

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

December 2023

FSEV 2023 6th congress: virtual meeting collection



Thanks and congratulations to our young researchers for this wonderful organization: Anais Becot, Louis Bochler, Marine Bretou, Shima Ghoroghi, Raphaël Leblanc, Adiilah Mamodecassim, Antonin Marquant, Louise Merle, Mathilde Richard

Welcome to the newly elected FSEV Board (2024-2026)



Julie Constanzo Radiobiology/cancer Newsletter



Gisela D'Angelo INSERM, Montpellier CNRS/Institut Curie, Paris Cell & cancer biology Vice-secretary



Laurent Galio INRAe, Jouy Endometrial receptivity



Rania Ghossoub INSERM, Marseille Cell biology & cancer Secretary



Éric Guédon INRAe, Rennes Microbiology



Jessica Gobbo CGFL/INSERM, Dijon Cancer Vice-president



Vincent Hyenne CNRS, Strasbourg Cell & cancer biology Communication



Mehdi Kabani CNRS, Fontenay Neurosciences Communication



Marie Morille U. Montpellier/CNRS EV engineering Treasurer



Christian Néri INSERM, Paris Neurosciences President



Julien Saint-Pol Uni. D'Artois, Lille Neurosciences Vice-treasurer



Émilie Velot Uni. de Lorraine, Nancy Regenerative Medicine Newsletter

The FSEV warmly thanks the outgoing members of the Board for their commitment and tireless efforts!



Guillaume Van Niel CNRS, Paris Past president



Steffi Bosch ONIRIS-INRAe, Nantes Past treasurer



Olivier Blanc-Brude INSERM, Paris Past secretary



Julie Gavard CNRS, Nantes Member at large



Sébastien Banzet IRBA-INSERM, Clamart Member at large

Congrats to the winners of the 2023 FSEV PhD Award!!

Federico Cocozza



Institut Curie, Paris C. Théry lab.

Benjamin Mary



INSERM U1109, Strasbourg J. Goetz lab.

Congrats to the winners of the 2023 FSEV meeting best talk Awards!

Best Short Talk

Mireia Gomez Duro



Institut Curie, Paris

Best Flash Talk

Louis Bochler



INSERM U1109, Strasbourg

Dear FSEVers,

After FSEV 2023, we were delighted of the gathering of 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 who were dedicated to the society and...

Welcome to the new board! (3)



In line with the invaluable work achieved by the outgoing board and President Guillaume Van Niel, the new board and President Christian Neri are greatly looking forward to keep promoting EV research in France and abroad.

The Board of the FSEV, past and present, wish you a Happy Holiday Season and all the best for the New Year!

NEWS:

- @ Your news: You've got some piece of news? Please send us what to cover in our next newsletter at admin@fsev.fr
- @ LinkedIn: also remember to follow us at https://www.linkedin.com/company/french-society-for-extracellular-vesicles-fsev/?viewAsMember=true
- @ FSEV Congress 2024 will be hold on 04-06/11/2024 in Strasbourg. Save the date for this important event!

@ Workshop FSEV-AFC 2024

Workshop "hands-on" (JFP-Journée de formation Pratique) on **single EV analysis**. 60 participants will have the opportunity to manipulate directly up to 4 various devices among the tens present on site (nanocytometer, single particle tracking, sup-resolution microscopy) to analyze provided referenced samples. The practical session day will be preceded by an afternoon presentation of the state of the art by experts in the field and followed by a morning of analysis of the results.

Event co-organized with AFC (Association Française de Cytométrie) and held at FIAP Jean Monnet in Paris (France), **07-09/02/2024**

Organizing Committee: Guillaume van Niel (FSEV President), Coralie Guerin (Curie Institute), Catherine Blanc (AFC President), Lorena Martin Jaular (Curie Institute), Rania Ghossoub (FSEV Board), Fatima Lfaqihi (AFC board), Florent Raffin (AFC Board).

