Kuroda.

14.00-14.15

Micromanaging of microenvironmental endothelial cells by breast cancer cells via exosomal microRNAs. Nobuyoshi Kosaka, Yusuke Yoshioka, Keitaro Hagiwara, Fumitaka Takeshita, Takahiro Ochiya.

14.15-14.30

BEAMing qRT-PCR analysis of IDH1 mutant in tumor microvesicles. Leonora Balaj, Walter Chen1, Linda M. Liao, Horacio Soto, Mathew Garret, Lin Dan Zhu, Sarada Sivaraman, Eric T. Wong, Bob Carter, Fred Hochberg, Xandra O. Breakefield, Johan Skog.

14.30-14.45

Micro-RNA profiling of prostate cancer cell-derived oncosomes identifies a signature of invasion and metastasis. Matteo Morello, Andrew C. Dudley, Peter Schow, Rosalyn M. Adam, Samantha Morley, David Mulholland, Luigi Insabato, Marsha A. Moses, Francesca Demichelis, Michael P. Lisanti, Hong Wu, Michael Klagsbrun, Neil A. Bhowmick, Mark A. Rubin, Crislyn D'Souza-Schorey, Michael R. Freeman, and Dolores Di Vizio.

Nanotechnology meets biology – the next leap in exosomes and microvesicles biology?

Lyktan

Chair: Fredrik Höök and Willem Stoorvogel

13.45-14.00

Selective isolation of tumor microvesicles from serum using microfluidic capture. K.E. van der Vos, N. Atai, F.P. Jr. Floyd, S. Sivaraman, J. Skog, M. Toner, X.O. Breakefield and S.L. Stott.

14.00-14.15

Microparticle measurements by nanoparticle tracking analysis and dynamic light scattering. Nejlund S, Mørk M, Pedersen S, Kristensen SR.

14.15-14.30

Characterization of human cell derived exosomes by nanoparticle tracking analysis. Anna-Kristin Ludwig, Viktoriya Sokolova, Thorsten R. Doeppner, Stefan Durst, Sandra Hornung, Johannes Ruesing, Matthias Eppel, Peter A. Horn and Bernd Giebel.

14.30-14.45

Visualizing and tracking microvesicles with membrane-targeting fluorescent proteins. Charles Lai.

Tissue function and remodelling in relation extracellular vesicles

Thor Ahrnoff

Chairs: Margot Zoeller and Gerd Schmitz

13.45-14.00

Exosomal-TGF-beta drives enhanced angiogenesis through recruitment of tumour stroma. Jason Webber, Lisa Spary, Malcolm Mason, Zsuzsanna Tabi, Aled Clayton.

14.00-14.15

Vascular smooth muscle cell-derived exosomes isolated from human blood are enriched with fetuin-A, and may be involved in the mechanisms of vascular calcification. Sundeep S Kalra, Alexander Kapustin, Cathrine Shanahan.

14.15-14.30

Calcifying Matrix Vesicles Released from Macrophages. SEP New, JF Marchini, M Aikawa, CM Shanahan, K Croce, E Aikawa.

14.30-14.45

The circulating calcification inhibitor fetuin-A is recycled via the exosomal pathway in vascular smooth muscle cells. Alexander Kapustin, Ignat Drozdov, Daniel Soong, Daniel Alvarez-Hernandez, Pilar Sanchis, Xiaoke Yin, Jeremy Skepper, Manuel Mayr, and Catherine M. Shanahan.

Thursday 19th April 2012

**13.00-15.00 Symposium Session 5
Extracellular vesicle RNA Content and
Delivery**

Wallenbergssalen

Chairs: Jan Lötvald and Johan Skog

14.45-15.00

Secreted exosomes from cultured bladder cells are enriched for distinct miRNAs detected in circulation of metastatic bladder cancer patients. Marie Stampe Ostenfeld, Dennis Jeppesen, Jens Preben Morth, Huy Bui Khanh, Dan Theodorescu, Michael Borre, Lars Dyrskjøt, Torben Ørntoft.

Nanotechnology meets biology – the next leap in exosomes and microvesicles biology?

Lyktan

Chair: Fredrik Höök and Willem Stoorvogel

14.45-15.00

Determination of exosome concentration using surface-based sensing. Deborah Rupert, Marta Bally, Cecilia Lässer, Maria Eldh, Jan Lötvald, Fredrik Höök.

Tissue function and remodelling in relation extracellular vesicles

Thor Ahrnoff

Chairs: Margot Zoeller and Gerd Schmitz

14.45-15.00

Tumor-derived exosomes and the matrix. Sanyukta Rana, Mei Wu, Margot Zöller.

15.00-15.30 Coffee & Poster session

Poster Session 2, posters attended by authors

Exhibition

Thursday 19th April 2012

15.30-17.00 Symposium Session 6

The Neural Network and the role of Extracellular Vesicle Transfer
Wallenbergssalen
Chairs: Andrew Hill and Claudia Verderio

15.30-15.45

New aspects on the integrative capabilities of neural networks: The microvesicle - mediated transfer of GPCRs in cell cultures. Fuxe K, Guescini M, Leo G, Carone C, Genedani S, Mantuano M, Stocchi V, Guidolin D, De Caro R, Agnati LF.

15.45-16.00

The role of neurotransmitter-triggered exosome transfer in reciprocal neuron-glia communication. Eva-Maria Krämer-Albers, Carsten Frühbeis, Dominik Fröhlich, Wen Ping Kuo.

16.00-16.15

Exosome-Mediated transfer of luminal en cytosolic amyloids. Lawrence Rajendran, Georgia Minakaki, Nino Jejelava, Garima Thakur and Jitin Bali.

16.15-16.30

Neural stem cells sort protein and RNA cargoes for export with exosomes in response to inflammation. Chiara Cossetti, Tim R. Mercer, Emanuele Alpi, Tommaso Leonardi, Nunzio Iraci, Clara Alfaro-Cervello, Marcel E. Dinger, Sabine Dietmann, Joanna Crawford, Carla Caddeo, Jose-Manuel Garcia-Verdugo, Angela Bachi, John S. Mattick and Stefano Pluchino.

Biorepository, Proteome and Genome Databases for extracellular vesicles
Lyktan
Chairs: Edit Buzas and Juan M Falcon-Perez

15.30-15.45

EVpedia: an integrated and comprehensive proteome and genome database for systemic analyses of extracellular vesicles. Yong Song Gho, Dae-Kyum Kim, Byeongsoo Kang, Yae-Jin Yoon, and Daehee Hwang.

15.45-16.00

VESICELPEDIA: a compendium of nucleic acids, proteins and lipids indentified in extracellular vesicles. Richard J. Simpson and Suresh Mathivanan.

