



*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***

Summer 2021

Dear FSEVers,

This is the end of summer and... we hope you had a nice break before the return from the holidays!

We are delighted to welcome you back with great expectations and optimism for events on EV research. While some uncertainty continues, we will soon inform you whether this year's FSEV Young Investigators meeting & General Assembly may be held as a hybrid or virtual event.

Take care,
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 3rd meeting (FSEV 2021) for young investigators, **07/12/2021**. **"Save the date!"** for a selected set of presentations by young FSEV members, PhD award 2021 ceremony, and opportunities to connect with attendees.

Full program and registration info will be available soon.

@ FSEV 2021 General Assembly will be held during the FSEV 3rd meeting for young investigators, **07/12/2021** (see above). It will 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 2021-2023.

ISEV (International Society for EVs) EVENTS:

@ massivEVs, an ISEV workshop on massive production of extracellular vesicles, will take place **in person and virtually** on **28-29/10/2021** at the **University of Brescia, Italy**
Chairs Paolo Borgese and Antonella Bongiovanni.

Co-organized with the H2020-FETOpen projects evFoundry and VES4US.

@ **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.

FSEV member presentation: 22/09/2021 6pm, Clotilde Théry and Lorena Martin-Jaular, Paris, based on Martin-Jaular et al. "Unbiased proteomic profiling of host cell extracellular vesicle composition and dynamics upon HIV-1 infection." EMBO J. 2021 doi:10.15252/embj.2020105492. Epub 2021 Mar 11. PMID: 33709510.

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

@ **EVIta, the Italian Society of Extracellular Vesicles 2nd annual meeting**, will take place in person, **20-22/09/2021** at Ciocco, Tuscany, Italy.

Please follow this link for more information: <https://evitasociety.it/symposium/>

@ **GSEV, the German Society for Extracellular Vesicles 4th Autumn Meeting**, will take place in person, **03-04/10/2021** in Freiburg im Breisgau, Germany.

More information will come at: <https://www.extracellular-vesicles.de/gsev-meetings/>

FSEV member invited speakers: Graça Raposo

@ **Extracellular Vesicles in Cancer**, Mini Symposium **27/10/2021** (8AM-11:30 AM US EDT). Register here for Zoom link: <https://tinyurl.com/GCCECV>

FSEV member invited speakers: Clotilde Théry

@ **Keystone Exosomes, Microvesicles and other extracellular vesicles**, **20-23/02/2022**, Santa Fe, Colorado, USA. Abstract submission until **15/11/2021**.

Please follow this link for more information:

<https://www.keystonesymposia.org/KS/Online/Events/2022B3/Exosomes-Microvesicles-and-Extracellular-Vesicles.aspx?EventKey=2022B3je&Tabs=4#Tabs>

FSEV member **Organiser**: Clotilde Théry

@ **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

PhD Defenses:

@ **Elodie LEROUX**: *“Vésicules extracellulaires : actrices de la propagation de la pathologie tau dans les tauopathies”*.

24/09/2021, 10h (Lille). Supervisor: Morvan COLIN (Lille Neuroscience and Cognition–INSERM UMRS-1172, Equipe “Alzheimer’s and tauopathies”)

@ **Emeline BONSERGENT**: *“Caractérisation moléculaire et cellulaire du transport intercellulaire médié par les vésicules extracellulaires”*.

30/09/2021, 13h (Paris). Supervisor : Gregory Lavieu (Université Paris, INSERM CNRS UMR 7057, Laboratoire Matière et Systèmes complexes).

@ **Delphine BOUSQUET**: *“Caractérisation des ARNs du virus de l’hépatite B (VHB) sécrétés par des hépatocytes *in vitro*”*.

26/11/2021, 15h (Lyon, salle de conférence du CRCL -151 Cours Albert Thomas). Supervisor : Fabien Zoulim (Équipe “Hépatites Virales”, Centre de Recherche en Cancérologie de Lyon, Université Claude Bernard Lyon 1)

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

@ **A 30 months engineer position, generation of zebrafish models for the study of exosomes**: Guillaume van Niel's team at the Institute of Psychiatry and Neurosciences of Paris (Paris) studies the role of exosomes in several neuropathies using zebrafish as a model organism. We are looking for a research engineer (Master level) or a technician with a solid experience to join our team for a 30 months contract. The aim of the project is to generate zebrafish models expressing extracellular vesicle markers in distinct cell types. The engineer will be responsible for developing stable zebrafish strains, performing microinjections of constructs and exosomes, and ensuring the validity of the models by fluorescence imaging on live embryos.

