

This newsletter, created to promote spreading of information on EVs, is yours! Do not hesitate to send any information you wish to see there or any request to newsletter@fsev.fr

June 2023

Dear FSEVers,

Before Summer break, the FSEV board is not forgetting you. We come back from Seattle where the FSEV members were well represented at the ISEV2023. We are also supporting the next generation of EV researchers to prepare an exciting FSEV meeting in November the 14th 2023. Keep in mind that during this meeting, we will renew the board. With or without a permanent position you can apply! We will take a break for the summer. Enjoy your holidays and see in Septmeber!

Best wishes, The FSEV board

A little touch of ISEV 2023 (17-21/05/23, Seattle, Washington) from our FSEV vice president Christian Neri

10 French laboratories were present at ISEV 2023 for oral presentations or posters as principal authors (Clamart, Bordeaux, Fontenay-aux-Roses, Lyon, Paris, Toulouse), and 8 laboratories as co-authors, for a congress that brought together more than 1,000 participants in Seattle. Congratulations to Jean-Christophe Delpech's laboratory (Bordeaux), which received an outstanding poster award on the role of extracellular vesicles (EVs) in the brain (title: The role of brain-derived EVs in cognitive impairment associated with gestational omega-3 deficiency). ISEV 2023 saw a number of highlights around a variety of themes, including label-free visualisation approaches, microfluidics, large EVs, lessons from non-mammalian EVs, and the role of EVs in senescence and age-related diseases, the integration of traditional markers and protein markers derived from EVs in clinical studies, the debate on the maturity of therapeutic approaches, and in vivo imaging of EVs in cancer, with a keynote speech by Jacky Goetz (Strasbourg).

Another highlight was the success of the inaugural symposium of the Special Interest Group

EVINS (Extracellular Vesicles in Nervous Systems), an initiative chaired by Christian Neri (France) and co-chaired by Eva-Maria Albers (Germany), Tsuneya Ikezu (USA) and Andy Hill (Australia) with several developments to be announced shortly. All in all, a packed programme for another edition rich in information and interaction, co-chaired this year by Dolores Di Visio and Uta Erdbrügger, and which next year will take place in **Melbourne for ISEV 2024**.

NEWS FROM FSEV SOCIETY:

- @ Your news: You've got somme piece of news? Please send us what to cover in our next newsletter at admin@fsev.fr
- @ FSEV Congress 2023 will be hold on 14/11/2023 (NEW DATE !!!!). Save the date for this Hybrid event! It will also validate the accounts of the FSEV and its actions throughout the year, will allow our members to express their wishes for future actions, and will elect the new board for 2024-2026.
- @ Call for application to renew FSEV board. All information regarding the board, including the application form, are available at https://www.fsev.fr/about-us.html
 Please send your application to: calls@fsev.fr before 15/09/2023

A new board will be presented for vote of the members at the FSEV Congress 2023 General assembly (see above).

- @ FSEV Congress 2024 will be hold in Strasbourg. Do not hesitate to contact us at calls@fsev.fr to participate in the organization of the meeting, particularly if you are located in the East.
- <u>@ LinkedIn</u>: also remember to follow us at https://www.linkedin.com/company/french-society-for-extracellular-vesicles-fsev/?viewAsMember=true
- @ MOVE European Mobility Fellowships 2023

EV societies across Europe has got together to form MOVE (MObility for Vesicles research in Europe) and their 1st project is to give early stage scientists the opportunity to work in a different European lab in 2023.

MOVE European Mobility Fellowship aims to foster collaboration between the members of different European EV Societies and Networks. The Fellowship will enable Early Career Researchers (the applicants) to travel to another lab in Europe (the hosts) to develop both their technical skills and enlarge their own professional networks.

The Fellowship is intended for technicians, PhD students and early-stage postdoctoral researchers (≤ 5 years, excluding career breaks). There may be some exceptions. This will be at the discretion of each national society.

FSEV will offer two Fellowships to cover travel and subsistence (but not bench fees) to work within a host lab at an academic institution in a different European country for 1-3 months, to a maximum value of €2000.