16.00-16.15

A Bioinformatic System for Globally Collaborative Extacellular Vesicle Science. William E. Butler, M.D, Bob Carter, M.D., Ph.D, Sarada Sivaraman, Lin Dan Zhu, Fred Hochberg.

16.15-16.30

A collaborative biorepository supports exosomal studies of biofluids from patients with glioblastoma multiforme. Fred H. Hochberg, William Butler, Will Curry, Sarada Sivaraman, Leonora Balaj, Ryan Kim, Lin Dan Zhu, Johan Skog, Linda M. Liao, Eric T. Wong, Steven Kalkanis, Keith Flaherty, John H. Sampson, Bob Carter.

Role of Extracellular Vesicles in Pregnancy
Thor Ahrnoff
Chairs: Lucia Mincheva-Nilsson and Ian Sargent

15.30-15.45

Do exosomes contribute to successful establishment of pregnancy. York Hunt Ng, Harmeet Singh, Cassandra Hinks and Lois A Salamonsen.

15.45-16.00

Placental exosome-mediated apoptosis in human pregnancy. Eva Delin, Ann-Christin Stenqvist, Olga Nagaeva, Magnus Strand, Lennart Kjellgren, Vladimir Baranov and Lucia Mincheva-Nilsson.

16.00-16.15

Proteomic, miRNA, Flowcytometric and NTA Characterisation of Placental Vesicles in Preeclampsia. D Tannetta, R Dragovic, C Gardner, M McKeen, E Ballabio, C Lawrie, B Kessler, C Redman, I Sargent.

16.15-16.30

Measurement and characterisation of cellular microvesicles and nanovesicles in pregnancy and pre-eclampsia using Nanoparticle Tracking Analysis, ELISA and flow cytometry. Rebecca Dragovic, Dionne Tannetta, Jennifer Southcombe, Christopher Redman and Ian Sargent.

Thursday 19th April 2012

15.30-17.00 Symposium Session 6

The Neural Network and the role of Extracellular Vesicle Transfer

Wallenbergssalen

Chairs: Andrew Hill and Claudia Verderio

16.30-16.45

Transfer of genetic information between the hematopoietic system and the brain without cell fusion. Stefan Momma, Kirsten Oesterwind, Sascha Keller, Maria Dams, Jadranka Macas, Britta Landfried, Karl H. Plate, Candan Depboylu, Günter Höglinger, Peter Altevogt.

General discussion

17.00-18.30 General Assembly General business

Finances

Launch of ISEV Scientific Journal

Election of The Executive Committee 2012-2014

Prices for LOGO development and beyond

Any other business

ISEV Social Event

19.00 - 24.00 ISEV Social Event - MUST NOT BE MISSED!!!!

ISEV 2012 Social Event, Mingle, Food and ABBA music show.

At "**Brewhouse**" down town Gothenburg, 10 minutes from the Wallenberg Centre, you can find a map on the ISEV website.

Biorepository, Proteome and Genome Databases for extracellular vesicles

Lyktan

Chairs: Edit Buzas and Juan M Falcon-Perez

16.30-17.00

GENERAL DISCUSSION:

How can the different databases and repositories be complementary to each other or coordinated?

Role of Extracellular Vesicles in Pregnancy

Thor Ahrnoff

Chairs: Lucia Mincheva-Nilsson and Ian Sargent

16.30-16.45

Secretion of oocyte exosomes appears CD9 and CD81 tetraspanins dependant. Wolf JP, Benammar A, Ziyat A, Barraud-Lange V.

16.45-17.00

Plasma membrane vesicles are a rich source of potential biomarkers for pre-eclampsia. Kok Hian Tan, Soon Sim Tan, Yanni Xu, Newman Siu Kwan Sze, and Sai Kiang Lim.

All Thursday 19th April 2012 Posters:

Protein detection in health and disease:

Discussion coordinators: Riccardo Alessandro and Kim Varming

1. Comparative meta-analysis of proteomic data on extracellular vesicle subsets. T.G. Szabó, P. Misják, B. Aradi, B. György, M. Pásztói, Zs. Pál, V. László, É. Pállinger, E. Pap, Á. Kittel, Gy. Nagy, K. Taylor-Szabó, A. Falus & E.I. Buzás.
2. Lyophilized exosomes as calibration standards for exosome proteomic studies. Zarovni N, Könt V, Kubo AL, Talpsepp K, Oja T, Chiesi A.
3. Transcriptomics profiling of hepatic extracellular microvesicles. Juan M Falcon-Perez.
4. Quantitative LC-MSE proteomics of Hepatocyte-derived microvesicles reveals non-invasive candidate markers for liver injury. E. Gonzalez, E. Rodríguez-Suárez, J. Conde-Vancells.
5. Rab5 as exosomal marker: Localisation and applications. Zarovni N, Könt V, Kubo AL, Oja T, Talpsepp K, Chiesi A, Tallinn, Ghiran IC, Ericsson M, Luscinskas FW, Bonebreak CM, Heravi FM, Kuo WP.
6. Comparative analysis of proteomic composition of thymus-derived extracellular vesicle populations. Misják P, Turiák L, Szabó GT, Aradi B, Pálóczi K, Ozahonocs O, Drahos L, Kittel A, Falus A, Vékey K, Buzás E.
7. Proteomic characterization of crude and affinity-purified exosomes from pancreatic cancer cells. Susanne Klein-Scory, Mahnaz Moradian Tehrani, Uwe Warnken, Martina Schnölzer, Wolff Schmiegel, Irmgard Schwarte-Waldhoff.
8. Exosomes – potential regulators and biomarkers of prostate cancer progression. Claire Corcoran, Sweta Rani, Keith O'Brien, Amanda O'Neill, Maria Prencipe, John Crown, William Watson, Lorraine O'Driscoll.
9. Proteomic profiling of exosomes reveals novel candidate markers for prostate cancer. Diederick Duijvesz, Marina A. Gritsenko, A. Marije Hoogland, Mirella S. Vredenburg-van den Berg, Kristin E. Burnum, Geert J.L.H. van Leenders, Rob Willemsen, Theo Luider, Ljiljana Pasa-Tolic, Guido Jenster.
10. Circulating exosomal Hsp60 as a new marker of colon cancer. Francesco Cappello, Claudia Campanella, Antonella Marino Gammazza, Anna Merendino, Sabrina David, Fabio Bucchieri, Alessandro Pitruzzella, Giosalba Burgio, Davide Corona, Nunzia Scibetta, Giovanni Tomasello, Carmelo Sciumè, Adriana Lena, Giuseppe Cicero, Everly Conway de Macario, Alberto JL Macario, Giovanni Zummo.
11. Diagnostic potential of ELISA based detection of exosome associated melanoma markers. Kubo AL, Talpsepp K, Oja T, Zarovni N, Chiesi A.
12. A highly sensitive ELISA for detection and characterization of (prostate cancer) exosomes. D. Duijvesz, N. Naimi, M. Peltola, C.Y.L. Versluis, T.M. Luider, K.S.I. Pettersson, G. Jenster.
13. Binding of Heat Shock Proteins and Extracellular Vesicle -like Protein Complexes from Sub-Cellular Fractions using Venceremin Peptides. Steven G. Griffiths, Scott E. Lewis, Adrian Culf, Miroslava Cuperlovic-Culf, David Barnet, Erin Legace, Daniel Leger and Rodney J. Ouellette.

