



Grupo Español de Innovación e Investigación en

Vesículas Extracelulares

GEIVEX

GEIVEX

EXTRACELLULAR VESICLES FROM THE BENCH TO THE CLINICS



II GEIVEX SYMPOSIUM

Satellite Meeting of Portuguese Groups on Extracellular Vesicles



Geivex.org

Hotel SB Ciutat de Tarragona, 9-10th October 2014

Invited Speakers:

Clotilde Théry

(Institute Curie, France)

Eva M. Kramer-Albers

(University of Mainz, Germany)

Yong Song Gho

(POSTECH, Pohang, South Korea)

Bernd Giebel

(University Duisburg-Essen, Germany)

Local Organizing Committee:

Francesc E. Borràs

IVECAT Group

Institut Investigació Germans Trias i Pujol

Hernando A. del Portillo

ICREA Research Profesor

Barcelona Centre for International Health Research

CRESIB/ISGlobal

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Hotel SB Ciutat Tarragona, 9-10th October 2014

<http://geivex.org>

DEFINITIVE PROGRAMME



WELCOME TO THE 2nd GEIVEX SYMPOSIUM

EXTRACELLULAR VESICLES: FROM THE BENCH TO THE CLINICS

Dear colleagues,

On behalf of the organizing committee, it is a great pleasure to welcome you at the **2nd Geivex Symposium, EXTRACELLULAR VESICLES: From bench to the clinics.**

As you know, **GEIVEX is a non-profit organization aiming to support researchers interested in the field of extracellular vesicles (<http://geivex.org>)**. The group was created following the first international conference of the International Society of Extracellular Vesicles (ISEV), held in Goteborg (Sweden) in April 2012. There, the Spanish researchers interested in microvesicles decided to set up a working group to contribute to the dissemination and integration of these small vesicles in the field of clinical diagnosis and therapies in Spain.

GEIVEX aims include to promote the exchange of knowledge in the fields of innovation and research on EVs, boosting the collaboration among members and the know-how exchange among research groups, both in private and public and national or international levels. We also aim to promote the translation of the knowledge on EVs to the Society.

Within two years, GEIVEX successfully organized its first symposium in Segovia in November 2012, and an International Course at the UIMP in Valencia (September 2013). Now, our second Symposium will gather most of the Spanish groups interested in Extracellular Vesicles, thus favouring the ideal environment for scientific interaction and collaboration. Moreover, our Portuguese colleagues will celebrate a Satellite Meeting (all your are invited) with the aim to launch their own working group. Both Societies will deeply collaborate in the incoming future.

The international invited speakers do not need to be presented, as all they are among the most renowned scientist in the field of EVs. Their talks will cover from basic research to clinical applications. Do not loose the opportunity to meet them during the coffee breaks and poster session.

The venue, Hotel SB Ciutat de Tarragona, is located in the centre of Tarragona. The hotel was fully refurbished in 2010, and will provide you with all the facilities for a successful experience. Also, we planned the sessions to let you enough time to visit the ancient roman capital, Tarraco, which is only 15 min walking distance from the venue.

All the organization would not be possible without the participation of our sponsors. Please, visit them at their stands, as we are sure you will find interesting solutions to your scientific approaches.

ENJOY GEIVEX-Tarragona 2014

Francesc E. Borràs and Hernando A. del Portillo
Symposium Local Organizers
GEIVEX 2014 TARRAGONA
[http:// geivex.org](http://geivex.org)

II GEIVEX SYMPOSIUM, EXTRACELLULAR VESICLES: FROM BENCH TO THE CLINICS

DEFINITIVE PROGRAMME

OCTOBER, 9th

SPONSOR EXHIBITION OPEN FROM 9:00 TO 20:00

08:30 - 09:15 REGISTRATION

09:15 - 09:30 WELCOME REMARKS

09:30 - 10:30 OPENING LECTURE

Overview of exosomes and other extracellular vesicles: biogenesis and function

Clotilde Thery - Director of Research Immunity & Cancer, Institute Curie (France)

Chair: [Hernando A. del Portillo](#)

10:30 - 11:00 NETWORKING COFFEE

11:00 - 13:00 FIRST SESSION INVITED TALKS (15 min each).

