

FINAL PROGRAMME

3rd International Symposium of GEIVEX

Therapeutic applications of extracellular vesicles

29 – 30 September 2016

San Sebastián, Spain



3rd International Symposium
Therapeutic applications of extracellular vesicles

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Welcome

Dear colleague,

On behalf of the organizing committee, it is a pleasure to invite you to participate at the 3rd International GEIVEX symposium to be held on 29 – 30th September 2016 in San Sebastian, Spain.

GEIVEX is a young working group of Spanish researchers specialized in the field of extracellular vesicles (EVs). It was created in 2012 and it is now established as a non-profit scientific organization. Its main objective is to promote the research, innovation and knowledge exchange in the field of EVs.

As a result of this exertion, GEIVEX has funded several mobility fellowships between laboratories and already organized 3 international symposiums – one of them together with the Portuguese group of EVs – and one international course in collaboration with the Menéndez Pelayo International University. GEIVEX has also participated in satellite symposiums in several international congresses. Moreover, a great number of GEIVEX members are also active members of the scientific committee of The International Society for Extracellular Vesicles (ISEV) and the editorial board of its official journal – Journal of Extracellular Vesicles.

The research in EVs, as many other fields, combines basic and clinical research, which is the base of our translational work. This 3rd International Symposium will focus on the possible **therapeutic applications of EVs and their use in a hospital setting**. In order to achieve productive discussions and keep excellence standards in our symposiums, we have chosen the most suitable and recognized researchers in this field as speakers in each session.

Above all, we consider this 3rd International Symposium as an important opportunity to create and strengthen partnerships between professionals dedicated to EVs, from both basic and clinical sides and also meet the renowned speakers.

This year, the chosen venue is the Hotel NH Aranzazu in San Sebastián, located few meters far from the famous La Concha Bay and few minutes from the city center, where the International Film Festival takes place, among other numerous activities. That combination of proposals has led to San Sebastian to become the European Capital of Culture in 2016. In turn, San Sebastian is a biotech scientific pole with a remarkable development in the last decade, and therefore a popular destination for important scientific international meetings. For practicality of attendees we have booked places at the same hotel where the symposium will be held and the program has been organized to allow visiting places of interest in the city.

We look forward to your active and enthusiastic participation to the meeting and also to enjoy an exceptional location.

Matías Sáenz Cuesta and David Otaegui
Local Organizers

Hernando del Portillo
GEIVEX President



Committees

GEIVEX Board (Scientific Committee)

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Hernando A. del Portillo – ICREA Research Professor – ISGlobal (Barcelona) + IGTP (Badalona)

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Francesc E. Borràs – IVECAT, Int. Germans Trias i Pujol (Campus Can Ruti), Badalona (Barcelona).

TRESURER

Antonio Marcilla - Dpto. Biología Celular y Parasitología, Facultad de Farmacia, Universitat de Valencia.

SECRETARY

María Yáñez-Mó - Membrane Microdomains in Immunity Lab., Hospital Santa Cristina, Instituto de Investigación Sanitaria Princesa. Madrid.

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Anabela Cordeiro Silva – IBMC -and Faculdade de Farmácia. Universidade do Porto (Portugal)

Matías Sáenz Cuesta – Biodonostia Health Research Institute - Donostia University Hospital.

David Otaegui – Biodonostia Health Research Institute - Donostia University Hospital.

Organizing Committee

Matías Sáenz Cuesta – Biodonostia Health Research Institute - Donostia University Hospital.

David Otaegui – Biodonostia Health Research Institute - Donostia University Hospital.



Symposium programme: 29th September

- 8:30 Registration
- 9:00 Welcome remarks
Matías Sáenz-Cuesta and David Otaegui, *local organizers*
- 9:10 Presentation of REDIEX: Iberian Network on EVs
Hernando del Portillo, GEIVEX president
- 9:15 **Opening Lecture: Pre-clinical models to test EV therapies of complex CNS diseases**
Stefano Pluchino, *Division of Stem Cell Neurobiology, Department of Clinical Neurosciences, Wellcome Trust-Medical Research Council Stem Cell Institute, University of Cambridge, Cambridge, UK*
Chair: Juan M Falcón-Pérez
- 10:15 Coffee break
- 10:45 **Session I: EVs as novel biomarkers and therapy delivery approaches**
Chairs: Jesús Bañales and Francesc Borràs
- 10:50 **Defining novel exosome signatures involved in metastatic evolution**
Ana Isabel Amor¹, Pilar Ximénez-Embún², Javier Muñoz², Susana García-Silva¹, Héctor Peinado^{1,2}
¹Microenvironment and Metastasis Group, Molecular Oncology Program, Spanish National Cancer Research Centre (CNIO), Madrid, Spain. ²Proteomics Unit. Spanish National Cancer Research Center, 28029 Madrid, Spain. ProteoRed-ISCIII.
- 11:00 **The role of EVs from P-gp overexpressing tumour cells in the transfer of metabolic alterations**
Vanessa Lopes-Rodrigues^{1,2,3}, Alessio Di Luca⁴, Justyna Mleczko⁵, Diana Sousa^{1,2,6}, Hugo Seca^{1,2}, Paula Meleady⁴, Michael Henry⁴, Milica Pesic⁷, Diana Cabrera⁵, Sebastiaan van-Liemp⁵, Raquel T. Lima^{1,2,8}, Robert O'Connor⁴, J. M. Falcon-Perez^{5,9}, M. Helena Vasconcelos^{1,2,6}
¹i3S, Universidade de Porto, Porto, Portugal. ²Cancer Drug Resistance Group, IPATIMUP, Porto, Portugal. ³ICBAS, Universidade de Porto, Portugal. ⁴NICB, Dublin, Ireland. ⁵CIC bioGUNE, Derio, Spain. ⁶Microbiology lab FFUP, Porto, Portugal. ⁷University of Belgrade, Belgrade, Serbia. ⁸FMUP, Porto, Portugal. ⁹IKERBASKE, Bilbao, Spain.
- 11:10 **Analysis of the anti-cancer therapeutic potential of cytopermeable peptides targetted against tetraspanins CD9 and CD63**
Zoraida Andreu¹, Carla Mazzeo¹, Susana García Silva², Begoña Hurtado², Héctor Peinado², María Yáñez-Mó¹
¹Instituto de Investigación Sanitaria Princesa (IIS-IP). ²Spanish National Cancer Research Centre (CNIO), Madrid, Spain.
- 11:20 **RVG-Exosome delivery of shRNA minicircles for Parkinson's disease treatment**



María Izco¹, J Mark Cooper², Lydia Alvarez-Erviti¹

¹CIBIR, Logroño, Spain. ²Department of Clinical Neuroscience, University College London, London, UK.

