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***

May 2021

Dear FSEVers,

The ISEV 2021 meeting is over and was a great success! For the attendees, all communications are available until 14th June 2021. The PDF of the abstract book is published in JEV and available at :
https://onlinelibrary.wiley.com/doi/full/10.1002/jev2.12083

Congratulations to :

Junior Member Scholarship Winners

Gwenan Andre-Gregoire, France
Mathilde Bergamelli, France
Benjamin Mary, France

Featured Abstract Winner

Benjamin Mary, France. *"Blood flow tunes uptake and fate of extracellular vesicles"*

Outstanding Oral Presentations

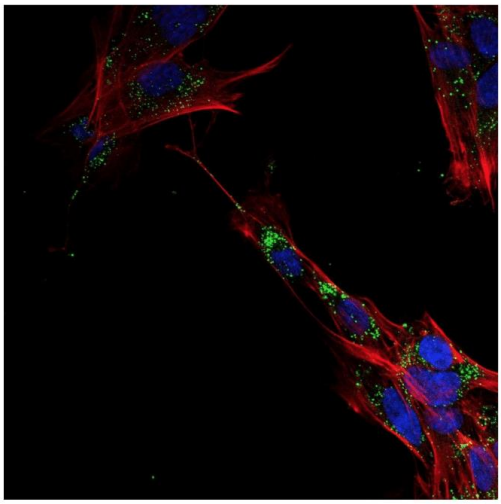
Emeline Bonsergent, France. *"Quantitative characterization of Extracellular Vesicle Uptake and Content Delivery within Mammalian Cells"*

And to our artists... ☺

Best regards,
The FSEV board

Best Scientific Image: Junior Member

"Fetal cells internalizing trophoblastic sEV"

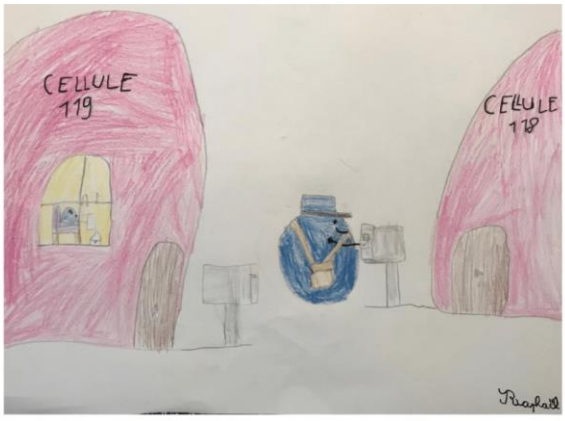


Mathilde Bergamelli
INSERM / Toulouse Institute for Inflammatory and infectious diseases

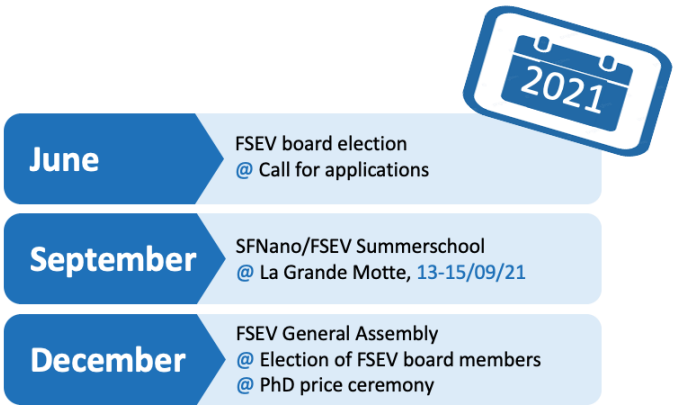
Best Interpretive Image: Children's Category

Raphaël (age 9)
France

Parent: Vincent Hyenne



@ Browse EV FUTURE EVENTS AT A GLANCE



FSEV EVENTS:

Scheduling of on-site events shall be considered in function of the evolution of the COVID19 situation in our country

ISEV (International Society for EVs) EVENTS:

@ SNEV is a virtual network run by students with a goal to connect EV students from hundreds of institutes and universities worldwide. It was formed by a group of students officially in June 2020 to connect students in the fields of EVs internationally. Its mission is to connect EV students worldwide, and our goal is to have a platform for students to discuss, network, & collaborate with other students and early career researchers.

