

## Curriculum vitae of professor Rosario Pignatello

Last name: Rosario  
Family name: Pignatello  
Nationality: Italian

Current position: Full Professor of Pharmaceutical Technology and Legislation  
Department of Drug and Health Sciences, University of Catania, Italy

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### **Education and Professional Experience**

11-11-1985: Laurea (Degree) in Pharmacy, University of Catania (*summa cum laude*)  
1992-1998: Assistant Professor in Pharmaceutical Technology and Legislation, Faculty of Pharmacy, University of Catania  
1998-2011: Associate Professor of Pharmaceutical Technology and Legislation, Faculty of Pharmacy, University of Catania  
2011- today Full Professor of Pharmaceutical Technology and Legislation, Department of Drug Sciences, University of Catania  
2013-2018: Director of the School of Specialization in Hospital Pharmacy, University of Catania  
2014-present: Scientific Coordinator of NANO-*i* (Research Centre for Ocular Nanotechnology, University of Catania)  
2013-2015: President of the Research Quality Assessment Committee of the Department of Drug Sciences, University of Catania.  
**2018-present: Director of the Department of Drug and Health Sciences, University of Catania.**

### **Other assignments**

2016-present: Member of CERFO (Center for Research in Ocular Pharmacology), University of Catania  
2014-today: Member of the Interdisciplinary Research Center for Diagnosis and Therapy of Brain Tumors (University of Catania)  
2013-today: Member of the Board of Controlled Release Society- Italy Chapter  
2015-present: Member of the Directive Board of TEFARCO Innova (Inter-University Consortium of Pharmaceutical Technology)

## **Other activities**

- Erasmus Plus Programme: Tutor (partnership with the School of Pharmacy, University of Eastern Finland, Kuopio, Finland).
- European Commission: Independent Expert for the evaluation of proposals within H2020 (previously for FP6 and FP7) - TOPICS: Health; ITC; Nanomaterials and Nanotechnologies - NMP; Environment).

## **Main research topics**

- polymeric micro- and nanoparticles for the controlled drug delivery and drug targeting;
- synthesis and technological investigation on chemically engineered (bio)polymers for drug delivery;
- preparation and characterization of liposomes, lipid-based nanocarriers and micelles;
- nanotechnological strategies for delivery and targeting of antimicrobials and antifungals;
- advanced ocular drug delivery systems;
- nanomedicines for brain delivery, intranasal application, colon delivery;
- synthesis and biological evaluation on amphiphilic prodrugs and conjugates (drug-lipoamino acids derivatives);
- drug-membrane interaction studies using calorimetry on biomembrane models.

## **Scientific output**

About 185 research articles and reviews in peer reviewed journals, editorship of 6 books, 7 book chapters, 20 invited lectures, about 210 among oral and poster communications to national and international congresses and symposia.

*h*-index: 38; citations no.: 4683 (2007-2022) (source: Scopus)

## **Professional Societies Membership**

- Italian Association of Pharmaceutical Technology and Law (ADRITELF)
- Italian Chemical Society (SCI) – Division of Pharmaceutical Technology
- Controlled Release Society - Italy Chapter
- The Association for Research in Vision and Ophthalmology (ARVO) – Italy Chapter.

## **Recent research grants**

2019-2021 – “Tackling biological barriers to antigen delivery by nanotechnological vaccines (NanoTechVax)” (PRIN2017 Programme, granted by the Italian Minister of University);  
Role: Coordinator of O.U granted funds: € 98,000.

2015-17 – “Scientific and technological platform aimed at developing new therapeutic approaches in the treatment of the main retinal degenerative diseases” (REACT – PON 01\_01434)  
Main Coordinator: SIFI SpA, Valverde, Italy; Role: Coordinator of O.U. - granted funds: € 350,000.

2013-14 – “Development of Micro and Nano-technologies and Advanced Systems for human health” PON Hippocrates, project no. PON Ricerca e Competitività 2007/13; project no. 02\_00355\_2964193)  
Coordinator: Distretto Tecnologico Sicilia Micro e Nano Sistemi s.c.a.r.l.

Role: Coordinator of O.U. - Granted funds: € 225,000.