11:30 UCMS-derived extracellular vesicles but not conditioned medium exclusively inhibit the inflammatory response of stimulated T cells

Marta Monguió-Tortajada, Santiago Roura, Carolina Gálvez-Montón, Josep Maria Pujal, Marcel·la Franquesa, Antoni Bayés-Genís, Francesc E Borràs

REMAR-IVECAT Group, Health Science Research Institute Germans Trias i Pujol, Can Ruti Campus, Badalona, Spain.

11:50 Session II: EVs in infection and immunity

Chairs: Anabela Cordeiro Silva and Antonio Marcilla

11:55 EVs from the parasitic trematode fasciola hepatica prevent mucosal intestinal damage in dss-induced colitis in mice by reducing inflammation

Javier Roig¹, Maria Trelis^{1,2}, Carlos Monteagudo¹, M Carmen Recio¹, Rosa M Giner¹, E Giner¹, Alicia Galiano¹, Fernando Cantalapiedra^{1,3}, Dolores Bernal¹, Antonio Marcilla^{1,2}

¹Universitat de València. ²Unidad mixta de Investigación en Endocrinología, Nutrición y Dietética Clínica, U. València-Instituto de Investigación en Salud La Fe. ³Veterinari de Salut Pública, Centre de Salut Pública de Manises, València, Spain.

12:05 Leishmania infantum Extracellular Vesicles impair iNKT cell immune responses

Renata Belo, Nuno Santarém, Cátia Pereira, Fátima Macedo, Begoña Pérez-Cabezas, Maria do Carmo Leite-de-Moraes, Anabela Cordeiro-da-Silva

BMC / i3S, Porto, Portugal.

12:15 Serum-derived exosomes from non-viremic animals previously exposed to the PRRSV contain immunogenic viral proteins

Sergio Montaner-Tarbes^{1,2}, Francesc E. Borrás^{2,3}, Maria Montoya⁴, Lorenzo Fraile¹, Hernando A del Portillo^{2,5}

¹Departamento de Producción Animal, ETSEA, Universidad de Lleida, Lleida, Spain. ²INNOVEX THERAPEUTICS SL, Badalona, Spain. ³Germans Trias i Pujol Health Science Research Institute, Can Ruti Campus, Badalona, Spain. ⁴The Pirbright Institute, Pirbright, Surrey, UK. ⁵ICREA at ISGlobal, Barcelona Ctr. Int. Health Res. (CRESIB), Hospital Clínic - Universitat de Barcelona, Barcelona, Spain and IGTP, Institut d'Investigació Germans Trias i Pujol, Can Ruti Campus, Badalona, Spain.

12:25 Comparison of the effects of conditioned medium and extracellular vesicles from adipose-derived mesenchymal stem cells on inflammatory parameters in peritoneal macrophages

María del Carmen Carceller Zazo¹, M Isabel Guillén^{1,2}, Alba Martínez³, M Luisa Gil³, M Luisa Ferrández¹, M José Alcaraz¹

¹Dpto de farmacología e IDM, Universitat de València, Spain. ²Dpto Farmacia, Universidad CEU Cardenal Herrera, València, Spain. ³ERI BIOTECMED, Universitat de València, Spain.

12:35 Isolation and proteomic characterization of exosomes from peritoneal exudates of mice with



a lupus-like disease induced by i.p. injection of pristane

Elena González-Paredes, Alejandro Mas-Ciurana, Sandra García-Jiménez, Verónica Prados-Maniviesa, Victoria Longobardo, Antonio Lario, M Zubiaur, Jaime Sancho

Instituto de Parasitología y Biomedicina López-Neyra. CSIC. Granada. Spain.

12:45 Lunch

14:00 Sponsored Presentation

Chair: Matías Sáenz-Cuesta

Big differences between tiny vesicles – exosome diversity demonstrated by novel multiplex surface marker analysis.

Stefan Wild, *Miltenyi Biotec*

14:30 **Magnetic exosome isolation from complex samples like plasma**

Lise Peeters, *JSR Life Sciences*

15:00 **Evening lecture: Clinical application of EVs in cancer**

Héctor Peinado, *Microenvironment & Metastasis Group, CNIO, Spain*

Chair: Carla Oliveira

15:55 **Session III: EVs in non communicable diseases**

Chairs: Carla Oliveira and Héctor Peinado

16:00 **Extracellular Vesicles – playing around with the Gastric Cancer microenvironment**

Joana Carvalho^{1,2}, Sara Rocha^{1,2}, Patrícia Oliveira^{1,2}, Carla Oliveira^{1,2,3}

¹i3S - Instituto de Investigação e Inovação em Saúde, Universidade do Porto, Portugal.

²IPATIMUP - Institute of Molecular Pathology and Immunology, University of Porto (IPATIMUP), Portugal. ³Medical Faculty of the University of Porto, Portugal.

16:10 **Modulation of the metastatic lymph node niche by melanoma cells through secreted exosomes**

Susana García-Silva¹, Alberto Benito-Martin², Laura Nogues-Vera², Ana Isabel Amor¹, Marina Mazariegos¹, Cristina Merino¹, Marta Hergueta-Redondo¹, Carolina Villarroya-Beltri², Irina Matei², Jason C. Gardenier³, Raghu Kataru³, Osvaldo Graña¹, Mary Sue Brady³, Babak Mehrara³, David Lyden², and Héctor Peinado^{1,2}

¹Microenvironment and Metastasis Group, Molecular Oncology Program, Spanish National Cancer Research Centre (CNIO), Madrid, Spain. ²Pediatrics Department, Weill Cornell Medical College, NY, USA. ³MSKCC, New York, USA.

16:20 **Extracellular vesicles from adipose-derived mesenchymal stem cells enhance Collagen II expression in osteoarthritic chondrocytes**

Miguel Tofiño-Vian¹, Isabel Guillén^{1,2}, María Dolores Pérez del Caz³, Miguel Ángel Castejón⁴, María José Alcaraz¹

¹Dpto. Farmacología e IDM, Universidad de València, Spain. ²Dpto. Farmacia, CEU-Cardenal Herrera, València, Spain. ³Dpto. Quemados y Cirugía Plástica, Hospital La Fe, València, Spain.

