

PERSONAL INFORMATION



Annunziatina Laurino, PhD

📍 **Department of Molecular and Developmental Medicine, University of Siena, Siena, Italy.**

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CURRENT POSITION
From 01/03/2022

Researcher
Department of Molecular and Developmental Medicine, University of Siena, Siena, Italy.

From 18/11/2019

Clinical Pharmacology and Toxicology resident
AOUC Careggi Hospital – University of Florence, Florence (Italy)

WORK EXPERIENCE
01/07/2020 - 31/12/2021**Postdoctoral Fellowship**

Department of Neurofarba, University of Florence, Florence (Italy)

- Differentiation of skeletal myofibers and satellite cells from induced pluripotent stem cells obtained from Patients with DMD, Resp. Raffaele Coppini/ Role of thyroid hormone signalling on Ca++ homeostasis in resident skeletal muscle stem cells:possible new strategies for treating sarcopenia, Resp. Laura Sartiani, supported by Fondazione Cassa di Risparmio di Firenze

01/01/2020 - 30/06/2020

Secondary School Teacher

ISIS Leonardo da Vinci, Via del Terzolle, 91, Florence (Italy)

01/01/2018 - 31/12/2019

Postdoctoral fellowship

LENS – Physics Department, University of Florence, Florence (Italy)

- Developing a multiple staining and mapping human hippocampus with high resolution microscopy/ Mapping of neuronal activation during consolidation of memory with high-resolution microscopy of entire mouse brain Prof. Francesco Pavone

01/12/2016 - 30/11/2017

Postdoctoral fellowship

Department of Neurofarba, University of Florence, Florence (Italy)

- Molecular mechanism and new therapeutic approaches in atrial fibrillation prof. Alessandro Mugelli, prof. Laura Raimondi

30/11/2013 - 29/11/2016

PhD Student

Department of Neurofarba, University of Florence, Florence (Italy)

- Characterization of 3-iodothyroacetic acid pharmacological profile: from itch to neuroprotection Scientific Tutor: prof. Laura Raimondi

01/10/2013 - 31/10/2013

Quality Assurance Internship

Anallergo s.r.l.

- SOP and IO review and drafting according to cGMP, Process validation, OOS management

22/12/2012 - 30/09/2013

Visiting Researcher

Department of Neurofarba, University of Florence, Florence (Italy)

- Pharmacological effects of thyroid hormone derivatives
Prof: Laura Raimondi

21/12/2011 - 21/12/2012

Internal Student**Department of Pharmacology, University of Florence, Florence (Italy)**

- Binding Profile characterization on Muscarinic system of thyroid hormone derivatives
Prof: Laura Raimondi, Prof. Rosanna Matucci

EDUCATION AND TRAINING

24/02/2017	PhD in Drug Area and Innovative Treatments (Pharmacology, Toxicology and Innovative Treatments) University of Florence, Florence, Italy	
15/07/2013	Enabled to the profession of Pharmacist University of Florence, Florence, Italy	276/300
21/12/2012	Master degree in Pharmaceutical Chemistry and Technology University of Florence, Florence, Italy	104/110
30/07/2006	High school diploma Scientific High School G. Peano, Marsico Nuovo (PZ), Italy	95/100

RESEARCH SKILLS

Behavioural methods	▪ forced swimming, tail suspension, passive avoidance, fear conditioning, rota-rod, hot plate, cold plate, hole-board, pentylenetetrazole-induced seizures, plasma glycemia, feeding behaviour paradigms, Wire Hanging Test
Imaging techniques	▪ immunocytochemistry and immunofluorescence, innovative clearing and staining methods (CLARITY, SWITCH), Ca^{2+} imaging
In vitro binding assays	▪ GABA-benzodiazepine receptor complex: 3[H]flumazenil, nicotinic receptor: 3[H]cytisine, muscarinic receptor: 3[H]scopolamine
In vitro enzyme assays	▪ MAO-A, MAO-B and SSAO activity (14[C]5-hydroxytryptamine, 14[C]benzylamine, 14[C]tyramine
Cellular and Molecular Biology techniques	▪ Protein quantification, Western Blot, Cell Culture (including primary cultures, stem cells, iPS, differentiation methods), Cell adhesion and migration.