2011-2014 – “Innovative nanotechnological platforms for drug delivery in ophthalmology”  
(PON Ricerca e Competitività 2007/13; project n. 01\_00110)

Main coordinator: SOOFT Italia Spa;

Role: Responsible for the O.U. of pharmaceutical technology;  
project granted funds: € 8.500.000; O.U. grant: € 500,000.

2011-2014 – “New biotechnological drugs actives through the modulation of receptor activity”  
(PON Ricerca e Competitività 2007/13; project n. 01\_02464)

Main Coordinator: Fondazione Salvatore Maugeri - Clinica del Lavoro e della Riabilitazione;

Role: Consultant for BIOOS Italia (O.U. of pharmaceutical technology);

Project granted funds: € 10,600,000; O.U. grant: € 10,000

2011-2012 – Nanotechnological approaches for the controlled release of bioactive molecules in the  
treatment of diabetic retinopathy (MIUR - PRIN2009: Project n. 2009BM7LJC\_03);

Role: Operative Unit Coordinator

Project granted funds: € 392.500; O.U. grant: € 48,000.

### **Editorial activities**

- **Series Editor** for “Pharmaceutical Science” Book series; InTechOpen Ltd. London, UK (from Feb. 2023)
- Associate Editor of *Frontiers in Pharmacology – Section: Experimental Pharmacology and Drug Discovery*; *Frontiers Media S.A.*
- Member of the Editorial Board of the following scientific journals:
  - Applied Sciences* (MDPI)
  - Drug Delivery Letters* (Bentham Science Publishers Ltd.)
  - Current Nanomedicine* (Regional Editor) (Bentham Science Publishers Ltd.)
  - Journal of Pharmacy and Bio-Allied Sciences* (OPubs)
  - Journal of Drug Delivery* (Hindawi)
- Editor of: Drug-biomembrane interaction studies. The application of calorimetric techniques. (ISBN 1-907568-05-0)  
Elsevier - Woodhead Publishing Series in Biomedicine No. 45; Publication date: October, 2013
- Editor of: BIOMATERIALS (3 volumes) - InTech Publisher, Rijeka, Croatia
  - vol 1: Biomaterials - Physics and Chemistry (ISBN: 978-953-307-418-4)  
Publication date: December 2011; 2nd Edition: April 2018
  - vol. 2: Biomaterials Science and Engineering (ISBN 978-953-307-609-6)  
Publication date: September 2011
  - vol. 3: Biomaterial applications for Nanomedicine (ISBN: 978-953-307-661-4)  
Publication date: December 2011
- Editor of: *Advances in Biomaterials Science and Biomedical Applications*.  
InTech Publisher, Rijeka, Croatia (ISBN 978-953-51-1051-4)  
Publication date: March 2013

### **Activity as Reviewer for International Scientific Journals**

American Chemical Society (Biomacromolecules, Molecular Pharmaceutics); Bentham Science Publ Ltd (Current Drug Delivery, Drug Delivery Letters, Recent Patents on Nanomedicine); Elsevier (Biomaterials, Journal of Controlled release, European journal of pharmaceutical Sciences, European Journal of Pharmaceutics and Biopharmaceutics, Colloids and surface B: biointerfaces, International Journal of Pharmaceutics, Journal of Drug Delivery Sciences and Technology); Future Medicine (Nanomedicine); Informa Healthcare (Expert Opinion on Drug Delivery, Journal of Drug Targeting, Drug Development and Industrial Pharmacy, Journal of Liposome Research); Springer (Pharmaceutical Research, AAPS PharmSciTech); Taylor & Francis (Drug Delivery); Wiley (Journal of Pharmacy and Pharmacology); Hindawi (Journal of Drug Delivery).

### **Recent Activity as Reviewer for National and International Scientific Projects**

2017 - Life2020 Funding program (Lazio Innova, Italy)

2017 - Smart Growth Operational Programme, The Director of the National Centre for Research and Development of Poland (competitive funding scheme)

2016 - NMBP-10-2016 'Nanoformulation of Biologicals' (2016-17 NMBP EU H2020 Work Programme)

2015 – INDIRE (Rome, Italy) – Independent Expert for evaluation of project under Erasmus+ KA107 programs - Higher education student and staff mobility; call of proposals 2015

2015 – Independent expert for evaluation of research projects funded by 'Fondazione di Sardegna'.

*Updated on October 12, 2020*