⁴Dpto. Cirugía Ortopédica y Traumatología, Hospital de la Ribera, València, Spain.



- 16:30 **Hepatocyte-secreted extracellular vesicles carry enzymatic activities that modify serum metabolome and induce pulmonary endothelial dysfunction via an arginase-dependent mechanism**

Felix Royo¹, Laura Moreno², Justyna Mleczko¹, Laura Palomo¹, Esperanza Gonzalez¹, Diana Cabrera¹, Angel Cogolludo², Francisco Perez Vizcaino², Sebastiaan van-Liempd¹, Juan M Falcon-Perez^{1,3}

¹Exosomes Lab. CIC bioGUNE, CIBEREHD, Derio, Bizkaia, Spain. ²Department of Pharmacology, School of Medicine, University Complutense of Madrid, Madrid. CIBERES, Spain. ³IKERBASQUE Foundation for Science, Bilbao, Spain.

16:40 Coffee break

17:30 poster walk I

18:30 Cocktail with live music: Alhaurum Sax Quartet

Management: Xabier Oruesagasti, xabioru@gmail.com, +34 639 466 919

21:00 Networking dinner (Ni neu Restaurant)



Symposium programme: 30th September

- 9:00 **Morning lecture: Omics analysis of EVs to unlock their biomarker potential**
Guido Jenster, *Department of Urology, Erasmus Medical Centre, Rotterdam, The Netherlands*
Round table: moving towards a common language
- 9:45 Moderator: Marcos Araúzo-Bravo
Discussion with the following participants:
Guido Jenster, *Erasmus M. Centre, NL*
David Otaegui, *Multiple Sclerosis Unit, Biodonostia H. R. Institute, Spain*
Juan Manuel Falcón-Pérez, *Exosomes Lab, CIC BioGUNE, Spain*
Félix Elortza, *Proteomics Platform, CIC bioGUNE, Spain*
Niels Reichardt, *Laboratory of Glycananotechnology, CIC BiomaGUNE, Spain*
- 10:15 Coffee break
- 10:45 **Biomarkers in free RNA and EV RNA**
Charles Lawrie, *Oncology Group, Biodonostia Health Research Institute, San Sebastián, Spain*
Chair: David Otaegui
- 11:30 **Session IV: Fundamental EV biology and novel technical developments for EV analysis**
Chair: María Yáñez-Mó and David Otaegui
- 11:35 **Exosomes shuttle mitochondrial DAMPs that elude immune surveillance**
Daniel Torralba, Francesc Baixauli, Carolina Villarroya-Beltri, Jose Antonio Enríquez, María Mittelbrunn, Francisco Sánchez-Madrid
Signalizing and Inflammation Program, Centro Nacional Investigaciones Cardiovasculares (CNIC), Madrid, Spain. Servicio de Inmunología, Instituto Investigación Sanitaria Princesa, Madrid, Spain.
- 11:45 **ISGylation controls exosome secretion by promoting lysosomal degradation of MVB proteins**
Carolina Villarroya-Beltri, Francesc Baixauli, María Mittelbrunn, Irene Fernández-Delgado, Daniel Torralba, Olga Moreno-Gonzalo, Sara Baldanta, Carlos Enrich, Susana Guerra, Francisco Sánchez-Madrid
Universidad Autónoma de Madrid, Spain.
- 11:55 **Maternal endometrial hsa-miR-30d is internalized and secreted in exosomes by binding with hnRNPC1**
Nuria Balaguer¹, Inmaculada Moreno², María Herrero¹, Carlos Simón^{1,2}, Felipe Vilella^{1,2}
¹Fundación Instituto Valenciano de Infertilidad (FIVI), Valencia University, and Instituto Universitario IVI/ INCLIVA, Valencia, Spain. ²Igenomix S.L., Parc Científic Valencia University, Valencia, Spain.
- 12:05 **A bead-assisted flow cytometry method for the semi-quantitative analysis of EVs**
Henar Suárez, Ana Gámez-Valero, Raquel Reyes, Soraya López-Martín, Anna Oliveira-Tercero, Francesc E Borrás, María Yáñez-Mó



Instituto de Investigación Sanitaria La Princesa (IIS-IP), Madrid, Dept. Biología Molecular/CBM-SO, Madrid, Spain. Institut d'Investigació Germans Trias i Pujol (IGTP) Badalona, Spain.

12:15 Immunochromatographic detection of extracellular vesicles

Myriam Oliveira-Rodríguez¹, Esther Serrano-Pertierra², Sheila López-Cobo³, Reyburn, T Hugh³, Mar Valés-Gómez³, Annette Paschen⁴, Soraya López Martín⁵, María Yáñez-Mo⁵, Eva Cernuda-Morollón⁶, Mª Carmen Blanco-López¹

¹Departamento de Química Física y Analítica, Universidad de Oviedo Julián Clavería Oviedo, Spain. ²Departamento de Ingeniería Química y Tecnología del Medio Ambiente, Universidad de Oviedo, Spain. ³Departamento de Inmunología y Oncología, Centro Nacional de Biotecnología, CNB-CSIC, Madrid, Spain. Unidad de Investigación, Hospital St Cristina, Instituto de Investigación Sanitaria Princesa, Madrid, Spain. ⁴Department of Dermatology, University Hospital Essen, University Duisburg-Essen, Essen, Germany. ⁵Departamento de Biología Molecular, UAM/IIS-IP, Madrid, Spain. ⁶Hospital Universitario Central de Asturias, Oviedo, Spain.

12:35 Sponsored Presentation

Chair: Francesc Borràs

Update on Nanoparticle Tracking (NTA): Quantification of sub-populations with regard to size, concentration, zeta potential and fluorescence

Hanno Wachernig, *Particle Metrix GmbH*

13:00 Lunch

14:00 Session V: EVs and translational medicine

Chair: Francisco Sánchez-Madrid and Matías Sáenz-Cuesta

14:05 NK cell-derived exosomes: tuning the immune response

Lola Fernández-Messina, Sheila López-Cobo, Mar Valés-Gómez, Francisco Sánchez-Madrid
Immunology Service. Hospital de la Princesa, Madrid, Spain.