More information at https://www.alphavisa.com/afc-fsev/2024/index.php

@ Call for papers, special issue on the biology of EVs in Biology of the Cell.

You are invited to contribute to a special issue organized by Guillaume van Niel (FSEV past president) in Biology of the Cell. The topic will be EV biology in the broadest sense (all aspects of cell, molecular and structural biology, developmental biology, cell physiology and evolution). Your contribution can be an original study, a review or a method paper. Biology of the Cell has an impact factor of 3.03 and is not a predatory journal. So the publication is free of charge unless you choose the gold option for full open access.

Biology of the Cell is a journal published since 1984 by the Société Française de Biologie Cellulaire et Société Française de Microscopies. This means that all profits are donated to the Société Française de Biologie Cellulaire, which offers travel grants to students and sponsors scientific events (such as FSEV 2024).

More information about the journal and the topics at the following link https://onlinelibrary.wiley.com/page/journal/1768322x/homepage/productinformation.html

We expect 6-8 articles by the end of 2024. Depending on the success of this call, an official announcement will be made soon on the website of the journal and in the

newsletters. Be the first to show you willing to publish on this exciting topic! You can contact *guillaume.van-niel@inserm.fr* for more information.

@ The first international conference on EVs in Nervous Systems, Roma, Italy (program: https://isev.memberclicks.net/neuroevs) was a great success that brought together 200 participants and 100 posters. Several labs (photo below) represented French research at this high-profile conference organized by ISEV and the Special Interest Group EVINS chaired by Christian Neri (FSEV president). To learn more about EVINS and reach out, see: https://isev.memberclicks.net/SIGEViNS



@ MOVE European Mobility Fellowships 2024

EV societies across Europe have come together to form MOVE (MObility for Vesicles research in Europe) to give early-stage scientists the opportunity to work in a different European lab in 2024

The MOVE European Mobility Fellowship aims to foster collaborations between the members of different European EV Societies and Networks. The Fellowship will enable Early Career Researchers (the applicants) to travel to another lab in Europe (the hosts) to develop both their technical skills and enlarge their own professional networks

The Fellowship is intended for technicians, PhD students and early-stage postdoctoral researchers (≤ 5 years, excluding career breaks). There may be some exceptions. This will be at the discretion of each national society

FSEV will offer two Fellowships to cover travel and subsistence (but not bench fees) to work within a host lab at an academic institution in a different European country for 1-3 months, to a maximum value of €2000.

Process: https://www.ukev.org.uk/move-mobility-ev-europe/

- Look up host labs registered with the project on:

https://docs.google.com/spreadsheets/d/19y7JppcAJLyTlaV21A5YCpyAfhtivkUh/edit?usp=sharing&ouid=106664164426554744978&rtpof=true&sd=true

Applications are now open to study abroad!

- Contact the host lab directly to discuss your proposed project
- Apply for the placement through the specific forms and process of your society This is a rolling application and different societies will have different times to apply and rules, so contact them directly.

ISEV (International Society for EVs) EVENTS:

@ ISEV2024 Annual Meeting: Save the date! 08-12/05/24, Melbourne, Australia (Education day: 08/05/24 and Annual meeting: 09-12/05/24)

Visit the ISEV2024 Website for updates https://www.isev.org/isev2024

@ Upcoming ISEV activities open to ISEV members:

- -Release of the MISEV2023 guidelines
- -Application as Officer Positions of the 2024-26 ISEV board
- @ ISEV Large Extracellular Workshop: ISEV invites experts or enthusisast on large EVs (L-EVs; also called microvesicles, microparticles, oncosomes, migrasomes, apoptotic bodies and many other names) to join this workshop that will be held at The Blackwell Inn and Conference Center, Columbus, Ohio (USA), 04-05/03/24.

