CV Date	17/07/2025

Part A. PERSONAL INFORMATION

First Name	Salvio		
Family Name	Suarez Garcia		
Sex	Not Specified	Date of Birth	
ID number Social Security, Passport			
URL Web	https://www.linkedin.com/in/salviosuarezgarcia/		
Email Address			
Open Researcher and Contributor ID (ORCID)	0000-0002-4156-0579		

A.1. Current position

Job Title	Senior Postdoctoral Researcher		
Starting date	2022		
Institution	FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA		
Department / Centre	Nanostructured Functional Materials / Nanostructured Functional Materials		
Country	Spain	Phone Number	
Keywords	Nanotechnology; Organic chemistry; Biocompatible materials; Biotechnology; Nanobiotechnology		

A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2019 - 2022	Postdoctoral Researcher / FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA
2015 - 2019	PhD Student / FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA / Spain

A.3. Education

Degree/Master/PhD	University / Country	Year
Technology transfer: from scientific knowledge to the market	Universidad Pompeu Fabra	2021
Official Doctoral Program in Materials Science	Universitat Autònoma de Barcelona / Spain	2019
MSc in Advanced Nanoscience and Nanotechnology	Universitat Autònoma de Barcelona	2015
BSc in Nanoscience and Nanotechnology	Universitat Autònoma de Barcelona	2014

Part B. CV SUMMARY

My scientific contributions have primarily focused on the development of **bioinspired materials for health and environmental applications**. My activity mainly centers on developing 2D materials like coatings and bioadhesive membranes. These materials have been used to develop systems to: combat antimicrobial resistance, enhance tissue regeneration and cancer treatment. Currently, we are validating bioinspired antimicrobial and biocompatible coatings in public-private collaboration projects with several companies focused on the environment (water remediation projects **REFILCAP** Ref. CPP2021-008570 and **BIORESEC** Ref. CPP2023-010996) and in health (prevention of nosocomial infections **COVICAP** CPP2021-008348), with a total funding of over **€1 million** for all consortia. Furthermore, I recently secured, as PI, two private contracts with two companies (one local and one international, for a total of **€25,000**) establishing a collaboration framework to validate the use of these developed coatings in various market applications.

In the area of tissue regeneration, I have developed and patented (**WO2022258780A1**) a method to obtain bioadhesive and antimicrobial membranes with the capacity to regenerate various tissues such as cartilage and skin. This has been achieved through several national projects with my participation in the team (Proof of Concept, Ref. PDC2022-133261-C21, €150,000), regional projects with my participation as an entrepreneur (Llavor-AGAUR, Ref. 2019LLAV00074 and Innovadors-AGAUR, Ref. 2021INNOV0049, €100,000 in total), and institutional projects (ICN2 with my role as PI with 2 seed projects and 1 technology valorization project totaling €45,000). Recently, in this area, I obtained a **CaixaImpulse** project as PI and team leader, awarded by "la Caixa" Foundation (Ref. CI24-20039, €150,000). This work has contributed to developing innovative materials that solve clinical challenges, which has also enabled the patent transfer and the creation of a **spin-off**, of which I am a **co-founder and technical director** (Tirecat Health S.L., August 2024). In the field of tissue regeneration, I have established an international collaboration with the Medical University of Vienna (MedUni Wien, Austria), where I also completed a research stay. Additionally, I have established collaborations with **4 hospitals** (Sant Pau, Vall d'Hebron, Bellvitge, Clínico San Carlos). A second European patent (**EP25382323.1**) as co-inventor has been filed, focusing on the application of membranes for the treatment of cancers such as Glioblastoma.

Overall, I have acquired scientific and technical skills in the area of biomaterial development, from design, synthesis, characterization, and preclinical validation, as well as in tech transfer. I am involved in laboratory research, identifying companies in different sectors, and setting up technical meetings for technology presentation and negotiation for potential agreements. My research and technology transfer efforts have facilitated the creation of a collaborative network with **over 10 companies and hospitals**. To support these activities, I have supplemented my training by attending courses on tech transfer, such as "Technology transfer: from scientific knowledge to the market" at the Barcelona School of Management (BSM) Universitat Pompeu Fabra, and participating in acceleration programs like the BCN Activa Pre-acceleration Program. Furthermore, I have actively participated in various outreach activities aimed at broad sectors of society, including clinicians, undergraduate students, high school teachers, and the general public. Additionally, I have been editor for a journal within Frontiers publishing and a reviewer for journals such as the Chemical Engineering Journal and Nature Communications. I have also contributed to the publication of several book chapters (3).

