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December 2021

FSEV 4th virtual meeting collection





FSEV new board members



FSEV new board members at large



Dear FSEVers,

We were delighted of the gathering of 142 participants at the 4th FSEV meeting, which highlighted the outstanding work of 13 junior scientists on December 7th. During the 2021 FSEV General Assembly, renewal of the board was presented together with an

overview of the activities performed in 2021 despite the pandemic and the resulting financial report. All of which were unanimously approved by attending FSEV members.

Thanks again to all talented young speakers for their inspiring contributions and thanks to all attendees for their interest and input! 😊

We are also very much grateful to the outgoing board members: Sophie Rome (past-president), Clotilde Théry (past-vice-treasurer) and Soazig Lelay (past-secretary) who were dedicated to the creation of the society and served for two mandates, for a total of 4 years. Their commitment, guidance and research insight allowed to build FSEV as a user-oriented organisation for the growing EV community.

This year, the **ISEV2022 meeting will be held in Lyon, France**. The Board of the FSEV, past and present, is part of this organization and this will be a great opportunity for the FSEV laboratories to be recognized as a dynamic and strong community. Do not miss this gathering and check for timely updates on the ISEV website.

Happy holidays and see you soon in 2022!
The FSEV board

NEWS FROM FSEV SOCIETY:

@ FSEV needs YOU ! Help is wanted to **join FSEV communication team**. The new FSEV board members invite you to take an active part in our society by improving its visibility and its network. If you're willing to contribute to the FSEV website or to any social media, please do not hesitate to send your application to the following address: calls@fsev.fr

@ Map of French Laboratories' equipment of use for EVs: an update!

In order to keep on helping researchers, we wish to update our map of French EV equipments available by region. Please send us an e-mail to implement this map if you have been forgotten.

The current map can be found here: <https://www.fsev.fr/fsev-labs-equipments.html>

ISEV (International Society for EVs) EVENTS:

@ ISEV 2022 annual meeting in Lyon, **25-29 May**. This event is **co-organized by FSEV!**

Registration is now available. For more information please see: <https://www.eventscribe.net/2022/ISEV2022/>

Abstract submission deadline: **07/01/2022**

Early bird registration deadline: **15/02/2022**

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

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

@ **Upcoming ISEV activities open only to ISEV members**, for which ISEV will communicate in early 2022 include:

-Participation in the **MISEV2018 update**

-Application as **Member at Large** of the 2022-24 ISEV board

@ **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:

Network announcement

@ **EVN: East Extracellular Vesicle Network**

Creation of the French Eastern network on Extracellular Vesicles (EVN board: **Jessica GOBBO**, CGFL, Inserm U1231, Dijon; **Céline ELIE-CAILLE** - CNRS UMR 6174, Institut FEMTO-ST, Besançon; **Pascal COLOSETTI** - UMR Inserm U1060/INRAe 1397-CarMeN, ESSEV, Lyon).

The originality of this network is to cover the domains from pre-anALytical and EV qualiFication to the cLINic (ALCALIN) and to be open to all researchers, engineers, technicians, students, from academic or industrial. This initiative aims to propose a methodological and technological solution to a problem that has arisen from numerous discussions within the community, sometimes highlighting incompatibilities, inconsistencies or technological and analytical inefficiencies, encountered in the analysis of the secretome/vesiculome in certain complex biological fluids (whole blood, plasma/serum, urine, ...).

For more information, please see the web page on the Cancéropôle-Est website: <https://www.canceropole-est.org/la-recherche/la-recherche-au-sein-du-canceropole-est/reseau-biopsies-liquides/reseau-east>

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>

Abstract poster Deadline: **09/01/2022**

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

Available registration for online or on-demand attendance

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

@ **Gordon Research Conference "Extracellular vesicles": 24-29/07/2022**, Grand Summit Hotel, Sunday River, Newry, USA.

Application until 26/06/2022 at <https://www.grc.org/extracellular-vesicles-conference/2022/>

FSEV member **Speakers**: Clotilde Théry, Jacky Goetz

@ **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.

