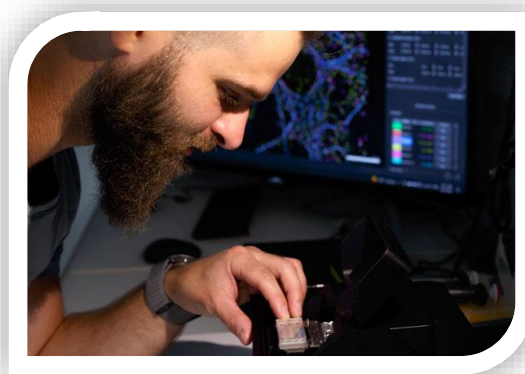


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PERSONAL STATEMENT

I am a neuroscientist specialized in cellular and molecular neurobiology of neurodegenerative diseases. I am passionate about neuroscience, obsessive microscopist and out of the box thinker. I am looking for a new home to perform groundbreaking research in an environment that fosters ingenuity and creativity.

PERSONAL INFORMATION

Date of Birth: December 25th 1986
Place of Birth: Bordeaux (33), FRANCE
Citizenship: French

SKILLS

- 10+ years experience in mechanistic Neurobiology, Cellular and Molecular Biology research and research-team coordination, project management, establishing collaborations, supervision and mentoring.
- **Collaboration with the industry and patenting** for new therapeutic strategies
- Extensive knowledge in Neuroscience, synaptic physiology and pathologies and neurodegenerative diseases and passionate about improving the lives of patients
- Expert in animal model for brain disease, development of new models, behavioral testing and analysis, animal colony management, experienced with Drosophila and C.Elegans.
- Expert in advanced imaging and microscopy techniques (high-resolution live-cell imaging, confocal microscopy, electron microscopy, CLEM, STED, SIM, STORM), processing and analyses, with experience in developing custom pipeline of analysis.
- Expert in cellular and tissue processing for imaging, biochemistry and OMICs
- Excellent track records of achievements in the field of neurodegeneration documented by the publication of research articles and reviews in high impact journals and acquiring multiple rounds of competitive international funding.
- Effective communicator and experienced science writer.
- Excellent leadership and team player

EDUCATION

10/2010 – 12/2013	PhD student in Cellular Neurobiology: Role of VEGF in hippocampal synaptic activity and plasticity; Université Claude Bernard Lyon1, Lyon, France.
09/2008 – 06/2010	Master degree in Physiology and Neuroscience, Université Claude Bernard Lyon1, Lyon, France
09/2004 – 06/2008	Bachelor Biology and Biochemistry, Specialty Cellular Biology and Animal Physiology, Université des Sciences et Techniques, Nantes, France.
Additional training	European authorization level 1 for animal experimentation (2011) Bio-informatics training (INSERM)

Animal certification for Aseptic Technique for Rodent Survival Surgery (University of Chicago, 2017)

LTK1 Switzerland (University of Zurich, 2019)

Leadership courses

Lateral leadership (University of Zurich, 2021)

Laboratory Leadership for Postdocs (EMBO 2022)

How to review a scientific paper (EMBO 2022)

Communicating Research: Paper writing & short presentations (EMBO 2022)