14. Quantification and Profiling of Exosomes in Human Plasma using Protein Microarray. Malene Jørgensen, Rikke Bæk, Evo Søndergaard, Shona Pedersen, Søren Risom Kristensen, and Kim Varming.
15. ExoScreen as a novel ultra-sensitive detection technology of serum exosomes. Yusuke Yoshioka, Nobuyoshi Kosaka, Takahiro Ochiya.
16. TM9SF4 level of expression on exosomes as new marker of malignancy in human cancer. Lozupone F, Kont V, Logozzi A Talpsepp K, Oja T, Kubo AL, Zarovni N, Chiesi A, and Fais S.
17. Comparative Analysis of the Surface Glycosylation Profiles of Urine Exosomes (uExo) and Tamm Horsfall Protein (THP) by Lectin Microarray and Flow Cytometry. Anja Krüger, Jared Q. Gerlach, Shirley A. Hanley, Susan Gallolgy, Marie C. Hogan, Christopher J Ward, Lokesh Joshi, Matthew D. Griffin.
18. Identification of Extracellular Vesicles in Urine. Muthuvel Jayachandran, PhD1, Virginia M. Miller, PhD1, Andrew D. Rule, MD2, and John C. Lieske.
19. Marcks peptide as a probe to target microvesicles. Morton, Leslie; Saludes, Jonel; Beninson, Lida; Chapman, Edwin; Fleshner, Monika; Yin, Hang Leslie.

RNA detection in health and disease

Discussion coordinators: : Esther Nolte-t Hoen and Irina Nazarenko

20. Healthy and cancerous serum RNA profiling by the novel RNA extraction reagent and highly sensitive DNA chip "3D-Gene". Hideo Akiyama, Makiko Ichikawa, Hiroko Sudo, Yoji Ueda, Satoko Takizawa.
21. Plasma exosomes can deliver exogenous siRNA to human mononuclear blood cells. Jessica Wahlgren, Tanya De L. Karlson, Mikael Brisslert, Forugh Vaziri Sani, Esbjörn Telemo, Per Sunnerhagen, and Hadi Valadi.
22. Exosomes derived from blood and cell culture media: isolation, characterization of the RNA content, and utilization as siRNA delivery vehicles. Alexander Vlassov, Tim Barta, Mu Li, Emily Zeringer, Marie Gonzalez, Jeoffrey Schageman, Susan Magdaleno, Robert Setterquist, Rick Conrad.
23. Identification and characterization of RNA-binding proteins (RBP) involved in the transport of Es RNA into the exosomes. L. Stalio, J Wahlgren, M Purrello, H Valadi.
24. Comparison of exosome isolation methods for miRNA profiling. K. Vaidla, A-L. Kubo, N. Zarovni, A. Chiesi, A. Salumets, M. Peters.
25. Quantitation of tissue-specific target gene modulation using circulating RNA. Alfica Sehgal, Qingmin Chen, Dinah W.Y. Sah, David Bumcrot.
26. Role of aging associated exosomes in vitro and in vivo. Ayumi Nakamura, Megumi Okada, Nobuyuki Kosaka, Takahiro Ochiya and Hidetoshi Tahara.

The Neural Network

Discussion coordinators: Eva-Maria Krämer-Albers and Stefano Pluchin

27. Comparative proteomic analysis of the synaptoneurosome reveals synaptic proteins linked to prion infection. S. A. Booth, S. Gushue, B. Abrenica, Y. Niu, J. Saba and R. Saba.

28. Identification and profiling of exosome-derived miRNAs in human cerebrospinal fluid. Akira Machida, Takuya Ohkubo, Hidehiro Mizusawa, Takanori Yokota.
29. Schwann cell-derived exosomes promote axonal growth and regeneration. M. Alejandra Lopez-Verrilli, Felipe A. Court.
30. The co-chaperone stress inducible protein 1 utilizes the endosomal system to be secreted in microvesicles by astrocytes. Marcos V.S. Dias, Glaucia N. M. Hajj, Camila Arantes, Marco A.M. Prado, Vilma R. Martins.
31. Vesicle-associated protein secretion from dystrophin deficient myotubes. Stephanie Dugue¹, William Duddy, Helen Johnston, Marie Catherine Le Bihan, Douglas Johnson, Kristy J Brown, Gillian Butler-Browne, Yetrib Hathou, Terence Partridge.
32. In vivo gene delivery using microvesicle-associated AAV. Johan Skog, Casey A. Maguire, Matheus Crommentuijn, Xandra O. Breakefield, Bakhos A. Tannous.
33. C2C12 myoblasts and myotubes secreted specific exosomes-like vesicles involved in myogenesis. Sophie Rome, Alexis Forterre, Audrey Jalabert, Danty Emmanuelle, Karim Chikh, Elisabeth Errazuriz, Mathieu Baudet, Yoanne Coute, Joffrey De Larichaudy, Cécile Vors, Michel Record, Geloan Alain, André Tchernof, Etienne Lefai and Hubert Vidal.
34. Intraluminal vesicles and Exosomes as nucleating platform for physiological amyloids. Guillaume van Niel, Leila Rochin, Cecile Fort, Lutgarde Serneels, Bart De Strooper, Daniel Levy, Graça Raposo.
35. Microglia-derived microvesicles represent a new pathway of glia-to-neuron communication and a biomarker of brain inflammation. Claudia Verderio, Elena Turola, Flavia Antonucci, Martina Gabrielli, Alessandra Bergami, Francesca Ruffini, Loredana Riganti, Luca Muzio, Roberto Furlan, Michela Matteoli.
36. Microvesicles & Exosomes in Parkinsons Disease Model systems. Allan Stensballe; Kenneth Hedegaard Sørensen.
37. Crosstalk between neurons and glia involving exosomes as vesicular carriers of RNA and proteins. Dominik Fröhlich, Carsten Frühbeis, Jesa Amphornrat, Sebastian Thilemann, Aiman Saab, Frank Kirchhoff, Wiebke Möbius, Klaus-Armin Nave, Anja Schneider, Mikael Simons, Matthias Klugmann, Jacqueline Trotter and Eva-Maria Krämer-Albers.
38. Development of Exosome-based Drug Delivery Strategies. Samira Lakhali-Littleton, Matthew J Wood.