Basic Aspects.

Chair: [Maria Yañez-Mo & Helena Vasconcelos](#)

Antithrombin, an anticoagulant serin protease inhibitor, is incorporated into exosomes and its presence in these vesicles is modulated by low molecular weight heparin

Irene Martínez-Martínez*, Patricia Carrasco**, Ester Martín-Villar**, Vicente Vicente*, Javier Corral*, Miguel Quintanilla**

* Servicio de Hematología y Oncología Médica, Hospital Universitario Morales Meseguer, Centro Regional de Hemodonación, Universidad de Murcia, IMIB-Arrixaca, Murcia. ** Instituto de Investigaciones Biomédicas Alberto Sols, CSIC-UAM, Madrid.

Podoplanin induces reprogramming of exosomal proteins in MDCK cells

Patricia Carrasco-Ramírez¹, David W. Greening², Shashi Gopal², Germán Andrés³, Ester Martín-Villar¹, Jaime Renart¹, Richard J. Simpson² and Miguel Quintanilla¹

¹Instituto de Investigaciones Biomédicas Alberto Sols, CSIC-UAM, Madrid, Spain; ²Department of Biochemistry, la Trobe Institute for Molecular Science, La Trobe University, Melbourne, Victoria, Australia; ³Centro de Biología Molecular Severo Ochoa, CSIC-UAM, Madrid, Spain.

Mitochondria and exosome secretion

Baixauli F., Acín-Pérez R., Villarroja C., Mazzeo C, Enriquez JA, Sanchez-Madrid F., Mittelbrunn M. Centro Nacional de Investigaciones Cardiovasculares (CNIC)

Exosomes and Parasites.

Chair: [Antonio Marcilla and Anabela Cordeiro](#)

Spleen-dependent immune protection elicited by reticulocyte-derived exosomes from malaria infection revealed by T cell population changes.

Lorena Martín-Jaular¹, Marta Monguió², Aleix Elizalde¹, Carmen Fernandez-Becerra¹, Francesc E. Borrás², Maria Montoya^{3,4}, Hernando A del Portillo^{1,5*}

Barcelona Centre for International Health Research (CRESIB, Hospital Clínic-Universitat de Barcelona), Spain



The role of *Echinostoma caproni* exosomes modulating the host immune response

Maria Trelis¹, Alicia Galiano¹, Jenny Molina¹, Anabel Bolado¹, Antonio Marcilla¹, Dolores Bernal²
1Dept. Biología Celular i Parasitología, Universitat de Valencia (UV), Spain; 2Dept. Bioquímica i Biología Molecular, UV, Spain

Characterization of protective extracellular membrane-derived vesicles produced by *Streptococcus pneumoniae*

Olaya-Abril, Alfonso; Prados-Rosales, Rafael; González-Reyes, José A.; Jiménez-Munguía, Irene; Obando, Ignacio; Casadevall, Arturo; Pirofski, Liise-anne; Rodríguez-Ortega, Manuel J.
Departamento de Bioquímica y Biología Molecular, Universidad de Córdoba (Spain)

Dynamics of *Leishmania* extracellular vesicles during *in vitro* growth

Santarém, Nuno¹; Macie, Joana¹; Cordeiro-da-Silva, Anabela^{1,2}
¹Instituto de Biologia Molecular e Celular da Universidade do Porto, Porto, Portugal ²Departamento de Ciências Biológicas, Faculdade de Farmácia da Universidade do Porto, Porto, Portugal

***Leishmania* extracellular vesicles: insights into their immunoregulatory role in the establishment of the infection**

Pérez-Cabezas, Begoña; Santarém, Nuno; Cecílio, Pedro; Cordeiro-da-Silva, Anabela.
Institute for Molecular and Cell Biology (IBMC), Porto, Portugal; Faculty of Pharmacy, University of Porto (UP), Porto, Portugal

13:00 - 14:00 NETWORKING LUNCH

14:00 - 15:30 GOLD SPONSORED PRESENTATIONS - BD

Analysis of microvesicles by flow cytometry: principles and pitfalls

Nicolas Bailly - Pr B. Chatelain - Pr F. Mullier.

