

CURRICULUM VITAE

GENERAL INFORMATION

Full name: PAGNOTTA SARA

Current position: Post-doctoral Researcher

EDUCATION

2021 - PhD in Biochemistry

Dept. of Biochemical Sciences "A. Rossi Fanelli", 'La Sapienza' University of Rome (Italy)

2018 - National Qualification as Pharmacist

Faculty of Pharmacy and Medicine, 'La Sapienza' University of Rome (Italy)

2018 - Master's Degree in Pharmaceutical Chemistry and Technology (summa cum laude)

Faculty of Pharmacy and Medicine - Dept. of Chemistry and Technology of Drugs, "La Sapienza" University of Rome (Italy)

POSITIONS AND EMPLOYMENT

March 2025 – March 2026 – Post-doctoral Researcher

Laboratory of Pharmacology and Neuroscience led by Prof. Tommaso Cassano - Department of Medical and Surgical Sciences, University of Foggia (Italy)

May 2023 – Feb 2025 - Post-doctoral Researcher

Inflammation Laboratory led by Dr. Miguel Soares - Gulbenkian Institute for Molecular Medicine (GIMM) – Oeiras (Lisbon), Portugal

March 2022 – March 2023 - Post-doctoral Researcher

Laboratory Of Redox Biochemistry in Neuroscience (LRBN) led by Prof. Marzia Perluigi - Dept. of Biochemical Sciences "A. Rossi Fanelli", 'La Sapienza' University of Rome (Italy)

Nov 2018 –Dec 2021 - PhD in Biochemistry

Laboratory Of Redox Biochemistry in Neuroscience (LRBN) led by Prof. Marzia Perluigi - Dept. of Biochemical Sciences "A. Rossi Fanelli", 'La Sapienza' University of Rome (Italy)

Feb 2017 – Jan 2018 - Internship at Molecular Biology laboratory

Laboratory of Molecular Biology led by Prof. Fabio Altieri - Dept. of Biochemical Sciences "A. Rossi Fanelli", 'La Sapienza' University of Rome (Italy)

May 2016 – Feb 2017 - Pharmacy Internship

Rome (Italy)

INVITED PRESENTATIONS

2022: 6th Meeting 'Sindrome di Down: dalla ricerca alla terapia' – *CAPE ed il suo derivato sintetico VP961 modulano l'asse BACH-1/Nrf-2 nella Sindrome di Down* (21,22 October 2022, Virtual Meeting) 2

2022: SFRR-Europe/IUBMB/FEBS Advanced Lecture Course on "Redox alterations and cellular responses: From signalling to interventions" – '*CAPE and its synthetic derivative VP961 restore BACH1/Nrf2 axis in Down Syndrome*' (19-25 September 2022, Spetses Island, Greece)

AWARDS

2022: Travel award SFRR-Europe/IUBMB/FEBS Advanced Lecture Course on “Redox alterations and cellular responses: From signalling to interventions” - Spetses Island, Greece

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2019-Present Member of Society for Free Radical Research Europe (SFRR-E)
2021-present Member of the Trisomy 21 Research Society (T21RS)
2021-present Member of the Italian Society of Biochemistry and Molecular Biology (SIB)

CERTIFICATION:

CONGENTO Course on Laboratory Animal Sciences (LAS) – **May 2024**

Personal license for EU Functions A+C+D to work with rodents (DGAV Direção Geral de Alimentação e Veterinária – Portugal)

IT SKILLS:

- Microsoft Office (European Computer Driving Licence)
- Biostatistics and Graphs (GraphPad Prism 10)
- Image processing (ImageLab, Fiji, Adobe Illustrator)
- Bibliography research (PubMed, Scifinder, Scopus)

SCIENTIFIC PUBLICATIONS:

Mesquita M., Figueiredo A., Trikha Rastogi S., Martins R., Ramos S., **Pagnotta S.**, Carlos A. R., Costa M., Cardoso S., Novoa A., Mallo M., Paul B.D., Jentho E., Soares MP - Hypomorphic Biliverdin Reductase A Mutations Define Bilirubin Anti-Malarial Threshold. *iScience*, 2026. *In press*

Di Domenico F., Greco V., Tramutola A., Rataj Baniowska M., Barone E., Lanzillotta C., Pieroni L., Butterfield D.A., Herault Y., **Pagnotta S.**, Cassano T., Head E., Urbani A. and Perluigi M. *‘Proteome signature of Alzheimer-like phenotypes in frontal cortices from young and old individuals with Down Syndrome’*. *Mol Neurobiol* 2025 Nov 21. PMID: 41269384

Citations=0; Impact factor=4.6

Martins R., Blankehaus B., Braza F., Mesquita M., Ventura P., Singh S., Weis S., Pires M., **Pagnotta S.**, Wu Q., Cardoso S., Jentho E., Figueiredo A., Faísca P., Nóvoa A., Morais VA, Wculek SK., Sancho D., Mallo M., Soares MP - *‘Homeostatic control of energy metabolism by monocyte-derived macrophages’*. *EMBO J* 2025 Nov 17. PMID: 41249508