14:15 Notch ligand Jagged 1 contributes to the angiogenic potential of exosomes derived from mesenchymal stem cells overexpressing hypoxia inducible factor

Hernán González-King, Nahuel Aquiles García, Imelda Ontoria-Oviedo, María Ciria, Pilar Sepulveda
Mixed Unit for Cardiovascular Repair, Instituto de Investigación Sanitaria La Fe - Centro de Investigación Príncipe Felipe, València, Spain.

14:25 Microvesicles mediated antioxidant effects of genistein.

Lucia Gimeno-Mallench, Cristina Mas-Bargues, Marta Ingles, Mar Dromont, Consuelo Borras, Jose Viña, Juan Gambini
Department of Physiology, Faculty of Medicine, University of Valencia, Spain.

14:35 Hepatocytes-derived extracellular vesicles from metabolic syndrome models influence adipocytes metabolism

Justyna Mleczko, Silvia Mora, Juan M Falcon-Perez



CICbioGUNE, Derio, Spain.

- 14:45 **Defining the role of secreted exosomes in malignant peripheral nerve-sheath tumor transformation**

Angela Di Giannatale^{1,3}, Teresa González-Muñoz², Susana García-Silva², Alberto Benito-Martín³, Cristina Merino², Héctor Peinado^{2,3}

¹Bambino Gesù Children's Hospital, IRCCS, Rome, Italy. ²Microenvironment and Metastasis Group, Molecular Oncology Program, Spanish National Cancer Research Centre (CNIO), Madrid, Spain. ³Weill Cornell Medical College, New York, USA.

- 15:00 Sponsored Presentation

Chair: Juan M Falcón-Pérez

Flow cytometry analysis of circulating microparticles in coagulation: laboratory aspects and clinical implications.

Claudia Maria Radu, *Beckman Coulter*

- 15:15 2nd GEIVEX Mobility Grant presentations

María Yáñez-Mó and Antonio Marcilla

- 15:35 Poster walk II

Coffee break

- 16:45 **Closing lecture: From EV isolation to clinical trials**

Eva Rohde, *Spinal Cord Injury & Tissue Regeneration Center Salzburg, Paracelsus Medical University and Department of Blood Group Serology and Transfusion Medicine, University Hospital, Salzburger Landeskliniken GesmbH, Salzburg, Austria*

Chair: Hernando del Portillo

- 17:45 Concluding remarks and Symposium Closure

Matías Sáenz-Cuesta and David Otaegui

- 18:00 GEIVEX annual assembly

(announcement of best oral communication and best poster presentation)

all participants



POSTER WALK I

Poster for sessions I, II and III.

29th September, 17:30 - 18:30

Session I

1

Extracellular vesicles from cholangiocarcinoma contain specific proteins with diagnostic/prognostic value and with potential role in the pathogenesis

Ander Arbelaitz¹, Mikel Azkargorta², Álvaro Santos-Laso¹, Esperanza González³, Perugorria, María J. Perugorria^{1,4,5}, Raúl Jiménez-Agüero¹, Adelaida Lacasta¹, Marcin Krawczyk⁶, Frank Lammert⁶, Cesar Ibarra⁷, Alberto Sanchez⁷, Juan P. Jimeno⁸, Félix Elortza^{2,5}, Juan M Falcón-Pérez^{2,4,5}, Luis Bujanda^{1,5}, Jesús M. Banales^{1,4,5}

¹Department of Liver and Gastrointestinal Diseases, Biodonostia Research Health Institute, Donostia University Hospital, University of the Basque Country (UPV/EHU), San Sebastián, Spain. ²Proteomic Unit, CIC bioGUNE, CIBERehd, Derio, Spain. ³Metabolomics Unit, CIC bioGUNE, CIBERehd, Derio, Spain. ⁴IKERBASQUE, Basque Foundation for Science, Bilbao, Spain. ⁵CIBERehd, CIBER for hepatic and gastrointestinal diseases, Madrid, Spain. ⁶Department of Medicine II, Saarland University Medical Center, Homburg, Germany. ⁷Hospital of Cruces, Bilbao, Spain. ⁸Hospital of Navarra, Pamplona, Spain.

2

Extracellular vesicles as a tool for identifying new biomarkers in Chagas disease

Clara Mazagatos Ateca¹, Joan Segui Barber¹, Leonardo de la Torre Ávila¹, Maria-Jesus Pinazo Delgado¹, Joaquim Gascon Bustrengua¹, Carmen Fernandez-Becerra^{1,2}

¹ISGlobal, Barcelona Ctr. Int. Health Res. (CRESIB), Hospital Clínic - Universitat de Barcelona, Barcelona, Spain. ²Germans Trias i Pujol Health Science Research Institute, Can Ruti Campus, Badalona, Spain.

3

Protective Immunity against *Eimeria tenella* Infection using Serum Exosomes

Emilio del Cacho¹, Margarita Gallego¹, Hyun Lillehoj², Quilez Joaquin Quilez¹, Lillehoj Erik Lillehoj³

¹Department of Animal Pathology, University of Zaragoza, Spain. ²Animal Parasitic Diseases Laboratory, U.S. Department of Agriculture, Beltsville, MD, USA. ³University of Maryland School of Medicine, Baltimore, MD, USA

4

Searching for new biomarkers of pre-diabetes using extracellular vesicles from urine samples

Jesús Blesa^{1,2}, María Trelis^{1,2}, José Miguel Soriano^{1,2}, Dolores Bernal¹, Michael Hackenberg³, Ana Catalá², Juan Francisco Merino², Antonio Marcilla^{1,2}

¹Universitat de València; ²Unidad mixta de Investigación en Endocrinología, Nutrición y Dietética Clínica, UVaLència-Instituto de Investigación en Salud La Fe; ³Universidad de Granada; jesús.blesa@uv.es



Session II

5

Mitochondria release oxidized mtDNA and associated proteins in exosomes that modulate non-cell autonomously the innate immune response

Francesc Baixauli, Daniel Torralba, Carolina Villaroya-Beltri, Jose Antonio Enríquez, María Mittelbrunn, Francisco Sánchez-Madrid

UAM, CNIC, Madrid, Spain.

6

The C-terminal region Trypanosoma cruzi MASP secreted via exovesicles.

I.M Diaz Lozano, L.M De Pablos, A Osuna

Departament of Parasitology, Group Biochemistry and Molecular Parasitology, University of Granada, Spain.

