PERSONAL INFORMATION

Chiara Lanzillotta *Pharm.D., Ph.D.*

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N/A
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WORK EXPERIENCE

From February 2018 – to February 2021	Post-doctoral Researcher Department of Biochemical Sciences "A. Rossi Fanelli" Sapienza University of Rome Rome, Italy
From May 2016 – to June 2017	Research Scholar (a) Department of Molecular and Biomedical Pharmacology in the Sanders-Brown Center on Aging and (b) Department of Chemistry, Laboratory of Neurochemistry University of Kentucky, Lexington, Kentucky, USA
From November 2014 – to November 2017	Ph.D. Candidate in Biochemistry Department of Biochemical Sciences "A. Rossi Fanelli" Sapienza University of Rome Rome, Italy
From February 2013 – to July 2014	Visiting Student Department of Biochemical Sciences "A. Rossi Fanelli" Sapienza University of Rome Rome, Italy

From May 2012 – to November 2013 | Pharmacy Training
Pharmacy
Frascati (RM), Italy

EDUCATION AND TRAINING

February 2018 | Post-doctoral Researcher
Department of Biochemical Sciences "A. Rossi-Fanelli" Sapienza University of Rome, Italy

December 2017 | Ph.D. in Biochemistry
Department of Biochemical Sciences "A. Rossi-Fanelli" Sapienza University of Rome, Italy

December 2014 | National Qualification as Pharmacist
Faculty of Pharmacy, Sapienza University of Rome, Italy

July 2014 | Doctor in Pharmaceutical Chemistry and Technology
Faculty of Pharmacy, Sapienza University of Rome, Italy

2007 | Secondary School Diploma
Liceo Scientifico "Bruno Touschek" – Grottaferrata (RM) Italia

PERSONAL SKILLS

Mother tongue: Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

HONORS AND AWARDS

June 2019 | *Travel award 3rd International Conference Trisomy 21 Research Society Barcelona 2019*

January 2017 | *Travel Grant Sapienza*

November 2016 *SIB travel Grant* Italian Society of Biochemistry and Molecular Biology (SIB)

PROFESSIONAL MEMBERSHIPS

2017-present members of T21RS

2014-present Italian Society of Biochemistry (SIB)

INVITED SPEAKER

- 15th International Conference on Alzheimer's and Parkinson's Diseases ADPDTM 2021. March 9- March 14, 2021. Virtual Conference **(COVID 19).** Oxidative stress links brain Insulin resistance and mitochondrial defects in Down syndrome brain early in life: implication for neurodegeneration

- *4th Conference Sindrome di Down dalla diagnosi alla terapia. Virtual edition. 16-17 Ottobre 2020* Analisi del profilo proteomico in cellule mononucleate periferiche nella sindrome di Down: una finestra di osservazione verso il danno cerebrale

- *3th Conference Sindrome di Down dalla diagnosi alla terapia* 18-19 Ottobre 2019 Napoli. Alterazioni dell'omeostasi proteica nella T21.

- 3th *International Conference on Alzheimer's and Parkinson's Diseases ADPD™ 2017 March 29-April 2, 2017 in Vienna, Austria*. The Unfolded Protein Response: a major early participant in the development of Alzheimer–like neuropathology in Down syndrome mice

- *58° National Meeting of the Italian Society of Biochemistry and Molecular Biology (September 2015, Urbino, Italy)*. "Ubiquitin-bound protein profile in human brain from Down Syndrome individuals' prior and after the development of Alzheimer-like dementia"

2014-2021: number of selected abstracts: 25

PROFESSIONAL EXPERTISE

Surgery and Tissue Processing: High experience with Small Animal Surgery, Brain dissection
Microscopy: Histochemistry, Immunohistochemistry, BrdU, Immunofluorescence

Behavioural Training: Radial maze test, novel object

Cell culture: Primary Neurons
Cell Lines (M17, iHEK, SHSY5, C33A, HeLa, SiHa)

Molecular Biology: DNA extraction, RT-PCR, Real Time PCR, Western Blot analysis, Proteomics and Redox Proteomics
Other Methods: ELISA, Reactive oxygen species assays.

SCIENTIFIC COLLABORATIONS

Prof. Jose F. Abisambra, Department of Neuroscience Center for Translational Research in Neurodegenerative Disease, Gainesville, FL (USA)

PUBLICATIONS LIST

[1] **C. Lanzillotta**, F. Di Domenico, Stress responses in Down syndrome neurodegeneration: state of the art and therapeutic molecules, Biomolecules 11(2), 266 (2021)
Citations= 0; Impact factor= 4.082

[2] **C. Lanzillotta**, A. Tramutola, G. Di Giacomo, F. Marini, D.A. Butterfield, F. Di Domenico, M. Perluigi, E. Barone, Insulin resistance, oxidative stress and mitochondrial defects in Ts65dn mice brain: A harmful synergistic path in down syndrome, Free Radic Biol Med 165 (2021) 152-170.
Citations= 1; Impact factor= 6.170

