

## ALESSIO TRAVAGLIA

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### EDUCATION

#### PhD in Nanoscience

*Advanced School of University of Catania, Italy* 2009-2012  
Dissertation: Memory, Metals and Neurotrophins  
Summa cum laude

#### M.Sc. in Biomolecular Chemistry

*University of Catania, Italy* 2007-2009  
Dissertation: The inorganic side of Nerve Growth Factor  
Summa cum laude and publication of the thesis

#### B.S. in Chemistry

*University of Catania, Italy* 2004-2007  
Dissertation: Synthesis of a neuronal platform on polymeric organic substrates  
Summa cum laude

### RESEARCH EXPERIENCE

#### Postdoctoral Fellow in Neuroscience with Dr. Cristina M. Alberini

*New York University* 2012-present  
i) Investigating the molecular mechanisms underlying memory formation during infancy  
ii) Investigated the temporal dynamics of BDNF requirement in memory consolidation

#### Undergraduate and Graduate student researcher with Dr. Enrico Rizzarelli

*Advanced School of University of Catania, Italy* 2007-2012  
i) Worked on synthesis and structural characterization of neurotrophins peptidomimetic  
ii) Developed nanocapsules for drugs delivery  
iii) Investigated the interaction of neurotrophins with biometals

#### Visiting scholar researcher with Dr. Cristina M. Alberini

*New York University* 2011  
i) Investigated the role of MeCP2 in memory consolidation

#### Visiting scholar researcher with Dr. Pietro Calissano

*European Brain Research Institute, Rome* 2010  
i) Investigated the signalling cascade of NGF and NGF-like peptidomimetic

#### Visiting scholar researcher with Dr. Orjan Hansson

*University of Gothenburg, Sweden* 2009  
i) Investigated the protein Angiogenin and its binding with copper ions

#### Undergraduate researcher with Dr. Salvatore Pignataro

*Superlab, ST-Microelectronics, Catania* 2007  
i) Worked on the synthesis and characterization of neuronal platform on polymeric substrate

### AWARDS

Italian Chemical Society: PhD thesis in Inorganic Chemistry award, special mention 2013  
Best oral presentation, Padua: PharmacoBioMetallics 2012  
ERSU Fellowship for academic excellence (1<sup>st</sup> ranked) 2008  
ERSU Fellowship for academic excellence (1<sup>st</sup> ranked) 2006  
ERSU Fellowship for academic excellence (1<sup>st</sup> ranked) 2005

## PUBLICATION

Ye X, Dana Kapeller-Libermann, **Travaglia A**, Inda C, Alberini CM (2015) *In revision*

**Travaglia A**, Bisaz R, Cruz E, and CM Alberini (2016) *In revision*

**Travaglia A**, Bisaz R, Sweet ES, Blitzer RD, and CM Alberini (2016) Infantile amnesia reflects a developmental critical period for hippocampal learning **Nat Neurosci** *In Press*

Kornblatt AP, Nicoletti VG, **Travaglia A** (2016) The neglected role of copper ions in wound healing. **J Inorg Biochem** 161:1-8

Finsterwald C, Steinmetz AB, **Travaglia A**, Alberini CM (2015) From Memory Impairment to Posttraumatic Stress Disorder-Like Phenotypes: The Critical Role of an Unpredictable Second Traumatic Experience. **J Neurosci** 35(48):15903-15

**Travaglia A**, Pietropaolo A, Di Martino R, Nicoletti VG, La Mendola D, Calissano P, Rizzarelli E. (2015) A small linear peptide encompassing the NGF N-terminus partly mimics the biological activities of the entire neurotrophin in PC12 cells. **ACS Chem Neurosci** 6(8):1379-92

Bisaz R, **Travaglia A**, Alberini CM. (2014) The neurobiological bases of memory formation: from physiological conditions to psychopathology. **Psychopathology** 47(6):347-56

Bambah-Mukku D, **Travaglia A**, Chen DY, Pollonini G, Alberini CM. (2014) A positive autoregulatory BDNF feedback loop via C/EBP $\beta$  mediates hippocampal memory consolidation. **J Neurosci.** 34(37):12547-59

Forte G, **Travaglia A**, Magrì A, Satriano C, La Mendola D. (2014) Adsorption of NGF and BDNF derived peptides on gold surfaces. **Phys Chem Chem Phys.** 16(4):1536-44

**Travaglia A**, La Mendola D, Magrì A, Pietropaolo A, Nicoletti VG, Grasso G, Malgieri G, Fattorusso R, Isernia C, Rizzarelli E. (2013) Zinc(II) interactions with brain-derived neurotrophic factor N-terminal peptide fragments: inorganic features and biological perspectives. **Inorg Chem.** 52(19):11075-83

**Travaglia A**, Satriano C, Giuffrida ML, La Mendola D, Rampazzo E, Rizzarelli E. (2013) Electrostatically driven interaction of silica-supported lipid bilayer nanoplateforms and a nerve growth factor-mimicking peptide **Soft Matter** 9, 4648-54

**Travaglia A**, La Mendola D, Magrì A, Nicoletti VG, Pietropaolo A, Rizzarelli E. (2012) Copper, BDNF and Its N-terminal domain: inorganic features and biological perspectives. **Chemistry** 18:15618-31

**Travaglia A**, Pietropaolo A, La Mendola D, Nicoletti VG, Rizzarelli E. (2012) The inorganic perspectives of neurotrophins and Alzheimer's disease. **J Inorg Biochem** 111: 130-137

La Mendola D, Farkas D, Bellia F, Magrì A, **Travaglia A**, Hansson O, Rizzarelli E. (2012) Probing the copper(II) binding features of angiogenin. Similarities and differences between a N-terminus peptide fragment and the recombinant human protein. **Inorg Chem** 51(1): 128-41

**Travaglia A**, Arena G, Fattorusso R, Isernia C, La Mendola D, Malgieri G, Nicoletti VG, Rizzarelli E. (2011) The inorganic perspective of nerve growth factor: interactions of Cu<sup>2+</sup> and Zn<sup>2+</sup> with the N-terminus fragment of nerve growth factor encompassing the recognition domain of the TrkA receptor. **Chemistry** 17(13): 3726-38

## TEACHING AND MENTORING EXPERIENCE

### **Mentor to Undergraduate and Graduate Students**

*New York Univeristy*

*2012-present*

Mentored several undergraduate students in Dr. Alberini's laboratory

### **Mentor to Undergraduate and Graduate Students**

*University of Catania*

*2007-2012*

Mentored several graduate and undergraduate students in Dr. Rizzarelli's laboratory

### **Teacher of chemistry and biochemistry**

*UNIMED, Catania*

*2008-2012*

Taught hundreds of classes of chemistry and biochemistry to undergraduate students

### **Teacher of environmental chemistry**

*G.Galilei High School, Catania*

*2011*

Taught several classes of environmental chemistry to high school students