

**International Workshop on Exosomes (IWE) 2011**  
**January 19-22, Paris, France**  
**Final Program**

**Wednesday January 19th (morning)**

**8:30am - 10am:**      **Desk opening, Registration**  
Coffee

**10am - 10:15 am:**                      **Welcome**  
Clotilde Théry and Graça Raposo

**10:15am - 10:45am:**                      **HISTORICS OF EXOSOMES**  
Graça Raposo (Paris, France)

**10:45am - 12:45pm:**                      **ROUND TABLE**  
**EXOSOME DEFINITION, CHARACTERIZATION, TECHNICS OF PURIFICATION**

**Chairs: Clotilde Théry (Paris, France), Willem Stoorvogel (Utrecht, The Netherlands), Michel Vidal (Montpellier, France), Jurg Schifferli (Basel, Switzerland), Vincenza Dolo (L'Aquila, Italy)**

10:45-10:50am : Introduction

10:50-10:55am: Vincenza Dolo (L'Aquila, Italy)

*Microvesicles and exosomes : different biogenesis for different role*

10:55-11am: Jürg Schifferli (Basel, Switzerland)

*Ectosomes*

11am-11:15am : Richard Simpson (Victoria, Australia)

*Characterization of Human Colon Carcinoma Cell Line LIM1863-  
Extracellular Vesicles*

11:15am-11:30am : Leilata Russo (Exosome Diagnostics, New York, USA)

*Rapid isolation and analysis of urinary exosomes for nucleic acid based  
biomarker analysis*

11:30am-11:45am : Travis Antes (System Biosciences, Mountain View, USA)

*One-step exosome isolation by precipitation*

11:45am-12pm : Marca Wauben (Utrecht, The Netherlands)

*Quantitative and qualitative flow cytometric analysis of exosomes at the  
particle level*

12pm-12:15pm : David Spetzler (Caris Life Sciences, Phoenix, USA)

*Isolating Subpopulations of Exosomes and Subsequent miR Profiles*

12:15pm-12:30pm : Shivani Sharma (Los angeles, USA)

*Atomic force microscopy based structure and surface receptor  
characterization of salivary exosomes*

12:30pm - 12:45pm : general discussion.

*Agreement on required characteristics to define an exosome?*

## Wednesday January 19th (afternoon)

12:45 - 2:30pm: Lunch

**2:30pm - 4:30pm:**

### **SESSION 1 EXOSOME BIOGENESIS AND SECRETION**

**Chair : Guillaume Van Niel (Paris, France)**

- 2:30pm-2:45pm : Willem Stoorvogel (Utrecht, The Netherlands)  
*Sorting of MHC class II in dendritic cell exosomes*
- 2:45pm-3pm : Stephen J Gould (Baltimore, USA)  
*Diverse plasma membrane anchors target highly oligomeric cytoplasmic proteins to exosomes/microvesicles*
- 3pm-3:15pm : Robert Mamoun (Montpellier, France)  
*Identification of peptidic motifs of the bovine leukemia virus transmembrane protein able to sort membrane proteins with exosomes.*
- 3:15pm-3:30pm : Aparna Lakkaraju (Madison, USA)  
*Polarized exocytosis of late endosomes and lysosomes in epithelial cells*
- 3:30pm-3:45pm : Mikael Simons (Gottenburg, Germany)  
*The role of Rab35 in exosome biogenesis*
- 3:45pm- 4pm : Clotilde Théry (Paris, France)  
*Insights into the mechanisms of exosome secretion*

4pm-4:45pm: Coffee break and posters (especially: Round Table + Session 1)

**4:45pm - 6pm:**

### **SESSION 1 (continued) EXOSOME BIOGENESIS AND SECRETION**

- 4:45pm-5pm : Pascale Zimmermann (Leuven, Belgium)  
*Syndecan-Syntenin-Alix regulate the biogenesis of exosomes*
- 5pm-5:15pm : Franz Wendler (Nice, France)  
*Exosomes as a putative carrier of the cholesterol-modified hedgehog protein in drosophila*
- 5:15pm - 6pm : Conclusion and general discussion on exosome biogenesis and secretion