RESEARCH POSITIONS AND PROJECTS
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12/2018 - today	Research associate in the Polymenidou group University of Zurich Zurich, Switzerland <i>Development of new models to study ALS and FTL D pathogenesis in vitro and in vivo:</i> <i>Aim1: New in vitro model for TDP-43 misfolding, aggregation and seeding</i> <i>Aim2: New animal model for TDP-43 using stereotaxic surgery and longitudinal behavioral and imaging studies.</i> <i>Aim3: Using super resolution microscopy to explore physiological function of TDP-43</i>
01/2019-12/2021	Scientific Advisory Board at Mabylon AG (Ongoing collaboration with the Polymenidou lab): <i>Testing immunotherapy strategies for TDP-43 proteinopathies in in-house developed models.</i>
07/2014 – 11/2018	Post-doctoral Scholar in the Thinakaran lab the University of Chicago Chicago, IL, USA <i>Aim1: BIN1 physiological roles in the brain in myelination process and synaptic plasticity, learning and memory using in vitro models and animal models for behavioral analyses and pathology.</i> <i>Aim2: BIN1 pathological implication in Amyloid pathology and/or Tau pathology using animal models and stereotaxic surgery</i>
01/2014 – 06/2014	Post-doctoral Fellow Lyon Neuroscience Research Center ONCOFLAM team (Neuro-oncology and neuro-inflammation) Lyon, France <i>Aim: Elucidate the impact of auto-antibodies (limbic encephalitis) in synaptic remodeling, receptors internalization and trafficking and signaling pathway implicated.</i>
10/2010 – 12/2013	PhD student under Claire Meissirel's supervision (PhD, CR1 INSERM) Lyon Neuroscience Research Center ONCOFLAM team (Neuro-oncology and neuro-inflammation) Lyon, France <i>Aim: deciphering the role of VEGF in the modulation of NMDAR activity, surface expression and localization in hippocampal pyramidal cells using in vitro models and animal models for behavioral analyses.</i>

PATENT AND INTELLECTUAL PROPERTIES

- Patent number: PCT/EP2021/056040. Immunotherapy against TDP-43 to treat ALS and FTD pathologies. (Co-inventor)

FUNDING AND AWARDS

01/2021-...	Synapsis Career Development Award (4 years, 400.000 CHF) (PI) Approved for phase 1: 2 years funding (200.000CHF)
07/2017 – 06/2019	Brightfocus foundation Alzheimer Fellowship, 2 years funding (\$100,000) (PI) Grant ref A2017366F
03/2017 – 02/2020	Alzheimer Association Research Fellowship (AARF) (PI), 3 years funding (\$173,000), Grant ref AARF-17-501228
07/2015 – 06/2016	Illinois Department of Public Health: Alzheimer's Disease (PI) Research Grant FY 2015 (\$35,000) ; Grant ref 63282004D
10/2010 – 09/2013	Award winner of the gradschool « NsCo », PhD funding for 3 years by the « Ministère de la Recherche et de l'Enseignement Supérieur », France.
2020	Marie Skłodowska-Curie Actions Seal of Excellence (89/100)
2019	Marie Skłodowska-Curie Actions Seal of Excellence (85.6/100)
2015	Philippe foundation award 2015
2014	Philippe foundation award 2014

