



March 2019

NEWS FROM FSEV SOCIETY:

@ FSEV will have a poster and a meeting with the ISEV board at ISEV-2019 in Kyoto. Sophie Rome and Clotilde Théry will represent FSEV onsite.

@ FSEV is now on twitter @French_Soc_EVs ! Twitter users, don't hesitate to follow us and retweet!

@ This newsletter, created to promote spreading of information on EVs, is yours! Do not hesitate to send any information you wish to see there to admin@fsev.fr

(examples: invited EV speakers or PhD defences in your Institute, meetings/workshop you are organising on EVs, your recently published article(s) on EV, prizes obtained for EV work, job openings and requests for collaborations).

FSEV EVENTS:

@ FSEV-2019: ENSA, Nantes, France, October 14-15th, 2019.

Deadline abstract and early registration: 15/06/2019.

<https://symposium.inra.fr/fsev2019>.

@ Next GO-EV meeting (Network of laboratories from Pays de Loire/Bretagne working on EVs) will take place in Angers (CHU Hospital), **07/06/2019**. Thematic "exotic EVs". Please contact soazig.lelay@inserm.fr for further information.

OTHER EV EVENTS:

@ UK-EV summer school 2019, University of Nottingham, UK. **16-19/07/2019**

Getting to Grips with Extracellular Vesicles.

<https://www.ukev.org.uk/ukev-summer-school/>

English Society for EVs organizes a summer school and informs that French people interested by this summer school can have the same discounted registration costs as UK-EV members. **Deadline for application 05/04/2019.**

@ Club exo-endo, Mandelieu-la-Napoule, France, **03-06/04/2019.**

Membrane biophysics of Exo-Endocytosis: from model systems to cells.

<http://biophee-19.fr/>.

1 oral communication on EVs from FSEV member: G. Lavieu (team C Théry, Institut Curie, Paris). 3 other oral communications on EVs by Italian scientists.

@ ISEV-2019: Kyoto, Japan, **24-28/04/2019**. www.isev.org.

8th Annual Meeting of International Society for EVs (ISEV).

www.isev.org/page/ISEV2019Reg

see list of **late breaking (and other)** abstracts submitted by French laboratories at the end of this letter

@ EMBO Workshop, Le Pouliguen, France, **12-16/05/2019**.

Caveolae and nanodomains: translating structural principles and dynamics into function.

<http://meetings.embo.org/event/19-caveolae/>.

Several EV presentations likely. Many travel grants available. Poster and oral communications awards.

@ Neurofrance 2019 (Société des Neurosciences), Marseille, France, **22-24/05/2019**. Symposium "Exocytosis and extracellular vesicle signalling in brain development, maintenance and diseases" 23/05/2019.

<https://www.neurosciences.asso.fr/V2/colloques/SN19/>.

@ EMBO practical course on EVs: Heidelberg, Germany **02-07/06/2019**.

Extracellular Vesicles: from biology to biomedical applications.

<https://www.embl.de/training/events/2019/EXO19-01/>

Applications closed: only 24 applicants can attend (out of 160 applications). **Keep an eye for the next session!**

JOB OPPORTUNITIES:

@ ATER (10/2019) followed by Maître de Conférence (10/2020) permanent position at University Aix-Marseille: team "Circulating microparticles on hemostasis, inflammation and senescence" (R. Lacroix/F. Dignat-George), Center for Cardiovascular Research and Nutrition (Marseille, France).

Mechanism by which senescence impairs the balance between EC injury and repair and modifies the shedding of extracellular vesicles (EV)

Full adv available at www.fsev.fr/jobs.html.

Contact: francoise.dignat-george@univ-amu.fr

Application closing on DEMETER: 12/04/2019.

@ Post-doc offer in the lab of Suresh Mathivanan, La Trobe University, Melbourne, Australia: "Cell/Cancer biology and EVs". Deadline for application **28/04/2019**.

Expertise in cell biology and/or animal skills desired.

<http://careers.pageuppeople.com/mob/533/caw/en/job/558172/research-officer-or-fellow-in-cellcancer-biology>

@ 2 Post-docs starting in 2019: teams of P Zimmermann (Marseille) and of E Rubinstein (Paris), in collaboration with team C Théry (Paris).

Mechanisms controlling the molecular and functional heterogeneity of Extracellular Vesicles.

Full adv available at www.fsev.fr/jobs.html.