@ **PhD position, Institut Curie EuReCa International PhD program 2022-25**: a PhD position co-funded by the EU for a project on EVs is available at Institut Curie in Paris, in the C. Théry team / L. Martin-Jaular supervision (Project 14). Strict criteria of mobility.

Link for info and online application: <https://training.institut-curie.org/eureca>

Deadline of online application: **10/01/2022**

@ **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, <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

@ 1-year Post-doctoral position with possibility of extension at IECM, Oniris, Nantes, starting **spring 2022**.

Type 1 diabetes is a chronic disease resulting from the autoimmune destruction of the insulin-secreting pancreatic beta cells. Extracellular vesicles endowed with immune-regulatory properties have gained attention for immune therapy of autoimmune conditions, but standardized procedures to evaluate their tolerogenic potential remain to be developed prior to clinical translation. To address this issue, the Post-doc candidate will develop ex vivo and in vivo functional assays in lymph nodes, which concentrate initiators and effectors of innate and adaptive (auto-) immune responses. This work will be performed in close collaboration with a PhD student optimizing a bioprocess for large-scale EV production from mouse and human beta cell lines.

To apply, please send your CV, motivation letter, publication list and contact information of referees to steffi.bosch@oniris-nantes.fr

@ Post doctoral position at the Louvain Drug Research Institute (LDRI) of UCLouvain University (Belgium)

The Advanced Drug Delivery and Biomaterials unit (ADDB) of the LDRI has acquired international recognition in the field of drug delivery. The group consists of about 30 researchers and investigates novel drug delivery methods for unmet medical needs. Its research is mainly focused on the delivery of biotech-drugs and poorly soluble drugs by a multidisciplinary approach, in particular their delivery by polymeric and lipid nanocarriers.

The ADDB lab has a post-doc position open for a minimum of 1 year for a project aiming at incorporating nucleic acids in extracellular vesicles for delivery to the central nervous system. The work will be performed in close collaboration with Prof. G. Muccioli (LDRI, BPBL) and Prof. V. van Pesch (Institute of neurosciences, Neurochemistry).

We are specifically looking for a researcher who has a strong experience and expertise into drug, and more specifically nucleic acid, encapsulation in extracellular vesicles. Experience in cell culture, extracellular vesicle isolation and characterization as well as in drug encapsulation in extracellular vesicles is required.

Please send your application (CV and motivation letter including at least 2 references) to anne.desrieux@uclouvain.be

@ 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

@ 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/>

@ 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_OiEBbNINHWOPcN8EeUhTAzINb-e9e9Y/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

@ 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/>

@ 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

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Review

-Monfoulet LE, Martinez MC. Dietary modulation of large extracellular vesicles: the good and the bad for human health. *Nutr Rev*. 2021 Dec 7:nuab106. doi: 10.1093/nutrit/nuab106. Epub ahead of print. PMID: 34875084.

-Sebbagh AC, Rosenbaum B, Péré G, Alric H, Berger A, Wilhelm C, Gazeau F, Mathieu N, Rahmi G, K A Silva A. Regenerative medicine for digestive fistulae therapy: benefits, challenges and promises of stem/stromal cells and emergent perspectives via their extracellular vesicles. *Adv Drug Deliv Rev*. 2021 Dec;179:113841. doi: 10.1016/j.addr.2021.113841. Epub 2021 Jun 24. PMID: 34175308.

-Silva AKA, Morille M, Piffoux M, Arumugam S, Mauduit P, Larghero J, Bianchi A, Aubertin K, Blanc-Brude O, Noël D, Velot E, Ravel C, Elie-Caille C, Sebbagh A, Boulanger C, Wilhelm C, Rahmi G, Raymond-Letron I, Cherukula K, Montier T, Martinaud C, Bach JM, Favre-Bulle O, Spadavecchia J, Jorgensen C, Menasché P, Aussel C, Chopineau J, Mosser M, Ullah M, Sailliet N, Luciani N, Mathieu N, Rautou PE, Brouard S, Boireau W, Jauliac S, Dedier M, Trouvin JH, Gazeau F, Trouillas M, Peltzer J, Monsel A, Banzet S. Development of extracellular vesicle-based medicinal products: a position paper of the group "Extracellular Vesicle translation to clinical perspectives - EVOLVE France". *Adv Drug Deliv Rev*. 2021 Dec;179:114001. doi: 10.1016/j.addr.2021.114001. Epub 2021 Oct 19. PMID: 34673131.

