

## **Curriculum Vitae**

### **PERSONAL INFORMATION**

Family name: de Vivo

First name: Luisa

### **• CURRENT POSITION**

01/12/2020 – now: Ricercatore a Tempo Determinato (art. 24 comma 3 lett. a, Legge n. 240/2010), SSD BIO/09, School of Pharmacy, University of Camerino, Italy

### **• EDUCATION**

02/02/2010 – PhD in Neuroscience  
University Politecnica delle Marche, Italy  
14/07/2005 - MScR in Marine Biology, 110/110 cum laude  
University Politecnica delle Marche, Italy  
10/2003 - BS in Marine Biology and Oceanography, 110/110 cum laude  
University Politecnica delle Marche, Italy

### **• PREVIOUS POSITIONS**

2019-2020 – Independent Research Fellow  
School of Physiology, Pharmacology and Neuroscience, University of Bristol, UK  
2016- 2017- Assistant Scientist  
Department of Psychiatry, University of Wisconsin Madison, WI  
2011-2016 - Research Associate  
Department of Psychiatry, University of Wisconsin Madison, WI  
2010-2011 – Borsa di ricerca Telethon  
NEST Laboratory, CNR Nanoscience, Pisa, Italy

### **• FELLOWSHIPS AND AWARDS**

2020      Abilitazione Scientifica Nazionale Professore di II fascia nei settori concorsuali: 05/D1 Fisiologia, 05/B2 Anatomia Comparata e Citologia, 05/H2 Istologia  
2020      Acknowledgement for "de Vivo L, Bellesi M. The role of sleep and wakefulness in myelin plasticity. *Glia*. 2019;67(11):2142-2152. doi:10.1002/glia.23667 " as the most downloaded paper among those published in *Glia* between January 2018 and December 2019.  
2019      Seal of Excellence for the proposal H2020-MSCA-IF-2018 for scoring above 85%.  
2017      Altmetric score 931, "High Attention Score compared to outputs of the same age (99th percentile)" and "High Attention Score compared to outputs of the same age and source (98th percentile)" for de Vivo et al. Ultrastructural evidence for synaptic scaling across the wake/sleep cycle, *Science* 2017  
2015      F1000 Prime (1000 international Faculty Members) recommendation for "Bellesi M, de Vivo L, Tononi G, Cirelli C. Effects of sleep and wake on astrocytes: clues from molecular and ultrastructural studies. *BMC Biol.* 2015;13:66.  
2014      Italian Society of Neuroscience (SINS) Travel Award, 500€  
2010      Member of Society for Neuroscience (SfN)  
2008      Swiss Society for Neuroscience Travel Fellowship, 500€

2006 PhD fellowship, University Politecnica delle Marche, 36000 €

- **ONGOING AND PAST RESEARCH SUPORT**

2022-2024 ERC-Unicam Consolidator Grant. Budget 65000 €. Role: PI.  
2020-2023 Career Development Award, Armenise-Harvard Foundation.” Budget 600000 \$.  
Role: PI  
2019-2022 Wellcome Trust Seed Award in Science. Budget: 100000 £. Role: PI  
2019-2020 BBSRC 18 ALERT Mid-Range Equipment Initiative, 1 year. Budget: 200000 £.  
Role: Co-PI

- **SUPERVISION OF STUDENTS AND POSTDOC FELLOWS**

2020-now Co-supervision of 2 PhD students, 1 MScR, School of Pharmacy, University of Camerino, Italy  
2019-2020 Supervision of 1 postdoc, 1 MScR student, School of Physiology, Pharmacology and Neuroscience, University of Bristol, UK  
2013-2017 Supervision of 10 research assistants, Department of Psychiatry, University of Wisconsin Madison, USA

- **TEACHING**

2020-2021 Microscopy (7hrs), International School of Advanced Studies, University of Camerino  
2021-2022 Microscopy (7hrs), International School of Advanced Studies, University of Camerino  
2021-2022 Physiology (49hr) CTF course, University of Camerino

- **INSTITUTIONAL RESPONSABILITIES**

2020-2022: Member of Faculty Committee for PhD in "Life and Health Sciences", XXXVI-XXXVII cycles at the International School of Advanced Studies, University of Camerino  
May 2022 Polling Station supervisor for “Consiglio Nazionale degli Studenti Universitari”, Seggio n.1 Camerino

- **REVIEWING ACTIVITIES**

Since 2018 Member of the editorial Board of *Frontiers in Psychopharmacology*  
Since 2019 Member of the editorial Board of *Frontiers in System Neuroscience*  
Since 2015 Ad hoc reviewer for Annual Meeting of the Associated Professional Sleep Societies, *Journal of Sleep Research*, *Archives Italiennes de Biologie*, *PNAS*

- **MAJOR PAST AND PRESENT COLLABORATIONS**

2013- 2017 Dr. Ellisman, National Center for Microscopy and Imaging Research, University of California San Diego, CA, USA: 3D electron microscopy  
2014 – 2017 Prof Bito, University of Tokyo, Department of Neurochemistry, Japan: Arc in the cerebral cortex of sleeping and sleep deprived mice

