

CURRICULUM VITAE – **Julia FUCHS SEBE MD, PhD**

11, place Marcelin Berthelot
Center for Interdisciplinary Research in Biology (CIRB)
CNRS UMR 7241/ INSERM U1050
Collège de France
75213 Paris, France

- mobile : 0033-(0)625180906
- lab: 0033-(0)144-27-1518
- mail : julia.fuchs@college-de-france.fr
- birth date: 24.05.1977 (44y)
- three children (2009, 2011, 2014)



ORCID : <https://orcid.org/0000-0002-3045-0470>

CIRB/Collège de France: <https://www.college-de-france.fr/site/en-cirb/fuchs.htm>

Current position

Group Leader – Emerging team - CIRB / Collège de France (since February 2019)

- *Pathophysiology of repetitive element expression in the brain* –

Diploma

- HDR, 2019 (Sorbonne University, Paris, France)
- PhD, 2008 (University of Tübingen, Hertie-Institute/Max-Planck Research School, Germany)
- MD, 2003 (University of Göttingen, Department of Neurophysiology, Germany)
- Medical Doctor, 2003 (University of Göttingen, Germany)

Career & Employments

- CR1 INSERM, 2017
- CR2 INSERM, 2012
- Postdoctoral fellow, 2006-2012 (Ecole normale supérieure & Collège de France, Paris, France)
- Resident in Neurology & Postdoctoral fellow, 2004-2006 (University of Tübingen, Germany)
- Pre-doctoral fellow, 2000-2001 (Johns Hopkins University, Baltimore, USA)

Research Grants & Awards

As PI:

- Research Award – Grand Prix de la Fondation NRJ-Institut de France, 2022
- ANR-PRC grant, 2021-2024 (Coordinator)
- Fondation du Collège de France, 2023-2024
- Fondation Recherche Alzheimer, 2020-2023
- Fondation du Collège de France, 2020-2023
- Fondation du Collège de France, 2019-2021
- Fondation de France, 2019-2021

As Post-doc: MJFF, NeRF, FRM, DFG, Fortune, Poster Award 1st prize

As medical student: DAAD, ERASMUS, Research Award 1st prize, Poster presentation Award 1st prize

Experience in Research Direction and Teaching (selected)

- Direction of an independent research team as PI (2019 – present)
- Direction of a scientific team (2017-2019 in the lab of Pr. A. Prochiantz)
- Direction/ Co-direction of 1 MD student, 6 PhD students, 7 M2 students, 1 M1 student, 3 observational students; currently 2 PhD and 2 M2 students
- Teaching: M2-UE Emerging concepts in functional genomics “Transposable elements and the dynamic genome”, Univ Lyon 1, 2020
- Jury member in 6 thesis committees, 1 mid-thesis committee

Experience in Research Evaluation

- Guest Associate Editor for Frontiers in Aging Neuroscience – Topic editor “Genomic instability and neurodegeneration”, 2020-2022
- Ad hoc journal reviewer (*Neuroscience, Journal of Clinical Medicine, Frontiers in Neuroscience, Frontiers in Aging Neuroscience, Cells*)

Publications

- Author of 16 original articles (5 as first or co-first author, 1 as corresponding and 2 as last author)
- Author of 7 review articles (1 as first, 1 as co-first, 1 as co-corresponding author, 2 as last author)

5 most relevant publications to the current research topic

Eugenie Peze-Heidsieck, Tom Bonnifet, Rania Znaidi, Camille Ravel-Godreuil, Olivia Massiani-Beaudoin, Rajiv L Joshi, **Julia Fuchs**, Retrotransposons as a source of DNA damage in neurodegeneration, *Frontiers in Aging Neuroscience*, 04 January 2022. doi.org/10.3389/fnagi.2021.786897

Camille Ravel-Godreuil, Rania Znaidi, Tom Bonnifet, Rajiv L Joshi, Julia Fuchs, Transposable elements as new players in neurodegenerative diseases, *FEBS Letters* **595**, 2733–2755 (2021) doi: 10.1002/1873-3468.14205.

