Marina Santana, PhD

www.linkedin.com/in/msantanavega

<u>santanavega.m@gmail.com</u> +447907919159/+34654327383



Impact-driven professional with a strong background in photonics, nanotechnology, and photophysics, with hands-on experience in advanced microscopy, spectroscopy, and nanofabrication. Fluent in English and Spanish, with excellent technical communication skills, I am comfortable working in multicultural environments. Highly motivated to contribute a broad range of transferable skills, including problem-solving, customer engagement, and project coordination, to a dynamic and innovation-driven team. Available for relocation.

TECHNICAL SKILLS

- **Optical systems:** fluorescence confocal microscopy, TIRF, mass photometry, UV-Vis spectroscopy, steady state and time-time-resolved fluorescence spectroscopy (TRSPC)
- Super-resolution microscopy: TEM, SEM, AFM
- Nanofabrication: e-beam lithography, photolithography, metal deposition, molecular nanopatterning
- Technical troubleshooting: system setup and maintenance, laboratory safety, chemical handling
- Scientific communication: technical presentations, user training, business engagement, strategic reporting

PROFESSIONAL SUMMARY

INDUSTRY ENGAGEMENT MANAGER

College of Science & Engineering, University of Glasgow, UK | February 2024 – Present

This newly created role – equivalent to business development - supports the University of Glasgow's ambition to become more entrepreneurial and enhance engagement with industry. I have contributed to shape the team's direction and define its core capabilities. In parallel, I have also acted as business development manager for the Quantum Computing Applications Cluster (0.25 FTE)

- **Stakeholder Engagement**: Coordinate collaboration between researchers, industry partners, and funders across healthcare, quantum and photonics. Regularly interact with industrial partners, providing technical explanations and tailoring research solutions to meet industry needs, and represent the organisation at industry-facing events.
- Funding & Innovation Strategy: Advise on public funding opportunities and contribute to strategic internal planning. Designed a KTP engagement plan that significantly increased application volume (75 % in 6 months) and led strategic reporting to inform senior management decisions
- Cross-Functional Collaboration: Work closely with technical and support teams to align research capabilities with stakeholder needs and identify opportunities for applied R&D
- Ecosystem Engagement and Development: Led the design and delivery of the College's first Industry Day on <u>Medical Technologies</u>. Support broader innovation events, including the <u>Quantum Healthcare Summit.</u>, and <u>Quantum Supply Chain Conference</u>
- Editor of the Industry Engagement Newsletter

POST-DOCTORAL RESEARCH ASSOCIATE

Nanophotonic Devices Group, James Watt School of Engineering, University of Glasgow, UK | July 2020 - February 2024

- Research:
 - <u>Single-molecule imaging</u>: developed novel nanoengineered platforms for biological studies using Total Internal Reflection Fluorescence (TIRF) and mass photometry
 - <u>Plasmonics</u>: biosensors, reconfigurable metasurfaces, selective femto-second laser annealing of metallic nanostructures
 - DNA engineering: AFM characterisation of DNA origami assemblies
- **Group and lab management:** Oversaw lab operations and chaired group meetings. Managed travel and research budgets. First line of management of undergraduate and postgraduate researchers. User training.
- International recognition: Presented at several international conferences. Won the Young Investigator Award at Photonics West 2023 and was an invited speaker to PicoQuant's single-molecule workshop in Berlin, 2023.
- Clean room trained at the James Watt Nanofabrication Centre

EDUCATION

PhD in Physical Chemistry

"Mesoscopic Photoactive Materials for Applications in Optoelectronics"

Newcastle University, UK | October 2015 – November 2019

- Studied energy transfer mechanisms (FRET, metal-enhanced luminescence) in host-guest silica systems. Developed methodologies for plasmonic structure synthesis, including Janus structures.
- Supervised undergraduate students and demonstrated in teaching labs
- Presented at local and international conferences; recognised with several awards

MSc on Molecular Nano- and Bio- Photonics for Telecommunications and Biotechnologies (Summa Magna Cum Laude)

Ecole Normale Supérieure de Cachan, France (now ENS Paris-Saclay) | September 2014 - June 2015

BSc in Chemistry

Universidad Complutense de Madrid, Spain | September 2010 – July 2014

Undergraduate studies in Physics (not completed)

Universidad Nacional de Educación a Distancia, Spain | September 2011 – July 2016

• Completed modules in algebra, calculus, classical mechanics, thermodynamics, and quantum mechanics.

ADITIONAL INFORMATION

FUNDING

- 2023 Engineering & Physical Sciences Research Council (£5,000.) and Biological & Biotechnology Research Council (£3,460) Impact Acceleration Accounts for SYMBIOSIS: Symposium on BIO-Sensing and Imaging Systems for Healthcare
- 2022 Engineering & Physical Sciences Research Council Vacation Internship Program, PI (£3,000)
- 2018 Royal Society of Chemistry domestic (£150) and international (£950) travel grants
- 2015 ENS Cachan International Scholarship Programme (€10,000)

AWARDS

- 2024 Best poster at the Singe-Molecule Sensors and nanoSystems International Conference 2024, Barcelona, Spain (€500)
- 2023 Young Investigator Award. Single Molecule Spectroscopy and Super-resolution Imaging XVI, SPIE BIOS (Photonics West) 2023, San Francisco, USA (\$750)
- 2019 Best poster at the 9th Nanoscience Symposium, Newcastle University, UK (£100)
- 2018 Best talk produced at the Wynne Jones symposium on Molecular/Materials Chemistry, Newcastle University, UK (£100)

PUBLICATIONS

Full list of publications available on Google Scholar

LANGUAGES

Spanish (native), English (bilingual), French (intermediate)

DIGITAL SKILLS

Microsoft Office (Advanced), Power BI (Advanced), Power Apps (Intermediate), Blender (Intermediate), Origin Pro (Advanced), L-edit (Advanced), Beamer (Advanced), C-job (Advanced)

PERSONAL INTERESTS AND HOBBIES

Enjoy hiking, climbing, and spending time outdoors. At home, I'm into crafts like crocheting and sewing, and I have an oddly strong passion for ugly jigsaw puzzles. Naturally creative, sociable, and curious, with a love for learning and hands-on projects.

References available upon request