



GAETANO GIAMMONA

Place of work

Lab of Biocompatible Polymers

Dpt. DIPARTIMENTO DI SCIENZE E TECNOLOGIE

BIOLOGICHE CHIMICHE E FARMACEUTICHE "STEBICEF"

IBF(Istituto di Biofisica)-CNR, Palermo (Italy);

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Professional positions

Full Professor of Pharmaceutical Technologies -University of Palermo - Italy

Curriculum vitae of Professor Gaetano Giammona

Born in 1951 in Palermo, Italy.

Degree in Chemistry in 1976 (Final mark: 110/110 with honors).

- From 1.4.1978 to 31.7.1980 he holds a scholarship of the C.N.R. c/o the Institute of Applied Pharmaceutical Chemistry of the Faculty of Pharmacy-University of Palermo (Italy).

- Academic researcher in 1980 at the Faculty of Pharmacy of Palermo (Italy).

-Associate Professor in 1987 at the University of Catania (Italy).

- Since 2000, Full Professor of "Pharmaceutical Technology" at the Faculty of Pharmacy, University of Palermo.
 - Co-founder in 1995 and Component, for about 10 years, of the Polymer Therapeutics group at the School of Pharmacy in London (UK).
 - Co-founder of Controlled Release Society (CRS) Italy Chapter and Component for six years of the Executive Board.
 - Director of the Department of Pharmaceutical Chemistry and Technologies (January 2000-October 2006);
 - Coordinator of the Teacher Committee of the PhD course in "Technologies of Biologically Active Substances" (University of Palermo, University of Catania and University of Bari - until 28.02.2013);
 - Vice-academic Dean - Faculty of Pharmacy - University of Palermo, Italy until 31.12.2013
 - Member (for three years) of the scientific committee of the "Science and Technology Park of Sicily (PSTS)";
 - Component of the Teacher Committee of the PhD course in "SCIENZE MOLECOLARI E BIOMOLECOLARI - ciclo XXXII";
 - Component of the Teacher Committee of the PhD course in "Tecnologie e Scienze per la Salute dell'Uomo - ciclo XXXIII"
 - Reference member, until March 2018, of Mediterranean Center for Human Health Advanced Biotechnologies (CHAB) of the University of Palermo-Italy;
 - Member of the Industrial Liaison Office of the University of Palermo until 15.12.2018;
 - Reference member of the University of Palermo of "Distretto ad Alta Tecnologia Biomedico Sicilia" -Italy;
 - Scientific manager of the Laboratory of Biocompatible Polymers
- Associated at the institute of IBF (biophysical institute)- CNR (National Research Council), Palermo, ITALY.**

Field of expertise

- Synthesis and characterization of novel biocompatible polymers for use in biomedical field; these studies afforded the preparation of a new plasma substitute with a protein-like structure;
- Preparation of micro- and nanostructures for targeting and modified release of bioactive molecules (macromolecular prodrugs; polymeric micelles; polymeric micro- and nanoparticles; lipid nanoparticles -SLN, NLC and LDC -);
- Gene therapy;
- Hydrogels, also stimuli-sensitive (microparticles, films, sponges, etc.) for modified release of bioactive molecules;
- Preparation of scaffolds for tissue engineering.

Prof. Gaetano Giammona presented his studies in many national and international meetings, and pharmaceutical companies.

Scientific production

At January 2019: Author of over than 295 scientific publications; n. 21 national and international patents and several presentations (over than 300) at national and international congresses.