Process: https://www.ukev.org.uk/move-mobility-ev-europe/

- Look up host labs registered with the project on:

https://docs.google.com/spreadsheets/d/19y7JppcAJLyTlaV21A5YCpyAfhtivkUh/edit?usp=sharing&ouid=106664164426554744978&rtpof=true&sd=true

Applications are now open to study abroad!

- Contact the host lab directly to discuss your proposed project
- Apply for the placement through the specific forms and process of your society This is a rolling application and different societies will have different times to apply and rules, so contact them directly.

FSEV is proud to announce our 1st MOVE accepted application

The successful applicant is **Mireia GOMEZ-DURO** (2nd year PhD student, Structure and Membrane Compartments Lab, UMR144, Institut Curie, Paris) who will stay 3 months (30/10/2023 to 30/01/2024) in Hector Peinado's group (Microenvironment and Metastasis Group in the Spanish National Cancer Research Centre-CNIO, Madrid).

Her current PhD project is to unravel the functional contribution of CD133-EVs released from triple-negative breast cancer (TNBC) in tumor progression and metastasis.

The MOVE research project will be to determine the ability of small EVs derived from TNBC cells to disseminate throughout an organism and promote metastasis at specific distant organs. The research training during this fellowship will complement her PhD and help widen her knowledge in EVs and in vivo studies. She will also have the opportunity to network and connect to the research community in **Madrid** and establish new contacts within the CNIO for future collaborations.

@ MOVE International Symposium: will be held on 24-27/10/2023, Malaga, Spain.

Abstract submission deadline: 30/06/2023 Communication to authors: 21/07/2023 Early bird registration deadline: 15/09/2023

More information at https://www.webcongreso.com/move

@ Workshop FSEV-AFC 2024

Workshop "hands-on" (JFP-Journée de formation Pratique) on **single EV analysis**. 60 participants will have the opportunity to manipulate directly up to 4 various devices among the tens present on site (nanocytometer, single particle tracking, sup-resolution microscopy) to analyze provided referenced samples. The practical session day will be preceded by an afternoon presentation of the state of the art by experts in the field and followed by a morning of analysis of the results.

Event co-organized with AFC (Association Française de Cytométrie) and held at FIAP Jean Monnet in Paris (France), 07-09/02/2024

Registration deadline: 07/12/2023

More information at https://www.alphavisa.com/afc-fsev/2024/index.php

@GO-EV: the network **Grand-Ouest on Extracellular Vesicles**, born in 2017, is now supported by Bretagne and Pays-de-La-Loire regional funding, to foster its structuration and visibility. More news to come!

ISEV (International Society for EVs) EVENTS:

@ The Student Network on Extracellular Vesicles (SNEV) invites you to participate in a virtual Conference on 13-14/07/2023. This event is supported by ISEV.

The conference has free registration and will feature keynote speakers as well as professional development talks, involving early career researchers from Australia, Singapore, The Netherlands, the United Kingdom, Portugal, and the USA.

You can register through this link: https://t.co/nGitfdCEAU

- @ ISEV2024 Annual Meeting: Save the date! 08-12/05/24, Melbourne, Australia (Education day: 08/05/2024 and Annual meeting: 09-12/05/2023)
- @ METVES II Standardisation of concentration measurements of extracellular vesicles for medical diagnoses, Workshop 24/11/23. More information at: https://isev.memberclicks.net/index.php?option=com_jevents&task=icalrepeat.detail&evid=159&Itemid=115&year=2022&month=11&day=24&title=metves-ii-workshop-&uid=625feed43f802b90b76ae309644f1a4a
- @ Extracellular Vesicle Club, virtual, weekly on Wednesdays (generally 6pm)

Organized by **Ken Witwer**, ISEV Chair of Science and Meetings, Johns Hopkins Med U, Bethesda, USA.

You can sign up for the email list to receive the weekly program and link at: https://www.surveymonkey.com/r/L25KDWB or subscribe to the YouTube Channel for past events https://www.youtube.com/c/ExtracellularVesicleClub

You can also submit suggestions of topics for a future EVClub: https://www.surveymonkey.com/r/DC5MY9X

OTHER EV EVENTS:

Baltic Society of Extracellular Vesicles

@ Research school and conferences, 5-9/09/2023 in Tartu, Estonia. Events free of charge jointly organized by Baltic Society of Extracellular Vesicles in collaboration with COMBIVET ERA Chair of Comparative Medicine and OH-BOOST projects in the Institute of Veterinary Medicine and Animal Sciences of the Estonian University of Life Sciences, University of Tartu, University of Helsinki and University of Milan.

