



Matteo Santoro Pharm.D., Ph.D.

Postdoctoral Scholar, Pathology

Bio

BIO

Dr. Santoro joined Shamloo's lab in March 2021 focusing his research on Parkinson's disease, neuronal vulnerability, and identification of therapeutic markers in relation to α -synucleinopathies. Prior to his arrival at Stanford, he held a position as a clinical monitor at Syneos Health where he gained key knowledge needed to translate lab-based findings into clinical and commercial applications. Previously, Dr. Santoro held a postdoctoral position at the University of Aberdeen (Scotland, UK) working on amyloid-beta extracts from Alzheimer's disease patients. During his postdoctoral research, Dr. Santoro designed and optimized a cost-effective and rapid assay for the measurement of toxic amyloid-beta species in human biofluids. In 2017, he obtained his Ph.D. (4-year program) at the University of Aberdeen on Parkinson's disease (PD), immunology, and behavior. The major findings Ph.D. findings were the following: 1) the characterization of a small protein called HMGB1 as an inflammatory mediator in PD; 2) the motor and non-motor behavioral characterization of three neurotoxin based mouse models of PD, 3) the characterization of the innate immune response in PD through the toll-like receptor signaling pathways 4) evaluation of the effects of chronic systemic inflammation on both resident and infiltrating immune cells in the CNS. In 2012 Dr. Santoro attained his Pharm.D. in chemistry and pharmaceutical technology (5-year program) at the University of Calabria (Italy) during which he undertook an internship at the King's College London (SGDP Centre) and worked for over a year on a rat model of stroke.

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Society for Neuroscience (2021 - present)

PROFESSIONAL EDUCATION

- Bachelor of Science, Unlisted School (2012)
- Doctor of Philosophy, University Of Aberdeen (2018)
- Ph.D., University of Aberdeen, Scotland, UK , Parkinson's disease (2018)
- Pharm.D., University of Calabria, Italy , Pharmacy, chemistry, and pharmaceutical technology (2012)
- Pharmacist License, University of Calabria, Italy , Pharmacy (2012)

STANFORD ADVISORS

- Thomas Montine, Postdoctoral Faculty Sponsor

PATENTS

- Michael J. Green, Alam Jahangir, Denise Briggs, Alex Ferris, Mehrdad Shamloo, Matteo Santoro. "United States Patent 63/587,897 Provisional Patent: KINASE INHIBITORS AND METHODS OF USE THEREOF", Oct 4, 2023

Research & Scholarship

PROJECTS

- Globo-temporal profile of neurodegeneration in the 6-hydroxydopamine mouse model of Parkinson's disease - Stanford University (March 7, 2021 - present)
- Discovery of DAPK1 and CMGC kinase inhibitors for the treatment of brain disorders (March 7, 2021 - present)

Teaching

COURSES

2023-24

- Early Development Strategies for Neutralizing Antibodies and Brain Permeable Small Molecules: BIOS 219 (Aut)

Publications

PUBLICATIONS

- **Neurochemical, histological and behavioral profiling of the acute, sub-acute and chronic MPTP mouse model of Parkinson's disease.** *Journal of neurochemistry*
Santoro, M., Fadda, P., Klephan, K. J., Hull, C., Teismann, P., Platt, B., Riedel, G.
2022
- **Role of Histone Deacetylases (HDACs) in Epilepsy and Epileptogenesis.** *Current pharmaceutical design*
Citraro, R., Leo, A., Santoro, M., D'agostino, G., Constanti, A., Russo, E.
2017; 23 (37): 5546-5562
- **In-vivo evidence that high mobility group box 1 exerts deleterious effects in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine model and Parkinson's disease which can be attenuated by glycyrrhizin.** *Neurobiology of disease*
Santoro, M., Maetzler, W., Stathakos, P., Martin, H. L., Hobert, M. A., Rattay, T. W., Gasser, T., Forrester, J. V., Berg, D., Tracey, K. J., Riedel, G., Teismann, P.
2016; 91: 59-68
- **Evidence for a role of adaptive immune response in the disease pathogenesis of the MPTP mouse model of Parkinson's disease.** *Glia*
Martin, H. L., Santoro, M., Mustafa, S., Riedel, G., Forrester, J. V., Teismann, P.
2016; 64 (3): 386-95