

María Vallet-Regí. Full Professor

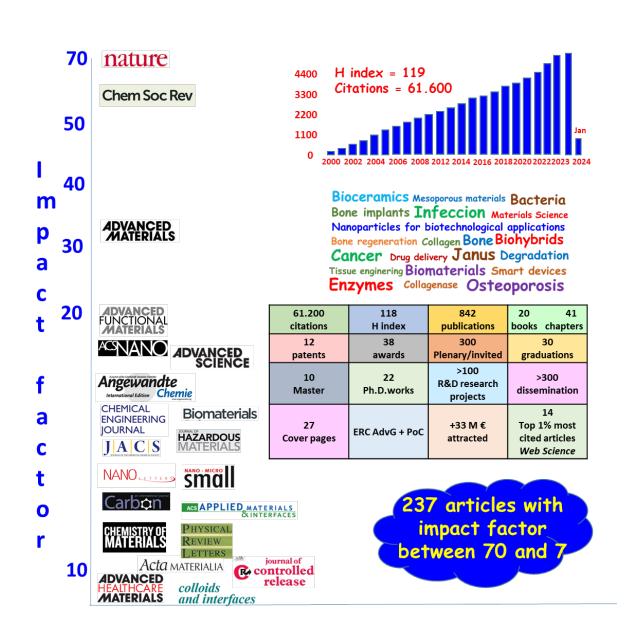
Department of Chemistry in Pharmaceutical Sciences at Universidad Complutense de Madrid (UCM), Spain

Leader of the Smart Biomaterials Research Group

Group leader of the Biomedical Research Networking centre in Bioengineering, Biomaterials and Nanomedicine (CIBER-BBN), and of the Research Institute of the Hospital 12 de Octubre (i+12), Madrid. Spain Recipient of an **ERC Advanced Grant**: Polyvalent mesoporous nanosystem for bone diseases. https://www.ucm.es/valletregigroup.

ResearcherID: M-3378-2014 **ORCID**: 0000-0002-6104-4889

- Google Scholar
- Highly Cited Researchers 2018. Stanford list: 2022. First Spanish woman.
- <u>Higly Cited Researchers 2023</u>. **6th world researcher in Biomedical Engineering**. Data Repository Elsevier.
- List publications.



Contact:

Facultad de Farmacia de la Universidad Complutense de Madrid Dpto. Química en Ciencias Farmacéuticas Pza. Ramon y Cajal s/n 28040 Madrid – Spain

Current Research:

- Bioceramics based bone grafting materials and scaffolds for regenerative biomedicine.
- Production and study of bioceramic systems for controlled release of biotechnological and antitumoral species.
- Nanoparticles and biocompatible matrices for biotechnological applications.
- Silica based ordered mesoporous materials as release systems of biologically active species, cell encapsulation in silica porous materials, mesoporous materials for gene therapy and transfection, organic-inorganic hybrid materials.

Other interests:

- Dissemination of Science to society: more than 300 activities.
- International cooperation: numerous projects and Courses taught with Developing Countries and the free assignment of a patent for water purification.

Biographical sketch

Prof. Vallet-Regi is a recognized pioneer in the field of mesoporous ceramic materials applied to biomedicine. Her work pointed towards potential biomedical use of these materials, particularly in the field of bone tissue regeneration. Moreover, she was also a leading innovator in showing the capacity of these systems to act as "drug delivery systems"; these materials can be loaded with biological active molecules, such as drugs, peptides, proteins and growth factors, to achieve a controlled drug release of these molecules. Her first publication describing these achievements (Chem Mater 13,308-311, 2001; 2477 cites) opened a new therapeutic window, which has ended up in the launching of a novel profitable research field. This paper meant her incorporation to the 1K club of Chem Mater (I.F.= 9.811), which devoted an editorial to her including sentences like: "M. Vallet-Regí and her team published in 2001 an extremely influential article which showed for the first time that MCM mesoporous materials could be used as drug delivery devices". "The motivation behind this effort is remarkable and highlights the importance of multidisciplinary science as a source of creativity and ideas". "This paper is a fine example of innovative and timely research, which has shaped and shaken up the field of materials science in the last few years". In the last years, she redirected her research towards nanocarriers in stimuli-responsive systems, making converge bioceramics for bone regeneration and drug delivery, with the fight against infection. From October, 2016 she obtained the five years ERC Advanced Grant: Polyvalent mesoporous nanosystem for bone diseases.