[3] S.A. Koren, M.J. Hamm, R. Cloyd, S.N. Fontaine, E. Chishti, **C. Lanzillotta**, J. Rodriguez-Rivera, A. Ingram, M. Bell, S.M. Galvis-Escobar, N. Zulia, F. Di Domenico, D. Duong, N.T. Seyfried, D. Powell, M. Vandsburger, T. Frolinger, A.M.S. Hartz, J. Koren, 3rd, J.M. Axten, N.J. Laping, J.F. Abisambra, Broad Kinase Inhibition Mitigates Early Neuronal Dysfunction in Tauopathy, Int J Mol Sci 22(3) (2021).
Citations= 1; Impact factor= 4.556

[4] **C. Lanzillotta**, I. Zuliani, A. Tramutola, E. Barone, C. Blarzino, V. Folgiero, M. Caforio, D. Valentini, A. Villani, F. Locatelli, D.A. Butterfield, E. Head, M. Perluigi, J.F. Abisambra, F. Di Domenico, Chronic PERK induction promotes Alzheimer-like neuropathology in Down syndrome: Insights for therapeutic intervention, Progr Neurobio (2021) 101892.
Citations= 4; Impact factor= 9.371

[5] I. Zuliani, **C. Lanzillotta**, A. Tramutola, A. Francioso, S. Pagnotta, E. Barone, M. Perluigi, F. Di Domenico, The Dysregulation of OGT/OGA Cycle Mediates Tau and APP Neuropathology in Down Syndrome, Neurotherapeutics (2020) head for pubblication.
Citations= 1; Impact factor= 6.035

[6] Bouzidi A, Magnifico MC, Paiardini A, Macone A, Boumis G, Giardina G, Rinaldo S, Liberati FR, Lauro C, Limatola C, **C. Lanzillotta**, Tramutola A, Perluigi M, Sgarbi G, Solaini G, Baracca A, Paone A, Cutruzzolà F. Cytosolic serine hydroxymethyltransferase controls lung adenocarcinoma cells migratory ability by modulating AMP kinase activity. Cell Death Dis. 2020 Nov 26;11(11):1012. doi: 10.1038/s41419-020-03215-0.PMID: 33243973
Citations= 0; Impact Factor=6.304

[7] **C. Lanzillotta, V**. Greco, D. Valentini, A. Villani, V. Folgiero, M. Caforio, F. Locatelli, S. Pagnotta, E. Barone, A. Urbani, F. Di Domenico, M. Perluigi, Proteomics Study of Peripheral Blood Mononuclear Cells in Down Syndrome Children, Antioxidants (Basel) 9(11) (2020).
Citations= 1; Impact factor= 4.610

[8] **C. Lanzillotta**, I. Zuliani, C. Vasavda, S.H. Snyder, B.D. Paul, M. Perluigi, F. Di Domenico*, E. Barone, BVR-A Deficiency Leads to Autophagy Impairment through the Dysregulation of AMPK/mTOR Axis in the Brain-Implications for Neurodegeneration, Antioxidants (Basel) 9(8) (2020).
Citations= 2; Impact factor= 4.610

[9] A. Tramutola, **C. Lanzillotta**, F. Di Domenico, E. Head, D.A. Butterfield, M. Perluigi, E. Barone, Brain insulin resistance triggers early onset Alzheimer disease in Down syndrome, Neurobiol Dis 137 (2020) 104772.
Citations= 16; Impact factor= 5.332

[10] A. Tramutola, S. Falcucci, U. Brocco, F. Triani, **C. Lanzillotta**, M. Donati, C. Panetta, F. Luzi, F. Iavarone, F. Vincenzoni, M. Castagnola, M. Perluigi, F. Di Domenico, F. Marco, Protein Oxidative Damage in UV-Related Skin Cancer and Dysplastic Lesions Contributes to Neoplastic Promotion and Progression, Cancers (Basel) 12(1) (2020).
Citations= 0; Impact factor= 5.326

[11] **C. Lanzillotta**, F. Di Domenico, M. Perluigi, D.A. Butterfield, Targeting Mitochondria in Alzheimer Disease: Rationale and Perspectives, CNS Drugs (2019).
Citations= 10; Impact factor= 4.192

[12] F. Di Domenico, A. Tramutola, E. Barone, **C. Lanzillotta**, O. Defever, A. Arena, I. Zuliani, C. Foppoli, F. Iavarone, F. Vincenzoni, M. Castagnola, D.A. Butterfield, M. Perluigi, Restoration of aberrant mTOR signaling by intranasal rapamycin reduces oxidative damage: Focus on HNE-modified proteins in a mouse model of down syndrome, Redox Biol (2019) 101162.
Citations= 17; Impact factor= 9.986

