

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

April 2023

Dear FSEVers,

With Spring, flowers are blooming, trees bourgeoning and opportunities to take part to EV related events and structures expanding. We congratulate those of you who have been selected for a oral/poster presentation at the ISEV 2023, but do not miss the coming events organized by the FSEV (MOVE 2023, FSEV 2023), FSEV members (EVINS) and the EV regional networks (GO-EV, REVE, EVOcc).

Best wishes, The FSEV board

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 held on 24/11/2023. 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.
- @ FSEV Congress 2024 will be held 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.
- @ LinkedIn: 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 (\leq 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.
- **@ MOVE International Symposium**: will be held on **24-27/10/2023**, Malaga, Spain. More information will come soon!

@ 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) in Paris, **1**st **quater 2024**

@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!

@ REVE: Réseau Est des Vésicules Extracellulaires (East Extracellular Vesicle Network)
The REVE will meet for the first time on June 20th in Strasbourg. If you are located in the
East and dream to join the REVE

Please see the web page on the Cancéropôle-Est website for more informations: https://www.canceropole-est.org/la-recherche/la-recherche-au-sein-du-canceropoleest/reseau-biopsies-liquides/reseau-est-des#overlay-context=la-recherche/la-recherche-au-sein-du-canceropole-est/reseau-biopsies-liquides

@ EVOcc (Extracellular Vesicle in Occitanie): After the success of our first EVOcc scientific days online last December, we hope to see many of you in person for the 2nd scientific days which will take place in Montpellier on June 22th on the CNRS Occitanie campus (route de Mende) from 10am to 4pm.

Several oral presentation slots will be available, young researchers will be favoured, so do not hesitate to <u>submit your abstract</u> before **May 12th** (<u>using this template</u>).

Access to EVOcc scientific day is free but registration <u>following this link</u> is mandatory in order to welcome you in the best conditions (dead line 12th May).

See you soon!



EVOcc Copil: Emilie Layre (IPBS Toulouse), Cécile Malnou (INFINITy Toulouse), Marie Maumus (IRMB, Montpellier), Gilles Gadea (IRCM, Montpellier), Sandrine Silvente Poirot (CRCT-INOV, Toulouse), Marie Pierre Rols (IPBS, Toulouse), Ramaroson Andriantsitohaina (PhyMedExp, Montpellier), Julie Constanzo (IRCM, Montpellier), Danièle Noël (IRMB, Montpellier), Marie Morille (ICGM, Montpellier).

ISEV (International Society for EVs) EVENTS:

@ ISEV2023 Annual Meeting: Save the date! 17-21/05/23, Seattle, Washington.

Keynote speaker: **Jacky Goetz** (FSEV member; INSERM, CRBS, Strasbourg) "In-vivo Imaging of EVs in Cancer"

More information at: https://isev.memberclicks.net/isev2023

FSEV member invited speakers: **Christian Neri** (FSEV VP; INSERM, IBPS, Paris), Chair, Special Interest Group "EVs in the Nervous System (**EViNS**)" Inaugural Symposium, Introductory Talk in the Session on "Aging"

@ 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

@ The Baltic Society of Extracellular Vesicles (BSEV) would like to invite you to a two-day EV conference. This second annual BSEV conference will feature eminent scientists from various fields of the EV world. Our EV conference will take place in an in-person attendance from 28-29th of April 2023 in Vilnius, Lithuania.

For more information, please visit: https://www.bsev.eu/bsev-meetings/

@ 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:

Workshop

@ German National Cancer Institute (NCI) and Alliance of Pancreatic Cancer Consortia (APaCC) in collaboration with the European Liquid Biopsy Society is organizing a digital workshop on the role of EVs in early detection of pancreatic cancer. This virtual workshop will focus on the biology of EVs in pancreatic cancer, new technologies for isolating and detecting EVs for biomarkers, and the discovery and validation of EVs based biomarkers

Date and Time: May 25, 8am-2pm EDT, 2pm-8pm CET; May 26, 8am-12:30pm EDT, 2pm-6:30pm CET

Additional information on the agenda (including expert presentations) and registration details are here: https://events.cancer.gov/cbrg/evsinpdac

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!