Some facts:

- Prof. Vallet-Regi's work is characterized by interdisciplinary. Her papers classified in more than 50 Knowledge Areas of WoS.
- More than 15 prestigious Awards.
- Doctor Honoris cause by the Basque Country, Jaume I, Murcia and Rovira i Virgili Universities.

- Member of 6 Academies.
- Member of the Editorial Board of Scientific Journals and Organizer of Scientific Meetings.
- Leader of >100 R&D research projects and scientific networks.
- 300 plenary/invited lectures in Congresses, Universities and Research Centres.
- Outstanding educator. Pioneer in Spain in the teaching of "Biomaterials". Supervised over 30 graduations, 10 Master and 22 Ph.D. works. Her PhD students achieve relevant positions in Academy and Industry.
- Visiting Professor at INPG-Grenoble (France), NIRIM-Tsukuba (Japan), University of Stockholm (Sweden) and Cagliari University (Italy).
- Numerous institutional responsibilities and commissions of trust.
- >300 activities of dissemination of science and international cooperation.
- First female scientist in the ranking of Spanish women scientists ordered by their average Fh indices (Fhm) grupodih.info/W.html

http://www.ucm.es/data/cont/media/www/pag-90171/CV.pdf

http://www.ucm.es/valletregigroup

https://vimeo.com/258578003

Highly Cited Researchers 2018

Selected Honors and Awards:

- 2023 Research.com Best Female Scientist Award.
- 2023 Research.com Materials Science in Spain Leader Award.
- 2023 Scientific Career Award at the 5th Edition of the Hipatia Awards. Newspaper elEconomista.
- 2023 Doctor of Alcalá Research Award for Research Excellence
- 2023 Research.com Materials Science in Spain Leader Award.
- 2023 Sanitarias Award in recognition of his professional career in scientific research. Diario Redacción Médica.
- 2022 Research.com Best Female Scientist Award.
- 2022 Research.com Materials Science in Spain Leader Award.
- 2022 First prize with the video "Tissue Engineering" in the XI Scientific Dissemination Contest 2022.
 UCM. July 15th, 2022.
- 2022 Gold Carracido Medal of the Royal National Academy of Pharmacy.
- 2021 Community of Madrid Research Award "Margarita Salas" for a scientific career.
- 2021 Doctor *Honoris Causa* by the Rovira i Virgili University.
- 2021 Doctor Honoris Causa by the Murcia University.
- 2020 Award from the Forum of Innovative Companies
- 2020 Awarded the video "How to beat prosthesis infection" in the Scientific Dissemination Contest 2020. UCM. July 9th, 2020.
- 2019 Tribute Award at the 1st Edition of the Zendal 2019 International Awards
- 2019 George Winter Award, EUROPEAN SOCIETY OF BIOMATERIALS
- 2019 FEMS Materials Innovation Prize, FEDERATION of EUROPEAN MATERIALS SOCIETIES.
- 2019 Medal of Merit in Research and University Education. The Government of Spain.
- 2019 Influentials Career Award. El Conficencial and Herbert Smith Freehills.
- 2018-Rei Jaume I Award in Basic Research.
- 2017-Julio Peláez Award to Pioneer Women in Sciences, Physics, Chemistry and Mathematics.
- 2016-Lilly Award to the Distinguished Career in Chemistry.
- 2015-IDEA2 2015 Award. Autonomous Community of Madrid and Massachusetts Institute of

Technology Consortium.

