**- PROFESSIONAL EXPERIENCES -**

2014 to date Associate professor, Medical School, Department of Biomedical and Neuromotor Sciences, University of Bologna, Italy.

2001-2014 **Assistant professor, Medical Faculty, Department of Human and General Physiology, University of Bologna, Italy**

1999-2001 **Research grant at the University of Bologna, Italy**

Supervisor: Prof. Antonio Contestabile

Main project. Role of Nitric Oxide in neuronal proliferation, survival and differentiation

1995-1999 **Post-doc position** **at the Max Planck Institute for Psychiatry, Munich, Germany**

Supervisor: Dr. Dietmar Spengler

Project. Molecular characterization of a new zinc-finger protein named “Zac”

**- EDUCATION -**

1992-1995 **PhD in Cell Biology and Physiology at the University of Bologna, Italy, in collaboration with the Division for Environmental Toxicology of Norwegian Defense Research, Norway**

*PhD Thesis*: “Study and role of early genes during brain development and in cytotoxicity induced by glutamate”

Supervisor: Prof. Antonio Contestabile.

Part of this research was carried out during a 14-month period at the Laboratory of Molecular Neurobiology, Norwegian Defense Research Establishment (Kjeller, Norway) under the supervision of Prof. Ragnhild Paulsen.

1991 **Degree in Life Sciences, University of Bologna, Italy**

110/110 cum laude

**- TRAINING** -

**1995** EMBL practical course: "Microinjection Electroporation and Particle Transfection of cells" at European Molecular Biology Laboratory of Heidelberg, Germany.

**1994** “Advanced molecular cloning and expression of eukariotic genes” at the Cold Spring Harbor Laboratory, New York, USA.

**- AWARDS -**

**2003** SIF Award for the best young Italian physiologist 2002.

**2015**  “LouLou foundation” Award for the work done on CDKL5 disorder

**- GRANTS -**

**2015** Three-year research grant (Telethon Foundation), entitled: “Therapeutic strategies for CDKL5 disorder.”

Function: **Project leader**

**2014** Two-year international research grant (Jérome Lejeune Foundation), entitled: “CDKL5

encephalopathy: therapeutic strategies to improve brain development in a newly generated Cdkl5 knockout mouse model.”

Function: **Project leader**

**2013 Research grant (Del Monte Foundation), entitled: “CDKL5 encephalopathy: a new therapeutic approach to improve brain development in a knockout mouse model for CDKL5”**

**Function: Project leader**

**2012** Research grant (UK CDKL5 Foundation), entitled: “CDKL5 variant of Rett's syndrome: protein substitution therapy.”

Function: **Project leader**

**2011** Three-year research grant (Telethon Foundation), entitled: “Molecular mechanisms underlying brain alterations in the CDKL5 variant of Rett's syndrome.”

Function: **Project leader**

**2011** Research grant (Del Monte Foundation), entitled: “CDKL5 variant of Rett's syndrome: molecular and therapeutic approaches.”

Function: **Project leader**

**2010** Research grant (Del Monte Foundation), entitled: “Molecular mechanisms underlying brain alterations in the CDKL5 variant of Rett's syndrome.”

Function: **Project leader**

**2009** Research grant (CDKL5 Foundation), entitled: “CDKL5 variant of Rett's syndrome: molecular and therapeutic approaches.”

Function: **Project leader**

**2007** Two-year National research grant from PRIN (Programmi di Ricerca Scientifica di Rilevante Interesse Nazionale) entitled: “Identification of genes underlying defects in brain development in Down syndrome”

Function: **Project leader & national coordinator**

**2006** Two-year international research grant (Jérôme Lejeune Foundation), entitled: “Identification of genes underlying defects in brain development in Down syndrome.”

Function: **Project leader**

**2002** Three-year national research grant (FIRB), entitled: “Gene expression and neurochemical characterization in a Down syndrome animal model in view of therapeutic approaches”.

Function: **Project leader**

**2001** University of Bologna, young scientist research grant entitled: “Molecular mechanisms of glucocorticoids on neuronal survival and plasticity in the hippocampus"

**1998** University of Bologna, young scientist research grant entitled: “Akt in neuronal survival”

**1995** EMBL Grant for training in Molecular Biology at the European Molecular Biology Laboratory in Heidelberg, Germany

**1994** Cold Spring Harbor Laboratory travel grant for participation in the course "Advanced molecular cloning and expression of eukariotic genes", at the Cold Spring Harbor Laboratory, New York, USA

**1994** Three-month grant from the European Community to join the laboratory of Molecular Neurobiology of the Norwegian Defense Research Establishment (Kjeller, Norvegia)

**- INVITED SPEAKER -**

- European Conference on Down Syndrome, FrenchAssociation for the Research on Trisomy 21, 23-24 March, 2007, Paris. “Neurogenesis impairment and cell cycle alterations in Ts65Dn mice and fetal Down syndrome brain”.

- Meeting "Difetto del Gene CDKL5", Italian CDKL5 Association, 9 May 2009, Anzio (RM). “Meccanismi molecolari alla base delle alterazioni cerebrali nella variante CDKL5 della sindrome di Rett”.