[13] F.A. Cimini, A. Arena, I. Barchetta, A. Tramutola, V. Ceccarelli, **C. Lanzillotta**, M. Fontana, L. Bertoccini, F. Leonetti, D. Capoccia, G. Silecchia, C. Di Cristofano, C. Chiappetta, F. Di Domenico, M.G. Baroni, M. Perluigi, M.G. Cavallo, E. Barone, Reduced biliverdin reductase-A levels are associated with early alterations of insulin signaling in obesity, Biochim Biophys Acta Mol Basis Dis 1865(6) (2019) 1490-1501.
Citations= 14; Impact factor= 4.328

[14] N. Sharma, A. Tramutola, **C. Lanzillotta**, A. Arena, C. Blarzino, T. Cassano, D.A. Butterfield, F. Di Domenico, M. Perluigi, E. Barone, Loss of biliverdin reductase-A favors Tau hyper-phosphorylation in Alzheimer's disease, Neurobiol Dis 125 (2019) 176-189.
Citations= 22; Impact factor=5.227

[15] A. Tramutola*, **C. Lanzillotta***, E. Barone, A. Arena, I. Zuliani, L. Mosca, C. Blarzino, D.A. Butterfield, M. Perluigi, F. Di Domenico, Intranasal rapamycin ameliorates Alzheimer-like cognitive decline in a mouse model of Down syndrome, Transl Neurodegener 7 (2018) 28.
***Co-Corresponding author**
Citations= 35; Impact factor= 5.534

[16] F. Di Domenico, **C. Lanzillotta**, A. Tramutola, Therapeutic potential of rescuing protein O-GlcNAcylation in tau-related pathologies, Expert Rev Neurother 19(1) (2019) 1-3.
Citations= 5; Impact factor= 3.453

[17] A. Tramutola, G. Abate, **C. Lanzillotta**, F. Triani, E. Barone, F. Iavarone, F. Vincenzoni, M. Castagnola, M. Marziano, M. Memo, E. Garrafa, D.A. Butterfield, M. Perluigi, F. Di Domenico*, D. Uberti, Protein nitration profile of CD3(+) lymphocytes from Alzheimer disease patients: Novel hints on immunosenescence and biomarker detection, Free Radic Biol Med 129 (2018) 430-439.
Citations= 12; Impact factor= 6.17

[18] A. Tramutola, N. Sharma, E. Barone, **C. Lanzillotta**, A. Castellani, F. Iavarone, F. Vincenzoni, M. Castagnola, D.A. Butterfield, S. Gaetani, T. Cassano, M. Perluigi, F. Di Domenico, Proteomic identification of altered protein O-GlcNAcylation in a triple

transgenic mouse model of Alzheimer's disease, Biochim Biophys Acta Mol Basis Dis 1864(10) (2018) 3309-3321.
Citations=15; Impact factor= 4.328

[19] **C. Lanzillotta**, A. Tramutola, S. Meier, F. Schmitt, E. Barone, M. Perluigi, F. Di Domenico, J.F. Abisambra, Early and Selective Activation and Subsequent Alterations to the Unfolded Protein Response in Down Syndrome Mouse Models, J Alzheimers Dis 62(1) (2018) 347-359.
Citations= 11; Impact factor= 3.731

[20] S.N. Fontaine, A. Ingram, R.A. Cloyd, S.E. Meier, E. Miller, D. Lyons, G.K. Nation, E. Mechas, B. Weiss, **C. Lanzillotta**, F. Di Domenico**,** F. Schmitt, D.K. Powell, M. Vandsburger, J.F. Abisambra, Identification of changes in neuronal function as a consequence of aging and tauopathic neurodegeneration using a novel and sensitive magnetic resonance imaging approach, Neurobiol Aging 56 (2017) 78-86.
Citations= 10; Impact factor= 5.117

[21] A. Tramutola, **C. Lanzillotta**, F. Di Domenico, Targeting mTOR to reduce Alzheimer-related cognitive decline: from current hits to future therapies, Expert Rev Neurother 17(1) (2017) 33-45.
Citations= 34; Impact factor= 3.149

[22] A. Tramutola, **C. Lanzillotta**, M. Perluigi, D.A. Butterfield. Oxidative stress, protein modification and Alzheimer disease. Brain Res Bull. 2016 Jun 15. Review.
Citations= 112; Impact Factor=3.440

[23] A. Tramutola, G. Pupo, **F. Di Domenico**, E. Barone, A. Arena, C. Lanzillotta, D. Brokeaart, C. Blarzino, E. Head, D.A. Butterfield, M. Perluigi, Activation of p53 in Down Syndrome and in the Ts65Dn Mouse Brain is Associated with a Pro-Apoptotic Phenotype, J Alzheimers Dis 52(1) (2016) 359-371.
Citations= 20; Impact factor=3.731

[24] A. Tramutola, C. Lanzillotta, A. Arena, E. Barone, M. Perluigi, **F. Di Domenico**, Increased Mammalian Target of Rapamycin Signaling Contributes to the Accumulation of Protein Oxidative Damage in a Mouse Model of Down's Syndrome, Neurodegener Dis 16(1-2) (2016) 62-8.
Citations=25; Impact factor= 2.842