To carry out his/her missions, the engineer will be able to rely on an animal facility recently installed in our premises, a technician in charge of the animal facility, an advanced imaging platform and the expertise of an international team.

The position is to be filled as of **01/10/2021**, we will favor profiles with strong experience with zebrafish and microinjection. Knowledge in zebrafish imaging is a plus.

Please contact and send your CV to guillaume.van-niel@inserm.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_OiEBbNINHW0PcN8EeUhtAZlNb-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

@ A Post doctoral position funded for 1 year starting **November 2021** with the possibility of extension based upon satisfactory professional performance on a 3-year grant from INSERM – ITMO Aviesan. The project is about “Exploring the role of an oncomiR in blood vessel integrity” at INSERM, U1045, Cardiovascular diseases, University of Bordeaux.

The laboratory offers a postdoctoral position with experience in vascular biology and exosomal microRNAs (exomiRs). Combining the latest advances in basic research in vascular biology and an innovative therapeutic approach, the project aims i) to highlight and characterize the alterations of the subendothelial layer of blood vessels in pathological contexts associated with the overproduction of an oncomiR, ii) to show that this deterioration can be prevented or contained. The results could lead to the development of a new therapeutic tool.

More information about the lab can be found at: <https://genot-lab.org>

Candidates should send their CV, publication list and contact information for 3 referees to elisabeth.genot@inserm.fr

@ A 2-year post doctoral position and a 1-year Research Associate position funded by the National Institutes of Health (NIH) are available **immediately** in the “Exosomes and Epitranscriptome Laboratory” of Dr. Susmita Sahoo, at the Icahn School of Medicine at Mount Sinai, New York, NY.

Current projects involve pre-clinical, translational and basic science research, primarily in two major areas: 1) Exosomes: biological nanovesicles secreted by cells that transfers noncoding RNAs to mediates local and distant microcommunication between cells, tissues and organs. 2) Epitranscriptome: (m6A)- the dynamic and selectively localized caps on cellular RNA in cardiac remodeling and regeneration. The Postdoctoral Research Fellows will lead a research project in one of the funded areas described above. The Research Associate will conduct research and provide laboratory operations support of all research activities in the laboratory, under the direction of Dr. Sahoo. More information about our research and researchers can be found here:

<http://labs.icahn.mssm.edu/sahoolab/>

<http://labs.icahn.mssm.edu/sahoolab/job-openings/>

Interested individuals should send their curriculum vitae containing a summary of past accomplishments, a statement of future objectives and professional references to kenneth.c.davis@mssm.edu or to susmita.sahoo@mssm.edu

@ 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 **October 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/>

@ Postdoctoral position to study the relative contribution and composition of extracellular vesicles from normal and cancerous tissues. This exciting project will contribute to define the potential of extracellular vesicles as cancer biomarkers. The postdoctoral scholar will have the unique opportunity to work in highly interdisciplinary environment from basic to translational cancer research that creates opportunities of bench-to-bedside research. The project is co-led by Drs Ema Cocucci in the Division of Pharmaceutics and Pharmacology and Dario Palmieri in the Department of Cancer Biology and Genetics. Please directly contact Dr. Cocucci if interested (cocucci.1@osu.edu) and/or apply at:

https://osu.wd1.myworkdayjobs.com/OSUCareers/job/Columbus-Campus/Post-Doctoral-Scholar_R11073-1

@ 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.

@ Postdoctoral position for 2 years at the Hormone Laboratory, Department of Medical Biochemistry and Pharmacology, Haukeland University Hospital (Norway). The project aims to use nanoscaled exosomes as a tool to specifically target the hypothalamic areas with DNA that encodes proteins modulating energy balance. The aim is to implement this strategy in various animal models of obesity.

Send your applications to Johan.Ferno@uib.no

@ A 3-year PhD position in bioproduction of EV for therapy at Oniris, Nantes, starting **01/12/2021**.

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. More complex than recombinant proteins, this new class of nanobiomedicine requires the development of standardized bioprocesses for large scale production of safe EV with controlled biological properties. To address this problem, the PhD candidate will optimize a bioprocess for EV produced by a human beta cell line and transfer/adapt the process from the laboratory to the commercial scale. Techniques to be employed include culture in bioreactors, scalable EV isolation (TFF, SEC), characterization (NTA, FC and multi-omic) and mode of action assays in vitro and in vivo in humanized mouse models.