PUBLICATIONS

- Pérez-Berlanga M, Wiersma VI#, Zbinden A#, De Vos L, Wagner U, Foglieni C, Mallona I, Betz KM, Cléry A, Weber J, Guo Z, Rigort R, **De Rossi P**, Manglunia R, Tantardini E, Sahadevan S, Stach O, Hruska-Plochan M, Allain FHT, Paganetti P, Polymenidou M. *TDP-43 oligomerization and RNA binding are codependent but their loss elicits distinct pathologies*. **Under Revision at EMBO Journal**
- Jambeau M, Meyer K.D, Hruska-Plochan M, Tabet R, Lee C.Z, Ray-Soni A, Aguilar C, Savage K, Mishra N, Cavegn N, Borter P, Lin C.C, Jansen-West K, Jiang J, Freyermuth F, Li N, **De Rossi P**, [...], Cleveland D.W, Petrucelli L, Gendron T, Montrasio F, Grimm J, Polymenidou M, Lagier-Tourenne C, *Comprehensive preclinical evaluation of human-derived anti-poly-GA antibodies in cellular and animal models of C9ORF72 disease*. **Proc Natl Acad Sci U S A.**, 2022. PMID: 36454749
- De Rossi P***, Lewis A.J*, Furrer J, De Vos L, Demeter T, Zbinden A, Zhong W, Wiersma V.I, Scialo C, Weber J, Guo Z, Scaramuzza S, Di Fabrizio M, Böing C, Castaño-Díez D, Al-Amoudi A, Pérez-Berlanga M, Lashley T, Stahlberg H, Polymenidou M: *FTLD-TDP assemblies seed neoaggregates with subtype-specific features via a prion-like cascade*, **EMBO reports**, 2021, PMID: 34806807
- Emmenegger M, De Cecco E, Hruska-Plochan M, Eninger T, Schneider M.M, Barth M, Tantardini E, **De Rossi P**, [...], Polymenidou M, Jucker M, Aguzzi A: *LAG3 is not expressed in human and murine neurons and does not modulate α -synucleinopathies*, **EMBO Mol. Med.**, 2021, PMID: 34309222
- Sahadevan S*, Hembach KM*, Tantardini E, Hruska-Plochan M, Pérez-Berlanga M, Weber J, Schwarz P, Dupuis L, Robinson MD, **De Rossi P**, Polymenidou M: *Synaptic accumulation of FUS triggers age-dependent misregulation of inhibitory synapses in ALS-FUS mice*, **Nature Communication**, 2021, PMID: 34021139
- Secic-Zahirovic J*, Sanjuan-Ruiz I*, Kan V, Megat S, **De Rossi P**, Dieterlé S, Cassel R, Kessler P, Wiesner D, Tzeplaeff L, Demais V, Picchiarelli G, Mishra N, Grosch S, Kassubek J, Ludolph A, Boutillier AL, Polymenidou M, Lagier-Tourenne C, Liebscher S#, Dupuis L#: *Cytoplasmic accumulation of FUS triggers early behavioral alterations linked to cortical neuronal hyperactivity and defects in inhibitory synapses*, **Nature Communication**, 2021, PMID: 34021132.
- Zbinden A, Perez-Berlanga M, **De Rossi P**, Polymenidou M: *Neurodegenerative diseases and liquid-liquid phase separation: a disturbance in the force*, **Developmental Cell**, 2020, PMID: 33049211 review paper
- De Rossi P**, Nomura T, Andrew RJ, Sampathkumar V, Masse N, Musial T, Le Metayer T, Hansen M, Shim HN, Krause SV, Freedman DJ, Bindokas V, Nicholson DA, Kasthuri N, Contractor A, Thinakaran G: *Neuronal BIN1 Regulates Presynaptic Neurotransmitter Release and Memory Consolidation*, **Cell Reports**, 2020, PMID: 32160554
- Andrew RJ, **De Rossi P**, Nguyen P, Kowalski HR, Recupero AJ, Guerbette T, Krause SV, Rice RC, Laury-Kleintop L, Wagner SL, Thinakaran G: *Reduction of the expression of the late-onset Alzheimer's disease (AD) risk-factor*

BIN1 does not affect amyloid pathology in an AD mouse model, **Journal of Biological Chemistry**, 2019. PMID: 30692199