- 2015-Doctor Honoris Causa by the Universidad Jaume I, Castellón, Spain
- 2014- GACETA DENTAL Research Award.
- 2014-Member of the International Scientific Committee of Basque Center for Materials
- Applications & Nanostructure.
- 2014-IDEA2 Award. Autonomous Community of Madrid and MIT Consortium.
- 2013-IUPAC, Distinguished Woman in Chemistry and Chemical Engineering.
- 2013-Doctor Honoris Causa by the Basque Country University.
- 2013-Research Prize in Sciences "Miguel Catalán" of the Autonomous Community of Madrid.
- 2011-Research Prize of the Business Federation of Spanish Chemical Industries (FEIQUE).
- 2011-Gold Medal of the Spanish Royal Society of Chemistry (RSEQ).
- 2010- Evaluator of the National Research Program "Smart Materials" (NRP 62) of the Swiss National Science Foundation (SNSF) and Swiss Innovation Promotion Agency (CTI).
- 2009-2015- Advisor of the Materials for the Future Cluster. Project: "The University City of Moncloa: a Campus of International Excellence in the City of Madrid". U.C.M.
- 2009-2017 Member of Scientific advisory board (SAB) of EXSELENT. University of Stockholm.
- 2008-National Research Prize in Engineering "Leonardo Torres Quevedo", Education Ministry.
- 2008-Prize in Inorganic Chemistry of the Spanish Royal Society of Chemistry (RSEQ).
- 2000-French-Spanish Prize "Catalán Sabatier" of the French Chemical Society.
- 1999-2007- Spanish Royal Society of Chemistry (R.S.E.Q.) Member and Vice-president.
- 1993-2003- Member of the "Science for peace steering group" of the NATO.

Academy Membership:

- Since 2023 Honorary Academician of by the Royal European Academy of Doctors.
- Since 2017, Fellow of the Indian National Academy of Engineering (INAE)
- Since 2017, Fellow of the American Institute for Medical and Biological Engineering (AIMBE).
- Since 2012, International College of Fellows of Biomaterials Science & Engineering (ICF-BSE).
- Since 2011, Fellow of the Spanish Royal Academy of Pharmacy (RANF), Medal XLII.
- Since 2004, Fellow of the Spanish Royal Academy of Engineering (RAI), Medal LII.
- Since 1997, Elected Honorary Member of the Materials Research Society of India.

Selected institutional responsibilities:

- Member of the "Science for peace steering group" of the NATO, 1999-2003.
- Member of Scientific advisory board (SAB) of EXSELENT. University of Stockholm. 2009...
- Evaluator of the National Research Program "Smart Materials" (NRP 62) of the Swiss National Science Foundation (SNSF) and Swiss Innovation Promotion Agency (CTI). 2010.
- Advisor of the Materials for the Future Cluster. Project: "The University City of Moncloa: a Campus of International Excellence in the City of Madrid". UCM. 2009-2015.
- Member of the International Scientific Committee of Basque Center for Materials Applications
- & Nanostructure 2014....
 - Evaluator of the proposals for Euronanomed and more than 10 Spanish Quality Agencies.
- Panel Member for the panel PE8, European Research Council (ERC) Consolidator Grant.
- Spanish Royal Society of Chemistry (R.S.E.Q.) Member and Vice-president 1999 2007.

Commissions of Trust:

- President's Advisory Committee (Chemistry) of the National Commission for the evaluation of research activity (Ministry of Education), 2004-06. (Secretary, 2002-04, Board Member, 2006-09).
- Coordinator of the Technology and Health Program; Autonomous Community. 2004.
- President of the Ministry Commission of Technology of Materials, 1996 -1999.

Editorships:

- 1995-2000, International Advisory Editorial Board Member of Journal of Materials Chemistry of RSC
- 2005-International Advisory Editorial Board Member of the Journal Bulletin of Materials Science.
- 2007- Editorial Board Member of the Open Inorganic Chemistry Journal (Bentham Science).
- 2007-Editorial Board Member of the Open Biomedical Engineering Journal (Bentham Science).
- 2010-Editorial Board Member of Journal of Biomaterials and Nanobiotechnology.
- 2010-Editorial Board of Bioceramics Development and Application.
- 2011-Editorial Board Member of Acta Biomaterialia.
- 2011-Honorary Advisors of Journal of Biomaterials and Tissue Engineering.
- 2012-Editorial Board Member of Journal of Ceramics.
- 2013-Editorial Board Member of Academic and Scientific Publishing.
- 2017-Editorial Board of Nanomotors for nucleic acid detection.
- 2018- Editorial Board Member of Nanomaterials.
- 2018-Editorial Board Member of International Journal of Dentistry and Oral Health.
- 2018- Member of the Scientific Advisory Board (SAB) of ICN2.
- 2019- Editorial Board Member of Pharmaceutics.
- 2020- Section Board for Biologicla Engineering.
- 2020- Editorial Board of Journal of Biomaterials and Nanobiotechnology.
- 2020- Editorial board of Physchem.
- 2020- Editorial Board of European Journal of Materials-EJM.