More information at https://www.isev.org/large-evs-2024

Registration is free, but only ISEV members can participate. To apply, complete the following application form https://www.surveymonkey.com/r/C7GWNRL by 09/01/24, 11:59 PM EST.

@ 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:

PhD Defense:

@ Vincenzo Verdi (INSERM U1266-IPNP):

Manipulation of Tumor Extracellular Vesicles biodistribution and uptake in vivo by a versatile cell-surface EV-TRAP.

14/12/2023 Supervision: Guillaume van Niel (CNRS, Paris) and Frederik J. Verweij (Universiteit Utrecht)

JOB OPPORTUNITIES:

For more details, please see FSEV website (https://www.fsev.fr/jobs.html)

In order to keep the job offers up to date, we ask employers to indicate monthly (before the last week of the current month), whether the offer is still open.

If no update information is provided, the announcement will be deleted from this section. Thank you for your understanding!

@ Engineer/Technician position in cellular biology and cancer, Centre de Recherche en Cancérologie de Marseille. He/She will carry out the research activity in the "Extracellular vesicles: from signaling mechanistic to therapeutic engineering" team led by Pascale Zimmermann and under the supervision of Rania Ghossoub. The recruited

person will study the role of extracellular vesicles in metastatic dissemination. In particular, the role of metalloproteases in the biogenesis and signaling of extracellular vesicles in the tumor microenvironment will be addressed. To apply, please send a motivation letter, your CV, and the contact details of two referees to rania.qhossoub@inserm.fr

@ Postdoctoral position in in the Radiobiology for Targeted and Personalized Radiotherapy Team

Research topic: Tumor-derived DNA plays an important role in the initiation of antitumor immune responses. The project will aim to further delineate DNASE1L3 function in the activation of anti-tumor immunity in response to TRT and EVs vaccination.

Successful candidates will be highly motivated individuals with a PhD in cell biology, immunology, molecular biology or a related discipline, together with substantial experience in at least one of the following areas: Cancer biology, Radiobiology, Extracellular vesicles, Animal handling/mouse genetics.

Key dates: Applications should be completed before 05/01/24. The position is available from 05/02/24.

To apply, please send an email explaining your background and interests, curriculum vitae, and contact information of three references to julie.constanzo@inserm.fr

RECENT publications from the french FSEV community:

SEND US YOUR ACCEPTED PAPERS

@ Review

- -Ansari MA, Tripathi T, Venkidasamy B, Monziani A, Rajakumar G, Alomary MN, Alyahya SA, Onimus O, D'souza N, Barkat MA, Al-Suhaimi EA, Samynathan R, Thiruvengadam M. Multifunctional Nanocarriers for Alzheimer's Disease: Befriending the Barriers. Mol Neurobiol. 2023 Nov 15. doi: 10.1007/s12035-023-03730-z. Epub ahead of print. PMID: 37966683.
- -Bordon G, Berenbaum F, Distler O, Luciani P. Harnessing the multifunctionality of lipid-based drug delivery systems for the local treatment of osteoarthritis. Biomed Pharmacother. 2023 Dec;168:115819. doi: 10.1016/j.biopha.2023.115819. Epub 2023 Nov 6. PMID: 37939613.
- -Connes P, Renoux C, Joly P, Nader E. Vascular pathophysiology of sickle cell disease. Presse Med. 2023 Dec;52(4):104202. doi: 10.1016/j.lpm.2023.104202. Epub 2023 Nov 7. PMID: 37944640.
- -Kaeffer B. Human Breast Milk miRNAs: Their Diversity and Potential for Preventive Strategies in Nutritional Therapy. Int J Mol Sci. 2023 Nov 9;24(22):16106. doi: 10.3390/ijms242216106. PMID:38003296.
- -Simon L, Lapinte V, Morille M. Exploring the role of polymers to overcome ongoing challenges in the field of extracellular vesicles. J Extracell Vesicles. 2023 Dec;12(12):e12386. doi: 10.1002/jev2.12386. PMID: 38050832.