6pm - 8pm: cocktail

## Thursday January 20th (morning)

### 9:15am - 10:30pm: SESSION 2 NON-EXOSOMAL SECRETED VESICLES ("MICROVESICLES")

**Chair : Jurg Schifferli (Basel, Switzerland)**

- 9:15am-9:30am : Ceylan Eken (Basel, Switzerland)  
*Polymorphonuclear neutrophil-derived ectosomes induce the release of stored TGF- $\beta$ 1 in macrophages in a PS-independent manner*
- 9:30am – 9:45pm : Erzsebet Ligeti (Budapest, Hungary)  
*Antibacterial effect of neutrophil-derived microvesicles*
- 9:45pm – 10pm : Marie-Catherine Le Bihan (Paris, France)  
*Are secreted microvesicles a novel mechanism of communication for skeletal muscle ?*
- 10pm - 10:15 : Edit Buzas (Budapest, Hungary)  
*Microvesicles in autoimmune diseases*
- 10:15pm – 10:30pm : Irène Tatischeff (Evry, France)  
*Dictostelium discoïdum : an eukaryotic model for the study of cell-derived extracellular vesicles*

10:30am - 11:15am: coffee break and posters (especially: Sessions 2 + 3 + 4)

### 11:15am – 12:45pm: SESSION 3 : NON TUMOR-RELATED IMMUNE FUNCTIONS OF EXOSOMES

**Chair : Esther Nolte-‘t-Hoen (Utrecht, The Netherlands)**

- 11:15am - 11:30am : Paul Robbins (Pittsburg, USA)  
*Treatment of autoimmune diseases using immunosuppressive exosomes*
- 11:30am - 11:45am : Michel Record (Toulouse, France)  
*Exosomes as carriers of immunomodulator lipid mediators from the MVB of a donor cell to the nuclear receptors of a target cell: potential direct signaling mechanism to the nucleus*
- 11:45am – 12pm : Malin Hedlund (Umea, Sweden)  
*Placental exosomes as a source of « soluble » NKG2D ligands and their role in pregnancy*
- 12pm – 12:15pm : Noela Prado (Madrid, Spain)  
*Intranasal administration of exosomes loaded with a potential marker of tolerance inhibits IgE response in mice*
- 12:15pm – 12:30pm : Patricia Torregrosa-Paredes (Stockholm, Sweden)  
*Exosomes from bronchoalveolar lavage fluid contribute to inflammation and leukotriene production in patients with asthma*
- 12:30pm – 12:45pm : Philip Askenase (New Haven, USA)  
*Suppressive T cell derived exosomes deliver an miRNA in vivo to inhibit targeted immune effector T cells systemically*

## Thursday January 20th (afternoon)

12:45pm - 2:30pm: lunch

**2:30pm - 4pm:**

### SESSION 4

#### NON-IMMUNE FUNCTIONS OF EXOSOMES

**Chair : Philip Stahl (St Louis, USA)**

2:30pm - 2:45pm : Margot Zöller (Heidelberg, Germany)

*The importance of the tetraspanin web in target selection*

2:45pm - 3pm : Michel Vidal (Montpellier, France)

*Galectin 5 is secreted associated with the surface of rat reticulocyte exosomes*

3pm – 3:15pm : Sai Kiang Lim (Singapore)

*Exosome : a mediator of the paracrine effects of mesenchymal stem cells*

3:15pm-3:30pm : Peter Quesenberry (Providence, USA)

*Stem cell plasticity and microvesicles*

3:30pm-3:45pm : Jason Webber (Cardiff, UK)

*Tumor exosomes trigger TGF $\beta$ 1-dependent fibroblast differentiation resulting in a pro-angiogenic phenotype*

3:45pm - 4pm: Janusz Rak (Montreal, Canada)