1/ Worshop on "BASICS TO WORK WITH EXTRACELLULAR VESICLES" 5-7/09/2023.

This **3-day hands on workshop** is and will introduce the basic methods for working with Extracellular Vesicles (EVs). It will take you through all the steps to work with EVs starting from sample preparation and EV purification until the EV characterization, validation and the data analysis. The research school will also be consisted of lectures and workshops about latest technologies used in EV studies and further applications as well.

Registration and additional information at https://www.combivet.ee/research-school-2023.html

2/ Two day conference on "Converging Extracellular Vesicle Research in all domains of life towards understanding their potential functional applications", 8-9/09/2023.

The conference will feature the sessions specially targeting "Functional specificity of Extracellular Vesicles" and other hot topics in the field including, but not limited to biology behind EV communication in all domains of life, EV purification, stable storage, mass production, commercialization of EV products and EV engineering for potential functional applications.

Registration and additional information at https://www.combivet.ee/annual-conference-2023.html

Call for papers

@ Research Topic "Mesenchymal Stem Cell-Derived Extracellular Vesicles: Considerations and Therapeutic Applications?"

Our colleague **Émilie Velot** (FSEV board member; UMR 7365 Ingénierie Moléculaire et Physiopathologie Articulaire — IMoPA CNRS-Université de Lorraine, Nancy) is co-editor of this special issue in this **call for papers** to be published in *Frontiers in Cell and Developmental Biology*.

Mesenchymal stem (stromal) cells (MSCs) are the most common cells used in cell therapy trials. These cells act via a myriad of paracrine pathways that mostly involve releasing extracellular vesicles (EVs). The therapeutic potential of MSCs-derived EVs (MSC-EVs) has been shown to be promising for many diseases (autoimmune, brain, cancer, skin, respiratory system, urinary system, vascular system...) and MSC-EVs therapy may replace MSC therapy in the future.

The goal of this Research Topic is to gather new research on the therapeutic applications of MSC-EVs in a variety of diseases, considerations of the use of MSC-EVs as a drug delivery vehicle and address the current challenges associated with large scale production of MSC-EVs.

For more information, please contact: emilie.velot@univ-lorraine.fr

Virtual events, Conferences and Courses

@ WebEVTalk: Program to support networking in the field of Extracellular Vesicles by Carolina Soekmadji (Australia), with Jan Lötvall (Sweden) and Dolores Di Vizio (USA).

If you wish to present your work, you can send an email to Carolina Soekmadji (Carolina.Soekmadji@qimrberghofer.edu.au)

https://www.facebook.com/groups/518888602152396/ https://www.youtube.com/channel/UCvN_HxVQW8MQRLrDcNfMT6w

JOB OPPORTUNITIES:

For more details, please see FSEV website (https://www.fsev.fr/jobs.html)

In order to keep the job offers up to date, we ask employers to indicate monthly (before the last week of the current month), whether the offer is still open.

If no update information is provided, the announcement will be deleted from this section. Thank you for your understanding!

@ The **GO-EV network** is seeking for "**Communication Manager**" to orchestrate the GO-EV project in collaboration with the core-facilities network 'Biogenouest'.

Mission: Coordinate the GO-EV network with gathers around 15 labs, 14 core-facilities, 5 health institutes, and 3 universities in Angers, Nantes, and Rennes.

Position: This is a fixed-term (**13-24 months**) part-time (80%) contract at INSERM (assistant.e ingenieur.e), located at INSERM U1307, CRCI2NA, in the team of Julie Gavard and Nicolas Bidère. The position is available as soon as **Sep 2023**.

Candidate profile: we are seeking for a communication manager, with training in cell biology (BTS/DUT), motivated about communication and interacting with academics and industrials.