Conference Organization:

- Chair, MINISYMPOSIUM ON BIOCERAMICS. Seminario Internacional Complutense. Madrid, Spain
- (1997)
- Co-chair, VIIth EUROPEAN CONFERENCE ON SOLID STATE CHEMISTRY. Madrid, Spain (1999).
- National Scientific Committee and Chair, 17th EUROPEAN CONFERENCE ON BIOMATERIALS.
- Barcelona, Spain (2002).
- Chair, 1st INTERNATIONAL WORKSHOP JAPAN-SWEDEN-SPAIN. UCM, Madrid, Spain (2007).
- Coordinator, INTERNATIONAL SYMPOSIUM DRUGS, NANOMEDICENE AND BIOMATERIALS: A COMMON GOAL. Areces Fundation, Madrid, Spain (2012).
- Coordinator, INTERNATIONAL SYMPOSIUM THE CANCER AS A RESULT OF AGING: POTENTIAL
- SOLUTIONS. Areces Fundation Madrid, Spain (2015).
- Coordinator, SIMPOSIO INTERNACIONAL MATERIALES MESOPOROSOS: DE 1991 A 2018. Areces Fundation, Madrid, Spain (2018).

Research Facts:

- Author or co-author of over 842 articles, 20 books, 5 as editor, 41 books chapters, 12 patents and >600 communications to Congresses where he taught > 50 plenary and invited lectures.
- **Highly Cited Researchers 2018. Stanford list:** 2022. First Spanish woman.
- <u>Higly Cited Researchers 2023</u>. **6th world researcher in Biomedical Engineering**. Data Repository Elsevier.
- Rank 1st of all the Professors of the University Complutense after the Bibliometric portal of University according to the h-index found un database Scopus of Elsevier (December 2023).
- First Female Spanish scientist according to PLOS Biology.

Y First 1% of the most cited articles in its academic field (Web of Science)						
Cites: 2.567 IP: 15.336	Cites: 1,506 IP: 15.419	Cites: 533 IP: 8.947	Cites: 466 IP: 13.273	Cites: 426 IP: 15.881	Cites: 352 IP: 54.564	Cites: 319 IP: 9.811
Angew. Chem. Int. Ed. 46, 7548-7558, 2007	J. Am. Chem. Soc. 130 (21) 6774-6780 2008	Acta Biomaterialia. 6, 2874-2888 2010	Chem. Eng. J. 137,30-37 2008	ACS Nano. 5 (2), 1259-1266 2011	Chem. Soc. Rev. 40 (2), 596-607 2011	Chem. Mater. 24, 517-5242012
Programation for the process of the	10 MIL-101 21 21 21 21 21 21 21 21 21 21 21 21 21		5 000			
Cites: 243 IP: 12.479	Cites: 312 IP: 6.626	Cites: 240 IP: 6.648	Cites: 350 IP: 15.881	Cites: 143 IP: 6.648	Cites: 156 IP: 8.947	Cites: 236 IP: 4.411
Biomater. Sci. 1, 114-134 2013	J. Mater. Chem. 12,1634-1643 2014	Expert Opin. Drug Del. 12, 319-337 2015	AC5 Nano. 9 (11), 11023- 11033 2015	Expert Opin. Drug Del. 14 (2) 229-243 2017	Acta biomaterialia 55, 493-504, 2017	Molecules 23 (1), 47 2018
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Knowledge Transfer:

Over the years, the know-how she has developed has been transferred to the following companies:

Funding Company: Colorobbia España, S.A.
 Contract title: Bactericidal properties of titanium oxide

Year: 1997

• Funding Company: Colorobbia España, S.A.