Treatment of Malignancy

Discussion coordinators: Okay Saydam and Chris Gardiner

39. Acidic exosomes contain molecules functionally referred to melanoma progression. Parolini I, Coscia C, Zanetti C, Fantozzi L, Felicetti F, Pizzi E, Ponzi M, Carè A, Sargiacomo M.
40. Acidity and exosomes contribution in the Cisplatin uptake in resistant melanoma cell line. C. Federici, F. Petrucci, S. Caimi, N. Violante, A. Cesolini, S. D'Ilio, C. Majorani, M. Borghi, M. Logozzi, L. Lugini, S. Fais.

41. Oncogene trafficking through the endosomal-exosomal pathway. Frederik J. Verweij, Monique A.J. v. Eijndhoven, Erik S. Hopmans, Tineke Vendrig, Tom Wurdinger, Ellen Cahir-McFarland, Elliott Kieff, Dirk Geerts, Rik v/d Kant, Jacques Neefjes, Jaap M. Middeldorp and D. Michiel Pegtel.
42. Role for Circulating Hsp72 in Hyperthermia-Induced Tumor Regression. Punit Kaur, Edwina Asea, and Alexzander Asea.
43. Prostate Cancer Derived Exosomes. Pedram Kharaziha , Theocharis Panaretakis.
44. Investigation into the Role of Exosomes in Prostate Cancer. Elham Hosseini-Beheshti, Hans Adomat, Steven Pham, Emma S. (Tomlinson) Guns.
45. Exosomes and chemotherapy drug resistance intercellular transfer. Colosetti P, Lässer C, Jacquél A, Lötvall J, Auberger P.
46. Formulation and Evaluation of Ethosomal Vesicular Carrier System for Vaginal Delivery of Metronidazole. Chukwuemeka C. Mbah, Philip F. Builders, Anthony A. Attama, Michael U. Adikwu.
47. Extracellular vesicles constitute a novel mediator of coagulation-dependent hypoxic signalling in cancer. Mattias Belting, Johan Bengzon, Helena C. Christianson, Maria C. Johansson, Paulina Kucharzewska, Matthias Mörgelin, Katrin J. Svensson.
48. Carboxyamidotriazole-orotate inhibits the growth of Imatinib-resistant chronic myeloid leukemia cells and modulates exosomes-stimulated angiogenesis. Riccardo Alessandro, Chiara Corrado, Simona Taverna, Stefania Raimondo, Anna Maria Flugy, Rashida Karmali, and Giacomo De Leo.
49. Exosomal evasion of humoral immunotherapy in aggressive B-cell lymphoma modulated by ATP-binding cassette transporter A3. Thiha AUNG.
50. New insights in the potential mechanisms involved in the human breast cancer metastasis and chemotherapy resistance. M. Thirion, Y. Sugihara, N. Kosaka, T. Kondo and T. Ochiya.
51. Can Exosomes Influence Triple Negative Breast Cancer Metastasis? O'Brien K, Rani S, Wallace R, McDonnell S, Hughes L, Radomski M, O'Driscoll L.
52. Multiple myeloma cells secrete nanovesicles that stimulate IL-11 secretion in osteoblast-like recipient cells. Olaf Strømme, Katarzyna M. Psonka-Antonczyk, Bjørn Torger Stokke, Anders Sundan and Gaute Brede.
53. Characterization of Epstein-Barr virus (EBV) protein and nucleic acid content of exosomes released in vitro from EBV-infected cells. Andrea Canitano, Martina Borghi, Stefano Fais and Giulietta Venturi.
54. Exosomal micro- RNA signature as potential biomarker for the early detection of non-small-cell lung cancer. Andrējeva D, Zandberga E, Ābols A, Kopeika U, Purkalne G, Zajakins P and Linē A.

Friday 20th April

8.30-10.00 Symposium Session 7

Extracellular Vesicles in Inflammation and Immunity

Wallenbergssalen

Chairs: Susanne Gabrielsson and Esbjörn Telemo

8.30-8.45

Characterisation of exosomes isolated from dendritic cells differentiated from human iPS cells. Yi Lee, Jinghuan Li, Christopher Gardiner, Alison Leishman, Tim Davies, Samir El Andaloussi, Ian L. Sargent, Paul J. Fairchild & Matthew J. A. Wood.

8.45-9.00

Characterization of syncytiotrophoblast microparticles (STMP) and their effect on cytokine profiles during in vitro leucocyte culture for de novo anti-human platelet antigen-1a (HPA-1a) antibody production. Jane Eastlake, Kate Heesom and Belinda Kumpel.

9.00-9.15

Exosomal CD23: an Explanation for the Immunogenicity of IgE Complexes Rebecca K. Martin, Keith B. Brooks, and Daniel H. Conrad.

9.15-9.30

Regulation of Endothelial Cell Functions by Macrophage-derived microRNAs. Elisa Araldi, Aránzazu Chamorro-Jorganes, Carlos Fernández-Hernando, Yajaira Suárez.

Extracellular Vesicles in Malignancy *Lyktan*

Chairs: Joar Svanvik and An Hendrix

8.30-8.45

Microvesicle-mediated reversal of the malignant phenotype in breast and prostate cancer. Peter Quesenberry, Devasis Chatterjee, Sam Cross-Knorr, Michael DeTatto, David Mills, John Regan.

8.45-9.00

Understanding targeting/internalization mechanisms of exosomes derived from multiple myeloma cells. K. Agarwal, N. D. Guzman, A. Rocci, F. Pichiorri, and M. E. Paulaitis.

9.00-9.15

MicroRNA 21 in adipocyte-derived microvesicles confers taxol-resistance of ovarian cancer cells through down-regulation of Apoptotic Protease Activating Factor 1. Ngai Na Co, Rosemarie Schmandt, Karen H. Lu, and Samuel C. Mok.

9.15-9.30

Role of Rab27 in exosome secretion: a means to understand their physiological functions? Angélique Bobrie, Sophie Krumeich, Matias Ostrowski, Marina Colombo, Graça Raposo, Miguel Seabra, Fabien Reyal, Luis F. Moita, Clotilde Théry.

Biomarkers and RNA

Thor Ahrnoff

Chairs: Yong Song Gho and Monika Baj-Krzyworzeka

8.30-8.45

Molecular tools for sensitive detection of microvesicles as biomarkers. Masood Kamali-Moghaddam, J. Yan, D. Wu, J. Gu, R. Tavoosidana, and U. Landegren.

8.45-9.00

Identification of potential sequence motifs targeting RNA for secretion via exosomes using computational approaches. Igor V Kurochkin, Vladimir A Kuznetsov, Arsen O Batagov.

9.00-9.15

Identification of human serum nanovesicles-associated microRNA signature. Paola de Candia, Anna Torri, Francesco Marabita, Massimiliano Pagani and Sergio Abrignani.

