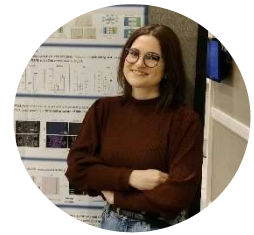


Cecilia Palma

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Research experience

2023 – Present

Research fellowship

MiMic Lab - Department of Electronics, Information and Bioengineering
Politecnico di Milano, Italy
Supervised by Professor Marco Rasponi
Research project: "Development of organs-on-chip devices"

2019 – Present

PhD in Bioengineering

MiMic Lab - Department of Electronics, Information and Bioengineering
Politecnico di Milano, Italy
Supervised by Professor Marco Rasponi and PhD Paola Occhetta
Research project: "Development of compartmentalized microfluidic platforms to recapitulate multi-tissue joint-on-chip and unravel arthritis pathophysiology"

10/2020-12/2020

Visiting PhD student

Tissue Engineering, Ivan Martin's Research Group
Universitätsspital Basel, Switzerland

Education

2019 – Present

PhD in Bioengineering

MiMic Lab - Department of Electronics, Information and Bioengineering
Politecnico di Milano, Italy

2016 – 2019

Master's Degree in Biomedical Engineering – Biomechanics and Biomaterials

Politecnico di Milano, Italy
Final mark: 110/110 (magna cum laude)
*Thesis: "Development of compartmentalized microfluidic platforms for the *in vitro* reconstruction and manipulation of functional neuronal networks"*

2017 – 2018

Erasmus Exchange Program

Technische Universität Graz, Austria

2013 – 2016

Bachelor's Degree in Biomedical Engineering

Politecnico di Milano, Italy
Final mark: 110/110 (magna cum laude)

Work experience

2020 - 2023

Teaching support activity

Department of Electronics, Information and Bioengineering
Politecnico di Milano, Italy
Courses:

- *Technologies for regenerative medicine* (professor Marco Rasponi)
- *Bioartificial systems at the micro- and nanoscale* (professor Marco Rasponi)

Academic publications

Ferrari, E.*; **Palma, C.***; Vesentini, S.; Occhetta, P.; Rasponi, M. Integrating Biosensors in Organs-on-Chip Devices: A Perspective on Current Strategies to Monitor Microphysiological Systems. *Biosensors* **2020**, *10*, 110.

<https://doi.org/10.3390/bios10090110>

* These authors contributed equally to this work

Mazzara P., Muggeo S., Luoni M., Massimino L. Zaghi M., Valverde P., Brusco S., Marzi M., **Palma C.**, Colasante G., Iannielli A., Paulis M., Cordiglieri C., Giannelli S., Podini P., Gallera C., Taroni F., Nicassio F., Rasponi M., Broccoli V. Frataxin gene editing rescues Friedreich's ataxia pathology in dorsal root ganglia organoid-derived sensory neurons. *Nature Communications* **2020**, *11*, 4178.

<https://doi.org/10.1038/s41467-020-17954-3>

Mazzara P., Criscuolo E., Rasponi M., Massimino L., Muggeo S., **Palma C.**, Castelli M., Clementi M., Burioni R., Mancini N., Broccoli V., Clementi N. A human stem cell-derived neurosensory-epithelial circuitry on-a-chip to model herpes simplex virus reactivation. *Biomedicines* **2022**, *10*, 2068.

<https://doi.org/10.3390/biomedicines10092068>

Palma C., Salehi S., Moretti M., Occhetta P., Lopa S., Rasponi M. A compartmentalized joint-on-chip model as tool to investigate cartilage-synovium interactions in early stages of osteoarthritis. *Osteoarthritis and Cartilage* **2023**, *31*, 5, 671-672 (abstract).

<https://doi.org/10.1016/j.joca.2023.02.011>

Palma C., Piazza S. Bermejo Gomez A., Rasponi M., Occhetta P. Efficacy assessment of the novel combined anti-OA treatment SYN321 in an advanced mechanically active osteoarthritis-on-chip model. *Osteoarthritis and Cartilage* **2023**, *31*, 5, 670-671 (abstract).