CHU Dinant-Godinne UCL Namur-Belgique, Lab. de'hématologie.

GOLD SPONSORED PRESENTATIONS - MALVERN

Practical use of Nanoparticle Tracking Analysis (NTA) to characterise EVs in general and when using fluorescent markers

Roberto Ghiandoni

Malvern Instruments Ltd. NanoSight Product Specialist - Europe

17:30 - 18:30 EVENING LECTURE

Delivery on demand: exosomes as 'Care Packages' from glia cells for stressed neurons

Eva Maria Kramer-Albers Molecular Cell Biology, University of Mainz (Germany)

Chair: Juan Manuel Falcón Pérez

18:30 - 20:00 POSTER SESSION / CHEESE & WINE

21:30 GALA DINNER

OCTOBER, 10th

SPONSOR EXHIBITION OPEN FROM 9:00 TO 19:00

09:00 - 10:00 MORNING LECTURE –

Bio-inspired exosome-mimetic technology for targeted drug delivery and adjuvant-free vaccine

Yong Song Gho Life Science, POSTECH, Pohang (South Korea)

Chair: Maria Yañez-Mo

10:00 - 11:00 SECOND SESSION INVITED TALKS (15 min each)

New Methods and Applications in EVs research and therapeutics.

Chair: María Mittelbrunn & Juan M. Falcón

Isolation of urine extracellular vesicles by size-exclusion chromatography

^{1,3}Lozano-Ramos, S; ^{2,3}Bancu I; ^{2,3}Lauzurica R; ^{1,3}Borrás F. E

1 IVECAT, Germans Trias i Pujol Research Institute

2 Nephrology Department, Germans Trias I Pujol University Hospital

3 Research group on kidney-related diseases (REMAR)

Towards the molecular characterization of plasma-derived exosomes: insights from a comparative proteomic analysis

Menezes-Neto, Armando¹, Lozano, Sara-Inés², Borrás, Francesc E^{2,3}, Fernandez-Becerra, Carmen¹, and del Portillo, Hernando A^{1,4}

ProteoMiner equalizing technology as a new approach to isolate extracellular vesicles from blood plasma or serum samples.

Rosal-Vela, Antonio; García-Rodríguez, Sonia; Zubiaur, Mercedes; Sancho, Jaime.

Departamento de Biología Celular e Inmunología. Instituto de Parasitología y Biomedicina López Neyra (IPBLN), Consejo Superior de Investigaciones Científicas (CSIC), PTS Granada, Spain

Metabolomics approach to understand the role of extracellular vesicles in health and in disease

Laura Palomo, Sebastiaan van Liempd, Diana Cabrera, Enriqueta Casal, Felix Royo¹, Esperanza González and Juan M Falcon-Perez

CIC-bioGUNE

11:00 - 11:30 NETWORKING COFFEE



11:30 - 13:30 **SATELLITE MEETING OF THE PORTUGUESE EVs GROUPS (all invited)**

Presentations of Portuguese Groups (10-15min/each)

Chair: Hernando A. del Portillo

Immunoregulatory role of *Leishmania* extracellular vesicles

PI: Anabela Cordeiro da Silva

The role and cargo of exosomes in Epithelial to Mesenchymal transition and gastric cancer progression

PI: Carla Oliveira

The role of Extracellular vesicles in Cancer Drug Resistance

PI: Helena Vasconcelos

Polyglutamine expansion in the human ataxin-3 protein changes the exosomal microRNA content of neuronal cells

PI: Luís Pereira de Almeida (Patrícia Albuquerque)

Extracellular vesicles in regenerative medicine

PI: Mario Barbosa (Inês Almeida)

Discussion:

- Sharing techniques and ideas
- Future work and networking
- Constitution of **GPIVEX**

13:30 - 14:30 **NETWORKING LUNCH**



14:30 - 16:00 THIRD SESSION INVITED TALKS (15 min each)

EVs in pathology.

Chair: Francisco Sánchez-Madrid & Carla Oliveira

Mesenchymal cells from Myelodysplastic Syndromes release microvesicles that incorporate into CD34+ cells and modify their behavior.