2014 – 2016	Dr. Koch, Allen Institute for Brain Science, Seattle, USA: sleep deprivation and brain connectivity
2014– 2017	Prof. Ghilardi, CUNY, City College of New York, NY, USA: sleep deprivation and motor learning
2015 -2017	Prof. Gilli, Dartmouth Geisel School of Medicine, Hanover, NH, USA: sleep deprivation and pro- and anti-inflammatory factors
2014 – now	Prof. Tononi and Prof. Cirelli, Department of Psychiatry, University of Wisconsin Madison USA: ultrastructural markers of sleep and wake
2020 - now	Prof. Bellesi, School of Bioscience, University of Camerino: sleep regulation and function
2020 – now	Dr. Richmond and Dr Caramaschi, Bristol Population Health Science Institute, Molecular Epidemiology Unit, University of Bristol, UK: epigenetic changes and the risk of developing alcohol use disorders in adolescents
2021 – now	Prof. Vyazovskiy, Department of Physiology, Anatomy and Genetics, University of Oxford, UK: 3D EM for torpor
2021- now	Prof. Ciccocioppo, School of Pharmacy, University of Camerino: sleep restriction and alcohol drinking in adolescence

## • **CAREER BREAKS**

2013 and 2015: maternity leave

## • **INVITED TALKS AND SEMINARS**

1. "Ultrastructural Sleep". Invited speaker at Pisa Award 15<sup>th</sup> Edition, 11 minute of Sleep, Pisa IT, May 6-7, 2022.
2. "Adolescent chronic sleep restriction promotes alcohol binge drinking and escalates alcohol consumption in msP rats". Poster presentation at Gordon Research Conference on "Sleep Regulation and Function", Lucca IT, 14-15 March, 2022.
3. "Remodeling of cortical synapses across sleep, wake and sleep loss". Invited speaker at Waterloo Foundation Annual Conference, Cardiff University, May 23, 2019.
4. "Sleep and synaptic homeostasis". Seminar for doctoral candidates, International School of Advanced Studies, University of Camerino, May 17, 2018.
5. "Sleep and plasticity during development". Invited speaker at Clinical Research Priority Program: Sleep and Health, Zurich, February 2, 2018.
6. "Sleep and wake at cortical synapses". Seminar at IMT School of Advanced Studies of Lucca, Italy, December 5, 2017.
7. "Sleep and wake at cortical synapses". Seminar at University of Bristol, School of Physiology, Pharmacology and Neuroscience, July 11, 2017
8. "Looking for the functions of sleep: insights from molecular and ultrastructural studies". Seminar at VIB & KU Leuven Centre for Brain & Disease Research, May 31, 2017
9. "Sleep and synapses: insights from ultrastructural studies". Seminar at Dept. Life Sciences, Imperial College London, May 4, 2017
10. "Can we tell whether a brain cell has been asleep by looking at the ultrastructure of mitochondrial and other cellular organelles?". Keynote speaker at Gordon Research Seminar on "Sleep Regulation and Function", Galveston TX, 2016
11. "Sleep loss promotes astrocytic phagocytosis of synaptic elements in mouse cerebral cortex" Poster presentation at Gordon Research Conference 2016 – Sleep regulation and function

12. "Ultrastructural signatures of sleep and wake in neuronal cell bodies of mouse frontal cortex". Poster presentation at SfN 2014
13. "Chronic sleep restriction increases mitochondrial size in cortical pyramidal neurons of adolescent mice. Poster presentation at FENS 2014
14. "Changes in sleep slow wave activity during adolescence: do they reflect synaptic pruning?" Poster presentation at Sleep-APSS 2013
15. "CSPGs digestion unmasks synaptic plasticity in the adult visual cortex". Poster presentation at SfN 2011
16. "GLT-1 expression and Glu uptake in rat cerebral cortex are increased by phencyclidine. Poster presentation at FENS 2008.

**Number of publications: 22. Total citations in Google Scholar: 1570. H-index: 15.**

### **Impact of the research on the media (selected list)**

Moebius Radio 24 (podcast in Italian)

<http://www.radio24.ilsole24ore.com/programma/moebius/sonnosinapsi-piccole-elefanti-botanica-111620-gSLA8ZIWIC>

Interview on Italian national and local television programs: TG Regionale and TG Leonardo "La forma del sonno" 2017, (in Italian).

Sleep deprivation can lead to the brain 'eating itself', study says. Independent 25/05/2017

The brain starts to eat itself after chronic sleep deprivation. New Scientist 23/05/2017

Sleep deprivation can cause brain to start 'eating' itself. The Telegraph 26/05/2017

Your Brain Will Start To Eat Itself After Chronic Sleep Deprivation. Huffingtonpost 24/05/2017

The Purpose of Sleep? To Forget, Scientists Say. The New York Times. 3/02/2017

The Brain's Connections Shrink During Sleep. The Atlantic 3/02/2017

Sleep is about forgetting some memories and keeping others, studies suggest. Independent 3/02/2017

Sleep may help us to forget by rebalancing brain synapses. The Guardian 3/02/2017