9.15-9.30

Detection of circulating microRNAs in Colorectal Cancer. SG Jensen, DK Jeppesen, TF Ørntoft1, MS Ostenfeld, CL Andersen.

Friday 20th April

8.30-10.00 Symposium Session 7
Extracellular Vesicles in Inflammation and Immunity
Wallenbergssalen
Chairs: Susanne Gabrielsson and Esbjörn Telemo

9.30-9.45

Neutrophilic granulocytes produce different microvesicles upon stimulation with different agents. A. Lorincz, Cs. Timar, D. W. Powell, K. R. McLeish, E. Ligeti.

9.45-10.00

A role for exosomes from a human parasite in host cell pathogenesis and parasite communication. Olivia Twu, Natalia de Miguel, Stephen Douglass, Hong Zhou, Matteo Pellegrini, James Wohlschlegel and Patricia Johnson.

Extracellular Vesicles in Malignancy
Lyktan
Chairs: Joar Svanvik and An Hendrix

9.30-9.45

Protein-protein interaction network of extracellular vesicles from human lung cancer cell lines. Jae Young Hur, Do-young Choi, and Kwang Pyo Kim.

9.45-10.00

Proteomic analysis of microvesicles released by the prostate cancer cell line PC-3. Alicia Llorente, Kirsten Sandvig.

Biomarkers and RNA
Thor Ahrnoff
Chairs: Yong Song Gho and Monika Baj-Krzyworzeka

9.30-9.45

Glioma exosomal microRNAs. Hélène Ipas, Audrey Guttin, François Berger, Jean-Paul Issartel.

9.45-10.00

Plasmatic microvesicles: their size, morphology, phenotype revealed by Cryo-Electron Microscopy and specific gold labeling. Alain R. Brisson, Sisareuth Tan, Nicolas Arraud, Céline Gounou.

10.00-12.00

Poster Session, Poster walks, Exhibition

Poster session 3, posters attended by authors Poster titles are listed further in this program
Exhibition 10.00 – 19.00

Friday 20th April

13.00-15.00 Symposium Session 8

Immunology and Inflammation

Wallenbergssalen

Chairs: Melissa Piper and
Jürg A. Schifferli

13.00-13.15

Activation of potent cytotoxic T cells after exosome immunization is dependent on CD4+ T cells and B cells. Tanja I. Näslund, Ulf Gehrman, Khaleda R. Qazi, Mikael C. I. Karlsson and Susanne Gabrielsson.

13.15-13.30

Platelet derived ectosomes promote the induction of FOXP3+ regulatory cells from activated CD4+ T cells Salima Sadallah, Francesca Amicarella, Ceylan Eken, Giandomenica Iezzi and Jurg A. Schifferli.

13.30-13.45

CD4+CD25+ FoxP3+ T cells produce exosomes with antigen-specific regulatory function: a novel mechanism for suppression. Lesley Ann Smyth, Kulachelvy Ratnasothy, Julia Y.S Tsang, Alice Warley, Robert Lechler and Giovanna Lombardi.

13.45-14.00

T cells release different nano-sized vesicle subsets depending on their activation status. Els J. van der Vlist, Ger J.A. Arkesteijn*, Chris H.A. van der Lest, Willem Stoorvogel Esther N.M. Nolte - 't Hoen and Marca H.M. Wauben.

Immunology and cancer

Lyktan

Chair: Clotilde Thery and
Francesco Cappello

13.00-13.15

Dendritic cell-derived membrane vesicle vaccine: Induction of cytotoxic T Lymphocytes cross-priming for tumor rejection. Xin Tian, Motao Zhu, Yanhua Tian, Xiao Yang, Xiao Song, Yuliang Zhao, and Guangjun Nie.

13.15-13.30

Immune modulatory properties of glioblastoma multiforme exosomes. Jeroen de Vrij; Kitty M.C. Kwappenberg; Sybren L.N. Maas; Anne Kleijn; Martine L. Lamfers; Clemens M.F. Dirven; Marco W. Schilham; Marike L.D. Broekman.

13.30-13.45

Tumor-exosomes and leukocyte activation: an ambivalent crosstalk. Daniela Zech, Sanyukta Rana, Markus W. Büchler, Margot Zöller.

13.45-14.00

Transformative Model of Prostate Cancer Shows Tumor Microvesicle Suppression of Natural Killer Cell Activity. John L. Reagan, DongQin Yang, Martina Srajer Gajdosik, Lulu Cao, Dionysios Pantazatos, Kate E. Brilliant, Loren Fast, Peter J. Quesenberry, Douglas C. Hixson, David R. Mills.

Isolation Methods

Thor Ahnoff

Chair: Jameel Inal and Lorraine O'Driscoll

13.00-13.15

CD36 positive microparticles in plasma are derived from several cell-types. Morten Hjuler Nielsen, Henning Beck-Nielsen, Aase Handberg.

13.15-13.30

Different phenotype of exosomes from human breast milk of allergic and healthy mothers, and the effect of an anthroposophic lifestyle. Susanne Gabrielsson, Patricia Torregrosa Paredes, Cindy Gutzeit, Fredrik Stenius, Johan Alm, Gunnar Lilja, Annika Scheynius.

13.30- 13.45

Comparison of protocols for the preservation and isolation of extracellular vesicles in human breast milk. Marijke I. Zonneveld; Esther N.M. Nolte - 't Hoen; Frank.A. Redegeld; Johan Garssen; Marca .H.M. Wauben.

13.45-14.00

Importance of RNA isolation methods for analysis of exosomal RNA; Evaluation of different methods. M. Eldh, Jan Lötval, Carina Malmhäll and Karin Ekström.

Friday 20th April

13.00-15.00 Symposium Session 8

Immunology and Inflammation

Wallenbergssalen

**Chairs: Melissa Piper and
Jürg A. Schifferli**

14.00-14.15

Enzymatically modified low density lipoproteins (eLDL) and free fatty acid liposomes strongly induce extracellular vesicle (EV) release and cholesterylester storage in human polymorphonucleated neutrophils (PMN) with major impact on their viability. Markus Peer, Stefan Wallner, Evelyn Orsó, Alexander Sigrüener and Gerd Schmitz.

14.15-14.30

Activation of autoreactive T and B cells by insulinoma-derived exosomes in autoimmune-prone, non-obese diabetic mice. Yang Dai, Torrey.

14.30-14.45

Neutrophil-derived Exosomes promote resolution of inflammation by altering inflammasome activation, autophagy induction and apoptosis. Arun Cumpelik, Juerg A. Schifferli.

14.45-15.00

Microparticles from mice with monocrotaline-induced pulmonary hypertension induce right ventricular hypertrophy and pulmonary vascular remodeling in healthy mice. Jason M. Aliotta, Rabih El-Bizri, Mandy Pereira, Ashley Amaral, Alex Hasslinger, Zenas Igbinoba, Peter J. Quesenberry, James R. Klingler.