7

Analysis of the extracellular vesicles and proteins secreted from Candida albicans unravels new clues about protein secretion

Lucia Monteoliva, Ana Gil-Bona, Concha Gil

Departamento de Microbiología II, Facultad de Farmacia, Universidad Complutense de Madrid and Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS), Madrid, Spain.

8

Role of shedding microvesicles in the viral spread of Herpes simplex type 1

Raquel Bello-Morales¹, Beatriz Praena¹, Carmen de la Nuez², Marcos Galán³, María Teresa Rejas, Eva Martínez¹, Víctor Calvo⁴, Manuel Izquierdo⁴, López Guerrero, José Antonio López Guerrero¹

¹Departamento de Biología Molecular, UAM. ²Facultad de Biología, Ciencias Ambientales y Química, UAH. ³Facultad de Ciencias, Departamento de Bioquímica, UAM. ⁴Departamento de Metabolismo y Señalización Celular IIB UAM-CSIC, Madrid, Spain.

9

TACE regulates lymphocytic cell adhesion to tumor cells exosomes

Yesenia Machado-Pineda, Beatriz Cardeñas, Raquel Reyes, Carlos Cabañas

Centro de Biología Molecular Severo Ochoa, CSIC-UAM, Madrid, Spain.

10

Effect of cancer chemotherapeutic agents on exosomes and immune modulation

Sheila López-Cobo¹, Carmen Campos-Silva¹, Annette Paschen², Mar Valés-Gómez¹

¹Department of Immunology and Oncology, Spanish National Centre for Biotechnology (CNB-CSIC), Madrid, Spain. ²Department of Dermatology, University Hospital Essen, University Duisburg-Essen, Essen, Germany.



11

Candida albicans increases the release of proinflammatory extracellular vesicles in THP1 macrophages

Jose Antonio Reales-Calderón, Catarina Vaz, Lucía Monteoliva, Gloria Molero, and Concha Gil

Departamento de Microbiología II, Facultad de Farmacia, Universidad Complutense de Madrid and Instituto Ramón y Cajal de Investigación Sanitaria (IRYCIS), Madrid, Spain.



POSTER WALK II

Poster for sessions IV and V.

30th September, 15:35 - 16:15

Session IV

12

Exosomes and in vitro growth of Plasmodium vivax: is there a link?

Haruka Toda¹, Miriam Diaz-Varela¹, Carmen Fernandez-Becerra^{1,2}, Hernando A del Portillo^{1,2,3}

¹ISGlobal, Barcelona Ctr. Int. Health Res. (CRESIB), Hospital Clínic - Universitat de Barcelona, Barcelona, Spain. ²Germans Trias i Pujol Health Science Research Institute, Can Ruti Campus, Badalona, Spain. ³Institució Catalana de Recerca i Estudis Ava, Barcelona, Spain.

13

Biomimetic Small Extracellular Vesicles

García-Manrique P^{1,2}, Lozano-Andrés E³, Estupiñán-Sánchez OR², Gutiérrez G², Matos M², Pazos C², Yáñez-Mó M³, Blanco-López C¹

¹Department of Physical and Analytical Chemistry, Universidad de Oviedo, Spain. ² Department of Chemical Engineering and Environmental Technology, Universidad de Oviedo, Spain. ³Universidad Autónoma de Madrid/Center of Molecular Biology "Severo Ochoa" (CMB-SO/UAM), Madrid, Spain.

14

Proteomic analysis shows an increase protein containing exosomes in hakai overexpressing cells

Andrea Díaz, Raquel Castosa, Valentina Calamia, Isabel Santamarina, Olaia Martínez, Begoña Graña, Lourdes Calvo, Angélica Figueroa

Translational Cancer Research Group, Instituto de Investigación Biomédica A Coruña (INIBIC) Complejo Hospitalario Universitario A Coruña (CHUAC), SERGAS Universidade da Coruña (UDC), Spain

15

In vivo dissection of typical EVs production by MVB in plants

Pedro Pérez-Bermúdez¹, Antonio Marcilla^{1,2}

¹Universitat de València. ²Unidad Invest. Endocrinología, Nutrición y Dietética Clínica, IIS La Fe-Univ. València, Spain.

16

Proteomic analysis of human reticulocyte-derived exosomes

Miriam Diaz-Varela^{1,2}, Armando De Menezes-Neto¹, Ana Gámez-Valero², Joan Seguí-Barber^{1,2}, Carmen Fernández-Becerra^{1,2}, Hernando Del Portillo^{1,2,3}

¹ISGlobal, Barcelona Institute for Global Health, Hospital Clínic - Universitat de Barcelona, Barcelona, Spain. ²IGTP Institut d'Investigació Germans Trias i Pujol, Badalona, Spain. ³Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain.



17

Development of a method to screen exosome-binding and uptake neutralizing antibodies.

Toribio V., Morales-López S., López-Martín S., Yáñez-Mó M.

Universidad Autónoma de Madrid/Center of Molecular Biology "Severo Ochoa" (CBM-SO/UAM), Madrid, Spain.

18

Synthetic nanoparticles decorated with recombinant tetraspanins as a standard for EV analysis by flow cytometry.

Lozano-Andrés E, Manrique P, Morales-López S, López-Martín S, Blanco C, Yáñez-Mó M.

Universidad Autónoma de Madrid/Center of Molecular Biology "Severo Ochoa" (CBM-SO/UAM), Madrid Spain. Universidad de Oviedo, Oviedo, Spain.

19

Impact of SEC, PEG and PROSPR isolation methods on extracellular vesicles: a comparative study

Ana Gámez-Valero^{1,2}, Marta Monguió-Tortajada¹, Laura Carreras-Planella¹, Marcel·la Franquesa¹, Katrin Beyer², Francesc E. Borràs^{1,3}

¹REMAR-IVECAT Group, Health Science Research Institute Germans Trias i Pujol, Badalona, Spain.

²Department of Pathology, Hospital Universitari, Badalona, Spain. ³Nephrology Service, Germans Trias i Pujol University Hospital, Badalona, Spain.

