

Curriculum vitae

PERSONAL INFORMATION

Family name, First name: Parisse Pietro

Researcher unique identifier(s): ORCID: 0000-0002-7420-2778

Nationality: Italian

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WORK EXPERIENCE

- January 2023 – Senior Researcher (Ricercatore II livello) @ CNR – Istituto Officina dei Materiali . Activity: Researcher in soft-matter, biophysics, nano-biotechnology
- July 2020 – 2022 Researcher (Ricercatore III livello) @ CNR – Istituto Officina dei Materiali . Activity: Researcher in soft-matter, biophysics, nano-biotechnology
- April 2019 – June 2020 Researcher @ Umana S.p.A. Activity: Staff leasing at Elettra Sincrotrone Trieste S.C.p.A. as researcher in nano-biotechnology
- May 2017 – March 2019 Fixed-term Researcher @ Elettra Sincrotrone Trieste S.C.p.A
- Activity: principal investigator of Interreg Ita-Austria project (EXOTHERA – ITAT1036)
- April 2015 – March 2017 Fixed-term Researcher @ Elettra Sincrotrone Trieste S.C.p.A Activity: research at NanoInnovation Laboratory
- March 2012- March 2015 Young Researcher Fellowship @ INSTM – Sincrotrone Trieste Unit Activity: Nanotechnological approaches towards cancer theragnostics
- October 2008 - March 2012 Post-doctoral fellow @ Elettra Sincrotrone Trieste S.C.p.A. Activity: Hybrid organic/inorganic interfaces for displays and biochips applications

EDUCATION AND TRAINING

- June 2008 – August 2008 Visiting Researcher @ National Physical Laboratory (NPL) – London (UK)
- Development of Tuning Fork based Low Temperature Magnetic Force Microscope. Supervisor: Prof. A. Tzalenchuk
- February 2007 – October 2007 Visiting Student @ Kavli Institute of Nanoscience – Delft University of Technology (NL) Metal/organic interfaces: contact resistance in organic single crystal transistors. Supervisor: Prof. A.F. Morpurgo
- October 2005 – May 2009 PhD student in Physics @ University of L'Aquila (Italy) Thesis title: Morphological, structural, electronic, and transport properties of thin films and single crystals of aromatic compounds: pentacene, 6,13 pentacenequinone, rubrene. Supervisor: Dr. L.Ottaviano
- 2002 - 2005 Master Degree in Physics @ University of L'Aquila (Italy) Full marks Experimental thesis: Electronic and Structural properties of Pentacene in the thin film phase. Supervisors: Prof. S.Santucci, Dr. L.Ottaviano
- 1999 - 2002 Degree in Physics @ University of L'Aquila (Italy) 106/110 Experimental thesis: Experimental implementation of Spin-Polarized STM/STS. Supervisors: Prof. P.Picozzi, Dr. L.Ottaviano

TECHNOLOGY TRANSFER ACTIVITIES

- 2009-2019 Technical support for the ILO activities at Elettra Sincrotrone Trieste concerning scanning probe microscopies and bio-nano-technologies
- June – December 2019 Selected as Mentee in the REsearch Beyond Academia Mentoring Programme in the framework of Euraxess Top IV project

<https://www.euraxess.es/spain/spain-network/euraxess-top-iv/rebeca-mentoring-programme>

- 23 October 2019 - Participation to the workshop "From a researcher to an entrepreneur" — Padriciano Campus - Area Science Park
- September – November 2019 – 30 hours course on Technology Transfer organized by Umana Forma

ABILITAZIONE SCIENTIFICA NAZIONALE

- Abilitazione scientifica nazionale I Fascia Settore concorsuale 02/D1 – Fisica Applicata, Didattica e Storia della Fisica from 29/03/2023 to 10/05/2035
- Abilitazione scientifica nazionale II Fascia Settore concorsuale 02/B1 – Fisica Sperimentale della Materia from 12/04/2017 to 12/04/2028
- Abilitazione scientifica nazionale II Fascia Settore concorsuale 02/D1 – Fisica Applicata, Didattica e Storia della Fisica from 10/05/2019 to 10/05/2030
- Abilitazione scientifica nazionale II Fascia Settore concorsuale 03/A2 – Modelli e metodologie per le scienze chimiche from 10/05/2019 to 10/05/2030

RESEARCH PROJECTS AS PI OR UNIT COORDINATOR

- 30/11/2023-30/11/2025 – PRIN 2022 PNRR – Unit coordinator (39000 Euro)
- 2019 Financed project from the ARRS (Slovenian Agency for Research) for a two year (1.1.2020-31.12.2021) project based on the Marie Skłodowska-Curie proposal EXCHANGE 838930 – Total initiative's funds 153816 Euro – (not used) – Proponent
- 19/03/2019 - Seal of excellence for the proposal EXCHANGE 838930 - Marie Skłodowska-Curie actions call H2020-MSCA-IF-2018 - Proponent
- 01/02/2017- 01/08/2019 ITAT1036 EXOTHERA project (Interreg Italia-Austria VA) - Principal investigator (830000 Euro)

10 selected publications:

