

CURRICULUM VITAE ELISABETTA PRIMICERI

PERSONAL INFORMATION

Family name, First name: Elisabetta Primiceri

Researcher unique identifier <https://orcid.org/0000-0002-4196-3538>: Scopus ID: 5724690800

Date of birth: [REDACTED]

Nationality: Italian

EDUCATION

2008 - 2011: PhD on Nanoscience at ISUFI- University of Salento

2004 - 2006: Master degree magna cum laude in molecular and industrial biotechnology at University of Bologna.

2001 - 2004: Bachelor degree magna cum laude in biotechnology at University of Bologna.

CURRENT POSITION

2022- currently Senior Researcher (primo ricercatore) at Consiglio Nazionale delle Ricerche Institute of Nanotechnology (CNR Nanotec) Lecce, Italy

2024- currently PI and Responsible for CNR research unit project PNRR M6C2I2.1_T0275 cod. PNRR-MR1-2023-12377571 "Circulating biomarkers and innovative device development for relapsed/refractory germ cell tumors (BIOTEST)" (funding 380k€; total 1000k€)

PREVIOUS POSITIONS

2019 – 2022 Permanent Researcher at CNR- Nanotec

09/2018 – 12/2018: fix term researcher at CNR-Nanotec

08/2017 – 09/2018: post-doc position at CNR - Nanotec

06/2016 – 07/2017: post-doc position at CNR - Institute of Microelectronic and microsystems (CNR- IMM)

02/2011– 01/2016: post-doc position at CNR - Institute of Nanoscience (CNR-Nano)

02/ 2007 – 04/2008: fellowship at National Nanotechnology Laboratory (Lecce)

08/2003 – 10/2003: training at Biotecgen (Lecce)

SUPERVISION STUDENTS

2022- currently Supervision of 1 post Doc

2018 – 2020 Supervisor of 2 PhD students from University of Salento (PhD course in Nanotechnology)

2019 Supervisor of 3 Master Students in Industrial and Environmental Biotechnology (Università degli Studi di Bari)

2008 – 2021 co-supervisor of 11 Master Students:

- 1 Material Engineering, 1 Human Biology, 1 Industrial and Pharmaceutical Biotechnology, 2 Medical biotechnology and nanobiotechnology (Università degli Studi del Salento)
- 4 Industrial and Environmental Biotechnology (Università degli Studi di Bari)

- 1 Medical System Engineering – Bioengineering (Polytechnic University of Bari).

TEACHING ACTIVITIES

2019: responsible for the PhD course in “Microfluidics and Lab on Chip” at University of Salento

2018-2020: responsible for University Course of “Nanobiotechnology and biosensors” at University of Bari

2016-2018: Contribution to University Course of “Nanobiotechnology” at University of Bari (with Dr. G.Maruccio)

2008-2009: Contribution to University Course of “Bioengineering” at University of Bari (with Dr. G.Maruccio)

ORGANISATION OF SCIENTIFIC MEETINGS

2024 Organization of workshop “EDGE-TECH2: Emerging and Disruptive next-Generation Technologies for POC: Sensors, Chemistry and Microfluidics for Diagnostics” 26-27 October 2020: member of scientific committee and conference chairman

2020 Organization of workshop “EDGE-TECH: Emerging and Disruptive next-Generation Technologies for POC: materials, microfluidics and sensing for biomedicine” 27-28 June 2024: member of scientific committee and conference chairman

INSTITUTIONAL RESPONSIBILITIES

2019 –2020 Security responsible for Sensing Lab, Transport Lab, Spintronics Lab and RF Laboratory at CNR-Nanotec

2019-currently Technical Responsible for experimental apparatus RIE Ionvac

REVIEWING ACTIVITIES

2020 – 2021 Guest Editor for Micromachines ISSN: 2072-666X Special Issue: "Emerging and Disruptive Next-Generation Technologies for POC: Sensors, Chemistry and Microfluidics for Diagnostics"

2019 - 2020 Guest Editor for Micromachines MDPI ISSN: 2072-666X Special Issue: "Development of Innovative Sensor Platforms for Field Analysis" section "Biology and Biomedicine".

2017 – 2018 Guest Editor for Sensors ISSN: 1424-8220 Special Issue: "Lab-on-a-Chip—From Point of Care to Precision Medicine" section "Biosensors".

2011 – 2013 Expert project reviewer for The Romanian National Council for Scientific Research

MAJOR COLLABORATIONS

- Alejandro Criado Fernández from Interdisciplinary Center for Chemistry and Biology – University of Curuña
- Jean-Louis Viovy from Institute Curie, Paris
- Dr. Antonino Cattaneo and Francesca Malerba from European Brain Research Center- EBRI
- Prof. Giancarlo Logroscino and Chiara Zecca from University of Bari and “Cardinale Panico” Hospital,
- Prof. Natalia Pellegata from Department of biology and biotechnology, University of Pavia
- Prof. Udo De Giorgi Istituto scientifico romagnolo per lo studio e la cura dei tumori “Dino Amadori”
- Prof. Angelo Quattrini and Dr. Alessandro Romano from San Raffaele Hospital
- Prof. Alberto Rainer from Faculty of Engineering, Università Campus Bio-Medico di Roma (UCBM)
- Dr. Silvia Romano and Gianluigi Zito from CNR- Istituto di Scienze Applicate e Sistemi Intelligenti “Eduardo Caianiello” (ISASI)

- Dr. Luca De Stefano from CNR- Istituto di Scienze Applicate e Sistemi Intelligenti “Eduardo Caianiello” (ISASI)
- Prof. Lucia Curri Department of Chemistry, University of Bari

Track Record

The PI's career is characterized by interdisciplinarity and scientific independence. She is a biotechnologist but she has gained several skills in bioengineering, nanotechnology and microfabrication. Her research activity is focused on developing lab-on-chip systems for monitoring complex biological processes and liquid biopsies.