<https://doi.org/10.1016/j.joca.2023.02.010>

Conferences

2021 *JRC Summer School on Non-animal Approaches in Science: The Three R...evolution (online)*

Palma C., Mainardi A., Rasponi M., Occhetta P. "Organs-on-chip and proteomics as tools to identify key molecular players responsible for human OA initiation" – [Poster & Flash presentation](#)

2022 *TERMIS European Chapter Meeting (Krakow, Poland)*

Palma C., Salehi S., Moretti M., Occhetta P., Lopa S., Rasponi M. "A compartmentalized joint-on-chip model to unravel the role of cartilage and synovium in osteoarthritis pathogenesis" – [Podium presentation](#)

Palma C., Ferrari E., Nezi L., Lopa S., Rasponi M., Occhetta P. "A microfluidic platform to investigate the cross-talk between immune cells in rheumatoid arthritis" – [Podium presentation](#)

EUROoCS Annual Meeting (Grenoble, France)

Palma C., Salehi S., Moretti M., Occhetta P., Lopa S., Rasponi M. "A compartmentalized joint-on-chip to unravel cartilage-synovium crosstalk in osteoarthritis" – [Poster presentation](#)

Palma C., Ferrari E., Nezi L., Lopa S., Rasponi M., Occhetta P. "Evaluating immune cells interaction in rheumatoid arthritis through a novel microfluidic technology" – [Poster presentation](#)

2023 *OARSI World Congress on Osteoarthritis (Denver, Colorado)*

Palma C., Salehi S., Moretti M., Occhetta P., Lopa S., Rasponi M. "A compartmentalized joint-on-chip model as tool to investigate cartilage-synovium interactions in early stages of osteoarthritis" – [Poster presentation](#)

Palma C.*, Piazza S.*, Visone R., Bermejo Gómez A., Rasponi M., Occhetta P. "Efficacy assessment of the novel combined anti-OA treatment SYN321 in an advanced mechanically active osteoarthritis-on-chip model" – [Poster presentation](#)

I Convegno nazionale Società Italiana Organ-on-chip SIOoC (Rome, Italy)

Palma C., Salehi S., Moretti M., Occhetta P., Lopa S., Rasponi M. "Exploiting compartmentalization to unravel the contribution of cartilage and synovium to osteoarthritis pathogenesis in a novel joint-on-chip model" – [Podium presentation](#)

VIII Congress of the National Group of Bioengineering (GNB) (Padova, Italy)

Palma C., Aterini B., Catozzi C., Nezi L., Lopa S., Manzo T., Rasponi M., Occhetta P. "A microfluidic platform to unravel immune cells cross-talk in rheumatoid arthritis" – Poster presentation

MPS World Summit (Berlin, Germany)

Palma C., Salehi S., Moretti M., Occhetta P., Lopa S., Rasponi M. "Investigating the contribution of cartilage and synovium to osteoarthritis development through a compartmentalized human joint-on-chip model" – Poster presentation

3rd Next Gen Organ-on-Chip & Organoids (Zurich, Switzerland)

Palma C. "Organ-on-chip platforms as advanced in vitro tools to investigate joint pathologies" – Poster presentation

Languages

- Italian: mother tongue.
- English: written fluency and good speaking skills (IELTS certification, overall mark 8.0).
- German: basic knowledge.

Referees

Professor Marco Rasponi
Department of Electronics, Information and
Bioengineering (DEIB)
Politecnico di Milano
via Ponzio 34/5
20133 Milano
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Professor Andrea Barbero
Department of Biomedicine
University of Basel
Hebelstrasse 20
4056 Basel
Schweiz
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- Autorizzo al trattamento dati ai sensi del GDPR 2016/679 del 27 aprile 2016 (Regolamento Europeo relativo alla protezione delle persone fisiche per quanto riguarda il trattamento dei dati personali).
- Autorizzo la pubblicazione del Curriculum Vitae sul sito istituzionale del Politecnico di Milano (sez. Amministrazione Trasparente) in ottemperanza al D. Lgs n. 33 del 14 marzo 2013 (e s.m.i.).

Milano, 21/06/2024