*Oncosomes as effectors and biomarkers of tumour angiogenesis and progression*

4pm - 5pm: coffee break and posters (especially sessions 2 + 3 + 4)

**5pm– 6pm:**

### SESSION 4 (continued)

#### NON IMMUNE FUNCTIONS OF EXOSOMES

5pm-5:15pm : Remy Sadoul (Grenoble, France)

*Release of exosomes from differentiated neurons and its regulation by synaptic glutamatergic activity*

5:15pm-5:30pm : Eva-Maria Krämer-Albers (Mainz, Germany)

*Transfer of oligodendroglial exosomes to neurones : a mode of axon-glia communication ?*

5:30pm – 5:45pm : Stefan Momma (Frankfurt, Germany)

*Intercellular signaling from hematopoietic to neural cells via Exosomes*

5:45pm – 6pm : Lawrence Rajendran (Zurich, Switzerland)

*Exosomes in the release and transcellular spread of amyloids: Implications for Neurodegenerative diseases*

## Friday January 21st (Morning)

9:30 am - 11 am :

### SESSION 5

#### EXOSOMES AND GENETIC MATERIALS

**Chair : Xandra Breakefield (Charlestown, USA)**

- 9:30am – 9:45am : Nobuyoshi Kosaka /Takahiro Ochiya (Tokyo, Japan)  
*Secretory mechanisms and intercellular transfer of micro RNAs in living cells in vitro and in vivo*
- 9:45am – 10am : Pierre Busson (Villejuif, France)  
*Biochemical and functional characteristics of tumor exosomes released by Epstein-Barr virus-associated nasopharyngeal carcinomas*
- 10am – 10:15am : Marian Aalberts (Utrecht, The Netherlands)  
*miRNA-containing exosomes in seminal plasma*
- 10:15am – 10:30am : Annie Levy-Mozziconacci (Marseille, France)  
*Detection of cell-free DNA, RNA and miRNA in exosomes : new non-invasive pregnancy-associated markers ?*
- 10:30am – 10:45am : Cecilia Lässer (Göteborg, Sweden)  
*RNA in exosomes from human breast milk, nasal lavage fluid, saliva, and plasma*
- 10:45am – 11am : Traci Pawlowski (Caris Diagnostics, Phoenix, USA)  
*Comparison of miRNA expression pattern in plasma, serum, and cell line exosomes*

11am - 11:45am : coffee break and posters (especially sessions 5 + 6 + 7 + 8)

11:45am - 12:30pm:

### SESSION 6

#### EXOSOMES IN CLINICS AND AS BIOMARKERS



sponsored by

**Chair : Peter Altevogt (Heidelberg, Germany)**

- 11:45am - 12pm : Juan Falcon-Perez (Bizkaia, Spain)  
*Study of Extracellular Microvesicles (e.g. Exosomes) to Identify Non-Invasive Biomarkers*
- 12pm - 12:15pm : Silke Patz (Graz, Austria)  
*Identification and characterisation of cerebral microparticles in cerebrospinal fluid following traumatic brain injury (TBI)*
- 12:15pm - 12:30pm : Douglas Taylor (Louisville, USA)  
*Exosomal RNA and Protein Profiles Identify Pregnancies Destined to Deliver Preterm*

## Friday January 21st (afternoon)

12:30pm – 2:15pm: lunch

### 2:15pm – 3:45pm: SESSION 6 (continued) EXOSOMES IN CLINICS AND AS BIOMARKERS



sponsored by

- 2:15pm - 2:30pm : Nathalie Chaput (Villejuif, France)  
*Critical role of IFN $\gamma$  for the production of highly immunogenic dendritic cell-derived exosomes*
- 2:30pm – 2:45pm : Fred Hochberg (Boston, USA)  
*Development of the dick floor biorepository to support studies of serum exosomes from patients with glioblastoma multiforme*
- 2:45pm - 3pm : Diederick Duijvesz (Rotterdam, The Netherlands)  
*Profiling prostate cancer exosomes in search of novel biomarkers*
- 3pm - 3:15pm : Leonora Balaj (Charlestown, USA)  
*Tumor exosomes contain retrotransposon elements and amplified oncogene sequences*
- 3:15pm – 3:30pm : Sascha Keller (Heidelberg, Germany)  
*Exosomal shuttle RNA - a new tool in diagnostics*
- 3:30pm – 3:45pm : Francesco Cappello (Palermo, Italy)  
*Exosome involvement in Hsp60 secretion by tumor cells*