Session V

20

Inflammaging and Frailty Status Do Not Result in an Increased Extracellular Vesicle Concentration in Circulation

Ainhoa Alberro¹, Matías Sáenz-Cuesta¹, Maider Muñoz-Culla¹, Iñaki Osorio-Querejeta¹, Esperanza Gonzalez², Itziar Vergara¹, David Otaegui¹

¹Biodonostia Health Research Institute - Donostia University Hospital, San Sebastian, Spain. ²CIC bioGUNE, CIBERehd, Technology Park of Bizkaia, Derio, Bizkaia, Spain

21

Microvesicles activated pluripotential genes mediated by resveratrol.

Lucía Gimeno-Mallench, Cristina Mas-Bargues, Marta Ingles, Mar Dromont, Consuelo Borras, Jose Viña, Juan Gambini

Department of Physiology, Faculty of Medicine, University of Valencia.

22

Analyzing the crosstalk between tumor and adipose tissue by secreted exosomes during metastasis.

Lucía Robado de Lope¹, Alberto Benito-Martin², Marta Hergueta-Redondo¹, Héctor Peinado^{1,2}



¹Microenvironment and Metastasis Group, Molecular Oncology Program, Spanish National Cancer Research Centre (CNIO), Madrid, Spain. ²Department of Pediatrics, Drukier Institute for Children's Health and Meyer Cancer Center, Weill Cornell Medical College, NY, USA.

23

Extracellular vesicles in hypertension as potential clinical biomarkers of renal damage

Pérez-Hernández J^{1,2}, Olivares MD^{1,2}, Solaz E^{2,3}, Martínez F^{2,3}, Tanguy M⁴, Loyer X⁴, Boulanger C⁴, Chaves FJ^{1,2}, Redón J^{2,3}, Cortés R^{1,2}.

¹Genomic and Genetic Diagnosis Unit, INCLIVA, Valencia, Spain. ²Cardiometabolic and Renal Risk Research Group, INCLIVA, Valencia, Spain. ³CIBEROBN, Madrid, Spain. ⁴Paris Cardiovascular Research Center-PARCC, INSERM U970, Paris, France.

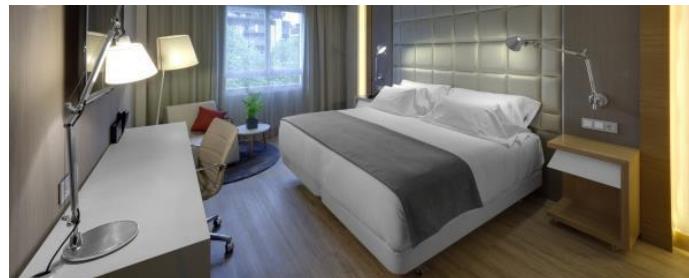


The venue



Located in the upmarket Ondarreta district of San Sebastian, the **NH Collection San Sebastián Aranzazu hotel**, formerly known as NH San Sebastián Aranzazu, puts you 5 minutes from one of the region's best beaches. There are plenty of bars and restaurants dotted about the area and the city center is a pleasant 30-minute stroll along the promenade. The Basque Culinary Center and several Michelin-starred restaurants are in easy reach, too.

The 180 guest rooms are airy and bright, with stylish modern décor and home-from-home comforts such as free Wi-Fi and flatscreen TV. And because the hotel is in a quiet, residential area, you won't be disturbed by the hustle and bustle of city noise.



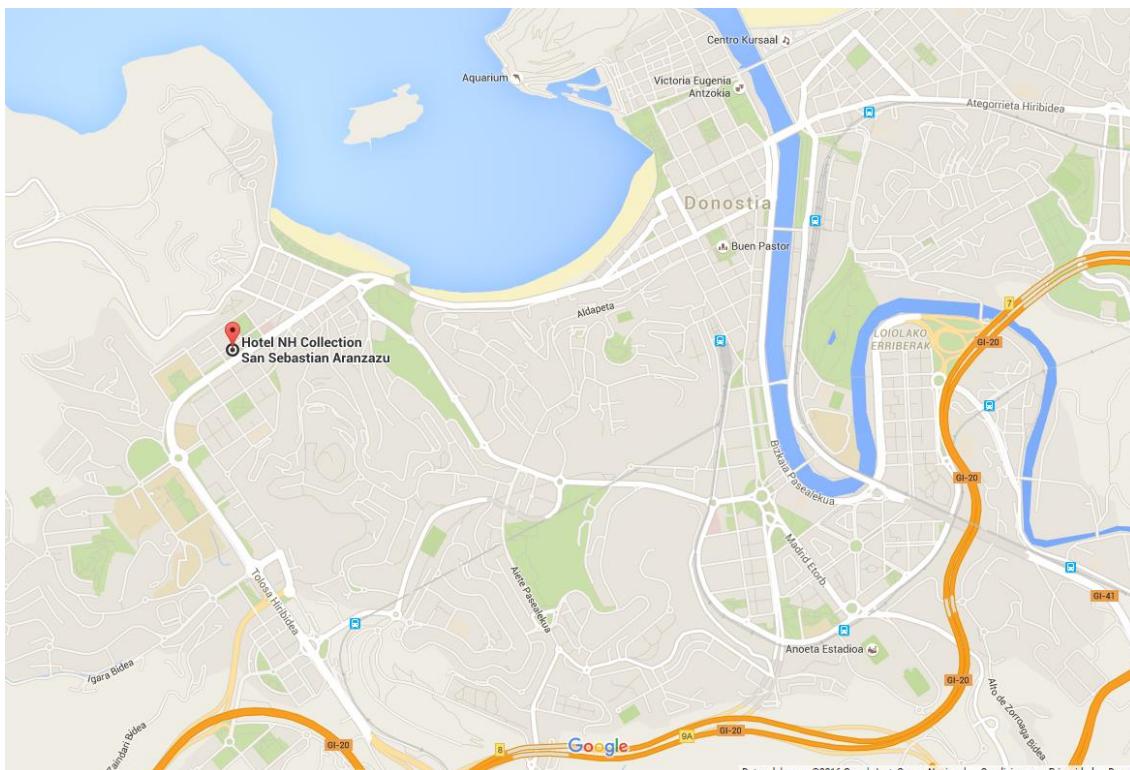


How to get to the Hotel

NH Collection San Sebastián Aranzazu hotel

Vitoria-Gasteiz 1; 20018 - San Sebastian (Spain)

+34 94 3219077



From San Sebastian Airport: you can rent a car, take a taxi, or take the public bus to San Sebastian.