Immunology and cancer

Lyktan

**Chair: Clotilde Thery and
Francesco Cappello**

14.00-14.15

Suppression of tumor antigen-specific immune responses by both tumor-derived and endogenous, plasma-derived MHCII+ exosomes in tumor-bearing mice. Paul Robbins, Chenjie Yang, Seon hee Kim, Nicole Bianco and Melanie Ruffner.

14.15-14.30

Prostate cancer-derived exosomes as a mechanism of immune evasion. Marie Lundholm and Pernilla Wikström.

14.30-14.45

Nasopharyngeal Carcinoma-Derived Exosomes Recruit, Expand and up-regulate Biological Activities of Human Regulatory T Cells (Treg) Dhafer Mrizak, Nathalie Martin, Niels Wambre, Laurissa Ouaguia, Yvan de Launoit, Pierre Busson, Olivier Morales and Nadira Delhem.

14.45-15.00

Exosomes loaded with α -galactosylceramide amplify antitumor immunity via iNKT cells. Ulf Gehrman, Stefanie Hiltbrunner, Mikael C.I. Karlsson, Tanja I. Näslund and Susanne Gabrielsson.

Isolation Methods

Thor Ahnoff

Chair: Jameel Inal and Lorraine O'Driscoll

14.00-14.15

Scalable production of therapeutic exosomes through oncogenic immortalization of human MSCs. Tian Sheng Chena, Fatih Arslanb, Yijun Yina, Soon Sim Tana, Ruenn Chai Laia, c, Andre Chood, Jayanthi Padmanabhand, Chuen Neng Lee, Dominique P.V. de Kleijnb, f, Sai Kiang Lima.

14.15-14.30

Prostasomes are heterogeneous regarding size and appearance but affiliated to one DNA-containing exosome family. Karl Göran Ronquist*, Anders Larsson, Anneli Stavreus Evers, Gunnar Ronquist.

14.30-14.45

A Label-free Electrical Detection of Exosomal miRNAs using Microelectrode Array. Tatsuro Goda, Akira Matsumoto, Yuji Miyahara.

14.45-15.00

Enhanced Immunostimulatory Activity of Exosome-DNA Nanovesicles. Gozde Gucluler, Tamer Kahraman, Ihsan Gursel. (Late Breaking)

15.00-15.30 Coffee & Poster session

Poster session 3

See poster titles further in this program

Exhibition

Friday 20th April

15.30-17.00 Symposium Session 9

Extracellular vesicles and the Brain

Wallenbergssalen

Chair: Kjell Fuxe and Lawrence Rajendran

15.30-15.45

Characterization of exosomes secreted from neuronal sources. Jinghuan Li¹, Yi Lee, Christopher Gardiner, Samir El Andaloussi, Samira Lakhal-Littleton, Ian L. Sargent, Matthew JA Wood.

15.45-16.00

The unconventional secretion of Stress Inducible Protein 1 by astrocytes reveals a heterogeneous population of microvesicles. Glaucia N. M. Hajj¹, Camila Arantes, Isabel Porto-Carreiro, Flávia R. Lima, Marco M. A. Prado, Rafael Linden, Vilma R. Martins.

16.00-16.15

Loss of exosomal progranulin in frontotemporal dementia. Luisa Benussi, Michela Glionna, Anna Paterlini, Valentina Albertini, Giuliano Binetti, Roberta Ghidoni.

NIH reaches out to the ISEV Community *Lyktan*

Chair: Elizabeth Wilder, Ph.D.,
Office of Strategic Coordination,
National Institute of Health, USA

Open discussion:

Results of outreach to the ISEV community.

**PLEASE RESPOND TO THIS SURVEY TO
HELP DEVELOP THE DISCUSSION:**

<https://www.surveymonkey.com/s/unmetneeds>

Discussion of unmet needs.

What can be done to strengthen the field of extracellular vesicles?

Friday 20th April

15.30-17.00 Symposium Session 9

Extracellular vesicles and the Brain

Wallenbergssalen

Chair: Kjell Fuxe and Lawrence Rajendran

16.15-16.30

Human CSF amyloid-beta peptides exosomal compartmentalization in Alzheimer's disease
Roberta Ghidoni, Valentina Albertini, Anna Paterlini, Michela Glionna, Giuliano Binetti, Luisa Benussi.

16.30-16.45

Treatment of brain inflammatory diseases by delivering exosome encapsulated chemotherapeutic agents from the nasal region to the brain. Lifeng Zhang, Xiaoying Zhuang, Xiaoyu Xiang, William Grizzle, Dongmei Sun, Shuangqin Zhang, Robert C Axtel6, Songwen Ju, Jiangyao Mu, Lawrence Steinman, Donald Miller, and Huang-Ge Zhang.

16.45-17.00

Myeloid microvesicles are a marker and a therapeutic target for neuroinflammation.
Roberto Furlan, Luca Muzio, Elena Turola, Alessandra Bergami, Luisa Novellino, Francesca Ruffini, Loredana Riganti, Irene Corradini, Maura Francolini, Livia Garzetti, Chiara Maiorino, Federica Servida, Alessandro Vercelli, Mara Rocca, Dacia Dalla Libera, Vittorio Martinelli, Giancarlo Comi, Gianvito Martino, Michela Matteoli, Claudia Verderio.

NIH reaches out to the ISEV Community

Lyktan

Chair: Elizabeth Wilder, Ph.D.,
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Discussion of unmet needs.

What can be done to strengthen the field of extracellular vesicles?