My publication record includes **23 publications** (90% Q1, 2 reviews), **590 citations**, **3 book chapters**, an **H-index of 14**, and **2 patents**. I have supervised **4 PhD students** (currently in progress), tutored **10 Bachelor's Thesis projects** (4 in progress), and **4 ERASMUS students**. I have given **17 oral presentations** (7 invited) and participated in the organization of **3 conferences** (2 international). I have received **4 awards**: the Extraordinary Doctorate Award in the Materials Science Program (2019), Best Project Management (2022), Best High-Tech Business Project (2020), and Best Poster Presentation (2016).

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. Alba López Moral; José Bolaños Cardet; Ramon Alibés; Félix Busqué; Victor J. Yuste; Daniel Ruiz Molina; Salvio Suárez García. 2025. A bioinspired and environmentally sustainable polyphenol-based water adhesive. Journal of Colloid and Interface Science. ELSEVIER. 680, pp.987-996. https://doi.org/10.1016/j.jcis.2024.11.042

2 **Scientific paper**. José Bolaños Cardet; Daniel Ruiz Molina; Victor J. Yuste; Salvio Suárez García. 2024. Bioinspired phenol-based coatings for medical fabrics against antimicrobial resistance. Chemical Engineering Journal. ELSEVIER. 481-148674. https://doi.org/10.1016/j.cej.2024.148674

3 **Scientific paper**. Noemí Contreras Pereda; Salvio Suárez García; Raphael Pfattner; Daniel Ruiz Molina. 2024. Melanin-inspired conductive thin films for multimodal-sensing wearable on-skin electronics. Materials Today Chemistry. ELSEVIER. 35-101855. https://doi.org/10.1016/j.mtchem.2023.101855

4 **Scientific paper**. Xiajiao Yuan; Salvio Suárez García; Marco de Corato; Andrés Camilo Muñoz; Ignacio Pagonabarraga; Daniel Ruiz Molina; Katherine Villa. 2024. Self-Degradable Photoactive Micromotors for Inactivation of Resistant Bacteria. Advanced Optical Materials. Wiley. 12-2303137. https://doi.org/10.1002/adom.202470050

5 **Scientific paper**. Gabriel Maroli; Giulio Rosati; Salvio Suárez García; et al; Arben Merkoçi. 2024. Wearable, battery-free, wireless multiplexed printed sensors for heat stroke prevention with mussel-inspired bio-adhesive membranes. Biosensors and Bioelectronics. ELSEVIER. 260-116421. https://doi.org/10.1016/j.bios.2024.116421

6 **Scientific paper**. (1/4) Salvio Suárez García; Isabella Nicotera; Daniel Ruiz Molina; Cataldo Simari. 2023. A mussel-inspired coating for cost-effective and environmentally friendly CO2 capture. Chemical Engineering Journal. ELSEVIER. 473-145280. https://doi.org/10.1016/j.cej.2023.145280

7 **Scientific paper**. Salvio Suárez García; Rubén Solórzano; Ramon Alibés; Félix Busqué; Fernando Novio; Daniel Ruiz Molina. 2021. Antitumour activity of coordination polymer nanoparticles. Coordination Chemistry Reviews. ELSEVIER. 441-213977. https://doi.org/10.1016/j.ccr.2021.213977

8 **Scientific paper**. Salvio Suárez García; Rubén Solórzano; Fernando Novio; Ramon Alibés; Félix Busqué; Daniel Ruiz Molina. 2021. Coordination polymers nanoparticles for bioimaging. Coordination Chemistry Reviews. ELSEVIER. 432-213716. https://doi.org/10.1016/j.ccr.2020.213716

9 **Scientific paper**. Seyed Shahrooz Zargarian; Salvio Suárez García; Javier Saiz Poseu; Luca Zuppiroli; Massimiliano Lanzi; Daniel Ruiz Molina; Filippo Pierini. 2025. Light-Activated Superhydrophobicity of Sustainable Micro-Structured Spent Coffee Grounds-Based Interfaces via Fatty Acids Modulation. ChemSusChem. Wiley. 18-e202402254. https://doi.org/10.1002/cssc.202402254

10 **Book chapter**. María José Esplandiu; Neus Gómez Bastús; Jordi Fraxedas; et al; Giancarlo Franzese. 2023. Interfacial phenomena in nanotechnological applications for water remediation. Reference Module in Chemistry, Molecular Sciences and Chemical Engineering. ELSEVIER. pp.465-484. ISBN 978-0-323-85670-6. https://doi.org/10.1016/B978-0-323-85669-0.00066-0

C.2. Conferences and meetings

1 Mussel-Inspired Approaches to Produce Multifunctional Bioinspired Materials for Their Application in Biomedicine. International Nature Inspires Creativity Engineers RENDEZ-VOUS. NICE Rendevous. 2024. France. Participatory - invited/keynote talk. Conference.