@ Editorial

-Biquard L, Rautou PE. Autophagy and extracellular vesicles in the liver endothelium: friends or foes? Hepatol Int. 2023 Nov 9. doi: 10.1007/s12072-023-10606-w. Epub ahead of print. PMID: 37940762.

@ Biomarker

- -Dutriaux A, Diazzi S, Bresesti C, Hardouin S, Deshayes F, Collignon J, Flagiello D. *LADON*, a Natural Antisense Transcript of *NODAL*, Promotes Tumour Progression and Metastasis in Melanoma. Noncoding RNA. 2023 Nov 15;9(6):71. doi: 10.3390/ncrna9060071. PMID: 37987367.
- -Eslami-S Z, Cortés-Hernández LE, Sinoquet L, Gauthier L, Vautrot V, Cayrefourcq L, Avoscan L, Jacot W, Pouderoux S, Viala M, Thomas QD, Lamy PJ, Quantin X, Gobbo J, Alix-Panabières C. Circulating tumour cells and PD-L1-positive small extracellular vesicles: the liquid biopsy combination for prognostic information in patients with metastatic non-small cell lung cancer. Br J Cancer. 2023 Nov 16. doi: 10.1038/s41416-023-02491-9. Epub ahead of print. PMID: 37973956.
- -Leduc A, Le Guillou S, Laloë D, Herve L, Laubier J, Poton P, Faulconnier Y, Pires J, Gele M, Martin P, Leroux C, Boutinaud M, Le Provost F. MiRNome variations in milk fractions during feed restrictions of different intensities in dairy cows. BMC Genomics. 2023 Nov 13;24(1):680. doi: 10.1186/s12864-023-09769-5. PMID: 37957547.
- -Louis C, Ferlier T, Leroux R, Pineau R, Desoteux M, Papoutsoglou P, Leclerc D, Angenard G, Vaquero J, Macias RIR, Edeline J, Coulouarn C. TGFβ-induced circLTBP2 predicts a poor prognosis in intrahepatic cholangiocarcinoma and mediates gemcitabine resistance by sponging miR-338-3p. JHEP Rep. 2023 Sep 5;5(12):100900. doi: 10.1016/j.jhepr.2023.100900. PMID: 38023605.

@ Cancer

- -Dudgeon C, Casabianca A, Harris C, Ogier C, Bellina M, Fiore S, Bernet A, Ducarouge B, Goldschneider D, Su X, Pitarresi J, Hezel A, De S, Narrow W, Soliman F, Shields C, Vendramini-Costa DB, Prela O, Wang L, Astsaturov I, Mehlen P, Carpizo DR. Netrin-1 feedforward mechanism promotes pancreatic cancer liver metastasis via hepatic stellate cell activation, retinoid, and ELF3 signaling. Cell Rep. 2023 Nov 28;42(11):113369. doi: 10.1016/j.celrep.2023.113369. Epub 2023 Nov 3. PMID: 37922311.
- -Lefebvre A, Trioën C, Renaud S, Laine W, Hennart B, Bouchez C, Leroux B, Allorge D, Kluza J, Werkmeister E, Grolez GP, Delhem N, Moralès O. Extracellular vesicles derived from nasopharyngeal carcinoma induce the emergence of mature regulatory dendritic cells using a galectin-9 dependent mechanism. J Extracell Vesicles. 2023 Dec;12(12):e12390. doi: 10.1002/jev2.12390. PMID: 38117000.
- -Mary B, Asokan N, Jerabkova-Roda K, Larnicol A, Busnelli I, Stemmelen T, Pichot A, Molitor A, Carapito R, Lefebvre O, Goetz JG, Hyenne V. Blood flow diverts extracellular vesicles from endothelial degradative compartments to promote angiogenesis. EMBO Rep. 2023 Dec 6;24(12):e57042. doi:10.15252/embr.202357042. Epub 2023 Nov 16. PMID: 37971863.