Contact: eric.rubinstein@inserm.fr; pascale.zimmermann@inserm.fr

@ Mobility offer for CR or DR INSERM to join the team of P Zimmermann (CRCM, Marseille): "Spatio-temporal regulation of cell signaling". Expertise in molecular and

cellular biology required. See website of the Center: <http://crcm.marseille.fr/en>
contact: pascale.zimmermann@inserm.fr

COLLABORATIONS and/or INSTRUMENT ACCESS and/or ADVICE requests and/or new french Biotechs or produces

@ **IDYLLE**, a French start-up in bioimaging launches novel lipid dyes Lipilight based on **Membright** technology developed by French researchers from Strasbourg (A Klymchenko and M Collot), which can be used for EV research (see recent publication of V Hyenne, Dev Cell 2019).

Information: www.idylle-labs.com

RECENT publications from the french FSEV community

@ Articles

-Kruglik SG, Royo F, Guigner JM, Palomo L, Seksek O, Turpin PY, Tatischeff I, Falcón-Pérez JM. Raman tweezers microspectroscopy of circa 100 nm extracellular vesicles. *Nanoscale*. 2019 Jan 23;11(4):1661-1679. doi: 10.1039/c8nr04677h. PubMed PMID: 30620023.

-Obeid S, Sung PS, Le Roy B, Chou ML, Shieh SL, Elie-Caille C, Burnouf T, Boireau W. NanoBioAnalytical characterization of extracellular vesicles in 75-nm nanofiltered human plasma for transfusion: A tool to improve transfusion safety. *Nanomedicine*. 2019 Mar 13. pii: S1549-9634(19)30061-9. doi:10.1016/j.nano.2019.02.026. [Epub ahead of print] PubMed PMID: 30878658.

-Lehuédé C, Li X, Dauvillier S, Vaysse C, Franchet C, Clement E, Esteve D, Longué M, Chaltiel L, Le Gonidec S, Lazar I, Geneste A, Dumontet C, Valet P, Nieto L, Fallone F, Muller C. Adipocytes promote breast cancer resistance to chemotherapy, a process amplified by obesity: role of the major vault protein (MVP). *Breast Cancer Res*. 2019 Jan 17;21(1):7. doi: 10.1186/s13058-018-1088-6. PubMed PMID: 30654824; PubMed Central PMCID: PMC6337862.

-Gasecka A, Nieuwland R, Budnik M, Dignat-George F, Eyileten C, Harrison P, Huczek Z, Kapłon-Cieślicka A, Lacroix R, Opolski G, Pluta K, van der Pol E, Postuła M, Leroyer A, Siljander P, Sturk A, Filipiak KJ. Randomized controlled trial protocol to investigate the antiplatelet therapy effect on extracellular vesicles (AFFECT EV) in acute myocardial infarction. *Platelets*. 2018 Dec 26:1-7. doi: 10.1080/09537104.2018.1557616. [Epub ahead of print] PubMed PMID: 30585111.

-Verweij FJ, Revenu C, Arras G, Dingli F, Loew D, Pegtel DM, Follain G, Allio G, Goetz JG, Zimmermann P, Herbomel P, Del Bene F, Raposo G, van Niel G. Live Tracking of Inter-organ Communication by Endogenous Exosomes In Vivo. *Dev Cell*. 2019 Feb 25;48(4):573-589.e4. doi: 10.1016/j.devcel.2019.01.004. Epub 2019 Feb 7. PubMed PMID: 30745143.

-Hyenne V, Ghoroghi S, Collot M, Bons J, Follain G, Harlepp S, Mary B, Bauer J, Mercier L, Busnelli I, Lefebvre O, Fekonja N, Garcia-Leon MJ, Machado P, Delalande F, López AA, Silva SG, Verweij FJ, van Niel G, Djouad F, Peinado H, Carapito C, Klymchenko AS, Goetz JG. Studying the Fate of Tumor Extracellular Vesicles at High Spatiotemporal Resolution Using the Zebrafish Embryo. *Dev Cell*. 2019 Feb 25;48(4):554-572.e7. doi: 10.1016/j.devcel.2019.01.014. Epub 2019 Feb 7. PubMed PMID: 30745140.

@ Reviews:

-Murphy DE, de Jong OG, Brouwer M, Wood MJ, Lavieu G, Schifflers RM, Vader P. Extracellular vesicle-based therapeutics: natural versus engineered targeting and trafficking. *Exp Mol Med*. 2019 Mar 15;51(3):32. doi: 10.1038/s12276-019-0223-5. Review. PubMed PMID: 30872574.

-Tatischeff I. Dictyostelium: A Model for Studying the Extracellular Vesicle Messengers Involved in Human Health and Disease. *Cells*. 2019 Mar 8;8(3). pii: E225. doi: 10.3390/cells8030225. Review. PubMed PMID: 30857191.

-Mathieu M, Martin-Jaular L, Lavieu G, Théry C. Specificities of secretion and uptake of exosomes and other extracellular vesicles for cell-to-cell communication. *Nat Cell Biol*. 2019 Jan;21(1):9-17. doi: 10.1038/s41556-018-0250-9. Epub 2019 Jan 2. Review. PubMed PMID: 30602770.

