

Stanford



Aleksandra Chudinova

Postdoctoral Scholar, Molecular and Cellular Physiology

Bio

BIO

I am fascinated by the sensorimotor system and by how do we perceive touch, pain and movement. I want to understand the molecular pathways involved in neurodegeneration and to find treatments for diseases affecting the nervous system.

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Montpellier University, France , Molecular Pathology of Amyotrophic Lateral Sclerosis (2021)
- Master of Science, University of Strasbourg, France , Integrated molecular and cell biology (2017)
- Bachelors of Science, University of Science and Technology Lille 1 , Biochemistry (2015)

STANFORD ADVISORS

- Miriam Goodman, Postdoctoral Faculty Sponsor

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am part of the wormsense lab where we study the molecular and biophysical mechanisms endowing sensory neurons with the capacity to perceive mechanical and thermal stimuli. I study the mechanisms involved in the regulation of degeneration and regeneration of sensory endings. Using genetics, in vivo imaging, electrophysiology and behavioral assays in *C.elegans* I screen for small molecules that restore touch sensation following chemotherapy and I validate their therapeutic potential in mice.

LAB AFFILIATIONS

- Miriam Goodman, Wormsense lab (1/27/2022)

Publications

PUBLICATIONS

- **Theme 4 In vivo experimental models.** *Amyotrophic lateral sclerosis & frontotemporal degeneration*
Chudinova, A. V., Rossel, M., Vergunst, A., Le-Masson, G., Camu, W., Raoul, C., Lombroso, S., Mouzat, K.
2019; 20 (sup1): 160-187
- **Regulation of Brain Cholesterol: What Role Do Liver X Receptors Play in Neurodegenerative Diseases?** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Mouzat, K., Chudinova, A., Polge, A., Kantar, J., Camu, W., Raoul, C., Lombroso, S.
2019; 20 (16)