10. **De Rossi P**, Andrew RJ, Musial TF, Buggia-Prevot V, Xu G, Ponnusamy M, Ly H, Krause SV, Rice RC, De l'Estoile V, Valin T, Salem S, Despa F, Borchelt DR, Bindokas VP, Nicholson DA, Thinakaran G: *Aberrant accrual of BIN1 near Alzheimer's disease amyloid deposits in transgenic models*, **Brain Pathology**, 2018. PMID: 30506549.
11. Andrew RJ, Fernandez CG, Stanley M, Jiang H, Nguyenc P, Rice RC, Buggia-Prévot V, **De Rossi P**, Vetrivel KS, Lamb R, Argemi A, Allaert ES, Rathbun EM, Krause SV, Wagner SL, Parent AT, Holtzman DM, and Thinakaran G: *Lack of BACE1 S-palmitoylation reduces amyloid burden and mitigates memory deficits in transgenic mouse models of Alzheimer's disease*, **Proc Natl Acad Sci U S A.**, 2017. PMID: 29078331
12. **De Rossi P**, Buggia-Prévot V, Andrew RJ, Krause SV, Woo E, Nelson PT, Pytel P, and Thinakaran G: *BIN1 localization is distinct from Tau tangles in Alzheimer's disease*. **Matters**, 2017. PMID: 29479533
13. **De Rossi P**, Harde E, Dupuis JP, Chounlamountri N, Bardin M, Benetollo C, Pernet-Gallay K, Luhmann, HJ, Honnorat J, Malleret G, Groc L, Acker-Palmer A, Salin P-A, Meissirel C: *Co-activation of VEGF and NMDA receptors promotes synaptic targeting of AMPA receptors*, **Molecular Psychiatry**, **IMAGE**, 2016. PMID: 27847390
14. **De Rossi P***, Buggia-Prévot V*, Clayton B, Andrew R, Lesnick R, Botté A, Rao E, Deyts C, Salem S, Rice R, Parent A, Kar S, Popko B, Pytel P, Estus S, and Thinakaran G: *Predominant BIN1 expression in mature oligodendrocytes and localization to the white matter tracts*, **Molecular Neurodegeneration**, 2016. PMID: 27488240.
15. **De Rossi P**, Harde E, Dupuis JP, Chounlamountri N, Bardin M, Benetollo C, Pernet-Gallay K, Luhmann, HJ, Honnorat J, Malleret G, Groc L, Acker-Palmer A, Salin P-A, Meissirel C: *A critical role for VEGF and VEGFR2 in NMDA receptor synaptic function and fear-related behavior*, **Molecular Psychiatry**, 2016. PMID: 26728568.
16. Mikasova L, **De Rossi P**, Bouchet D, Georges F, Rogemond V, Didelot A, Meissirel C, Honnorat J, Groc L: *Disrupted surface cross-talk between NMDA and Ephrin-B2 receptors in anti-NMDA encephalitis*, **Brain**, 2012. PMID: 22544902
17. Meissirel C, Ruiz de Almodovar C, Knevels E, Coulon C, Chounlamountri N, Segura I, **De Rossi P**, Vinckier S, Anthonis K, Deléglise B, de Mol M, Ali C, Dassonville K, Loyens E, Honnorat J, Michotte Y, Rogemond V, Smolders I, Voets T, Vivien D, Vanden Berghe P, Van den Bosch L, Robberecht W, Chédotal A, Oliviero S, Dewerchin M, Schmucker D, Thomasset N, Salin P, Carmeliet P: *VEGF modulates NMDA receptors activity in cerebellar granule cells through Src-family kinases before synapse formation*, **Proc Natl Acad Sci U S A.** 2011. PMID: PMC3158143

COMMUNICATIONS

- **De Rossi P**, et al, *Template dependent amplification of pathological TDP-43 and roles of phosphorylation*, **Synopsis Foundation Forum 2021, Gerzensee**
- **De Rossi P**, et al, *Template dependent amplification of pathological TDP-43 and roles of phosphorylation*, **SFN 2022, San Diego, USA**
- **De Rossi P**, et al, *Template dependent amplification of pathological TDP-43 and roles of phosphorylation*, **ZNZ meeting, Sept 2022, Zurich: Best Poster Award**
- Talk: "Using super-resolution microscopy to unravel the physiological and pathological roles of TDP-43 liquid-liquid phase separation", **Synopsis Foundation Forum 2021, Gerzensee**
- Talk: "Neuronal BIN1 Regulates Presynaptic Neurotransmitter Release and Memory Consolidation", **Virtual seminar, Istem institute, France, April 2021**
- Talk: "Differential cytotoxicity and seeding-properties of patient-derived TDP-43 aggregates", **Neuro Meetups Bern, University of Bern, March 2020**
- **De Rossi P**, et al, *Myelin breakdown leads to BIN1 accumulation in amyloid deposits*. **Alzheimer Association International Conference AAIC 2018, Chicago, USA.**