Please contact *julie.gavard@inserm.fr* for more information and/or application

@Post-doc Position in Institut Charles Gerhardt Montpellier (ICGM, Marie Morille group) starting in September 2023. We are looking for an experimented post doc to participate in the development of a new type of biotherapy based on the local delivery of therapeutic RNAs by hybrid functionalized extracellular vesicles (EVs) for musculoskeletal regeneration. The post doctoral fellow will evolve in a higly recognized consortium of 6 labs gathering multidisciplinary expertise and technologies. In ICGM, he/she will be in charge of EV hybrid's formulation and characterization (physicochemical, biochemical and biological characterization), with a special care on drug loading and identification of formed subpopulations. We are looking for a highly motivated postdoctoral fellow trained to formulation and characterization of lipid nanoparticles and nucleic acids. An expertise in different processes used to produce the nanoparticles, especially microfluidics, will be appreciated. To work in this consortium, good communication skills and team spirit will be necessary, as well as a high level of personal motivation, excellent time management skills and the ability to be creative and discerning.

Please **apply before July 1**st by sending a curriculum vitae, a description of your research experience and the names of three referees to *marie.morille@umontpellier.fr*

@ 3-year Post-doc Position starting 01/09/2023 in the "Science and Technology of Milk and Eggs" (STLO) research unit, INRAe, Rennes, France.

For this position we are looking for a microbiologist or cellular biologist with experience in the study of extracellular vesicles (EVs) to investigate the health-promoting properties of EVs secreted by probiotics, notably Propionibacterium freudenreichii, and their mechanisms of action on the host. Young researcher will work as part of the PEPR BBIT BACTER-EV-BOOSTER research programme that brings together groups from Université de Paris (UMR7057), Université Paris-Saclay/INRAE (MICALIS), Institut Agro Dijon (UMR PAM), ENS Paris (UMR7203), UMR1107 (Clermont Ferrand) and Université de Nantes/Inserm (UMR1235 TENS) to develop multidisciplinary approach to stimulate the bioproduction and engineering of Gram⁺ bacteria's EVs for therapeutic applications to treat inflammation. Indeed, the aim of the BACTER-EV-BOOSTER project is to propose a biotherapy based on therapeutic EVs as an alternative to live probiotics. EVs will be produced in a scalable bioreactor at high yield from Gram+ bacteria with antiinflammatory activities such as Propionibacterium freudenreichii and Faecalibacterium prausnitzii, respectively, a food bacterium, and an intestinal bacterium isolated from the human gut. The EVs will be characterised at both biophysical and molecular levels (proteins, lipids, sugars, nucleic acids, metabolites). We will also engineer the content of EVs to enhance their intrinsic immunomodulatory activity. The anti-inflammatory and neuromodulatory properties of EVs from an isolated species or a pool of EVs from a combination of species (grown individually) will be tested in vitro in a cell model and in

vivo in preclinical models. We will use models of acute inflammation (Inflammatory Bowel Diseases-IBD), low-noise inflammation (Irritable Bowel Syndrome-IBS) associated with cognitive-emotional and behavioral disorders, or in model of neurodegenerative pathology (Alzheimer's).

If interested, please contact Eric Guédon (eric.guedon@inrae.fr) for an informal chat.

To apply, please send an email containing a short letter of motivation, a detailed CV (including a brief description of research interests, previous employments, and publication list), and contact details of at least two references.

Deadline of submission: 30/06/2023.

@ Post-doc Position starting 01/09/2023 in in UR TRePCa/IMRB/UPEC, Créteil: SARS-CoV-2 and extracellular vesicles, France.

We are looking for a post-doctoral researcher whose objective will be to characterize and determine the role(s) of sEVs produced in the human alveolar epithelium. The candidate will be in charge of the purification, characterization of sEVs and the infection of cells by different variants of SARS-CoV-2 in the presence or absence of sEVs. The work will be performed between the TRePCa laboratory and the IMRB team 18 (same site). The TRePCa laboratory is located at the Faculty of Health of Créteil and works on the field of extracellular vesicles in different contexts. Team 18 of the IMRB is specialized in the study of respiratory viruses. The candidate will be supervised by Dr Virginie Firlej and Dr Patrice Bruscella The candidate must be highly motivated, preferably with a PhD in cell biology. Skills in biochemistry and molecular biology are required (Western-blot, RT-qPCR, microscopy...). Knowledge in the field of extracellular vesicles and/or virology will be appreciated. The candidate must be able to work between two laboratories.