Linkedin: https://www.linkedin.com/company/snevresearch
Twitter: @SNEVresearch
Instagram: @SNEVresearch
Reddit: r/snevresearch
SNEV is organising its first international virtual conference (*https://snevresearch.wordpress.com/vconference2021/?fbclid=IwAR06A114KNIju8b1FYqiB9bEkbsoTBEZcLtNbsF2ze41Zb_VtBRcL7H78U0*). **July 14-16, 2021**

@ 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 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 propose a topic for a future EVClub if you have an idea *https://www.surveymonkey.com/r/DC5MY9X*

@ 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

OTHER EV EVENTS:

Virtual events, Conferences and Courses

@ TRAIN-EV International Conference 2021, **virtual**, **30/06/2021**.

The conference will bring together EU and international representatives from Industry, Clinic, Academic and Research to explore and discuss the latest advances and knowledge related to the field of extracellular vesicles.

Registration and abstract submission are open until **30/05/2021**. Provisional program: *https://docs.google.com/document/d/1FJrxe8SVMe0lJXEBfKiL6aTbxBi5L7Sl/edit*

This event is free of charge. Follow this link to register: *bit.ly/trainev*

FSEV member invited speaker: Guillaume van Niel, Paris.

@ Scientific Day of Nantes University, **virtual**, **01/06/2021**."Grand-Ouest Extracellular Vesicle Network : Innovation, Cancer & Therapy". For more information, please follow the link: *https://js.univ-nantes.fr/colloques/grand-ouest-extracellular-vesicle-network-innovations-for-health*

@ 23rd annual meeting Exo/Endo to be held online on **10-11/06/2021** with special sessions on Extracellular vesicles and oral presentation by the winner of the **"Prix de thèse du club exo-endo", Mathilde Mathieu, Paris, on her work** « Étude des mécanismes moléculaires de biogenèse et de sécrétion de différents types de vésicules extracellulaires par suivi du trafic de marqueurs vésiculaires ».

Abstracts will be selected for 15 min presentations and to replace posters, flash presentations of 3 minutes will be planned. For more information, please see: *http://www.exoendo.org/*

Registration & dead-line abstract**:** 20/04/2021, follow the link: *https://forms.gle/nqA8PSoyBY3NyE4Z7*. Please note that registration is free but is mandatory even if you do not submit an abstract.

@ NANOTUMOR 2021 1st series of virtual meetings around Intravital Imaging & Cancer, NANOTUMOR is a French initiative whose objective is to map key ultrastructural and protein elements in cancer cells using multi-resolution approaches.

Session 7 about EVs "Imaging the Niche" **25/06/2021** (12:00-14:00pm, GMT), Chaired by P. Timpson (AU) & J.G. Goetz (FR). For more information, please follow the link: *https://www.nanotumor.fr/2021-virtual-seminars*

@ III international AICC Exosome Meeting, virtual, 07-08/06/2021 "Cell to cell delivery in cancer and therapy: a matter of carriers and messages". More info at: *https://www.aicc.website/3rd-international-aicc-meeting-on-exosomes/*

FSEV member invited speakers: Graca Raposo (Paris) & Lorena Martin-Jaular (Paris).

@ L'axe « Vésicules extracellulaires » du Club nanoMétrologie ambitionne de lancer une étude inter-laboratoires. L'objectif est de viser une harmonisation des méthodes de caractérisation des sous-populations de vésicules extracellulaires (EVs) en milieu complexe. Un sondage avait été lancé dans le but d'identifier des personnes intéressées

de participer à un tel projet. Une cinquantaine de personnes, issues de laboratoires et compagnies couvrant l'ensemble du territoire français, y ont répondu. Parmi elles, 7% ont déjà participé à ce type de projet. 70% ont répondu pouvoir fournir des ressources biologiques, parmi lesquelles différents types d'EVs utilisés pour des applications en diagnostic ou en thérapie. Certains industriels ont également répondu pouvoir dédier un instrument pour la durée du projet. Dans le cadre du projet, les techniques à la fois pré-analytiques (DLD, A4F, ...) et analytiques (en solution comme la NTA, sur surface comme le cryoTEM ou l'AFM), ainsi que les tests fonctionnels de vésicules sur cellules cibles, seront adressés. La partie « traitement de données » sera également assurée. Enfin, grâce à l'implication de collaborateurs du Club nanoMétrologie, et en particulier du Laboratoire National de métrologie et d'Essai (LNE), une attention particulière sera portée sur les aspects de normalisation, avec l'objectif de déterminer un niveau de maturité métrologique, selon la nature des échantillons et les applications visées.
Animatrice: Céline ELIE-CAILLE (Univ. Franche-Comté – FEMTO-ST, C'Nano)
Contact :nanometroev@cnrs.fr

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

@ 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*.

@ A 3-year PhD position and a Postdoctoral position for 2 years (possibly extensible) opened immediatly 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*

@ 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*

@ Postdoctoral position for 2 years in vascular biology and EVs is available in Chantal Boulanger's lab at the Paris Cardiovascular Research Center (PARCC), UMR 970 INSERM-Université de Paris.