-Piffoux M, Nicolás-Boluda A, Mulens-Arias V, Richard S, Rahmi G, Gazeau F, Wilhelm C, Silva AKA. Extracellular vesicles for personalized medicine: The input of physically triggered production, loading and

theranostic properties. Adv Drug Deliv Rev. 2018 Dec 13. pii: S0169-409X(18)30313-2. doi: 10.1016/j.addr.2018.12.009. [Epub ahead of print] Review. PubMed PMID: 30553953.

@ Late Breaking Abstracts of French laboratories presented at ISEV-2019 Kyoto

Mercedes Tkach, Caroline Hégo, Clotilde Théry, Charlotte Proudhon. Institut Curie, Paris.

Assessing the value of Extracellular Vesicles' DNA and proteins as biomarkers in metastatic breast cancer. Oral presentation

Juliette Peltzer^{1,2}, ..., Georges Uzan¹, Radia Tamara². ¹UMR-MD-1197, Ministère de la défense, ²Villejuif, Institut de Recherche Biomédicale des Armées, Clamart

Extracellular Vesicles from Mesenchymal Stromal Cells for the Treatment of radiological burns

Juliette Peltzer^{1,2}, ..., Jean-Jacques Lataillade^{1,2}, Sébastien Banzet^{1,2}. ¹Institut de Recherche Biomédicale des Armées, Clamart, ²UMR-MD-1197, Ministère de la défense, Villejuif

Interferon-gamma priming, but not hypoxia, modifies the miRNA landscape of human mesenchymal stromal cells (MSC) extracellular vesicles (EV).

@ Other Abstracts of French laboratories presented at ISEV-2019 Kyoto

Oral:

-Alain R Brisson ... Stéphane Mornet, Univ Bordeaux UMR-5248-CBMN, Bordeaux.

Search for EV signature in Sickle Cell Disease.

-A Khat ... CM Boulanger, O Blanc-Brude. PaRCC, INSERM UMRs970, Paris.

An explanation for 'PS-negative' extracellular vesicles: endogenous annexin-A5 from the cytosol cover externalized phosphatidylserine on plasma membranes.

-Mathilde Mathieu ... Clotilde Théry, Institut Curie, INSERM U932, Paris.

Linking the trafficking of CD63 and CD9 to their secretion mechanisms into EVs.

-Roberta Palmulli ... Graça Raposo, Guillaume van Niel, Institut Curie CNRS UMR144 and IPNP, Paris.

Interdependency of the multiple endosomal sorting mechanisms influencing exosomes biogenesis.

Poster:

-Francesca Farina .. Christian Nérij, IBPS, CNRS UMR 8256, Paris.

Bioinformatic and biochemical evidence for EV remodelling in Huntington's disease.

-Philippe Mauduit, ... Georges Uzan*, INSERM UMR-MD-1197, Hopital Paul-Brousse, Villejuif.

Production and use of extracellular vesicles-depleted human platelet lysate to improve large, clinical grade-compatible production of therapeutic human cell-derived extracellular vesicles

-Marie Maumus .. Danièle Noël, IRMB, University Montpellier, Hôpital Lapeyronie, Clinical immunology and osteoarticular diseases Therapeutic Unit, Montpellier, France.

Differential expression of lncRNA in extracellular vesicles from mesenchymal stem cells

-Stephane MAZLAN^{a,b}, ... Xavier LOYER^{a,b}, Chantal M. BOULANGER^{a,b}. ^aPARCC - INSERM U970, ^bParis Descartes University, USPC, UMR-S970, Paris, France.

Extracellular Vesicles in Post-Infarction Diabetic Hearts

-Balasubramaniam Namasivayam¹, Liling Delila², Yu-Wen Wu², Annie Frelet-Barrand¹, Thierry Burnouf², Céline Elie-Caille¹, Wilfrid Boireau¹. ¹FEMTO-ST Institute, UMR6174 CNRS Besançon. ²College of Biomedical Engineering, Taipei Medical University, Taipei, Taiwan.

The Nanobioanalytical Platform, a tuneable tool for a sensitive detection & characterization of extracellular vesicles subsets from biological samples

-Lyne Pillemont¹, Daniel Guneyasu², Celine Elie-Caille², Wilfrid Boireau² and Anne-Marie Gué^{1*}. ¹LAAS-CNRS, Toulouse, ²FEMTO-ST Institute, UMR6174 CNRS Besançon.

TOWARDS ON-CHIP EVs SEPARATION: A LAB ON CHIP APPROACH

@ For any request or information, contact us at: admin@fsev.fr