- 1) Senigagliesi B, Geiss O, Valente S, Vondracek H, Cefarin N, Ceccone G, Calzolari L, Ballerini L, Parisse P, Casalis L. Substrate stiffness modulates extracellular vesicles' release in a triple-negative breast cancer model. *Extracell Vesicles Circ Nucleic Acids*. 2024;5:653-68. <http://dx.doi.org/10.20517/evcna.2024.47> (co-corresponding)
- 2) Carolina Paba, Virginia Dorigo, Beatrice Senigagliesi, Nicolò Tormena, Pietro Parisse, Kislun Voitchovsky, Loredana Casalis, Lipid bilayer fluidity and degree of order regulates small EVs adsorption on model cell membrane, *Journal of Colloid and Interface Science* 652, 2023, 1937-1943 (co-corresponding)
- 3) Welsh, J. A., Goberdhan, D. C. I., O'Driscoll, L., Buzas, E. I., Blenkiron, C., Bussolati, B., Cai, H., Di Vizio, D., Driedonks, T. A. P., Erdbrügger, U., Falcon-Perez, J. M., Fu, Q.-L., Hill, A. F., Lenassi, M., Lim, S. K., Mahoney, M. G., Mohanty, S., Möller, A., Nieuwland, R., ... Witwer, K. W. (2024). Minimal information for studies of extracellular vesicles (MISEV2023): from basic to advanced approaches. *Journal of Extracellular Vesicles*, 13, e12404. <https://doi.org/10.1002/jev2.12404>
- 4) Senigagliesi, B, Bedolla, D. E., Birarda, G., Zanetti, M., Lazzarino, M., Vaccari, L., Parisse, P., Casalis, L. "Subcellular elements responsive to the biomechanical activity of triple-negative breast cancer-derived small extracellular vesicles" *Biomolecular Concepts*, vol. 13, no. 1, 2022, pp. 322-333. (co-corresponding)
- 5) Senigagliesi, Beatrice; Samperi, Giuseppe; Cefarin, Nicola; Gneo, Luciana; Petrosino, Sara; Apollonio, Mattia; Caponnetto, Federica; Sgarra, Riccardo; Collavin, Licio; Cesselli, Daniela; Casalis, Loredana; Parisse, Pietro Triple negative breast cancer-derived small extracellular vesicles as modulator of biomechanics in target cells, *Nanomedicine: Nanotechnology*,

- Biology, and Medicine, 2022, 44, 102582 (Last and co-corresponding)
- 6) Rondelli, Valeria; Helmy, Sally; Passignani, Giulia; Parisse, Pietro; Di Silvestre, Dario, Integrated Strategies for a Holistic View of Extracellular Vesicles, ACS Omega, 2022, 7, 19058 - 19069. (Co-last)
 - 7) Perissinotto F., Rondelli V., Senigagliaesi B., Brocca P., Almasy L., Bottyan L., Merkel D. G., Amenitsch H., Sartori B., Pachler K., Mayr M., Gimona M., Rohde E., Casalis L, Parisse P., Structural Insights on Fusion Mechanisms of Small Extracellular Vesicles with Model Plasma Membranes, Nanoscale, 13 (2021) 5224 (Last and co-corresponding)
 - 8) Perissinotto, F., Senigagliaesi, B., Vaccari, L., Pachetti, M., D'Amico, F., Amenitsch, H., Sartori, B., Pachler, K., Mayr, M., Gimona, M., Rohde, E., Caponnetto, F., Cesselli, D., Casalis, L., Parisse, P. Multi-technique analysis of extracellular vesicles: not only size matters, Advances in Biomembranes and Lipid Self-Assembly, 32 (2020) 157-177 (Last and corresponding)
 - 9) F. Perissinotto, V. Rondelli, P. Parisse, N. Tormena, A. Zunino, L. Almásy, D.G. Merkel, L. Bottyán, Sz. Sajti, L. Casalis, GM1 Ganglioside role in the interaction of Alpha-synuclein with lipid membranes: Morphology and structure, Biophysical Chemistry, 255 (2019) 106272 (co-corresponding)
 - 10) Atomic Force Microscopy analysis of extracellular vesicles, P. Parisse, I. Rago, L. Ulloa Severino, F. Perissinotto, E. Ambrosetti, P. Paoletti, M. Ricci, A.P. Beltrami, D. Cesselli, L. Casalis, European Biophysical Journal 46 (2017) 813 (First and corresponding)

Invited presentations or organizing committee at national and international schools and congresses

15-17 February 2026 CONFERENCE & SCHOOL ON EXTRACELLULAR VESICLES AND NANOPARTICLES, Roma (IT) (Invited talk)

29 January 2026 EUROPEAN JOINT THEORY / EXPERIMENT MEETING ON MEMBRANES Lubiana (Slo) (Invited talk)

6-7 February 2025, International Congress of Nanoscience and Nanotechnology - ICNN VI – 2025, Ecuador (online invited presentation)

7 February 2025, Exploring structures at the atomic scale workshop, Salzburg (AT) (invited talk)

27-31 January 2025, XXIX IVSLA-SIBPA School of Pure and Applied Biophysics, Venezia (IT) (scientific organizing committee)

18-20 September 2024, Tech4EVIta, Trieste (IT) (local organizer)

28-29 October 2022, Small New World – ASEV&GSEV meeting – Salzburg (AT) (invited talk)

4-9 September 2022, 16th MCM Congress – Brno (CZ) – (invited talk)

25 March 2022, Invited lecture, Graduate School in Reproduction and Developmental Sciences, University of Trieste

15 June 2021, WebEVtalk, virtual invited seminar

21-22 November 2019 – STSPM19EV - Bologna (IT) (invited talk)

16 October 2019 - 16. Linzer Forum Medizintechnik – Linz (At) (invited talk)

5 February 2019 – AFM workshop – Venezia University – Venice (IT) (Invited talk)

15-17 September 2018 – Workshop Patologie Cardiometaboliche – Udine (IT) (invited lecture)

14 December 2017 – SARA 2017 Workshop – Lincoln (UK) (invited talk)

18-22 June 2017 – Photonics for Health Summer school 2017 – San Martino di Castrozza (Italy)

11-22 Nov 2013 - Advanced School on Synchrotron Radiation Techniques and Nanotechnology: A Synergic Approach to Life Sciences and Medicine, Stellenbosch (South Africa) (invited talk)