The PhD work will be performed at the IECM (Immunologie-Endocrinologie Cellulaire et Moléculaire) laboratory at Oniris in collaboration with the LRGP (Réaction et Génie des Procédés, team BioProMo) - UMR 7274 CNRS/Université de Lorraine/ENSAIA (Nancy). The IECM lab has a 10 year-expertise in the production and characterisation of beta EV. The team BioProMo is in charge of a platform for the large-scale production of human cell for the industrial hub "le grand défi biomédicaments".

For application details please contact: mathilde.mosser@oniris-nantes.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

SPECIAL INQUIRIES

@ Looking for Tangential Flow Filtration

Please find below the message from our colleague Alain Brisson (UMR-CBMN CNRS-Université de Bordeaux).

“Je suis à la recherche d'un système de filtration à flux tangentiel (Tangential Flow Filtration, TFF) KR2i (Repligen) pour concentrer des EVs. Je souhaite réaliser un ensemble d'expériences, qui pourraient être réalisées en prestation de service. Merci de me contacter (a.brisson@cbmn.u-bordeaux.fr) si vous disposez d'un tel système, ou si vous connaissez un laboratoire ou une compagnie en disposant. Merci pour votre aide.”

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Editorial

-Pers YM, Jorgensen C, Khoury M. Editorial: The Role of Metabolism in MSC-Mediated Immunomodulation. *Front Immunol.* 2021 Aug 26;12:751865. doi:10.3389/fimmu.2021.751865. PMID:34512675.

@ Review

- Amiral J. Extra cellular vesicles in blood circulation as biomarkers and messengers of patho-hysiological activity and alterations. *Transfus Apher Sci.* 2021 Aug;60(4):103209. doi: 10.1016/j.transci.2021.103209. Epub 2021 Jul 3. PMID: 34244081.
- Androuin A, Verweij FJ, van Niel G. Zebrafish as a preclinical model for Extracellular Vesicle-based therapeutic development. *Adv Drug Deliv Rev.* 2021 Sep;176:113815. doi: 10.1016/j.addr.2021.05.025. Epub 2021 May 29. PMID: 34058284 Review.
- Bäck M, Michel JB. From organic and inorganic phosphates to valvular and vascular calcifications. *Cardiovasc Res.* 2021 Jul 27;117(9):2016-2029. doi: 10.1093/cvr/cvab038. PMID: 33576771.
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- Boulestreau J, Maumus M, Jorgensen C, Noël D. Extracellular vesicles from mesenchymal stromal cells: Therapeutic perspectives for targeting senescence in osteoarthritis. *Adv Drug Deliv Rev.* 2021 Aug;175:113836. doi: 10.1016/j.addr.2021.113836. Epub 2021 Jun 22. PMID: 34166759.
- Bregaint S, Boyer E, Fong SB, Meuric V, Bonnaure-Mallet M, Jolivet-Gougeon A. *Porphyromonas gingivalis* outside the oral cavity. *Odontology.* 2021 Aug 19. doi: 10.1007/s10266-021-00647-8. Epub ahead of print. PMID: 34410562.
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- Felden B, Augagneur Y. Diversity and Versatility in Small RNA-Mediated Regulation in Bacterial Pathogens. *Front Microbiol.* 2021 Aug 10;12:719977. doi: 10.3389/fmicb.2021.719977. PMID: 34447363.
- Karamanos NK, Piperigkou Z, Passi A, Götte M, Rousselle P, Vlodavsky I. Extracellular matrix-based cancer targeting. *Trends Mol Med.* 2021 Aug 10;S1471-4914(21)00190-8. doi: 10.1016/j.molmed.2021.07.009. Epub ahead of print. PMID: 34389240.
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- Nader E, Garnier Y, Connes P, Romana M. Extracellular Vesicles in Sickle Cell Disease: Plasma Concentration, Blood Cell Types Origin Distribution and Biological Properties. *Front Med (Lausanne).* 2021 Aug 20;8:728693. doi:10.3389/fmed.2021.728693. PMID: 34490315.
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@ Blood

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@ Brain

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@ Cancer

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-Karam J, Constanzo J, Pichard A, Gros L, Chopineau J, Morille M, Pouget JP. Rapid communication: insights into the role of extracellular vesicles during Auger radioimmunotherapy. *Int J Radiat Biol.* 2021 Jul 26;1-10. doi:10.1080/09553002.2021.1955999. Epub ahead of print. PMID: 34270378.

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