@ Brain

-Kurzawa-Akanbi M, Tammireddy S, Fabrik I, Gliaudelytė L, Doherty MK, Heap R, Matečko-Burmann I, Burmann BM, Trost M, Lucocq JM, Gherman AV, Fairfoul G, Singh P, Burté F, Green A, McKeith IG, Härtlova A, Whitfield PD, Morris CM. Altered ceramide metabolism is a feature in the extracellular vesicle-mediated spread of alpha-synuclein in Lewy body disorders. *Acta Neuropathol*. 2021 Dec;142(6):961-984. doi: 10.1007/s00401-021-02367-3. Epub 2021 Sep 13. PMID: 34514546.

-Nyam-Erdene A, Nebie O, Delila L, Buée L, Devos D, Chou SY, Blum D, Burnouf T. Characterization and Chromatographic Isolation of Platelet Extracellular Vesicles from Human Platelet Lysates for Applications in Neuroregenerative Medicine. *ACS Biomater Sci Eng*. 2021 Dec 13;7(12):5823-5835. doi:10.1021/acsbiomaterials.1c01226. Epub 2021 Nov 30. PMID: 34846835.

@ 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 Dec;125(12):1687-1698. doi: 10.1038/s41416-021-01611-7. Epub 2021 Nov 6. PMID: 34743199.

@ Development

-Hurbain I, Macé AS, Romao M, Prince E, Sengmanivong L, Ruel L, Basto R, Théron PP, Raposo G, D'Angelo G. Microvilli-derived extracellular vesicles carry Hedgehog morphogenic signals for Drosophila wing imaginal disc development. *Curr Biol*. 2021 Dec 3:S0960-9822(21)01547-5. doi: 10.1016/j.cub.2021.11.023. Epub ahead of print. PMID: 34890558.

@ Heart

-Koutalianos D, Koutsoulidou A, Mytidou C, Kakouri AC, Oulas A, Tomazou M, Kyriakides TC, Prokopi M, Kapnisis K, Nikolenko N, Turner C, Lusakowska A, Janiszewska K, Papadimas GK, Papadopoulos C, Kararizou E, Spyrou GM, Gourdon G, Zamba Papanicolaou E, Gorman G, Anayiotos A, Lochmüller H, Phylactou LA. miR-223-3p and miR-24-3p as novel serum-based biomarkers for myotonic dystrophy type1. Mol Ther Methods Clin Dev. 2021 Sep 14;23:169-183. doi: 10.1016/j.omtm.2021.09.007. PMID:34703840.

-Riaud M, Hilairet 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 Dec;169:268-279. doi: 10.1016/j.ejpb.2021.10.018. Epub 2021 Nov 5. PMID: 34748934.

@ Microbiology

-Veith PD, Glew MD, Gorasia DG, Cascales E, Reynolds EC. The Type IX Secretion System and Its Role in Bacterial Function and Pathogenesis. J Dent Res. 2021 Dec 10:220345211051599. doi: 10.1177/00220345211051599. Epub ahead of print. PMID: 34889148.

@ Technology

-Deutsch EW, Omenn GS, Sun Z, Maes M, Pernemalm M, Palaniappan KK, Letunica N, Vandenbrouck Y, Brun V, Tao SC, Yu X, Geyer PE, Ignjatovic V, Moritz RL, Schwenk JM. Advances and Utility of the Human Plasma Proteome. J Proteome Res. 2021 Dec 3;20(12):5241-5263. doi: 10.1021/acs.jproteome.1c00657. Epub 2021 Oct 21.

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

-Lipidomic analysis of adipose-derived extracellular vesicles reveals their potential as lipid mediators of obesity-associated metabolic complications. Alexia Blandin, Grégory Hilairet, Maharajah Ponnaiah, Simon Ducheix, Isabelle Dugail, Bertrand Cariou, Marie Lhomme, Soazig Le Lay. bioRxiv 2021.12.10.472057; doi:<https://doi.org/10.1101/2021.12.10.472057>.

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