17.10-19.00 Exosomes Diagnostics Sponsored Symposium
Wallenbergssalen

ALL Friday 20th April 2012 POSTER TITLES

Immunology and Inflammation

Chairs: Andreas Baur and Hernando del Portillo

1. T Lymphocytes are Targets for Platelet- and Trophoblast-Derived Microvesicles During Pregnancy. E. Pap , É. Pállinger , A. Falus , E.I. Buzás.
2. Characterization of human thymic exosomes. Gabriel Skogberg, Judith Gudmundsdottir, Esbjörn Telemo and Olov Ekwall.
3. BeWo derived microvesicles modulate T cell differentiation by the down-regulation of IL-6Ralpha expression on CD4+ T lymphocytes. É. Pállinger, A. Kiss, E. Pap, S. Tóth, A. Falus.
4. Could microRNAs derived from lymphocytes trigger beta-cell dysfunction in Type 1 Diabetes? Guay C, Roggli E, Briet C, Menoud V, Gattesco S, Boitard C and Regazzi R.
5. CD8+ T Cell exosomes from tolerized mice deliver inhibitory miRNA-150 to antigen specifically suppress effector T Cells. Krzysztof Bryniarski and Philip W. Askenase.
6. Natural Killer cells-derived exosomes: a cell-free support in immune surveillance. Luana Lugini, Serena Cecchetti, Veronica Huber, Francesca Luciani, Gianfranco Macchia, Francesca Spadaro, Luisa Paris, Laura Abalsamo, Marisa Colone, Agnese Molinari, Franca Podo, Licia Rivoltini, Carlo Ramoni and Stefano Fais.
7. The potential of LCL-derived exosomes to influence B cell biology. Cindy Gutzeit, Noémi Nagy, Maurizio Gentile, Andrea Cerutti, Eva Klein, Susanne Gabrielsson, Annika Scheynius.
8. Targeting of antigen loaded exosomes to B cells. Stefanie Hiltbrunner, Tanja Näslund, Susanne Gabrielsson.
9. Exosomes as Drug Carriers in Macrophage-Mediated Drug Delivery. Elena V. Batrakova, Matthew J. Haney, Yuling Zhao, Natalia L. Klyachko, R. Lee Mosley, Alexander V. Kabanov, & Howard E. Gendelman.
10. Neutrophilic granulocyte derived microvesicles in vitro and in vivo. Cs. Timar, A. Lorincz, Zs. Ivanyi, E. Ligeti.
11. Effects of metal-rich particulate matter exposure on microRNAs carried in plasma microvesicles. Bollati, Angelici, Rizzo, Nordio, Pergoli, Bonzini, Tarantini, Cantone, Pesatori, Apostoli, Tripodi, Baccarelli, Bertazzi.
12. Exosomes as Extrapulmonary Signaling Conveyors for Nanoparticle-induced Systemic Th1-Type Immune Activation. Motao Zhu, Xin Tian, Yanhua Tian, Yuliang Zhao and Guangjun Nie.
13. Red blood cell-derived ectosomes amplify LPS-induced pulmonary leukocyte sequestration and systemic inflammation by activating the classical pathway of complement in mice. Daniel Zecher, Arun Cumpelik, Jürg Schifferli.

14. Interplay between the coagulation and the complement systems: Microparticle-associated Tissue Factor activity decreases by inhibition of the complement protein 5. Øvstebø R, Hellum M, Aass HCD, Pharo A, Trøseid A M 1, Amundsen E , Kierulf P, Brandtzaeg P, Mollnes TE and Henriksson C E.
15. Role of exosomes in Bronchial Asthma. Kulshreshtha A., Ahmad T, Agrawal A and Ghosh B.
16. Blood platelets interact with syncytiotrophoblast vesicles. C. Gardiner, N.A. Redgrave, R.A. Dragovic, D.S. Tannetta, C.W.G. Redman, I.L. Sargent.
17. Modulation of experimental models of autoimmunity by extracellular vesicles. Borbála Aradi, Krisztina Pálóczi, Petra Misják, Bence György, Tamás G Szabó, Ágnes Kittel, Szilvia Bősze, Kata Horváthi, Krisztina Holló, Katalin Szabó-Taylor, Mária Pásztói, András Falus and Edit I Buzas.
18. A novel flow cytometric approach reveals abundant CD8+ T-cell derived microvesicles in rheumatoid arthritis synovial fluid samples. B Gyorgy, M Wright, B Carr, G Nagy, L Turiak, K Vekey, A Kittel, A Falus, El Buzas.
19. Characterization of extracellular vesicles released by synovial fibroblasts. Mária Pásztói, Barbara Sódar, Krisztina Pálóczi, Kálmán Tóth, Ágnes Kittel, Katalin Szabó-Taylor, Tamás G Szabó, Lilla Turiák, Károly Vékey, András Falus, Edit I Buzás.
20. Autologous conditioned cell free Serum (ACS) contains Exosomes showing anti-inflammatory activity. Weisshaar M.-P, Amin Sh, Irsen S, Feydt J, Tröger C, G Hoffmann, J Reineke, P Wehling.
21. Capture of cell-derived microvesicles (exosomes and apoptotic bodies) by Human Plasmacytoid Dendritic Cells. Patricia Bastos-Amador, Begoña Pérez-Cabezas, Nuria Izquierdo-Useros, Maria C. Puertas, Javier Martinez-Picado, Ricardo Pujol-Borrell, Mar Naranjo-Gómez, and Francesc E. Borràs.
22. PMN-Ect ingested by macrophages follow the degradation pathway. Ceylan Eken, Salima Sadallah, and Jürg A. Schifferli.
23. Exosomal transfer of RNA based signals between the hematopoietic system and the brain in response to inflammation. Kirsten Oesterwind, Sascha Keller, Maria Dams, Jadranka Macas, Britta Landfried, Karl H. Plate, Candan Depboylu, Günter Höglinger, Peter Altevogt, Stefan Momma.

Cancer and Cancer progression and Late Breaking Abstracts.

Chairs: Huang-Ge Zhang and Guido Jenster

24. Exosomal tumor microRNA modulates premetastatic organ cells. Margot Zöller, Sanyukta Rana.
25. Tumor cell-derived microvesicles enhance human breast cancer invasion through p38-MAPK. Menck, Klemm, Pukrop, Schulz, Binder.
26. Can Exosomes Influence Triple Negative Breast Cancer Metastasis? O'Brien K, Rani S, Wallace R, McDonnell S, Hughes L, Radomski M, O'Driscoll L.
27. The role of exosome in brain metastasis of breast cancer. Makiko Ono, Fumitaka Takeshita, Nobuyoshi Kosaka, Takahiro Ochiya.
28. Exosomes in Bladder Cancer. DK Jeppesen , SG Jensen , JP Morth , Larsen MR , L Dyrskjøt , T Ørntoft , MS Ostenfeld.
29. Exosomes as biomarkers for prostate cancer progression and drug resistance. Carolina Soekmadji, Colleen C Nelson and Pamela J Russell.