@ 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

@ Post-doc Position in Institut de Médecine Régénératrice et de Biothérapies, Montpellier. The postdoc will carry out independent research on extracellular vesicles (EVs) derived from mesenchymal stromal cells (MSCs) and the optimization of their release from hydrogels for enhanced cartilage formation in 3D bioprinted scaffolds. The first objective is to optimize the sustained release of EVs from hydrogels and determine in vitro their efficacy to induce MSC differentiation into cartilage matrix forming chondrocytes and possibly in vivo. The secondary objective is to improve the potency of MSCs-derived EVs by modulating the expression of relevant factors with the aim of enhancing their regenerative efficacy in rheumatic diseases.

How to apply: Applications are invited from outstanding and highly motivated candidates for a fixed term position as postdoctoral researcher in the group of Danièle Noël, "Organoids, Mesenchymal stromal cells and Extracellular vesicles for osteoarticular diseases therapies", at the Institute of Regenerative Medicine and

Biotherapies in Montpellier. This position is funded by a ANR program and is available for up to four years with a project beginning in June 2023.

Applications to include a covering letter, CV, and the contact details of three referees should be sent, via e-mail to Danièle Noël at: daniele.noel@inserm.fr

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Commentary

-Gavard J. Migrasome-derived nanoparticles: the chamber of secrets was opened again. FEBS J. 2023 Mar 28. doi: 10.1111/febs.16775. Epub ahead of print. PMID: 36974520.

@ Review

- -Gros F, Muller S. The role of lysosomes in metabolic and autoimmune diseases. Nat Rev Nephrol. 2023 Mar 9. doi: 10.1038/s41581-023-00692-2. Epub ahead of print. PMID: 36894628.
- -Rubio K, Hernández-Cruz EY, Rogel-Ayala DG, Sarvari P, Isidoro C, Barreto G, Pedraza-Chaverri J. Nutriepigenomics in Environmental-Associated Oxidative Stress. Antioxidants (Basel). 2023 Mar 21;12(3):771. doi: 10.3390/antiox12030771. PMID: 36979019.
- -Sitbon A, Delmotte PR, Goumard C, Turco C, Gautheron J, Conti F, Aoudjehane L, Scatton O, Monsel A. Therapeutic potentials of mesenchymal stromal cells-derived extracellular vesicles in liver failure and marginal liver graft rehabilitation: a scoping review. Minerva Anestesiol. 2023 Apr 20. doi:10.23736/S0375-9393.23.17265-8. Epub ahead of print. PMID: 37079286.

@ Aging

-Bogdanowicz P, Roullet N, Bensadoun P, Bessou-Touya S, Lemaitre JM, Duplan H. Reduction of Senescence Associated Secretory Phenotype and exosome-shuttled miRNAs by Haritaki fruit extract in senescent dermal fibroblasts. Int J Cosmet Sci. 2023 Mar 20. doi: 10.1111/ics.12858. Epub ahead of print. PMID: 36940283.

@ Biomarkers

- -Agouti I, Masson E, Loundou A, Jean E, Arnaud L, Abdili E, Berenger P, Lavoipierre V, Séguier J, Dignat-George F, Lacroix R, Bernit E. Plasma levels of E-selectin are associated with retinopathy in sickle cell disease. Eur J Haematol. 2023 Mar;110(3):271-279. doi: 10.1111/ejh.13902. Epub 2022 Nov 30. PMID:36409296.
- -Blandin A, Dugail I, Hilairet G, Ponnaiah M, Ghesquière V, Froger J, Ducheix S, Fizanne L, Boursier J, Cariou B, Lhomme M, Le Lay S. Lipidomic analysis of adipose-derived extracellular vesicles reveals specific EV lipid sorting informative of the obesity metabolic state. Cell Rep. 2023 Mar 28;42(3):112169. doi: 10.1016/j.celrep.2023.112169. Epub 2023 Mar 1. PMID: 36862553.
- -Filippini F, Nola S, Zahraoui A, Roger K, Esmaili M, Sun J, Wojnacki J, Vlieghe A, Bun P, Blanchon S, Rain JC, Taymans JM, Chartier-Harlin MC, Guerrera C, Galli T. Secretion of VGF relies on the interplay between LRRK2 and post-Golgi v-SNAREs. Cell Rep. 2023 Mar 28;42(3):112221. doi:10.1016/j.celrep.2023.112221. Epub 2023 Mar 10. PMID: 36905628.