3:45pm – 4:30pm: coffee break and posters (especially sessions 5 + 6 + 7 + 8)

### 4:30pm – 6:15pm: SESSION 7 EXOSOMES AND PATHOGENS

**Chair : Annika Scheynius (Stockholm, Sweden)**

- 4:30pm – 4:45pm : Nuria Izquierdo-Useros (Barcelona, Spain)  
*HIV and mature dendritic cells: Trojan exosomes riding the Trojan horse ?*
- 4:45pm – 5pm : Andreas Baur (Erlangen, Germany)  
*The unexpected function of exosomes secreted by HIV nef and melanoma cells*
- 5pm – 5:15pm : D. Michiel Pegtel (Amsterdam, The Netherlands)  
*Viral hijacking of the exosomal-endosomal pathway*

## Friday January 21st (afternoon)

- 5:15pm – 5:30pm : Ulf Ghermann (Stockholm, Sweden)  
*Exosome-like vesicles induce cytokine responses – novel mechanisms for host-microbe interactions in atopic eczema*
- 5:30pm – 5:45pm : Jeffrey S. Schorey (Notre Dame, USA)  
*Exosomes released from mycobacterial-infected macrophages can function to promote or inhibit macrophage activation*
- 5:45pm – 6pm : Didier Vilette (Toulouse, France)  
*Prions and exosomes : ex vivo and in vivo studies*
- 6pm – 6:15pm : Judith M. Silverman (Vancouver, Canada)  
*Identification of an Exosome-Based Secretion System in Leishmania: Novel Mechanisms and Immune Modulating Properties*

**Saturday January 22nd (morning)**

**9:30am – 10:30am:**

**SESSION 8**

**TUMOR-RELATED IMMUNE FUNCTIONS OF EXOSOMES**

**Chair : Susanne Gabrielsson (Stockholm, Sweden)**

9:30am – 9:45am : Kim Lysterly (Durham, USA)

*Targeting soluble tumor associated antigens CEA and HER2 to exosomes enhances antigen-specific and anti-tumor immune responses*

9:45am – 10am : Sandrine Silvente-Poirot (Toulouse, France)

*Dendrogenin A modifies aggressive melanoma cells to secrete exosomes with anti-tumor activity*

10am – 10:15am : Theresa Whiteside (Pittsburg, USA)

*Tumor-derived microvesicles (exosomes) expand/up-regulate activity of Tregs and inhibit functions of NK cells*

10:15am – 10:30am : Mar Vales-Gomez (Madrid, Spain)

*Immune modulation mediated by release of ligands for the immune activating receptor NKG2D*

10:30am – 11am : coffee break, poster take off

**11am – 11:45pm:**

**SESSION 8 (continued)**

**TUMOR-RELATED IMMUNE FUNCTIONS OF EXOSOMES**

11am – 11:15am : Huang-Ge Zhang (Louisville, USA)

*Tumor cells cross-talk with immune cells leads to induction of tumor exosomal fibronectin and promote tumor progression*

11:15am – 11:30am : Licia Rivoltini (Milan, Italy)

*Immunosuppressive and pro-angiogenic properties of melanoma exosomes*

11:30am – 11:45am : Aled Clayton (Cardiff, UK)

*Cancer exosomes express CD73 and support immune suppression through adenosine generation*

**11:45am -12:30pm:**

**Graça Raposo, Clotilde Théry:**

**CONCLUDING REMARKS AND GENERAL DISCUSSION :  
FUTURE EXOSOME CONFERENCES. FUTURE EXOSOME SOCIETY.**