Contract title: Development of a phosphorescent enamel

Year: 2001

Funding Company: CBA Expansivos, S. L.
 Contract title: Expansive demolishing cement

Year: 2002

Funding Company: Medical Precision Implants
 Contract title: Roughness Test (SEM) and In vitro Biological Test

Year: 2017

• Funding Company/Administration: Medical Precision Implants Contract title: Roughness Test (SEM) and In vitro Biological Test

Year: 2018

Funding Company: MIS Ibérica, S.L.
 Contract title: Roughness Testing (SEM) and Biological Testing in Type of contract: Article 83
 Years: 2017-2018

Patents:

- "Phosphorescent pigment, procedure for obtaining it and its applications". Application No: 200002703/2 Country: Spain-Italy Date: 10-11-2000 extended: CE and Brazil. Company that is exploiting it: COLOROBIA SPAIN S.A. (SPAIN).
- "Method for producing bioactive implants that are used as systems for the controlled release of antibiotics". No: P200101386, ES2181593, PCT/ES2002/000301. Date: 27-12-02. Until 2021.
- "Device for measuring continuous magnetic fields, based on manganese mixed oxides having a perovskite structure". No: P200502629, PCT/ES2006/000598 Date: 10-05-2007. Until 2025.
- "Method for the low-temperature preparation of bioceramic pieces with designed and interconnected three-dimensional porosity". No: P200802813, ES2333851, PCT/ES2009/000480. Date 08-04-2010. Until 2028.
- "Procedure for the preparation of a ceramic hybrid material of nanocrystalline clacio phosphate organic coloring agent". No: P200901633, ES22701045, PCT/ES2010/000327. Date: 27-01-2011. Until 2029.
- "Manufacture of three-dimensional scaffolding with bioactive mesoporous glass by means of rapid prototyping". No: P201000353, ES2378044. Date: 04-04-2012. Until 2030.
- "Pure ceramic macroporous scaffold based on nanocrystalline apatite, preparation method and applications". No: P2010957, ES2373286, PCT/ES2011/000229 Date: 02-02-2012. Until 2030.
- "Biomaterial with osteostatin for bone regeneration and tissue engineering". No: P201031193, ES2373896, PCT/ES2011/070547. Date: 10-02-2012. Until 2030.
- "Bioceramic materials for the treatment of osteomyelitis". No: P201100655, ES2393602, PCT/ES2012/000160. Date: 4-04-2013.
- "Biocompatible implants made of nanostructured titanium with antibacterial properties". No: P201430616, ES2552278, PCT/ES2015/070345. Date: 07-09-2016. In force. Subscribed in March 2017 the 3rd annuity of the European patent application. In proceedings for protection in USA.
- "Nanocapsules with controlled degradation for sustained release of collagenase in clinical applications". Patent No: EP18382005.9. Date of publication. 09-01-2018.
- "Ligands for enhanced imaging and drug delivery to neuroblastoma cells". No: EP18382207.1 Date: 26-03-2018.

Applications in the Clinic:

Prof. Vallet-Regí is widely regarded for her contributions to **Biotechnology** and **Medicine**. Moreover, she is a Highly Cited Researcher 2018 (Clarivate Analytics). This list recognizes world-class researchers selected for their exceptional research performance, demonstrated by production of multiple highly cited papers that rank in the top 1% by citations per field and year in Web of Science. She is recognized as a pioneer in the field of ceramic materials applied to medicine. On one hand, she has been working in the biomaterials area developing bioceramics for bone grafting applications and scaffolds for regenerative biomedicine. On the other hand, prof. Vallet-Regí has intensely investigated on nanocarriers of different nature to deliver therapeutic agents to diseased tissues without affecting healthy organs. She was the pioneer who suggested introducing drugs into the pores of mesoporous silica materials, which inspired thousands of publications worldwide involving mesoporous silica nanoparticles for drug delivery.