@ Brain

- -Afram E, Lauritzen I, Bourgeois A, El Manaa W, Duplan E, Chami M, Valverde A, Charlotte B, Pardossi-Piquard R, Checler F. The η -secretase-derived APP fragment η CTF is localized in Golgi, endosomes and extracellular vesicles and contributes to A β production. Cell Mol Life Sci. 2023 Mar 17;80(4):97. doi: 10.1007/s00018-023-04737-4. PMID: 36930302.
- -Perbet R, Zufferey V, Leroux E, Parietti E, Espourteille J, Culebras L, Perriot S, Du Pasquier R, Bégard S, Deramecourt V, Déglon N, Toni N, Buée L, Colin M, Richetin K. Tau Transfer via Extracellular Vesicles

Disturbs the Astrocytic Mitochondrial System. Cells. 2023 Mar 23;12(7):985. doi:10.3390/cells12070985. PMID: 37048058

@ Cancer

-Ferragu M, Vergori L, Le Corre V, Bellal S, Del Carmen Martinez M, Bigot P. Effects of Large Extracellular Vesicles from Kidney Cancer Patients on the Growth and Environment of Renal Cell Carcinoma Xenografts in a Mouse Model. Curr Issues Mol Biol. 2023 Mar 17;45(3):2491-2504. doi:10.3390/cimb45030163. PMID: 36975533.

@ Inflammation

- -Arya AK, Balestra C, Bhopale VM, Tuominen LJ, Räisänen-Sokolowski A, Dugrenot E, L'Her E, Bhat AR, Thom SR. Elevations of Extracellular Vesicles and Inflammatory Biomarkers in Closed Circuit SCUBA Divers. Int J Mol Sci. 2023 Mar 22;24(6):5969. doi: 10.3390/ijms24065969. PMID: 36983042.
- -Ong-Meang V, Blanzat M, Savchenko L, Perquis L, Guardia M, Pizzinat N, Poinsot V. Extracellular Vesicles Produced by the Cardiac Microenvironment Carry Functional Enzymes to Produce Lipid Mediators In Situ. Int J Mol Sci. 2023 Mar 20;24(6):5866. doi: 10.3390/ijms24065866. PMID: 36982939.
- -Pan B, Zhang Z, Wu X, Xian G, Hu X, Gu M, Zheng L, Li X, Long L, Chen W, Sheng P. Macrophages-derived exosomes modulates wear particle-induced osteolysis via miR-3470b targeting TAB3/NF-κB signaling. Bioact Mater. 2023 Mar 3;26:181-193. doi: 10.1016/j.bioactmat.2023.02.028. PMID: 36911207.

@ Immunomodulation

-Cagnet L, Neyrinck-Leglantier D, Tamagne M, Berradhia L, Khelfa M, Cleophax S, Pirenne F, Vingert B. CD27+ microparticle interactions and immunoregulation of CD4+ T lymphocytes. Front Immunol. 2023 Mar 9;14:1043255. doi: 10.3389/fimmu.2023.1043255. PMID: 36969173.

@ Lung

-Brandsma J, Schofield JPR, Yang X, Strazzeri F, Barber C, Goss VM, Koster G, Bakke PS, Caruso M, Chanez P, Dahlén SE, Fowler SJ, Horváth I, Krug N, Montuschi P, Sanak M, Sandström T, Shaw DE, Chung KF, Singer F, Fleming LJ, Adcock IM, Pandis I, Bansal AT, Corfield J, Sousa AR, Sterk PJ, Sánchez-García RJ, Skipp PJ, Postle AD, Djukanović R; U-BIOPRED Study Group. Stratification of asthma by lipidomic profiling of induced sputum supernatant. J Allergy Clin Immunol. 2023 Mar 12:S0091-6749(23)00293-2. doi:10.1016/j.jaci.2023.02.032. Epub ahead of print. PMID: 36918039.