The candidate will be funded by UPEC for 1 year with possibility of renewal and will **start** in October 2023. Candidates should send CV, cover letter and at least one reference to *virginie.firlej@u-pec.fr* and *patrice.bruscella@u-pec.fr* before 01/07/2023

@ Marseille-position for an engineer, coordinating the EV-scientific platform of the Region PACA. We are looking for a motivated candidate to fill the position of engineer responsible for the management of the CEEVEC (Centre d'Expertises et d'Expérimentations sur les Vésicules Extracellulaires en Cancérologie et au-delà) platform. The engineer will be responsible for the training and supervision of the users of the CEEVEC facility, designing experiments in concert with the scientific staff, conducting experiments as service provider, and coordinating the follow-up of the projects and interaction with the scientific steering committee. The engineer will also manage the CEEVEC financials, including requests for funding and service revenues, develop the platform by identifying "calls for proposals" and coordinating ad hoc responses, manage the equipment, coordinate the user network, and organize training days and scientific meetings.

The ideal candidate should possess excellent organizational and problem-solving skills, be familiar with project management and, have expertise in the 'Extracellular Vesicle'-field. Fluency in both French and English (written and spoken) is a must. If you are passionate about research, education, innovation and coordination, we encourage you to apply for this exciting opportunity to shape the future development of our activities.

This engineer position is funded by Canceropôle PACA for up to three years. The successful candidate should start **no later than December 2023**. For more information about this opportunity, you can contact *rania.ghossoub@inserm.fr* and *ZIMMERMANNP@ipc.unicancer.fr*

To apply, please send a motivation letter, your CV, and the contact details of two referees via e-mail to: richard.tomasini@inserm.fr and laurent.gagnoux@unice.fr

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Review

-Loric S, Denis JA, Desbene C, Sabbah M, Conti M. Extracellular Vesicles in Breast Cancer: From Biology and Function to Clinical Diagnosis and Therapeutic Management. Int J Mol Sci. 2023 Apr 13;24(8):7208. doi: 10.3390/ijms24087208. PMID: 37108371.

@ Case report

-Dhani H, Hinestrosa JP, Izaguirre-Carbonell J, Balcer HI, Kurzrock R, Billings PR. Case Report: Early detection of pancreatic pre-cancer lesion in multimodal approach with exosome liquid biopsy. Front Oncol. 2023 May 11;13:1170513. doi: 10.3389/fonc.2023.1170513. PMID: 37251939.

@ Cell communication

-Tognoli ML, Dancourt J, Bonsergent E, Palmulli R, de Jong OG, Van Niel G, Rubinstein E, Vader P, Lavieu G. Lack of involvement of CD63 and CD9 tetraspanins in the extracellular vesicle content delivery process. Commun Biol. 2023 May 17;6(1):532. doi: 10.1038/s42003-023-04911-1. PMID: 37198427.

@ Microbiology

- Rizzo J, Trottier A, Moyrand F, Coppée JY, Maufrais C, Zimbres ACG, Dang TTV, Alanio A, Desnos-Ollivier M, Mouyna I, Péhau-Arnaude G, Commere PH, Novault S, Ene IV, Nimrichter L, Rodrigues ML, Janbon G. Coregulation of extracellular vesicle production and fluconazole susceptibility in *Cryptococcus neoformans*. mBio. 2023 Jun 13:e0087023. doi: 10.1128/mbio.00870-23. Epub ahead of print. PMID: 37310732.

@ Stem cells

-Ekram S, Khalid S, Ramzan F, Salim A, Bashir I, Durrieu MC, Khan I. Mesenchymal Stem Cell-Derived Extracellular Vesicles Protect Rat Nucleus Pulposus Cells from Oxidative Stress. Cartilage. 2023 May 4:19476035231172154. doi: 10.1177/19476035231172154. Epub ahead of print. PMID: 37139781.

-Helissey C, Cavallero S, Guitard N, Théry H, Chargari C, François S. Revolutionizing Radiotoxicity Management with Mesenchymal Stem Cells and Their Derivatives: A Focus on Radiation-Induced Cystitis. Int J Mol Sci. 2023 May 22;24(10):9068. doi: 10.3390/ijms24109068. PMID: 37240415.

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