Citations= 2; Impact factor= 8.3

Figueiredo A., Trikha Rastogi S.1, Ramos S., Nogueira F., De Villiers K., Gonçalves de Sousa A.G., Votborg-Novél L., von Wedel C., Tober-Lau P., Jentho E., **Pagnotta S.**, Mesquita M., Cardoso S., Bortolussi G., Munro A., Tranfield E.M., Thibaud J., Duarte D., Sousa A.L., Pinto S.N., Kitoko J., Mombo-Ngoma G., Mischlinger J., Junttila S., Alenquer M., Amorim M.J., Bosma P.J., Violante S., Drotleff B., Paixão T., Portugal S., Kurth F., Elo L.L, Paul B.D., Martins R., Soares MP. *‘A Metabolite-Based Resistance Mechanism Against Malaria’*. *Science*, 2025. PMID 40504905

Citations= 6; Impact factor= 45.8

Lanzillotta C, Tramutola A, Lanzillotta S., Greco V., **Pagnotta S.**, Sanchini C., Di Angelantonio S., Forte E., Rinaldo S., Paone A., Cutruzzola F., Cimini F.A., Barchetta I., Cavallo M.G., Urbani A., Butterfield D.A., Di Domenico F., Paul B.D., Perluigi M., Duarte J.M.N., Barone E. *‘Biliverdin Reductase-A integrates insulin signaling with mitochondrial metabolism through phosphorylation of GSK3β’*. *Redox biology*, 2024. PMID 38843768

Citations=22; Impact factor=11.9

Tramutola A., Bakels H. S., Perrone F., Di Nottia M., Mazza T., Abruzzese MP., Zoccola M., **Pagnotta S.**, Carrozzo R., T de Bot S., Perluigi M., van Roon-Mom WMC., Squitieri F. *‘GLUT-1 changes in paediatric Huntington disease brain cortex and fibroblasts: an observational case-control study’*. *eBioMedicine*, 2023. PMID 37898095

Citations=13; Impact factor=10.8

Tramutola A., Lanzillotta S., Aceto G., **Pagnotta S.**, Ruffolo G., Cifelli P., Marini F., Ripoli C., Palma E., Grassi C., Di Domenico F., Perluigi M., Barone E. *'Intranasal Administration of KYCCSRK Peptide Rescues Brain Insulin Signaling Activation and Reduces Alzheimer's Disease-like Neuropathology in a Mouse Model for Down Syndrome'*. Antioxidants, 2023. PMID 36670973

Citations=20; Impact factor=6.6

Pagnotta S., Tramutola A., Barone E., Di Domenico F., Pittalà V., Salerno L., Folgiero V., Caforio M., Locatelli F., Petrini S., Allan Butterfield D., Perluigi M. *'CAPE and its synthetic derivative VP961 restore BACH1/NRF2 axis in Down Syndrome'*. Free Radical Biology and Medicine, 2022. PMID 35283228

Citations=21; Impact factor=8.2

Cimini F.A., Barchetta I., Zuliani I., **Pagnotta S.**, Bertocchini L., Dule S., Zampieri M., Reale A., Baroni M.G., Cavallo M.G., Barone E. *'Biliverdin reductase-A protein levels are reduced in type 2 diabetes and are associated with poor glycometabolic control'*. Life Sciences, 2021. PMID 34453944

Citations=12; Impact factor=5.1

Zuliani I, Lanzillotta C, Tramutola A, Francioso A, **Pagnotta S**, Barone E, Perluigi M, Di Domenico F. *'The Dysregulation of OGT/OGA Cycle Mediates Tau and APP Neuropathology in Down Syndrome'*. Neurotherapeutics, 2021. PMID 33258073

Citations=22; Impact factor=6.9

Lanzillotta C., Greco V. Valentini D., Villani A., Folgiero V., Caforio M., Locatelli F., **Pagnotta S.**, Barone E., Urbani A., Di Domenico F., Perluigi M. *'Proteomics study of peripheral blood mononuclear cells in down syndrome children'*. Antioxidants, 2020. PMID 33187268.

Citations=7; Impact factor=6.6

Perluigi M., Tramutola A., **Pagnotta S.**, Barone E., Allan Butterfield D. *'The bach1/Nrf2 axis in brain in down syndrome and transition to Alzheimer disease-like neuropathology and dementia'*. Antioxidants, 2020. PMID 32839417

Citations=38; Impact factor=6.6

Dichiaro di:

- essere consapevole delle conseguenze derivanti da dichiarazioni mendaci, previste dal D.P.R. 28/12/2000 n. 445 e s.m.i., e che le informazioni riportate nel presente curriculum corrispondono a verità;
- essere informato/a, ai sensi e per gli effetti di cui al Regolamento UE 2016/679, che i dati personali contenuti nel presente curriculum saranno trattati dall'Università degli Studi di Foggia per adempiere agli obblighi di pubblicazione ai fini di trasparenza previsti dalla normativa vigente.