- The sick brain: new ideas for the health of the new millennium. Collegio Superiore, School of excellence of the University of Bologna, 28 May 2009. “Newborn neurons in Down syndrome”.

- Meeting of the Italian Society of Neuroscience (SINS), 2-5 October 2009, Milano. “Mechanisms underlying impairment of neuronal precursor proliferation in Down syndrome in view of therapeutic approaches”.

- Meeting “Le malattie rare sul cromosoma X”, Italian CDKL5 Association, 17 April 2010, Bologna. “Il network CDKL5”.

- 23rd Biennial Meeting of the International Society for Neurochemistry (ISN) and the European Society for Neurochemistry (ESN), Athens, August 28 - September 1, 2011.“Neuronal precursor proliferation is enhanced by cannabinoids via CB1/AKT/GSK-3BETA/Beta Catenin”.

- Meeting to honor the 103rd birthday of RITA LEVI MONTALCINI: Sanità e Conoscenza, 23 April 2012, Bologna. “Nuove prospettive per lo studio della variante CDKL5 della sindrome di RETT”.

- 26th ECNP congress, 5-9 October 2013 Barcelona, Spain. “Restoration of proliferation impairment of neural precursors in Down syndrome improves cognitive performance”.

- 4TH EUROPEAN CONGRESS ON RETT SYNDROME, October 30th – November 1st, Rome, Italy. “Potential therapeutic strategies for CDKL5 disorder”.

- 3rd European CDKL5 Research Conference, 2-3 June 2016, Solihull, UK. “Protein replacement therapy”

- 3rd International CDKL5 Research Symposium, June 21-22, 2016, Chigago, USA. “Protein Therapy for CDKL5 Disorder”

**- MEETING ORGANIZATION -**

- Meeting “Le malattie rare sul cromosoma X”, 17 April 2010, Bologna.

- First International Meeting on CDKL5 Rare Disease, April 27-29, 2012, Bologna, Italy.

- Second international meeting of the CDKL5 associations, April 25-27, 2014, Bologna, Italy

- 4th International CDKL5 Congress, 2-3 June 2017, Roma, Italy.

**- SUPERVISION OF PHD PROJECTS -**

- Andrea Contestabile: Regulation of transcription factor Lot1 expression during proliferation/differentiation of neuronal cells” (University of Bologna 2005-2007; http://amsdottorato.cib.unibo.it/445/1/Tesi\_AndreaContestabile.pdf).

- Tatiana Fila: “Neurogenesis impairment and cell cycle alterations in Down Syndrome” (University of Bologna 2006-2008; http://amsdottorato.cib.unibo.it/990/).

- Valentina Maria Mitrugno: “Sonic Hedgehog pathway impairment in Neural Precursor Cells of the Ts65Dn mouse, an animal model of Down syndrome” (University of Bologna 2010-2012; http://amsdottorato.cib.unibo.it/4601/).

# - Claudia Fuchs: “Effect of loss of CDKL5 on brain development in a new Cdkl5 knockout mouse model” (University of Bologna 2011-2013; http://amsdottorato.unibo.it/6190/).

# - Marianna De Franceschi: “Therapies for CDKL5 disorder” (University of Bologna 2013-2015).

**- SCIENTIFIC REVIEWER -**

Evaluator for Journal of Neurochemistry

Evaluator for DNA and Cell Biology

Evaluator for Journal of Cell Science

Evaluator for PLOS ONE

Evaluator for Brain

Evaluator for Neuroscience

Evaluator for The Journal of Neuroscience

Evaluator for Human and Molecular Genetics

Evaluator for VQR

**- ACADEMIC POSITIONS -**

**2005-2007** Member of the Council Committee of the Department of Human and General Physiology, University of Bologna.

**2009-2015** Member of the Committee for the assignment of the premium Foundation “Luisa Fanti Melloni”, Faculty of Medicine, University of Bologna.

**- TEACHING EXPERIENCE -**

**From 2001**: Member of the examining board for the following courses of study: one long cycle degree course in Medicine, first level degree course in Obstetrics, first level degree course in Techniques in the Biomedical Laboratory, first level degree course in Dental Hygiene, first level degree course in Techniques in Radiology, first level degree course in Dietetics.

**From 2002**: Member of the Board of Teachers of the Research Doctorate (PhD) in “Neuroscience”, University of Bologna.

**- COURSES TAUGHT -**

**2002-2010**: Laboratory of Physiology, degree course in Medicine, University of Bologna.

**2002-2007**: Human Physiology, degree course in Dental Hygiene, University of Bologna.

**2007-2011**: Human Physiology, and Nutrition, degree course in Obstetrics, University of Bologna.

**From 2011**: Human Physiology, Degree Course in Medicine, University of Bologna.

**From 2014**: Human Physiology, degree course in Techniques in the Biomedical Laboratory and degree course in Techniques in Radiology, University of Bologna.

**From 2015**: Human Physiology, degree course in Dentistry and dental prostheses, University of Bologna.

**From 2016**: Human Physiology, degree course in Medical Biotecnology, University of Bologna.

<http://www.unibo.it/SitoWebDocente/default.htm?upn=elisabetta.ciani%40unibo.it&TabControl1=TabDidattica>