The technology on smart drug delivery nanocarriers developed by Prof. Vallet-Regí drew the attention of many

oncologists, such as Dr. Manuel Ramírez-Orellana, a prestigious pediatric oncologist who works in Neuroblastoma, the most frequent extracranial pediatric tumor. It presents a dismal prognosis despite the combination of chemotherapy, radiotherapy, surgery and bone narrow transplants. As a consequence of a fruitful collaboration, Prof. Vallet-Regí developed nanocarriers able to detect and destroy only neuroblastoma cells and the subsequent patent (*Ligands for enhanced imaging and drug delivery to neuroblastoma cells. Patent No: EP18382207.1*) is expected to fuel the **translation of this technology to the clinic** to be applied to patients. Additionally, Prof. Vallet-Regí works closely with the Association of Families with Children Affected by Neuroblastoma, through the following project: *Development of intelligent nanotransporters for neuroblastoma therapy*.

Prof. Vallet-Regí has also developed a novel stimuli-responsive nanodevice based on nanocapsules with controlled degradation for the sustained release of collagenase. This technology is on the first steps of **preclinical analyses** for the potential treatment of sclerodermia, a fibrotic disease characterised by an abnormal accumulation of collagen. The transport and release of a proteolytic enzyme such as collagenase able to digest collagen fibers has been tested both in vitro and in vivo using an animal model. The research team involved in this project includes specialized professionals in nanotechnology and medicine from Hospital 12 de Octubre in Madrid, Spain, and lead to the patent *Nanocapsules with controlled degradation for sustained release of collagenase in clinical applications (Patent No: EP18382005.9*).

The research group of Prof. Vallet-Regí has produced hundreds of publications on Stimuli- Responsive Mesoporous Silica Nanoparticles (http://www.ucm.es/valletregigroup). In this sense, Prof. Vallet-Regí has obtained **promising results on cell studies** using many different stimuli to trigger the release of the therapeutic cargo, such as ultrasound, magnetic field, light, near infrared, pH or presence of certain enzymes (see CV for publications in this area).

As a consequence of Prof. Vallet-Regí scientific results, both Government Agencies and Companies have shown interest on commercializing her work. In this sense, and based on the Advanced Grant from the European Research Council (ERC-2015-AdG Proposal No.694160, VERDI), the ERC has granted prof. Vallet-Regí the Proof of Concept Grant entitled: Developments of Collagenase Polymeric nanocapsules as Therapeutics (DECOMPACT). The goal of this proof of concept project is the development and commercialization of a novel treatment to scleroderma and the first clinical trials in patients is being designed in collaboration with 12 de Octubre University Hospital. Additionally, the Company Canaan Research & Investment has shown interest on Prof. Vallet-Regí work. Her research team has recently participated in the "Health Investment Forum", thanks to which, there are several companies bidding to work with them.

Prof. Vallet-Regí has also worked in collaboration with GlaxoSmithKline (GSK) Company in the development of three-dimensional polymeric scaffolds prepared by the technique of rapid prototyping. The 3D scaffolds with macroporous structure were designed for hepatocyte cell culture and evaluation of hepatotoxicity. GSK Company is interested in the development of these 3D scaffolds for their direct application in the initial stages of the discovery process of new drugs by using them in the **drug screening** of efficacy and hepatic toxicity.

In addition, she was recipient of two IDEA² Awards in biomedical innovation competition of the M+Vision Consortium participated by the MIT and the Autonomous Community of Madrid entitled NANOIMPLANT: nanostructured coatings for orthopedic implants (2014) and NANODRONE: Nanomedicines targeted to Neuroblastoma (2015). Prof. Vallet-Regí has also thoroughly worked on treatment and prevention of orthopaedic implant-associated infections. She has developed, in collaboration with a CSIC group, a new

technology able to avoid bacterial colonization and biofilm formation onto titanium implants, while promoting bone bonding. This technology is based on tailoring the surfaces of titanium at the nanoscale and has been recognized with the MIT-IDEA2 award above mentioned. The patent (*Biocompatible implants made of nanostructured titanium with antibacterial properties Patent No: PCT/ES2015/070345*) has generated **high interest from multinational companies** (DePuy Synthes) on a **potential translation to the clinical** application.

Teaching activities:

Maria Vallet-Regi is a widely recognised as outstanding educator and often invited to teach courses in and to teach the opening course lectures in many Spanish Universities. Along her teaching career:

- Pioneer in the teaching of the subject "Biomaterials" in graduate programs like Pharmacy and Materials Engineering of UCM and several doctoral programs: i) "Inorganic Materials" (UCM) and ii) "Surgery of the locomotor system" (UAM, 1999-2010).
- She taught master classes as invited professor in 16 doctoral graduate programs and 12 master courses.