PRIZES AND GRANTS

20/11/2018	- Young Researchers SIF Farmindustria 2018 Award
13/11/2018	- Edmund Optics 2018 Educational Award
23/11/2019	- Best Oral Communication at SIF National Meeting 2019, Firenze
14/09/2020	- Fondazione Sapienza - Valentina De Castro Award 2020
30/01/2021	- Fondazione Cassa Di Risparmio di Firenze – Giovani Ricercatori Protagonisti

OTHER SCIENTIFIC COMMITMENTS

- National Scientific qualification as associate in the Italian higher education system, for the disciplinary field of 05/G1 -Pharmacology, clinical pharmacology and pharmacognosy.
- Member of SIF (Società Italiana di Farmacologia), SINS (Società Italiana di Neuroscienze), ETA (European Thyroid Association), SIRC (Società Italiana di Ricerche Cardiovascolari)
- Member of the reviewer board of International Journal of Molecular Science
- Member of the editorial board of Frontiers in Endocrinology
- Reviewer for Molecular Neurobiology and Somatosensory & Motor Research
- Guest Editor for the Special Issues "Thyroid Hormone and Thyroid Hormone-Related Compounds: Molecular Pathways and Effects", IJMS and

TEACHING EXPERIENCE

From 2013

Undergraduate students and PhD candidates supervision

From 2021

Teaching assistant in Pharmacology (SSD BIO/14)

From 2022

Assistant Professor in Histology (SSD BIO/17)

SELECTED PUBLICATIONS IN PEER-REVIEWED JOURNALS

Bibliometric Indicators: SCOPUS (2015-2022)

Total documents: 41

H-index: 15

Total citations: 490

Gencarelli M, Lodovici M, Bellusci L, Raimondi L, Laurino A (2022). Redox Properties of 3-Iodothyronamine (T1AM) and 3-Iodothyroacetic Acid (TA1). *Int J Mol Sci.* 23, 2718

Pesce L*, Laurino A*, Scardigli M, Yang J, Boas DA, Hof PR, Destrieux C, Costantini I, Pavone FS (2022) Exploring the human cerebral cortex using confocal microscopy. *Progress in Biophysics and Molecular Biology* 168, 3-9

Laurino A*, Spinelli V*, Gencarelli M*, Balducci V, Dini L, Diolaiuti L, Ghionzoli M, Messineo A, Mugelli A, Cerbai E, Raimondi L, Sartiani L. (2019) Angiotensin-II Drives Human Satellite Cells Toward Hypertrophy and Myofibroblast Trans-Differentiation by Two Independent Pathways. *Int J Mol Sci.* 20, 4912

Laurino A*, Landucci E*, Resta F, De Siena G, Pellegrini-Giampietro DE, A Masi, Mannaioni G, Raimondi L (2018) Anticonvulsant and Neuroprotective Effects of the Thyroid Hormone Metabolite 3-Iodothyroacetic Acid Thyroid 28, 1387-97

Bellusci L*, Laurino A*, Sabatini M*, Sestito S, Lenzi P, Raimondi L, Rapposelli S, Biagioli S, Fornai F, Salvetti A, Rossi L, Zucchi R, Chiellini G (2017) New Insights into the Potential Roles of 3-Iodothyronamine (T1AM) and Newly Developed Thyronamine-Like TAAR1 Agonists in Neuroprotection *Frontiers in pharmacology* 8, 905

Laurino A, De Siena G, Resta F, Masi A, Musilli C, Zucchi R, Raimondi L. (2015) 3-iodothyroacetic acid, a metabolite of thyroid hormone, induces itch and reduces threshold to noxious and to painful heat stimuli in mice. *British Journal of Pharmacology* 172, 1859-1868

SELECTED ORAL COMMUNICATIONS

National and international meetings

Laurino A, Gencarelli M, Balducci V, Sacconi L, Cameli M, Sartiani L, Cerbai E (2022) Interleukin 6 rapidly modifies Hyperpolarization-activated Cyclic nucleotide-gated (HCN) channel expression in vitro and its level is linearly related to HCN isoforms in human atria SIRC 2021

Laurino A, Gencarelli M, Lodovici M, Raimondi L. 3-iodothyronamine (T1AM), a thyroid hormone metabolite, works as a pro-oxidant in brown adipocytes. ETA 2021

Laurino A, Gencarelli M, Landucci E, De Siena G, Cinci L, Bellusci L, Chiellini G, Raimondi L 3-iodothyroacetic acid is endowed of antidepressant effect depending on brain histamine release SIF 2019

Laurino A, 3-iodothyronamine (T1AM) and 3-iodothyroacetic acid (TA1): a novel signaling pathway connecting thyroid with the histaminergic system Neuroscience GM 2019 (invited)

Silvestri L, Laurino A, Mazzamuto G. (2018) Human Brain optical imaging, HBP SP2 2018

Laurino A, Raimondi L (2016) A novel signaling pathway connecting thyroid hormone derivatives with the histaminergic system, EHRS 2016 (invited)