2 Mussel-Inspired Approaches to Produce Multifunctional Bioinspired Materials for Their Application in Biomedicine.. The 1st International Online Conference on Biomimetics. MDPI. 2024. Participatory - invited/keynote talk. Conference.

3 A mussel-inspired nanocoating for cost-effective and environmentally friendly CO2 capture. 4th International conference on Nanomaterials Applied to Life Sciences. Universidad de Granada. 2024. Spain. Participatory - oral communication. Conference.

4 Mussel-inspired bioadhesive membranes as novel platforms for their use in tissue regeneration and precision medicine therapies. Spanish Conference on Biomedical Applications of Nanomaterials (SBAN). Instituto de Química Médica (IQM). 2023. Spain. Participatory - oral communication. Conference.

5 A Universal and Versatile Approach to Antimicrobial Coatings via copolymerization of a catechol and a diamine .. The First International Conference on Antioxidants: Sources, Methods, Health Benefits and Industrial Applications (ICA2023).. ICA. 2023. Spain. Participatory - oral communication. Conference.
6 Mussel-Inspired Adhesives, Coatings and Films for Biological Applications. Tissue Engineering Therapies: From concept to clinical translation and commercialisation. TERMIS-EU. 2019. Greece. 'Participatory - poster. Conference.
7 Novel nanostructured materials based on coordination polymer particles as potential contrast agents for MRI.. 2nd International Symposium on Nanoparticles/Nanomaterials and Applications (ISN2A).. ProteoMass Scientific Society. 2016. Portugal. 'Participatory - poster. Conference.

C.3. Research projects and contracts

1 **Project**. CI24-20039, Antimicrobial bioinspired membranes for skin regeneration (RESKIN). Obra Social Fundación la Caixa. Salvio Suárez García. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/12/2024-30/11/2026. 150.000 €. Principal investigator.
2 **Project**. SOS-NEUROBOND, Enhanced Neuroelectronic interfacing through bioinspired bonding (NEUROBOND). FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA. Salvio Suárez García. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/06/2024-31/05/2025. 14.000 €. Principal investigator.
3 **Project**. 2021INNOV00049, Mussel bioinspired membranes as artificial skin. Departament de Sanitat i Seguretat Social Generalitat de Catalunya. Daniel Ruiz Molina. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/12/2022-30/06/2024. 84.000 €. Team member.
4 **Project**. SOS-MIaSkin, Mussel-Inspired Free-Standing Films as Artificial Biosensing Skin for Tissue Regeneration (MIaSkin). FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA. Salvio Suárez García. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/06/2021-31/05/2022. 14.000 €. Principal investigator.
5 **Project**. TV-TIRECAT, Catechol-based free-standing films for tissue regeneration. FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA. Salvio Suárez García. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/06/2021-31/12/2021. 13.500 €. Principal investigator.
6 **Project**. 2019LLAV00074, Catechol-Based Free-Standing Films for Tissue Regeneration. Departament de Sanitat i Seguretat Social Generalitat de Catalunya. Daniel Ruiz Molina. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/07/2020-31/03/2021. 20.000 €. Team member.
7 **Contract**. Bioinspired antimicrobial thin films as PTFE substitutes BIC S.A.. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/09/2024-01/05/2025. 10.000 €.
8 **Contract**. Desarrollo de recubrimeintos antimicrobianaos para la remediación de agua Waterologies S.L.. (FUNDACION PRIVADA INSTITUT CATALA DE NANOTECNOLOGIA). 01/01/2024-01/01/2025. 11.393 €.

C.4. Activities of technology / knowledge transfer and results exploitation

1 **Patent of invention**. Salvio Suárez García; Daniel Ruiz Molina; Victor Jose Yuste Mateos; José Daniel Bolaños Cardet; Jordi Bruna Escuer. EP25382323.1. Catecholamine-based membrane for use in the treatment of cancer 01/04/2025. Consejo Superior de Investigaciones Científicas, ICN2, UAB e IDIBELL.
2 **Patent of invention**. Salvio Suárez García; Javier Saiz Poseu; Daniel Ruiz Molina. WO2022258780A1/PCT/EP2022/065757. Catecholamine-based membrane, process for its preparation and uses thereof 10/06/2021. Consejo Superior de Investigaciones Científicas e ICN2.