Publications as principal author

F=first author;

C=corresponding;

L= last author

1. Siciliano G., Primiceri E. Development of an MIP based electrochemical sensor for TGF- β 1 detection and its application in liquid biopsy (2023) *Analyst*, 148 (18), pp. 4447 – 4455 (**L, C**)
2. Turco A., Primiceri E. et al. Advancing amyotrophic lateral sclerosis disease diagnosis: A lab-on-chip electrochemical immunosensor for ultra-sensitive TDP-43 protein detection and monitoring in serum patients' (2024) *Talanta*, 273, art. no. 125866 (**C**)
3. Nocerino V.,Primiceri E. Polymers modified porous silicon optical (bio)sensors (2024) *TrAC - Trends in Analytical Chemistry*, 177, art. no. 117811 (**L**)
4. Primiceri E., et al. Key enabling technologies for point-of-care diagnostics (2018) *Sensors (Switzerland)*, 18 (11), art. no. 3607
5. Manoccio M., Esposito M., Primiceri E., et al. Femtomolar Biodetection by a Compact Core-Shell 3D Chiral Metamaterial (2021) *Nano Letters*, 21 (14), pp. 6179 – 6187 (**C**)
6. Primiceri E., et al. A multipurpose biochip for food pathogen detection (2016) *Analytical Methods*, 8 (15), pp. 3055 – 3060 (**F, C**)
7. Siciliano G., ... Primiceri E. Beyond traditional biosensors: Recent advances in gold nanoparticles modified electrodes for biosensing applications (2024) *Talanta*, 268, art. no. 125280 (**L, C**)
8. Primiceri E., et al. Real-time monitoring of copper ions-induced cytotoxicity by EIS cell chips (2010) *Biosensors and Bioelectronics*, 25 (12), pp. 2711 – 2716 (**F, C**)
9. Chiriaco M.S., ..., Primiceri E. Impedance sensing platform for detection of the food pathogen *listeria monocytogenes* (2018) *Electronics*, 7 (12), art. no. 347 (**L, C**)
10. Zito G.,Primiceri E., Romano S. Molecularly Imprinted Polymer Sensor Empowered by Bound States in the Continuum for Selective Trace-Detection of TGF-beta (2024) *Advanced Science*, 11 (41), art. no. 2401843 (**C**)
11. Primiceri E., et al. Cell chips as new tools for cell biology-results, perspectives and opportunities (2013) *Lab on a Chip*, 13 (19), pp. 3789 – 3802 (**F, C**)
12. Primiceri E., et al. Automatic transwell assay by an EIS cell chip to monitor cell migration (2011) *Lab on a Chip*, 11 (23), pp. 4081 – 4086 (**F, C**)
13. Chiriaco M.S., Primiceri E. et al. Simultaneous detection of multiple lower genital tract pathogens by an impedimetric immunohip (2016) *Biosensors and Bioelectronics*, 79, pp. 9 – 14 (**coF, C**)
14. Jain U., Poltronieri P., Fusco V., Primiceri E. Latest perspective on microbes detection: from laboratory to on-spot sensor (2023) *Frontiers in Microbiology*, 14, art. no. 1302805 (**L**)
15. Primiceri E. et al. Development of EIS cell chips and their application for cell analysis (2009) *Microelectronic Engineering*, 86 (4-6), pp. 1477 – 1480 (**F, C**)

Publications as co-author

The PI is co-author of 60 papers about biosensors, microfluidics and material science receiving 1342 citations with an H-Index of 22

INVITED PRESENTATIONS

- KEYNOTE SPEAKER and CHAIRMAN for the session “Advances in Analog & Digital” MicDAT '2018: Castelldefels 20-22 June, 2018.
- INVITED SPEAKER - ICICDT 2018, Otranto 4-6 June 2018

PATENTS

- 2015-International Patent: Impedenceometric biochip for the simultaneous diagnosis of candida albicans, chlamydia trachomatis and streptococcus agalactiae WO 2015015456 A1
- 2008 - International Patent: Electrical transduction method and device for the detection of biorecognition events in biomolecular interaction processes for genome/proteome analysis Nr. Brevetto WO/2008/139421i

Il sottoscritto, consapevole che – ai sensi dell’art. 76 del D.P.R. 445/2000 – le dichiarazioni mendaci, la falsità negli atti e l’uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali, dichiara che le informazioni rispondono a verità. Il sottoscritto in merito al trattamento dei dati personali esprime il proprio consenso al trattamento degli stessi nel rispetto delle finalità e modalità di cui al d.lgs. n. 196/2003

Lecce 31/03/2025