30. The biological and functional role of prostate cancer exosomes. D. Duijvesz, N. Naimi, M. E. van Royen and G. Jenster.
31. Exosomes- potential regulators and biomarkers of prostata cancer progression. Claire Corcoran, Sweta Rani, Keith O'Brien, Amanda O'Neill, Maria Prencipe, John Crown, William Watson, Lorraine O'Driscoll.
32. Contribution of Microparticles to the Progression of Allergic Diseases. Tamer Kahraman, Mustafa Erkoçoğlu, Dilek Azkur, Can N. Kocabas, Ihsan Gurse
33. Identification and characterization of human adipocyte exosomes. M.E.G.Kranendonk, F.L.J. Visseren, B.W. van Balkom, H.S. Schipper, H. Monajemi, E.Kalkhoven.
34. Coagulants tissue factor is not associated with lipid rafts in microparticles and purified plasma membranes. A.N. Böing, C.M. Hau, J. van Marle, A. Sturk and R. Nieuwland (Late Breaking).
35. Reticulocyte-derived exosomes from malaria infections are involved in antigen presentation and modulation of immune responses. Lorena Martin-Jaular, Cristian González, Luis C. Ferreira, Igor C. Almeida, Fidel Zavala, Hernando A. del Portillo (Late breaking).
36. Micro-environmental conditioning of tumours by apoptotic cell-derived microvesicles. Jorine Willems, Lauren Marr, Catriona Ford, Marta Pasikowzka, John Pound, Margaret Paterson, Sarah Farnworth, Sofia Petrova and Christopher Gregory (Late Breaking).
37. Effects of exosomes released from K562 CML cell line on gd T cells function. Saieva L, Taverna S, Dieli F, Meraviglia S, Eberl M, De Leo G and Alessandro R.
38. FOXP2: A window into Neuronal Development. Ganesh Shelke, Indira Ghosh (Late Breaking).
39. An excipient in the conventional clinical formulation of paclitaxel induces phosphatidylserine exposure and microvesicle formation in erythrocytes. Pieter Vader, Nikoleta Sachini, Marcel H.A.M. Fens, Brigitte Oirschot, Grietje Andringa, Susan M. van Dommelen, Sander A.A. Kooijmans, Richard van Wijk, Wouter W. van Solinge and Raymond M. Schiffelers (Late Breaking).

Saturday 21st April

8.30-10.00 Symposium Session 10

Extracellular vesicles in Cancer

Wallenbergssalen

Chairs: Takahiro Ochiya and Hadi Valadi

8.30-8.45 Characterization and proteomic analysis of neuroblastoma-derived exosomes. Marimpietri, Petretto, Gagliani, Tacchetti, Melioli and Pistoia.

8.45-9.00

Rab27B, an ex(o)citing driver of breast cancer growth, invasion and metastasis. An Hendrix, Wendy Westbroek, Marc Bracke and Olivier De Wever.

9.00-9.15

Influence of oncogenic HPV-types on the composition and function of exosomes. Anja Honegger, Karin Hoppe-Seyler, Felix Hoppe-Seyler.

9.15-9.30

microRNA Signatures of Exosomes derived from Melanoma Cells. Florian S. Dreyer, Jochen Dindorf, Nina Koliha, Stefan Wild, and Andreas S. Baur.

Late Breaking Abstracts oral session

Lyktan

Chairs: Madeleine Rådinger and Paul Robbins

8.30-8.45

Exosomes and the prion-like spread of Parkinson's disease pathology. CJR Dunning, M Grey, E Angot, CM Lema Tomé, G Petit, N Rey, JF Reyes, JS Steiner, T Tyson, O Hansson, S Linse, E Sparr, L Pieri, R Melki, P Brundin.

8.45-9.00

Mesenchymal stem cell and immune cell functions altered by melanoma cell derived exosomes in vitro. Annamaria Marton, Csaba Vizler, Erzsebet Kusz, Viktoria Temesfoi, Robert Katona, Vilmos Tubak, Gergely Maroti, Katalin Nagy, Janos Minarovits, O.M. Zack Howard, Erno Duda, Krisztina Buzas.

9.00-9.15

Macrophage Microvesicles Induce Macrophage Differentiation and miR-223 Transfer. Melissa G. Piper, Noura Ismail, Yijie Wang, Duaa Dakhlallah, Leni Moldovan, Clay B. Marsh

9.15-9.30

Secreted EBV coding miRNAs in the tumor niche of EBV positive lymphoma. Ai Kotani, Jen Lu, Takae Toyoshima, Kiyoshi Ando, Naoya Nakamura.

Meeting rooms at Wallenberg Conference Centre

Private meetings, planned breakout sessions of research groups and research networks.
Journal of Extracellular Vesicles
Editorial board meeting

Saturday 21st April

8.30-10.00 Symposium Session 10

Extracellular vesicles in Cancer

Wallenbergssalen

Chairs: Takahiro Ochiya and Hadi Valadi

9.30-9.45

The tumor suppressor PTEN is transported in exosomes for extracellular phosphatase activity. Ulrich Putz, Anh Doan, Seong-Seng Tan Florey.

9.45-10.00

Melanoma-derived exosomes educate bone marrow progenitor cells toward a pro-metastatic phenotype. Héctor Peinado, Maša Alečković, Simon Lavotshkin, Bruno Costa-Silva, Gema Moreno-Bueno, Marta Hergueta-Redondo, Caitlin Williams, Irina Matei, Guillermo Garcia-Santos, Ayuko Nitadori-Hoshino, Caitlin Hoffman, Mary S. Brady, Jedd D. Wolchok, Paul B. Chapman, Yibin Kang, Jacqueline Bromberg, David Lyden.

Late Breaking Abstracts oral session

Lyktan

Chairs: Madeleine Rådinger and Paul Robbins

9.30-9.45

Microvesicles derived from endothelial progenitor cells protect kidneys and pancreatic islets from ischemia-reperfusion injury: relevance to avoid delayed graft function in kidney and Islet transplantation. Vincenzo Cantaluppi, Federico Figliolini, Davide Medica, Silvia Beltramo, Stefania Bruno, Stefano Gatti, Luigi Biancone, Giuseppe Paolo Segoloni, Ciro Tetta, Giovanni Camussi

9.45-10.00

Microvesicles derived from Human Liver Stem Cells inhibit hepatoma tumor growth by delivering anti-tumor microRNAs. Valentina Fonsato, Federica Collino, Maria Beatriz Herrera, Claudia Cavallari, Maria Chiara Deregibus, Barbara Cisterna, Stefania Bruno, Ciro Tetta, Giovanni Camussi.

10.00-10.30 Coffee

Saturday 21st April

10.00-11.30 Closing Ceremony & Abstract Prizes

Wallenbergssalen

Chairs: Andy Hill and TBA

10.00-10.20 Year in review and ISEV in summary: Clotilde Thery

10.20-10.30 The process of finding consensus on Extracellular Vesicles nomenclature: Graça Raposo

10.30-10.40 Future Biorepositories and Databases for Extracellular Vesicles Research: Yong Song Gho

10.40-10.50 Dissecting the role and usefulness of RNA in Extracellular Vesicles – ISEV 2012 Task Force: Marca Wauben

10.50-11.00 Unmet needs in Extracellular Vesicles Research – how to move forward: TBA

11.00-11.10 Journal of Extracellular Vesicles – your platform for communicating science: Lawrence Rajendran

11.10-11.20 ISEV logo winner & ISEV2012 Poster Prizes: Margareta Sjöstrand

11.20-11.30 Closing of ISEV 2012, announcement of ISEV 2013: Jan Lötvall

11.30 Departure

We like to thank our **3 main sponsors** for their participation to the first ISEV meeting in Gothenburg:

