



*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***

October 2021

Dear FSEVers,

Dear members, don't forget our virtual meeting on December 7, which honors our young researchers working on extracellular vesicles, organized for the second time by the FSEV. During this day, the general assembly will ratify the new board, for which you have until December 1st to vote, and it will be an opportunity to come online and discuss the future of the FSEV.

We expect many of you and look forward to seeing you again.

Best regards,
The FSEV board

FSEV EVENTS:

Scheduling of on-site events shall be considered in function of the evolution of the COVID-19 situation in our country

@ **FSEV 4th meeting (FSEV 2021)** for young investigators will take place virtually on **07/12/2021**. **Register here** <https://www.fsev.fr/fsev-meeting-2021.html>

for a selected set of presentations by young FSEV members, PhD award 2021 ceremony, and opportunities to connect with attendees. Due to ongoing sanitary restrictions, this Year's FSEV will be held virtually.

Please find the preliminary program below:

https://www.fsev.fr/uploads/9/8/7/0/98705346/programme_2021.pdf

Registration is **free but mandatory** to receive the link to the virtual event.

@ **FSEV 2021 General Assembly** will be held during the FSEV 4th meeting for young investigators, **07/12/2021** (see above). It will approve the budget 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 2021-2023.

Register here <https://www.fsev.fr/fsev-meeting-2021.html>

ISEV (International Society for EVs) EVENTS:

@ **uEV 2022**, inaugural symposium on urinary extracellular vesicles, **virtually** on **15-16/02/2022**.

Registration: <https://isev.memberclicks.net/uev2022#/>

Abstract submission (deadline November 29th):

<https://www.surveymonkey.com/r/QD9WFBY>

@ **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:

Call for papers

@ **Research topics "Is Vesicular Therapy the Newcomer That Matters for the Medicine of Tomorrow?"** Our colleague Arnaud Bianchi (UMR 7365 Ingénierie Moléculaire et Physiopathologie Articulaire CNRS-Université de Lorraine, Nancy) is organizing a special issue in this **call for papers** to be published in *International Journal of Molecular Sciences*. The deadline for submissions is **30/04/2022**.

This issue will focus on the advances of vesicular vectors in the field of medicine over the last 10 years, and how this can reinforce the development of new therapeutics. It will emphasize critical problems and their resolutions: leakage, batch to batch reproducibility, scale-up impediments... Please follow this link for more information:

https://www.mdpi.com/journal/ijms/special_issues/Vesicular_Therapy

Virtual events, Conferences and Courses

@ **Keystone Exosomes, Microvesicles and other extracellular vesicles**, **20-23/02/2022**, Santa Fe, Colorado, USA.

<https://www.keystonesymposia.org/KS/Online/Events/2022B3/Exosomes-Microvesicles-and-Extracellular-Vesicles.aspx?EventKey=2022B3>

Discounted Registration Deadline: **16/12/2021**

Global Health Award Deadline: **31/01/2022**

FSEV member **Organiser**: Clotilde Théry

@ **GERLI**, Groupe d'Etude et de Recherche en Lipidomique, 17^{ème} congrès **06-09/11/2022** (Hôtel Delcloy à Saint Jean-Cap-Ferrat) avec une session "Exotic organelles and lipid signaling". For more information, please see <https://www.gerli.com>

FSEV member **Speaker**: Soazig Le Lay

@ **WebEVTalk**: Program to support networking in the field of Extracellular Vesicles by Carolina Soekmadji (Australia), with Jan Lötvald (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

PhD Defenses:

@ **Maxence RABIA**: "Rôle d'un phospholipide spécifique des endosomes, le bis(monoacylglycéro)phosphate, dans le trafic vésiculaire endosomal -implication dans les dyslipidémies". Co-supervisors: Isabelle Delton et Françoise Hullin-Matsuda (CarMeN laboratory, INSERM U1060, INRAe)

08/12/2021: 14h, INSA de Lyon, Villeurbanne

@ **Mathilde BERGAMELLI** : "Impact de l'infection congénitale par le Cytomégalovirus humain sur la sécrétion de petites vésicules extracellulaires placentaires et conséquences sur le développement cérébral fœtal", dirigée par Cécile Malnou (INSERM UMR1291 – CNRS UMR5051 - Université Toulouse III)

09/12/2021: 14h, CHU PurpanToulouse

@ **Alexia Blandin**: "Etude des vésicules extracellulaires adipeuses dans un contexte d'obésité : caractérisation des cargos lipidiques et de l'adiponectine », **10/12/2021** (Angers). Supervisor: Soazig Le Lay (Unité de Recherche de l'Institut du Thorax, Inserm UMR 1087, Equipe 4, Nantes et SFR ICAT Santé, Angers)

JOB OPPORTUNITIES: for more details, please see FSEV website.

@ **2 permanent positions**, at the company EVerZom, Paris, starting **January 2022**.

EVerZom développe un procédé de production de vésicules extracellulaires à grande échelle pour la production clinique.

-Une offre de CDI **chef de projet** recherche et développement de vésicules extracellulaires pour la réalisation d'études R&D et/ou de co-développement avec les partenaires d'EVerZom.

-Une offre de CDI **ingénieur de production** de vésicules extracellulaires pour la réalisation d'études R&D et/ou de co-développement avec les partenaires d'EVerZom.

Merci d'envoyer un CV le plus exhaustif possible (maximum 3 pages en y détaillant les compétences expérimentales) à jeanne.volatron@everzom.com

@ **Engineer/technician position for 30 months or post-doc position for 24 months** in the lab of Guillaume van Niel at IPNP, Paris (INSERM/Université de Paris,

Commenté [MOU2]: C'est passé ? a déléter ?

Commenté [EV3R2]: c'est en 2022!

<https://ipnp.paris5.inserm.fr/research/teamsand-projects/17-equipe-van-niel>) to image extracellular vesicles imaging in zebrafish embryos. Expertise in zebrafish is a plus.

Please send your application including CV, motivation letter and references to guillaume.van-niel@inserm.fr

@ A 2-year post doctoral position, on “Function of extracellular vesicles from mesenchymal stromal cells in aging” 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 (IRMB - Inserm U1183), Montpellier, France. This position is funded by a H2020 EU program with a project beginning in **January 2022**.

This work is based on a selection of proteins differentially expressed in EVs from senescent MSCs, the first objective is to validate the selected proteins using functional assays in vitro and possibly in vivo using murine models of arthritis. The secondary objective is to improve the potency of MSCs-derived EVs by modulating the expression of relevant proteins with the aim of enhancing their therapeutic efficacy in osteoarthritis.

Applications should include a covering letter, CV, and the contact details of three referees and be sent to daniele.noel@inserm.fr

@ A 1-year post doctoral position at MSC-Med laboratory UMU7057 (CNRS and Université de Paris). The appointment would start in **January 2022**. The role of the post-doc to be recruited is to implement a characterization toolbox that will be used to analyze protein-loaded EVs by a combination of analytical approaches. The post-doc will be in charge of developing protocols, standardizing methods, performing analytical validation and analyzing/comparing EV samples in a comprehensive way. The project will be carried out by a public/private multidisciplinary consortium including the MSC-Med lab. Background on biochemistry, biophysics, biology or pharmacy is preferred. Consolidated expertise (≥ 3 years) in extracellular vesicles is absolutely required. In particular, consolidated expertise on EV characterization.

Please contact: amanda.brun@univ-paris-diderot.fr, florence.gazeau@univ-paris-diderot.fr, kelly.aubertin@univ-paris-diderot.fr and hugo.salmon@parisdescartes.fr

Website : <https://iveth.u-paris.fr/>

@ A Post doctoral position is opened in **January 2022** at U1229-RMeS Equipe REGOS, Nantes. The project “Cargos of bone extracellular vesicles: a new approach for regenerative medicine of bone tissue” aims to identify and analyze the cargos that are associated with EVs (transcriptomic and proteomic analysis) isolated from young and old mice in order to highlight the signals altered during aging, and demonstrate the regenerative capacities of the most promising of them.

For more details: https://drive.google.com/file/d/1_OiEBbNINHW0PcN8EeUhTAzINbe9e9Y/view?usp=sharing

Candidates should apply by sending a CV, motivation letter, publication list, letters of recommendation and contacts of recent referees to valerie.geoffroy@inserm.fr

@ A 2-year post doctoral position in extracellular vesicle-dependent cell communication in cancer is available in PRISM laboratory, Inserm UMR-1192, Université de Lille. The appointment would start between the end of 2021 and **February 2022**.

The postdoc will study the physiopathological features of breast cancer leading to brain metastasis. For this purpose, the extracellular vesicles from in vitro models of tumor microenvironment will be isolated and molecularly characterized. Their potential to prepare metastatic niches and regulate the inflammatory balance will be deciphered.

Interested candidates should send their CV, list of publications, motivation letter and the name of two referees to michel.salzet@univ-lille.fr

More details about the job description will be given during the interview.