The postdoc will work on mechanisms of EV release and biodistribution in the context of cardiovascular disease development. The applicant, with a strong background in cell biology, molecular biology and/or pathology-physiology, should have obtained a PhD in the last 2 years. Excellent communication skills are also expected. Previous experience with EV would be an advantage.

The appointment will start as early as **June 1st, 2021**. Applications will be considered as they are received and will be evaluated continuously until the position is filled. Interested candidates should send their CV, list of publications, motivation letter and the name of two referees to Chantal Boulanger (*chantal.boulanger@inserm.fr*).

More info about the lab and the research center: *http://parcc.inserm.fr*

@ Postdoctoral position for 1 year (with possibilities to extend) The Goetz Lab at INSERM U1109 (Tumor Biomechanics, www.goetzlab.com, CRBS, Strasbourg, France) is seeking a talented postdoctoral scientist with strong background in **Intravital Microscopy and Cancer biology** and interest in interdisciplinary research. The project is centered on imaging tumor cells and its microenvironnement in mice, with a focus on tumor EVs and biomechanics. Details can be found here:

https://7ade5b55-6b9e-4d65-875b-5767fd49f112.filesusr.com/ugd/e6f78d_3102eadf1cfa45dea3eae29e4e2ae3aa.pdf

For more information on the group's research, see *www.goetzlab.com*

All applications must be sent to: Jacky G. Goetz (*jacky.goetz@inserm.fr*)

@ Mobility offer : the team of Pascale Zimmermann in Leuven and in Marseille is looking for co-workers interested to explore the benefit of vectorized exosomes in the treatment of pancreatic ductal adenocarcinoma. This project will be developed in collaboration with European academic teams and companies.

For more information or to apply (1 page CV + motivation letter) please contact *pascale.zimmermann@kuleuven.be*

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Review

-Androuin A, Verweij F, van Niel G. Zebrafish as a preclinical model for Extracellular Vesicle-based therapeutic development. Advanced drug Delivery Review (accepted).

-Leroux C, Chervet ML, German JB. Perspective: Milk microRNAs as Important Players in Infant Physiology and Development. Adv Nutr. 2021 May 22:nmab059. doi: 10.1093/advances/nmab059. Epub ahead of print. PMID: 34022770.

-Planat-Benard V, Varin A, Casteilla L. MSCs and Inflammatory Cells Crosstalk in Regenerative Medicine: Concerted Actions for Optimized Resolution Driven by Energy Metabolism. Front Immunol. 2021 Apr 30;12:626755. doi: 10.3389/fimmu.2021.626755. PMID: 33995350.

-Velot É, Madry H, Venkatesan JK, Bianchi A, Cucchiarini M. Is Extracellular Vesicle-Based Therapy the Next Answer for Cartilage Regeneration? Front Bioeng Biotechnol. 2021 Apr 23;9:645039. doi: 10.3389/fbioe.2021.645039. PMID: 33968913.

@ Letter

-Laloze J, Lupon E, Girard P, Gandolfi S, Fiévet L, Desmoulière A. Supplementation with Extracellular Vesicles Derived from Adipose-Derived Stem Cells Increases Fat Graft Survival and Browning in Mice: A Cell-Free Approach to Construct Beige Fat from White Fat Grafting. Plast Reconstr Surg. 2021 May 1;147(5):884e-886e. doi: 10.1097/PRS.0000000000007821. PMID: 33878097.

@ Ebook chapter

-Dostert G, Jouan-Hureaux V, Louis H, Velot É. Umbilical Mesenchymal Stem Cell-Derived Extracellular Vesicle Conditioning Has an Immunosuppressive Effect on NK Cells. Stem Cells and Regenerative Medicine. 2021 May; Volume 80. doi: 10.3233/BHR210028.

@ Archae

-Liu J, Cvirkaite-Krupovic V, Commere PH, Yang Y, Zhou F, Forterre P, Shen Y, Krupovic M. Archaeal extracellular vesicles are produced in an ESCRT-dependent manner and promote gene transfer and nutrient cycling in extreme environments. ISME J. 2021 Apr 26. doi: 10.1038/s41396-021-00984-0. Epub ahead of print. PMID: 33903726.

@ Kidney

-Favretto G, da Cunha RS, Flores Santos A, Leitolis A, Schiefer EM, Gregório PC, Franco CRC, Massy Z, Dalboni MA, Stinghen AEM. Uremic endothelial-derived extracellular vesicles: Mechanisms of formation and their role in cell adhesion, cell migration, inflammation, and oxidative stress. Toxicol Lett. 2021 May 1;347:12-22. doi: 10.1016/j.toxlet.2021.04.019. Epub ahead of print. PMID: 33945863.