From the train/bus station: From the main exit of the San Sebastian train station, cross the square and head towards the main avenue. Take the bus number 5 or 25 and get off at Av. de Zumalakarregi (Antiguoko Anbulategia stop). You will see the hotel on the right-hand side.

By car

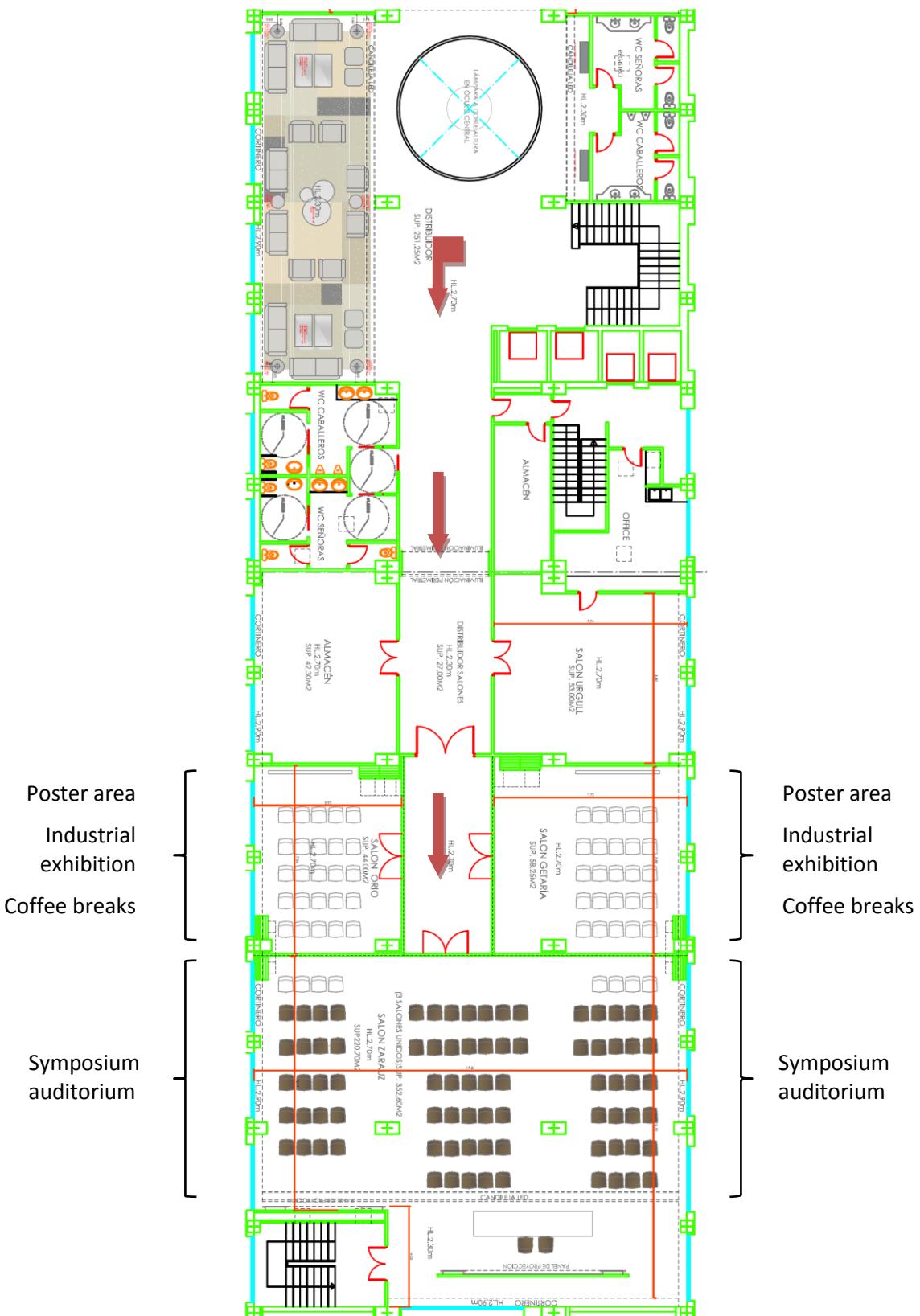
From the west: Enter San Sebastian by taking the Ondarreta access road (No. 9). The hotel is located just before you arrive at Ondarreta beach.

From the east: Enter San Sebastian by taking the Amara access road (No. 8). Continue straight, following directions to the city center. Continue straight along La Concha beach. The hotel is located on the right-hand side just after Ondarreta beach.

From Madrid: Take the M-30 Motorway. Take the exit towards A-1 in the direction of Alcobendas/Burgos. Near Burgos, continue along E-5/E-80/BU-30. Take the exit towards E-5/E-80 AP-1 - Vitoria-Logroño. Continue on AP-1. Head towards E-70 A-8 Donostia-San Sebastián. Continue on E-70/A-8. Take exit 9: Donostia- San Sebastian/Ondarreta. You will arrive in Donostia-San Sebastián. Now, follow the "from the west" indications.