More info about the lab: <https://laboratoire-prism.fr/>

@ A 12-month fixed-term postdoctorate position, funded by ANR is immediately available in the laboratory of "Spatio-Temporal Regulation of Cell Signaling", at the Cancer Research Centre of Marseilles (CRCM), a leading European Cancer Centre set on the Mediterranean shores in Southern France. The focus of our research group is to identify, to understand, to validate and to target molecular networks involved in cancer signaling, with the specific purpose of facilitating the transfer of therapeutic and pharmacological targets into preclinical and clinical development programs in oncology. For more information please visit: <https://www.crcm-marseille.fr/en/presentation-of-the-crcm/>. The postdoctoral scientist will focus on the engineering of Vectorized Exosomes in Cancer Therapy.

To apply, please send your complete CV, a brief motivation letter (1 page) and contact information of 2 referees to: pascale.zimmermann@inserm.fr.

@ A Postdoctoral position for 2 years (possibly extensible) opened immediately in neurobiology and computational image analysis at Institut Pasteur, Paris. The lab is focused on the study of the molecular mechanisms regulating protein sorting and intracellular trafficking in polarized epithelial cells and neuronal cells, and on the mechanisms of protein(s) and organelle(s) exchanges between cells, with the aim of understanding how these pathways contribute to/are altered in diseases like cancer and neurodegenerative disorders.

Candidates should apply by sending a CV, a motivation letter as well as the name and contact details of at least 2 academic references to chiara.zurzolo@pasteur.fr

@ A Junior Postdoctoral position for 2 years opened as early as **January 2022** in cell biology and cancer in "Signaling in Oncogenesis, Angiogenesis, and Permeability", Nantes. SOAP team is interested in deciphering how tumor cells pirate basic signaling pathways to sustain their survival and unlimited proliferation, as well as the way in which they interact within their environment, with a focus on extracellular vesicles towards the tumor vascular network.

Candidates should apply by sending a CV, a motivation letter as well as the name and contact details of at least 2 academic references to julie.gavard@inserm.fr

@ A 3-year PhD position starting the **7th of February 2022** at the Research Institute for Environmental and Occupational Health (IRSET Umr Inserm 1085, University of Rennes1) to work on the EV role in liver damage due to environmental contaminants. The PhD student will be co-supervised by Odile Sergent and Dominique Lagadic-Gossmann (Team 3, IRSET, <https://www.irset.org>).

Hepatic steatosis consists of a liver overloaded by fat. While simple steatosis is considered as a benign form of the disease, it can progress to more severe forms such as steatohepatitis, that is characterized by inflammation and death of cells in the liver.

Recent evidences indicate the key role of various environmental pollutants in the development of steatohepatitis. Among those contaminants, polycyclic aromatic hydrocarbons (PAHs) are worth studying because strongly represented notably in residential sectors. Our team has described the ability of PAH to increase the release of extracellular vesicles (EVs) by hepatocytes and endothelial cells, and also to modify their content. In addition, EVs from PAH-treated non steatotic hepatocytes are also able to trigger oxidative stress and death of healthy hepatocytes. The PhD candidate will therefore analyze the role of EVs in the progression of hepatic steatosis to severe forms upon PAH exposure.

Techniques to be employed include steatotic hepatocyte cultures, EV isolation (ultracentrifugation), EV characterization (NTA, western-blot, AFM and multi-omics), assays in hepatocyte cultures and in rats to study the modes of EV action using usual cellular, molecular and histopathological techniques.

The candidate should have background in cell biology with expertise in cell culture, molecular and cell biology techniques. Some knowledge in environmental toxicology would be appreciated.

Send application before the **15th of December 2021** in a single pdf file including CV, motivation letter, Bachelor and Master transcripts to Professor Odile Sergent (osergent@univ-rennes1.fr).

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Comment

-Loyer X, Boulanger CM, Le Lay S. Adipocyte extracellular vesicles: rescuers of cardiac mitochondrial stress. Trends Endocrinol Metab. 2021 Nov 18:S1043-2760(21)00258-7. doi: 10.1016/j.tem.2021.11.001. Epub ahead of print. PMID: 34802873.

@ Review

-Babin L, Andraos E, Fuchs S, Pyronnet S, Brunet E, Meggetto F. From circRNAs to fusion circRNAs in hematological malignancies. JCI Insight. 2021 Nov 8;6(21):e151513. doi: 10.1172/jci.insight.151513. PMID: 34747369.

-Lara-Barba E, Araya MJ, Hill CN, Bustamante-Barrientos FA, Orloff A, García C, Galvez-Jiron F, Pradenas C, Luque-Campos N, Maita G, Elizondo-Vega R, Djouad F, Vega-Letter AM, Luz-Crawford P. Role of microRNA Shuttled in Small Extracellular Vesicles Derived From Mesenchymal Stem/Stromal Cells for Osteoarticular Disease Treatment. Front Immunol. 2021 Nov 1;12:768771. doi: 10.3389/fimmu.2021.768771. PMID: 34790203.