@ Gut

- -Malek A, Ahmadi Badi S, Karimi G, Bizouarn T, Irian S, Siadat SD. The effect of *Bacteroides fragilis* and its postbiotics on the expression of genes involved in the endocannabinoid system and intestinal epithelial integrity in Caco-2 cells. J Diabetes Metab Disord. 2023 Aug 1;22(2):1417-1424. doi:10.1007/s40200-023-01264-8. PMID: 37975078.
- -Mantel M, Durand T, Bessard A, Pernet S, Beaudeau J, Guimaraes-Laguna J, Maillard MB, Guédon E, Neunlist M, Le-Loir Y, Jan G, Rolli-Derkinderen M. *Propionibacterium freudenreichii* CIRM-BIA 129 mitigates colitis through S layer protein B-dependent epithelial strengthening. Am J Physiol Gastrointest Liver Physiol. 2023 Nov 21. doi: 10.1152/ajpgi.00198.2023. Epub ahead of print. PMID: 37988603.

@ Kidney

-Li M, Armelloni S, Mattinzoli D, Ikehata M, Chatziantoniou C, Alfieri C, Molinari P, Chadjichristos CE, Malvica S, Castellano G. Crosstalk mechanisms between glomerular endothelial cells and podocytes in renal diseases and kidney transplantation. Kidney Res Clin Pract. 2023 Dec 8. doi:10.23876/j.krcp.23.071. Epub ahead of print. PMID: 38062623.

@ Lung

-Alhamdan F, Greulich T, Daviaud C, Marsh LM, Pedersen F, Thölken C, Pfefferle PI, Bahmer T, Potaczek DP, Tost J, Garn H. Identification of extracellular vesicle microRNA signatures specifically linked to

inflammatory and metabolic mechanisms in obesity-associated low type-2 asthma. Allergy. 2023 Nov;78(11):2944-2958. doi: 10.1111/all.15824. Epub 2023 Jul 24. PMID: 37486026.

@ Mitochondria

-Roch B, Pisareva E, Mirandola A, Sanchez C, Pastor B, Tanos R, Frayssinoux F, Diab-Assaf M, Anker P, Al Amir Dache Z, Thierry AR. Impact of platelet activation on the release of cell-free mitochondria and circulating mitochondrial DNA. Clin Chim Acta. 2023 Dec 13:117711. doi: 10.1016/j.cca.2023.117711. Epub ahead of print. PMID: 38101467.

@ Pathogen

-de Castro RJA, Marina CL, Sturny-Leclère A, Hoffmann C, Bürgel PH, Wong SSW, Aimanianda V, Varet H, Agrawal R, Bocca AL, Alanio A. Kicking sleepers out of bed: Macrophages promote reactivation of dormant Cryptococcus neoformans by extracellular vesicle release and non-lytic exocytosis. PLoS Pathog. 2023 Nov 30;19(11):e1011841. doi: 10.1371/journal.ppat.1011841. PMID: 38033163.

@ Protocol

- -Aries A, Vignon C, Zanetti C, Goubaud A, Cormier A, Diederichs A, Lahlil R, Hénon P, Garitaonandia I. Development of a potency assay for CD34⁺ cell-based therapy. Sci Rep. 2023 Nov 11;13(1):19665. doi: 10.1038/s41598-023-47079-8. PMID: 37952030.
- -André-Grégoire G, Roux Q, Gavard J. Isolating plasma extracellular vesicles from mouse blood using size-exclusion chromatography, density gradient, and ultracentrifugation. STAR Protoc. 2023 Dec 3;4(4):102740. doi: 10.1016/j.xpro.2023.102740. Epub ahead of print. PMID: 38048217.
- -Cocozza F, Martin-Jaular L, Lippens L, Di Cicco A, Arribas YA, Ansart N, Dingli F, Richard M, Merle L, Jouve San Roman M, Poullet P, Loew D, Lévy D, Hendrix A, Kassiotis G, Joliot A, Tkach M, Théry C. Extracellular vesicles and co-isolated endogenous retroviruses from murine cancer cells differentially affect dendritic cells. EMBO J. 2023 Dec 11;42(24):e113590. doi: 10.15252/embj.2023113590. PMID:38073509.
- -Wen J, Zhang Z, Feng G, Zhang Y, Li H, Lambert C, Mallouk N, Li G. Transmission electron microscopy assessment of a novel method for isolating pure exosomes from serum. Biotech Histochem. 2023 Nov;98(6):391-395. doi: 10.1080/10520295.2023.2202415. Epub 2023 Apr 26. PMID: 37125533.

