

CURRICULUM VITAE ET STUDIORUM  
MARTA CODRICH

PERSONAL INFORMATION

NAME  
SURNAME  
PLACE OF BIRTH  
DATE OF BIRTH  
NATIONALITY  
HOME ADDRESS  
PHONE  
E-MAIL ADDRESS

EDUCATION

- November 2009 - October 2013      PhD in Functional and Structural Genomics  
PhD degree *cum laude*  
SISSA (International School of Advanced Studies), Trieste, Italy  
Thesis: Hemoglobin overexpression triggers neuronal death upon  
Parkinson's disease mimicking insults  
Supervisor: Professor Stefano Gustincich
- October 2006 - April 2009      Master Degree in Medical Biotechnology  
110/110 *cum laude*  
University of Trieste, Trieste, Italy  
Thesis: Role of ubiquitin ligase TRAF6 in Parkinson's disease  
Supervisor: Professor Stefano Gustincich
- October 2003 - September 2006      Bachelor's Degree in Biotechnology  
110/110  
University of Trieste, Trieste, Italy  
Thesis: Motor neuron degeneration and functional deficits in a  
transgenic model of Amyotrophic Lateral Sclerosis  
Supervisor: Professor Giampiero Leanza
- September 1998 - June 2003      Diploma in High school focusing on sciences  
90/100  
"Niccolò Copernico" High School, Udine, Italy

RESEARCH EXPERIENCES

- November 2009 - October 2013      PhD student in Functional and Structural Genomics  
SISSA (International School of Advanced Studies), Trieste, Italy  
Supervisor: Professor Stefano Gustincich  
Project: Role of hemoglobin in dopaminergic neurons
- June 2009 - October 2009      Postgraduate fellowship  
SISSA (International School of Advanced Studies), Trieste, Italy  
Supervisor: Professor Stefano Gustincich  
Project: Characterization of atypical ubiquitination of PD-associated  
mutant DJ-1 and  $\alpha$ -synuclein mediated by E3 ligase TRAF6
- January 2008 - April 2009      Undergraduate internship  
SISSA (International School of Advanced Studies), Trieste, Italy

Supervisor: Professor Stefano Gustincich  
Project: Role of ubiquitin ligase TRAF6 in Parkinson's Disease

January 2006 - September 2006

Undergraduate internship  
University of Trieste, Trieste, Italy  
Supervisor: Professor Giampiero Leanza  
Project: Anatomical and functional characterization of a mouse model of Amyotrophic Lateral Sclerosis

## WORK EXPERIENCES

December 2013

Teacher of natural sciences, chemistry, geography and microbiology  
"G Sello" Artistic High School, Udine, Italy

April 2013

Scrutineer at polling station  
Udine, Italy

February 2013

Scrutineer at polling station  
Udine, Italy

August 2004 - September 2004

Waitress  
Restaurant "Pizza Soia Primavera", Udine, Italy

August 2002 - September 2002

Promoter  
Supermarket "Coop", Codroipo, Italy

June 2002

Promoter  
Shopping Center "Arcobaleno", Basiliano, Italy

## PERSONAL SKILLS AND COMPETENCES

### LANGUAGES

Italian  
English

Mother tongue  
Good (written and spoken)

### BIOINFORMATIC SKILLS

OPERATING SYSTEMS  
APPLICATIONS

Windows, Mac OS X  
Office (Word, Power Point, Excel), Adobe Photoshop, Adobe Illustrator, Volocity, Scion ImageJ, use of most common browser and program for analyzing gene and protein expression (NCBI, Genome Browser etc.)

### LABORATORY SKILLS

MOLECULAR BIOLOGY

cloning, RNA/DNA/shRNA manipulation, recombinant DNA technologies, plasmidic and genomic DNA extraction, RNA extraction from cells and tissues, PCR, RT-PCR, qPCR

MICROBIOLOGY

preparation and maintenance of bacteria culture on solid and liquid growth medium

CELL BIOLOGY

mammalian cell lines culture, generation of stable cell lines, DNA/shRNA transfection, viral infection (AAVs), FACS (basic), immunocytochemistry, immunofluorescence

BIOCHEMICAL TECHNIQUES

electrophoresis, Western Blot, protein immunoprecipitation and co-immunoprecipitation, *in vitro* ubiquitination assay, nucleus/cytoplasm fractionation, viability assay (MTT, WST)

MICROSCOPY TECHNIQUES	bright field microscopy, fluorescence microscopy, confocal microscopy
ANIMAL PROCEDURES	stereotaxic microsurgery, animal behavioural tests relevant to learning, memory and motor function (Morris Water Maze, Radial Arm Water Maze, Rotarod Test), animal perfusion, brain dissection
HISTOLOGY TECHNIQUES	vibratome, cryomicrotome, immunohistochemistry

#### POSTERS

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Neuroscience 2012  
 New Orleans, Louisiana, USA  
 October 13<sup>rd</sup> -17<sup>th</sup>, 2012  
 “Hemoglobin overexpression triggers neuronal death upon Parkinson’s disease mimicking insults”  
**Codrich M**, Bertuzzi M, Zucchelli S, Gustincich S

6<sup>th</sup> FENS FORUM of European Neuroscience  
 Geneva, Switzerland  
 July 12<sup>nd</sup> – 16<sup>th</sup>, 2008  
 “Compensatory events in the spinal cord of the G93A transgenic mouse during ongoing motoneuronal degeneration: anatomical and functional evidence”  
 Coradazzi M, Giusto E, **Codrich M**, Leanza G

#### PUBLICATIONS

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Russo R\*, Zucchelli S\*, **Codrich M**, Marcuzzi F, Verde C, Gustincich S. Hemoglobin is present as a canonical  $\alpha_2\beta_2$  tetramer in dopaminergic neurons. *Biochim Biophys Acta*. 2013 May 17  
 \* These authors contributed equally to this work

Vilotti S, **Codrich M**, Dal Ferro M, Pinto M, Ferrer I, Collavin L, Gustincich S, Zucchelli S. Parkinson’s Disease DJ-1 L166P alters rRNA biogenesis by exclusion of TTRAP from the nucleolus and sequestration into cytoplasmic aggregates via TRAF6. *PLoS One*. 2012;7(4):e35051

Zucchelli S, Marcuzzi F, **Codrich M**, Agostoni E, Vilotti S, Biagioli M, Pinto M, Carnemolla A, Santoro C, Gustincich S, Persichetti F. Tumor Necrosis Factor Receptor Associated Factor 6 (TRAF6) associates with huntingtin protein and promotes its atypical ubiquitination to enhance aggregate formation. *J Biol Chem*. 2011 Jul 15;286(28):25108-17

Zucchelli S, **Codrich M**, Marcuzzi F, Pinto M, Vilotti S, Biagioli M, Ferrer I, Gustincich S. TRAF6 promotes atypical ubiquitination of mutant DJ-1 and alpha-synuclein and is localized to Lewy bodies in sporadic Parkinson’s disease brains. *Hum Mol Genet*. 2010 Oct 1;19(19):3759-70

#### REFERENCES

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Available upon request