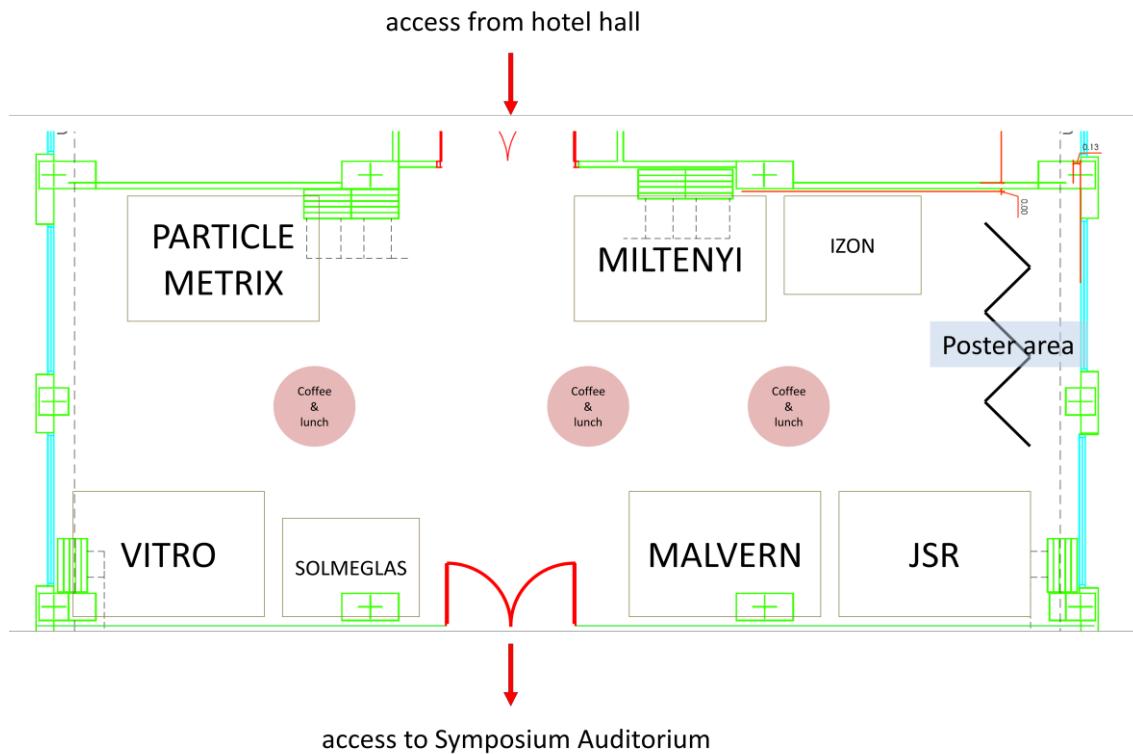


Floor plan (first floor)





Industrial exhibition floor plan





The city of San Sebastián

San Sebastián is the administrative capital of Gipuzkoa, one of the three provinces making up the Basque Autonomous Community. It lies to the north-east of the Iberian Peninsula, 30 kilometres from the border with France. The cross-border region running from San Sebastián to Bayonne represents an important hub of social, economic and tourist development in the south-west of the European Union (EU).

San Sebastián is a medium-sized city with almost 186,000 inhabitants. It is a tertiary, tourist city, eminently commercial, with strong emphasis on services and congresses. In recent years, San Sebastián has moved into the leading position among European cities, largely because of its commitment to science, technology, sustainable development and culture. Its designation as European Capital of Culture confirms this pledge.

Its smart urban layout and short distances make San Sebastián perfect for getting around on foot, with sprawling pedestrian precincts bike lanes and promenades that hug the city coastline from tip to tip.

The most recognisable city snapshot features the beaches of Ondarreta and the Concha, with Santa Clara Island nestling in the centre of the bay. The city's third beach, the Zurriola, lying alongside and beyond the Kursaal Congress Centre, is famous worldwide for its excellent surfing.

A city of deep-rooted international tourist tradition dating back to the 19th century, San Sebastián offers an excellent clean public transport service, an icon of architecture the Kursaal Congress Centre and Auditorium, a varied choice of hotels and, above all, what is now one of the best known creative gastronomies in the world.

Currency: Euro, the EU currency.

Official languages: Basque and Spanish.

Climate: Mild, with generally gentle temperatures, high humidity, frequent clouds and heavy rainfall throughout the year. The coldest month is usually January, with an average temperature of 7.9°C and the hottest August, with an average of 20°C.



General information

Symposium registration

The registration desk will be open during Thursday 29 September, from 8:30 to 10:00. The desk will allow onsite registration.

Language

The symposium language is English. Simultaneous translation will not be provided.

Lunch and coffee breaks

Lunch and coffee breaks are included in the registration fee and will be served at the exhibition and poster area.

Poster exhibitions

Posters must be 120 cm height and 90 cm width. Two poster walks are scheduled. Presenters are kindly requested to stand by their poster during these poster walks.

The mounting and removal times are to be strictly adhered to. If a poster has not been removed by the end of the allocated removal time, it will be disposed of by symposium staff.

Poster walk	Presentation day	Author presence at the poster	Poster mounting time	Poster removal time
I	Thursday, 29 September	17:30-18:30	Thursday, 29 September 10:15-10:45	Thursday, 29 September 18:30-19:30
II	Friday, 30 September	16:20-17:30	Friday, 30 September 11:00-11:30	Friday, 30 September 18:30-19:30

Oral presentations

It is essential for the smooth running of the congress that all speakers hand in their power point presentation at least one hour before the beginning of the session. Symposium assistant staff will be available to upload your presentation. The oral presentation should last 5 to 7 minutes followed by 3 minutes for discussion.

Prizes

One price will be awarded to the best poster presentation (free registration + 150€) and other to the best oral presentation (free registration + 250 € + free submission of a type A article to Frontiers in Immunology).

Internet access

Wireless internet is freely available in the symposium venue.



Symposium venue

Please, see page 19 "the venue".

Certificates

Certificates of attendance, oral and poster presentations will be provided by email after the congress.

Hotel accommodation

GEIVEX will provide online reservation for rooms in NH Aranzazu hotel with special fees for symposium attendees. There will be a limited number of discounted rooms.

Networking dinner

We are pleased to invite you to the networking dinner of the 3rd International Symposium of GEIVEX. The event will take place on Thursday 29 at 21:00, in one of the most famous and traditional restaurants of San Sebastian: *Ni neu*.

Ni neu is located in a privileged place of the city, in front of the sea and the river, central and accessible, *Ni neu* is a place to enjoy the ingenuity of the best cookery in a fresh and affordable format. Hidden behind the name of *Ni neu*, "myself" in Basque, there is a restaurant that proposes a cookery made of cutting-edge techniques, combined with quality products.

We hope to enjoy a special gastronomic experience and us profit from the meeting to relax and strengthen networking partnerships.

Please, during the online registration to the symposium, click *yes* or *not* to confirm or decline your presence in the networking dinner. The cost of the dinner will be 30 € (not included in the registration fee).

***Ni neu* restaurant:** Zurriola avenue, 1. Donostia - San Sebastián.

To get to the restaurant:

By public transport: bus number 5 or 25 (13 minutes). One way trip is 1,70 €.

It is also possible to arrive to the restaurant by walking alongside the Concha Bay (35 minutes).

NOTES

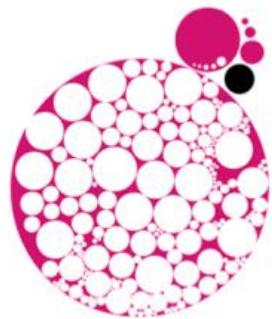
The new BD Accuri™ C6 Plus Flow Cytometer

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Grupo Español de Innovación e Investigación en

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