Supervision of graduate students and postdoctoral fellows:

Maria Vallet-Regi educates students and doctoral staff members on how to become great chemists and engineers and how to do great research. She has supervised over 30 works of undergraduate students, 10 Master of Advanced Studies of graduate students and 20 Ph.D. works.

Her PhD. Students are currently holding relevant permanent positions at different institutions: i) Universities: 13 professors; ii) research centres (CSIC: 9 researchers; CNRS: 1 permanent researcher (Chargé de Recherché); iii) public and private companies (F. Hoffmann-La Roche Ltd. Basel, Switzerland and Medincell in Montpelier).

International collaborations:

- Waseda University, Japan
- School of Physical Science and Technology (SPST), ShanghaiTech University, China.
- Department of Microbiology, Immunology and Molecular Genetics, UCLA, CA, USA
- Institute for Advanced Study, Kyoto University, Kyoto, Japan
- Shaare Zedek MC and Hebrew University-School of Medicine, Jerusalem, Israel
- Collège de France, Paris
- Ludwig-Maximilians-Universität München, Germany
- Dep. of Chemical Engineering Technion Israel Institute of Technololgy, Haifa
- Stockholm University, Suecia
- Vornia Limited, Dublin. Ireland.
- Cellogic GMBH, Berlin. Germany
- Charité Universitätsmedizin Berlin, Germany
- Delsitech Oy, Turku. Finland
- Friedrich-Alexander-Universitäet Erlanger, Nürnberg. Germany
- Nanolith Sverige AB, Bromma. Sweden
- Nobil Bio Ricerche SRL, Portacomaro. Italy
- National Center for Scientific Research "Demokritos", Agia Paraskevi. Greece
- Politecnico di Torino, Torino. Italy

- The University of Sheffield, Sheffield. United Kingdom
- Iuliu Haţieganu University, Cluj-Napoca. Romania
- University of Tartu, Tartu. Estonia
- IRCCS AOU San Martino IST, Génova. Italia
- University of Strasbourg, Strasbourg. France
- Research Center "E. Piaggio," University of Pisa, Pisa. Italy
- School of Engineering, Newcastle University, Newcastle. UK
- School of Mechanical and Systems Engineering, Newcastle University, Newcastle.UK
- Institute for Technology Inspired Regenerative Medicine, Maastricht University, Netherlands
- Center for Neuroscience and Cell Biology & Department of Life Sciences, Univ. Coimbra, Portugal
- School of Mechanical and Manufacturing Engineering, Dublin City University. Ireland
- University of Crete, Crete. Greece
- Università di Cagliari, Cagliari. Italy
- University of California Los Angeles, Los Angeles, CA. USA
- Chemical and Nuclear Engineering and Molecular Genetics and Microbiology University of New México, USA.
- University of Oxford, Department of Engineering Science, Oxford. United Kingdom
- Institute for Medical Engineering & Science, Cambridge, Massachusetts. United States
- Boston Children's Hospital Harvard Medical School address, Boston. United States
- University of South Florida, College of Medicine, H. Lee Moffitt Cancer Center & Research Institute, Tampa, Florida. United States
- Indiana University School of Medicine, IN. United States
- Breast Center, IMO Clinique de Genolier, Genolier. Switzerland
- University of Modena and Reggio Emilia, Modena
- Inorganic Chemistry and Center for Nanointegration Duisburg-Essen University. Germany
- Queensland University of Technology, Brisbane. Australia
- Nanolith Sverige AB (Switzerland)
- Nobil Bio Ricerche (Italy)
- Vornia Biomaterials (Irland)
- Cellogic GmbH (Germany)
- DelSiTech Ltd. (Finland)
- Bewarrant (Bélgium)
- Cellink AB (Sweden)
- Biomech Innovations AG (Switzerland)
- Fluidinova SA (Portugal)
- Novaicos (Italy)
- Yodiwo Anonymi Etaireia Schediasisolokliromenon Kyklomaton (Greece)