@ Signaling

- Gautheron F, Georgievski A, Garrido C, Quéré R. Bone marrow-derived extracellular vesicles carry the TGF- β signal transducer Smad2 to preserve hematopoietic stem cells in mice. Cell Death Discov. 2023 Apr 5;9(1):117. doi: 10.1038/s41420-023-01414-0. PMID: 37019878.
- -Petit I, Levy A, Estrach S, Féral CC, Trentin AG, Dingli F, Loew D, Qu J, Zhou H, Théry C, Prunier C, Aberdam D, Ferrigno O. Fibroblast growth factor-2 bound to specific dermal fibroblast-derived extracellular vesicles is protected from degradation. Sci Rep. 2022 Dec 22;12(1):22131. doi:10.1038/s41598-022-26217-8. PMID: 36550142.

@ Vaccine

-Beaujean M, Uijen RF, Langereis JD, Boccara D, Dam D, Soria A, Veldhuis G, Adam L, Bonduelle O, van der Wel NN, Luirink J, Pedruzzi E, Wissink J, de Jonge MI, Combadière B. The immunological effects of intradermal particle-based vaccine delivery using a novel microinjection needle studied in a human skin explant model. Vaccine. 2023 Mar 24;41(13):2270-2279. doi: 10.1016/j.vaccine.2023.02.040. Epub 2023 Mar 2. PMID: 36870875.

@ Virus

-Yeh SC, Strilets T, Tan WL, Castillo D, Medkour H, Rey-Cadilhac F, Serrato-Pomar IM, Rachenne F, Chowdhury A, Chuo V, Azar SR, Singh MK, Hamel R, Missé D, Kini RM, Kenney LJ, Vasilakis N, Marti-Renom MA, Nir G, Pompon J, Garcia-Blanco MA. The anti-immune dengue subgenomic flaviviral RNA is present in vesicles in mosquito saliva and is associated with increased infectivity. PLoS Pathog. 2023 Mar 30;19(3):e1011224. doi: 10.1371/journal.ppat.1011224. PMID: 36996041.

@ BioRχiv pre-prints (https://www.biorxiv.org/)

-Luminescence-based screening for extracellular vesicle release modulators reveals a role for PI4KIIIβ in exosome biogenesis upon lysosome inhibition

Maarten P. Bebelman, Caitrin Crudden, Bart Snieder, Evangelia Thanou, Catharina J.M. Langedijk, Margarida Viola, Steven Eleonora, Urszula Baginska, Olaf Cotugno, Jan Paul M. Bebelman, Monique A.J. van Eijndhoven, Leontien Bosch, Ka Wan Li, Martine J. Smit, Guillaume van Niel, August B. Smit, Frederik J. Verweij, D. Michiel Pegtel bioRxiv 2023.02.23.529257; doi: https://doi.org/10.1101/2023.02.23.529257

- -Downregulation of stromal syntenin sustains AML development Raphael Leblanc, Rania Ghossoub, Armelle Goubard, Rémy Castellano, Joanna Fares, Luc Camoin, Stephane Audebert, Marielle Balzano, Berna Bou-Tayeh, Cyril Fauriat, Norbert Vey, Jean-Paul Borg, Yves Collette, Michel Aurrand-Lions, Guido David, Pascale Zimmermann doi: https://doi.org/10.1101/2023.02.15.527799
- -Accumulation of Tau in Extracellular Vesicles Disturbs the Astrocytic Mitochondrial System Romain Perbet, Valentin Zufferey, Elodie Leroux, Enea Parietti, Jeanne Espourteille, Lucas Culebras, Sylvain Perriot, Renaud Du Pasquier, Séverine Bégard, Vincent Deramecourt, Nicole Déglon, Nicolas Toni, Luc Buée, Morvane Colin, Kevin Richetin doi: https://doi.org/10.1101/2023.02.15.527595

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