-Piffoux M, Volatron J, Silva AKA, Gazeau F. Thinking Quantitatively of RNA-Based Information Transfer via Extracellular Vesicles: Lessons to Learn for the Design of RNA-Loaded EVs. Pharmaceutics. 2021 Nov 15;13(11):1931. doi: 10.3390/pharmaceutics13111931. PMID: 34834346.

@ Brain

-Bokobza C, Joshi P, Schang AL, Csaba Z, Faivre V, Montané A, Galland A, Benmamar-Badel A, Boshier E, Lebon S, Schwendimann L, Mani S, Dournaud P, Besson V, Fleiss B, Gressens P, Van Steenwinckel J. miR-146b Protects the Perinatal Brain against Microglia-Induced Hypomyelination. Ann Neurol. 2021 Nov 5. doi: 10.1002/ana.26263. Epub ahead of print. PMID: 34741343.

@ Cancer

-Aitamer M, Akil H, Vignoles C, Branchaud M, Abraham J, Gachard N, Feuillard J, Jauberteau MO, Shirvani H, Troutaud D, Bentayeb H. CD20 expression, TrkB activation and functional activity of diffuse large B cell lymphoma-derived small extracellular vesicles. Br J Cancer. 2021 Nov 6. doi: 10.1038/s41416-021-01611-7. Epub ahead of print. PMID: 34743199.

-Sabbagh Q, André-Grégoire G, Alves-Nicolau C, Dupont A, Bidère N, Jouglar E, Guével L, Frénel JS, Gavard J. The von Willebrand factor stamps plasmatic extracellular vesicles from glioblastoma patients. *Sci Rep.* 2021 Nov 23;11(1):22792. doi: 10.1038/s41598-021-02254-7. PMID: 34815502.

@ Heart

-Lima Correa B, El Harane N, Desgres M, Perotto M, Alayrac P, Guillas C, Pidial L, Bellamy V, Baron E, Autret G, Kamaleswaran K, Pezzana C, Perier MC, Vilar J, Alberdi A, Brisson A, Renault N, Gnechi M, Silvestre JS, Menasché P. Extracellular vesicles fail to trigger the generation of new cardiomyocytes in chronically infarcted hearts. *Theranostics.* 2021 Nov 2;11(20):10114-10124. doi: 10.7150/thno.62304. PMID: 34815807.

-Riaud M, Hilairat G, Sindji L, Perdomo L, Montero-Menei CN, Carmen Martinez M. Pharmacology active microcarriers delivering HGF associated with extracellular vesicles for myocardial repair. *Eur J Pharm Biopharm.* 2021 Nov 5;S0939-6411(21)00273-3. doi: 10.1016/j.ejpb.2021.10.018. Epub ahead of print. PMID: 34748934.

@ Metabolism

-Jalabert A, Reiningger L, Berger E, Coute Y, Meugnier E, Forterre A, Errazuriz-Cerda E, Geloan A, Aouadi M, Bouzakri K, Rieusset J, Rome S. Profiling of ob/ob mice skeletal muscle exosome-like vesicles demonstrates combined action of miRNAs, proteins and lipids to modulate lipid homeostasis in recipient cells. *Sci Rep.* 2021 Nov 3;11(1):21626. doi: 10.1038/s41598-021-00983-3. PMID: 34732797.

@ Microbiology

-Barbosa MMF, Kanno AI, Barazzone GC, Rodriguez D, Pancakova V, Trentini M, Faquim-Mauro EL, Freitas AP, Khouri MI, Lobo-Silva J, Goncalves VM, Schenkman RPF, Tanizaki MM, Boraschi D, Malley R, Farias LP, Leite LCC. Robust Immune Response Induced by *Schistosoma mansoni* TSP-2 Antigen Coupled to Bacterial Outer Membrane Vesicles. *Int J Nanomedicine.* 2021 Oct 22;16:7153-7168. doi: 10.2147/IJN.S315786. PMID: 34712047.

@ BioRxiv pre-prints (<https://www.biorxiv.org/>)

- Human Cytomegalovirus modifies placental small extracellular vesicle secretion and composition towards a proviral phenotype to enhance infection of fetal recipient cells
Mathilde Bergamelli, Hélène Martin, Yann Aubert, Jean-Michel Mansuy, Marlène Marcellin, Odile Burlet-Schiltz, Ilse Hurbain, Graça Raposo, Jacques Izopet, Thierry Fournier, Alexandra Benchoua, Mélinda Bénard, Marion Groussolles, Géraldine Cartron, Yann Tanguy le Gac, Nathalie Moinard, Gisela D'Angelo, Cécile E. Malnou. *bioRxiv* 2021.11.18.468660; doi: <https://doi.org/10.1101/2021.11.18.468660>

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