

**EUROPEAN
CURRICULUM VITAE
FORMAT**



PERSONAL INFORMATION

Name	MUZZI LORENZO
Address	-
Telephone	-
E-mail	-
Nationality	-
Date of birth	28/04/93

EDUCATION AND TRAINING

<ul style="list-style-type: none">• Dates (from – to)• Name and type of organisation providing education and training• PhD project Title	01/11/2017 – in progress PhD Program in Bioengineering, University of Genova Development of a 3D brain-on-a-chip model using hiPSCs for clinical application
<ul style="list-style-type: none">• Dates (from – to)• Name and type of organisation providing education and training• Principal subjects/occupational skills covered	01/09/2017 – 01/03/2018 Clinical Neurophysiology (CNPH) group, University of Twente Erasmus I did a six-month project on which I based my master's thesis titled 'In-vitro model of the Penumbra: an optogenetic stimulation in closed loop might improve cell survival'. Principal skills involved were; LabView programming, maintenance and viral transfection of cortical cultures, staining method, microscope imaging, performing experiments with micro-electrode array, data analysis.
<ul style="list-style-type: none">• Title of qualification awarded	Oral presentation at the MEA Meeting 2018 and publication of the abstract
<ul style="list-style-type: none">• Dates (from – to)• Name and type of organisation providing education and training	2015 - 2018 University of Genoa Department of COMPUTER SCIENCE, BIOENGINEERING, ROBOTICS and SYSTEMS ENGINEERING
<ul style="list-style-type: none">• Principal subjects/occupational skills covered	analysis of biomedical data and signals, biomedical instrumentation and bioimaging, chemistry and biochemistry, mathematical methods for engineers, molecular cellular and tissue engineering, motor control and human performance assessment, neuroengineering and neurotechnologies, perceptual systems and interactive technologies, biomedical robotics, computational neuroscience, graphical programming for measurement and control, neuroinformatics, neuromorphic computing and integrative cognitive systems, research methodology. Thesis title: In-vitro model of the Penumbra: an optogenetic stimulation in closed loop might

• Title of qualification awarded

improve cell survival

Thesis supervisor: Martinoia Sergio, Joost Le Feber

2nd level degree – Master in Bioengineering with final degree mark: 110/110

• Dates (from – to)

2012 - 2015

• Name and type of organisation providing education and training

Politecnico di Milano

• Principal subjects/occupational skills covered

Mathematical analysis I and geometry, mathematical analysis II, biology and physiology, experimental physics and technical physics, fundamentals of electromagnetism, rational mechanics, fundamentals of chemistry and organic chemistry, electronics, electrotechnics, automatic fundamentals, fundamentals of statistics and biomedical signals, computer science and elements of medical informatics, applied mechanics and design, mechanics of continuums and structures, bioelectromagnetism and biomedical instrumentation, cellular bioengineering, chemical bioengineering, biomechanics, numerical calculation, economy and business organization.

Thesis title: "Characterization of injectable gels for regeneration of adipose tissue"

Thesis supervisor: Paola Petrini

• Title of qualification awarded

1st level degree – Bachelor's in biomedical engineering

PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE

ITALY

OTHER LANGUAGES

ENGLISH

IELTS CERTIFICATE OBTAINED 06/06/2017

Understanding		Reading		Writing
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

SOCIAL SKILLS AND COMPETENCES

- Excellent ability to adapt in multicultural environments (achieved thanks to the experience abroad and several trips around Europe)
- Excellent communication skills and to maintain long-distance relationships / contacts (gained during many changes of residence during adolescence and in many experiences abroad)
- team spirit

ORGANISATIONAL SKILLS AND COMPETENCES

- Good experience in managing group projects (high school, universities, sports)
- Good competence in organizing task within a group (high school, university, erasmus, sports)

TECHNICAL SKILLS AND COMPETENCES

With computers, specific kinds of equipment, machinery, etc.

- Ability to manipulate biohazardous material (during the period in the Netherlands I had to work with genetically modified organisms)
- Good competence in cell culturing (acquired during research project in the Netherlands)
- Good command of the use of laboratory equipment (research project done mainly in the laboratory)
- Ability to use fluorescence microscopes
- Good skills in the use of microelectrode arrays
- Excellent analysis and data processing skills
- Excellent software programming capabilities

ARTISTIC SKILLS AND COMPETENCES

Music, writing, design, etc.

- Music (ability to play guitar and ukulele)

OTHER SKILLS AND COMPETENCES

Competences not mentioned above.

Knowledge of different programming languages (Labview (with certification associated developer, released by the National Instrument 2017), C ++, Java, Javascript, Matlab)
Excellent skills in computer data collection
Good knowledge of operating systems

DRIVING LICENCE(S)
ADDITIONAL INFORMATION

Good database management competences

B, A

PUBLICATIONS

- Muzzi, L., Martinoia, S., & Frega, M. (2019, January). Brain-on-a-Chip: A Human 3D Model for Clinical Application. In pHealth (pp. 274-279).

- Muzzi, L., Hassink, G., Levers, M., Jansman, M., Frega, M., Hofmeijer, J., ... & le Feber, J. (2019). Mild stimulation improves neuronal survival in an in vitro model of the ischemic penumbra. *Journal of neural engineering*, 17(1), 016001.

-Muzzi Lorenzo, Hassink Gerco Cornelis, Le Feber Joost. "In-vitro model of the Penumbra: closed-loop optogenetic stimulation to improve cell survival." *Frontiers in Cellular Neuroscience*, N#00046, DOI=10.3389/conf.fncel.2018.38.00046

- Arnaldi, P., Carosio, F., Di Lisa, D., Muzzi, L., Monticelli, O., & Pastorino, L. (2020). Assembly of chitosan-graphite oxide nanoplatelets core shell microparticles for advanced 3D scaffolds supporting neuronal networks growth. *Colloids and Surfaces B: Biointerfaces*, 196, 111295

- Di Lisa, D., Dellacasa, E., Muzzi, L., Lagazzo, A., Frega, M., Martinoia, S., & Pastorino, L. (2020, June). Thermosensitive hydrogels for the encapsulation of primary and human derived neuronal cells. Accepted for conference GNB 2021

CONFERENCE

-pHealth 2019, oral talk from the title "Brain on a chip: a human 3D model for clinical application" authors: Muzzi L, Martinoia S., Frega M.

SCHOOLS

-3rd CellFit Training School "Meet the rising stars of emerging therapies" From 3D Bioprinting to Extracellular Vesicles isolation and encapsulation for delivery", from 26/01/20 to 30/01/20, Ponte di Legno (BS), UNIMONT, Italy

-Neural circuit Development and Plasticity, Utrecht summer school, from 15/07/2019 to 19/07/2019. Utrecht University, Netherlands

-5th NIC@IIT Practical workshop on Advanced Microscopy. from 3/12/2018 to 6/12/2018. IIT, Genova, Italy