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- Andrew RJ, **De Rossi P**, et al, *Deletion of a single bin1 allele does not alter amyloid pathology in a mouse model of Alzheimer's disease*, **Alzheimer Association International Conference AAIC 2018**, Chicago, USA.
- **De Rossi P**, et al, *Myelin breakdown leads to BIN1 accumulation in amyloid deposits*. **International Conference on Molecular Neurodegeneration ICMN 2018**, Stockholm, Sweden.
- Andrew RJ, **De Rossi P**, et al, *Deletion of a single bin1 allele does not alter amyloid pathology in a mouse model of Alzheimer's disease*, **International Conference on Molecular Neurodegeneration ICMN 2018**, Stockholm, Sweden.
- **De Rossi P**, et al, *Neuronal BIN1 expression is required for spatial learning and memory*, **Neuroscience day 2018, BRF foundation**, Chicago, Feb 2017
- Talk: "Alzheimer's disease: What have I BIN up to?" Grossman institute, **Neuroscience Postdoc Seminar, University of Chicago, Dec 2016**.
- **De Rossi P**, et al, *Dystrophic neurite accumulation of BACE1 in relation to its endosomal trafficking adaptors EHD1, EHD3, and BIN1 in 5XFAD model*, **Kloster Secon meeting on BACE proteases in health and disease**, September 25-27, 2016, near Munich, Germany.
- **De Rossi P**, et al, *VEGF modulates NMDA receptor function and synaptic localization in the hippocampus*. **11th congress of the French Society of Neuroscience – Lyon 2013, France**.
- **De Rossi P**, et al, *VEGF modulates NMDA receptor function and synaptic localization in the hippocampus*. **8th FENS Forum of Neuroscience - Barcelona 2012, Spain**.

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

Since 2023	Supervision of one PhD student in the lab Polymenidou Lab / Department of Quantitative Biomedicine / University of Zurich/ Zurich/Switzerland
2020 – 2022	Supervision of one PhD student in the lab, who was previously master student in the Polymenidou lab under my supervision. Polymenidou Lab / Department of Quantitative Biomedicine / University of Zurich/ Zurich/Switzerland
2019 – 2020	Supervising two PhD students, and mentoring and supervising two master students. Polymenidou Lab / Department of Quantitative Biomedicine / University of Zurich/ Zurich/Switzerland
2015 – 2018	Mentoring and supervising six master students and one undergrad student from various French schools. Thinakaran Lab / Neurobiology department / The University of Chicago / USA
2015 – 2018	Mentoring and supervising five under students from the University of Chicago. Thinakaran Lab / Neurobiology department / The University of Chicago / USA
2014 – 2014	Mentoring and supervising three master students from the University of Lyon. Pr. Honnorat team / Université Claude Bernard Lyon1 / France

INSTITUTIONAL RESPONSIBILITIES

2010 – 2013	Member of the Lyon Neuroscience Centre (CRNL) advisory board, student representative; University of Lyon, France
2010 – 2013	Founding member of the EtuCRNL, student organization, University of Lyon, France

REVIEWING ACTIVITIES

2020 –	External Evaluator for the FRM, Equipe FRM 2020, University of Zurich / Switzerland
2019 –	External Evaluator for the FRM, Alzheimer call 2019, University of Zurich / Switzerland
2022 –	Reviewer for Nature Communication, (with Prof Magdalini Polymenidou), University of Zurich / Switzerland
	Reviewer for Biomolecules, special issue: “Common Mechanisms in Alzheimer’s Disease and

CV Pierre De Rossi

- Other Neurodegenerative Disorders”, University of Zurich / Switzerland
- 2021 – Reviewer for Cells, University of Zurich / Switzerland
- 2020 – Reviewer for Journal of Alzheimer’s disease, University of Zurich / Switzerland
- 2019 – Reviewer for Science Translational Medicine (with Prof Magdalini Polymenidou), University of Zurich / Switzerland
- 2018 – Reviewer for Cell Reports (with Prof Magdalini Polymenidou), University of Zurich / Switzerland
- 2018 – Reviewer for Acta Neuropathologica (with Prof Gopal Thinakaran), University of Chicago / USA

MEMBERSHIPS OF SCIENTIFIC SOCIETIES
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- 2022 – Member of the Society for Neuroscience, USA
- 2019 – Member of the Swiss Neuroscience Society, Switzerland
- 2015 – Member of the Society for Neuroscience, USA
- 2013 – Member of the French Society for Neuroscience, France
- 2012 – Member of the Federation of European Neuroscience Society

List of referees:

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