@ Skin

-Nedachi T, Bonod C, Rorteau J, Chinoune W, Ishiuchi Y, Hughes S, Gillet B, Bechetoille N, Sigaudo-Roussel D, Lamartine J. Chronological aging impacts abundance, function and microRNA content of extracellular vesicles produced by human epidermal keratinocytes. Aging (Albany NY). 2023 Nov 27;15(22):12702-12722. doi: 10.18632/aging.205245. Epub 2023 Nov 27. PMID: 38015712.

@ Technology

- -Loconte L, Arguedas D, El R, Zhou A, Chipont A, Guyonnet L, Guerin C, Piovesana E, Vázquez-Ibar JL, Joliot A, Théry C, Martín-Jaular L. Detection of the interactions of tumour derived extracellular vesicles with immune cells is dependent on EV-labelling methods. J Extracell Vesicles. 2023 Dec;12(12):e12384. doi: 10.1002/jev2.12384. PMID: 38031976.
- -Nguyen MC, Bonnaud P, Dibsy R, Maucort G, Lyonnais S, Muriaux D, Bon P. Label-Free Single Nanoparticle Identification and Characterization in Demanding Environment, Including Infectious Emergent Virus. Small. 2023 Nov 27:e2304564. doi: 10.1002/smll.202304564. Epub ahead of print. PMID: 38009767.
- -Lozano-Andrés E, Enciso-Martinez A, Gijsbers A, Ridolfi A, Van Niel G, Libregts SFWM, Pinheiro C, van Herwijnen MJC, Hendrix A, Brucale M, Valle F, Peters PJ, Otto C, Arkesteijn GJA, Wauben MHM. Physical association of low density lipoprotein particles and extracellular vesicles unveiled by single particle analysis. J Extracell Vesicles. 2023 Nov;12(11):e12376. doi: 10.1002/jev2.12376. PMID: 37942918.

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

- Camille Dantzer, Justine Vaché, Aude Brunel, Isabelle Mahouche, Anne-Aurélie Raymond, Jean-William Dupuy, Melina Petrel, Paulette Bioulac-Sage, David Perrais, Nathalie Dugot-Senant, Mireille Verdier, Barbara Bessette, Clotilde Billottet, Violaine Moreau. Repression of exosome secretion by mutated ß-catenin contributes to immune escape in hepatocellular carcinoma. bioRxiv 2023.10.24.563805; doi: https://doi.org/10.1101/2023.10.24.563805
- Marie-Thérèse Prospéri, Cécile Giordano, Mireia Gomez-Duro, Ilse Hurbain, Anne-Sophie Macé, Graça Raposo, Gisela D'Angelo. Extracellular vesicles released by keratinocytes regulate melanosome maturation, melanocyte dendricity and pigment transfer. bioRxiv 2023.12.07.570573; doi: https://doi.org/10.1101/2023.12.07.570573
- Adam Taheraly, Corinne Maufrais, Frédérique Moyrand, Jessie Colin, Jean-Yves Coppee, Guilhem Janbon. The Cryptococcus extracellular vesicle transcriptome. bioRxiv 2023.12.08.570810; doi: https://doi.org/10.1101/2023.12.08.570810

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