Camille Ravel-Godreuil, Olivia Massiani-Beaudoin, Philippe Mailly, Alain Prochiantz, Rajiv L. Joshi, **Julia Fuchs**, ‘Perturbed DNA methylation by sustained overexpression of Gadd45b induces chromatin disorganization, DNA strand breaks and dopaminergic neuron death in mice’, *iScience*, 2021 Jun 19;24(7):102756. doi: 10.1016/j.isci.2021.102756.

François-Xavier Blaudin de Thé, Hocine Rekaik, Eugénie Peze-Heidsieck, Olivia Massiani-Beaudoin, Rajiv L. Joshi, **Julia Fuchs*** & Alain Prochiantz, ‘Engrailed homeoprotein blocks degeneration in adult dopaminergic neurons through LINE-1 repression’, *EMBO J.* 2018 Aug 1;37(15). * **corresponding author** doi: 10.15252/embj.201797374.

Hocine Rekaik*, François-Xavier Blaudin de Thé*, **Julia Fuchs**, Olivia Massiani-Beaudoin, Alain Prochiantz, Rajiv L Joshi, ‘Engrailed Homeoprotein Protects Mesencephalic Dopaminergic Neurons from Oxidative Stress’, *Cell Reports* 09/2015; 13(2). doi: 10.1016/j.celrep.2015.08.076.

Diffusion of Scientific Culture, Participation in Congresses, Seminars

- Co-inventor of 3 patents (2014, 2015, 2015)
- Communications at 4 international scientific conferences since 2017 (2 selected talks, 2 posters)
- Invitation to 5 *invited talks* since 2017

2022 Joint meeting Italian Institute of Technology and CIRB, Collège de France, Paris, France

Invited talk : “*Retrotransposons in brain aging and neurodegeneration*”

2022 Meeting PMS-Immuno, Curie Institute, Paris, France

Invited talk : “*Retrotransposons in brain aging and neurodegeneration*”

2022 IRCAN, Université Côte d’Azur, Nice, France

Invited talk : “*Retrotransposons in brain aging and neurodegeneration*”

2021 GDR Mobil-ET annual meeting, Paris, France

Invited talk: “*LINE-1 retrotransposons in brain aging and neurodegeneration*”

2020 International Congress on Transposable elements (ICTE), Saint Malo, France, cancelled due to the pandemic, *abstract submitted to be selected for oral presentation*

2019 Institute de Biologie Paris Seine (IBPS), Paris, France

Invited talk: “*Jumping genes in the brain: harmful or useful?*”

2019 NeuroFrance, Marseille, France

Poster « *LINE-1 retrotransposon repression attenuates neurodegeneration in adult dopaminergic neurons* »

2018 Keystone Symposium on “Mobile Genetic elements and Genome Plasticity”, Santa Fe, USA

Selected Talk: *LINE-1 retrotransposon repression attenuates neurodegeneration in adult dopaminergic neurons*

2017 Helmholtz Zentrum München, Germany

Invited speaker: *Mechanisms of action of the homeoprotein Engrailed in adult midbrain dopaminergic neurons*

2017 Symposium “Grand Challenges in Parkinson's disease: The role of energy metabolism”, Van Andel Institute, Grand Rapids, USA

Invited speaker: *Engrailed 1, mitochondrial function, oxidative stress and autophagy in dopaminergic neurons*

2017 CNET 2017, XXth National Congress on Transposable Elements, Nice, France

Selected talk: *LINE-1 retrotransposon repression attenuates neurodegeneration in adult dopaminergic neurons*

2017 Gordon Research Conference on “Parkinson’s disease”, Sunday River, Maine, USA

Poster: *LINE-1 retrotransposon repression attenuates neurodegeneration in adult dopaminergic neurons*

Experience in Research Administration, Amenability and Outreach

- Participation at the program “Apprentice Researchers-Arbre des connaissances”, 2022
- Member of the “INSERM Response Unit” against false information, 2020 - now
- Founding member of the CIRB Greencom for sustainability in research, 2019 - now
- Participation at the Arts & Science Project PSL-QLife, 2019-2020
- Member of the CIRB research center council, 2017 - now

Memberships

- Member of the French Society for Neuroscience
- Member of the Mobile-de-France Community
- Member of the GDR Mobil-ET