Sandra Muntión, Teresa L. Ramos, María Diez-Campelo, Beatriz Rosón, Bruno Paiva, María-Eugenia Sarasquete, Marcos González, Fermín Sánchez-Guijo and María-Consuelo del Cañizo
Servicio de Hematología, Hospital U de Salamanca, Salamanca. Centro en Red de Medicina Regenerativa y Terapia Celular de Castilla y León and Red Nacional de Terapia Celular (Tercel, ISCIII). Centro de Inv. del Cáncer-IBMCC (U de Salamanca-CSIC), Salamanca. IBSAL-Hospital U Salamanca, Salamanca, Spain. Foundation for Applied Medical Research, (CIMA), U Navarra, Spain (UNAV).

Tumor-derived exosomes are enriched in Δ np73, which promotes oncogenic potential in acceptor cells and correlates with patient survival

Rodríguez M., Soldevilla B., Domínguez G., García V. Instituto de Investigación Sanitaria del Hospital Universitario Puerta de Hierro-Majadahonda

Tumor-derived exosomes enriched in metastatic and stemness mRNAs promotes oncogenic potential in breast cancer. Correlations with patients outcome.

García Vanesa, Rodríguez Marta, Silva Javier, Herrera Alberto, Bonilla Félix
Instituto de Investigación Sanitaria del Hospital Universitario Puerta de Hierro-Majadahonda

MicroRNAs secreted by the human endometrium regulates the transcriptome of the preimplantation embryo

F. Vilella¹, J. Moreno¹, N. Balaguer¹, A. Pellicer¹ and C. Simón¹

¹Fundación Instituto Valenciano de Infertilidad (FIVI), Valencia University, and Instituto Universitario IVI/INCLIVA, Spain.

Lupus nephritis increases microRNAs quantity into urinary exosomes, being their main transport system

Pérez-Hernández, Javier; Forner María J; Redón Josep; Chaves Felipe J; Cortés Raquel
Genotyping and Genetic Diagnosis Unit, INCLIVA Biomedical Research Institute, Valencia, Spain
Internal Medicine Unit, University Clinic Hospital of Valencia, Valencia, Spain

M-Trap: exosome-based capture of tumor cells as a new therapeutic technology in peritoneal metastasis.

Alexandre de la Fuente, Lorena Alonso-Alconada, Juan Cueva, Tomas Garcia-Caballero, Rafael Lopez-Lopez, Miguel Abal.

Translational Medical Oncology, Health Research Institute of Santiago (IDIS), University Hospital of Santiago de Compostela (SERGAS), Santiago de Compostela, 15706 Spain

16:00 - 16:30 NETWORKING COFFEE

16:30 – 17:30 CLOSING LECTURE

Mesenchymal stem cell-derived extracellular vesicles, a potential new tool in regenerative medicine

Bernd Giebel Univ. Hospital, Institute for Transfusion Medicine, University Duisburg-Essen (Germany)

Chair: Francesc E. Borràs



17:30 - 18:30 CONCLUDING REMARKS & GEIVEX ASSEMBLY (ALL INVITED)

DURING THE GEIVEX ASSEMBLY, THE PRIZES FOR BEST ORAL COMMUNICATION AND POSTER WILL BE ANNOUNCED.

BEST ORAL PRESENTATION: 250€

BEST POSTER: 150€

18:30 SYMPOSIUM CLOSURE



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Join today and start enjoying the advantages of being a GEIVEX member.

Membership annual fees for 2014:

Researcher **50€**

Student **25€** (PhD students and postdocs up to 10 years after obtaining PhD degree)

Important note: Students must submit a valid proof of their condition, such as a letter of the director for PhD students or copy of the PhD title for postdocs.

Please, provide the following information (asociacion.geivex@gmail.com)

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Optionally, add a short description or keywords of your research interest (up to 2 lines).

Observations/Remarks

Date and Signature

Following LOPD 15/1999, from December 13th, we inform you that your personal data will be included in a database property of GEIVEX in order to maintain you informed about any incidence. You can access or change your data or cancel your inscription by addressing by e-mail GEIVEX at asociacion.geivex@gmail.com.