@ Cancer

-Bonhoure A, Henry L, Morille M, Aissaoui N, Bellot G, Stoebner PE, Vidal M. Melanotransferrin is efficiently sorted on the surface of exosomes secreted by melanoma cells. Melanoma Res. 2021 May 6. doi: 10.1097/CMR.0000000000000741. Epub ahead of print. PMID: 33965973.

-Toti A, Santi A, Pardella E, Nesi I, Tomasini R, Mello T, Paoli P, Caselli A, Cirri P. Activated fibroblasts enhance cancer cell migration by microvesicles-mediated transfer of Galectin-1. J Cell Commun Signal. 2021 May 22. doi: 10.1007/s12079-021-00624-4. Epub ahead of print. PMID: 34021474.

-Zhan X, Yang S, Huang G, Yang L, Zhang Y, Tian H, Xie F, Lamy de la Chapelle M, Yang X, Fu W. Streptavidin-functionalized terahertz metamaterials for attomolar exosomal microRNA assay in pancreatic cancer based on duplex-specific nuclease-triggered rolling circle amplification. Biosens Bioelectron. 2021 May 9;188:113314. doi: 10.1016/j.bios.2021.113314. Epub ahead of print. PMID: 34030095.

@ Immunomodulation

-Rozier P, Maumus M, Maria ATJ, Toupet K, Lai-Kee-Him J, Jorgensen C, Guilpain P, Noël D. Mesenchymal stromal cells-derived extracellular vesicles alleviate systemic sclerosis via miR-29a-3p. J Autoimmun. 2021 May 19;121:102660. doi: 10.1016/j.jaut.2021.102660. Epub ahead of print. PMID: 34020253.

@ Reproduction

-Barnett-Itzhaki Z, Knapp S, Avraham C, Racowsky C, Hauser R, Bollati V, Baccarelli AA, Machtinger R. Association between follicular fluid phthalate concentrations and extracellular vesicle microRNAs expression. Hum Reprod. 2021 May 17;36(6):1590-1599. doi: 10.1093/humrep/deab063. PMID: 33885134.

-Cordeiro L, Lin HH, Vitorino Carvalho A, Grasseau I, Uzbekov R, Blesbois E. First insights on seminal extracellular vesicles in chickens of contrasted fertility. Reproduction. 2021 May;161(5):489-498. doi: 10.1530/REP-20-0462. PMID: 33635824.

@ Tissue engineering

-Simpson FC, McTiernan CD, Islam MM, Buznyk O, Lewis PN, Meek KM, Haagdorens M, Audiger C, Lesage S, Gueriot FX, Brunette I, Robert MC, Olsen D, Koivusalo L, Liszka A, Fagerholm P, Gonzalez-Andrades M, Griffith M. Collagen analogs with phosphorylcholine are inflammation-suppressing scaffolds for corneal regeneration from alkali burns in mini-pigs. Commun Biol. 2021 May 21;4(1):608. doi: 10.1038/s42003-021-02108-y. PMID: 34021240.

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

-Juliana Rizzo, Sarah Sze Wah Wong, Anastasia D. Gazi, Frédérique Moyrand, Thibault Chaze, Pierre-Henri Commere, Sophie Novault, Mariette Matondo, Gerard Pehau-Arnaudet, Flavia C. G. Reis, Matthijn Vos, Lysangela R Alves, Robin C. May, Leonardo Nimrichter, Marcio L. Rodrigues, Vishukumar Aimanianda, Guilhem Janbon. Revisiting Cryptococcus extracellular vesicles properties and their use as vaccine platforms. doi: https://doi.org/10.1101/2020.08.17.253716

- L. Abjean, L. Ben Haim, M. Riquelme-Perez, P. Gipchtein, C. Derbois, M.A. Palomares, F. Petit, A.S. Hérard, M.C. Gaillard, M. Guillermier, M. Gaudin-Guérif, N. Sagar, N. Dufour, N. Robil, M. Kabani, R. Melki, P. De la Grange, A.P. Bemelmans, G. Bonvento, J.F. Deleuze, P. Hantraye, E. Bonnet, S. Brohard, R. Olaso, E. Brouillet, M.A. Carrillo-de Sauvage, C. Escartin. The JAK2-STAT3 pathway controls a beneficial proteostasis response of reactive astrocytes in Huntington's disease. doi: https://doi.org/10.1101/2021.04.29.441924

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