Society affiliations

Member of "Associazione Docenti e Ricercatori Italiani di Tecnologie e Legislazione Farmaceutiche" (A.D.R.I.T.E.L.F.);

Component of "National Interuniversity Consortium of Materials Science and Technology (INSTM)";

Prizes and Recognitions

-36^e SALON INTERNATIONAL DES INVENTIONS DES TECHNIQUES ET PRODUITS NOUVEAUX GENEVA PALEXPO, Geneve, 2-6 Avril 2008.

prix de la delegation italienne du salon pour le invention:
Vecteurs colloïdaux pour la liberation orale des proteines et de p ptides

Inventors : M. Licciardi, G. Giammona, G. Cavallaro, G. Pitarresi

-36^e SALON INTERNATIONAL DES INVENTIONS DES
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Geneve, 2-6 Avril 2008

MEDAILLE D'OR AVEC LES FELICITATIONS DU JURY
INTERNATIONAL DU SALON POUR LE INVENTION: Vecteurs
colloïdaux pour la liberation orale des proteines et de p ptides

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BIOCOMPATIBLE POLYMERS
MACRO-MICRO STRUCTURE
HYDROGELS
MICROPARTICLES
TISSUE ENGINEERING

Fibrin
Chitosan
Hyaluronic Acid
Inulin
Dextran
Gelatin Gum
PEG
PCL
Acido polilattico (PLA)
PLGA

NANO... CARRIERS
UNIVERSIT  DI PALERMO
BIOCOMPATIBLE POLYMERS
NANOSTRUCTURED CARRIERS
10-500 nm
Nanomedicine

MACRO... TISSUE ENGINEERING
UNIVERSIT  DI PALERMO
BIOCOMPATIBLE POLYMERS



List of publications 2018

1. Imatinib-Loaded Micelles of Hyaluronic Acid Derivatives for Potential Treatment of Neovascular Ocular Diseases.
Bongiovì, F., Fiorica, C., Palumbo, F.S., (...), Giammona, G., Pitarresi, G.- *Molecular Pharmaceutics* 15(11), pp. 5031-5045 (2018)

2. Multifibrillar bundles of a self-assembling hyaluronic acid derivative obtained through a microfluidic technique for aortic smooth muscle cell orientation and differentiation.
Palumbo, F.S., Fiorica, C., Pitarresi, G., (...), Bologna, E., Giammona, G.- *Biomaterials Science* 6(9), pp. 2518-2526 (2018)

3. Disentangling size effects and spectral inhomogeneity in carbon nanodots by ultrafast dynamical hole-burning.

Sciortino, A., Gazzetto, M., Buscarino, G., Popescu, R., Schneider, R., Giammona, G., Gerthsen, D., Rohwer, E.J., Mauro, N., Feurer, T., Cannizzo, A.
Nanoscale 10(32), pp. 15317-15323 (2018)

4. Hybrid Gold/Silica/Quantum-Dots supramolecular-nanostructures encapsulated in polymeric micelles as potential theranostic tool for targeted cancer therapy

Li Volsi, A., Fiorica, C., D'Amico, M., (...), Giammona, G., Licciardi, M.- European Polymer Journal 105, pp. 38-47 (2018)

5. Hyaluronic acid and α -elastin based hydrogel for three dimensional culture of vascular endothelial cells.

Fiorica, C., Palumbo, F.S., Pitarresi, G., (...), Puleio, R., Giammona, G. Journal of Drug Delivery Science and Technology 46, pp. 28-33 (2018)

6. Synthesis and evaluation of thermo-rheological behaviour and ionotropic crosslinking of new gellan gum-alkyl derivatives.

Agnello, S., Palumbo, F.S., Pitarresi, G., Fiorica, C., Giammona, G. Carbohydrate Polymers 185, pp. 73-84 (2018)

7. β -C₃N₄ Nanocrystals: Carbon Dots with Extraordinary Morphological, Structural, and Optical Homogeneity

Sciortino, A., Mauro, N., Buscarino, G., Sciortino, L., Popescu, R., Schneider, R., Giammona, G., Gerthsen, D., Cannas, M., Messina, F.- Chemistry of Materials 30(5), pp. 1695-1700 (2018)

8. Mucus and Cell-Penetrating Nanoparticles Embedded in Nano-into-Micro Formulations for Pulmonary Delivery of Ivacaftor in Patients with Cystic Fibrosis.

Porsio, B., Craparo, E.F., Mauro, N., Giammona, G., Cavallaro, G. ACS Applied Materials and Interfaces 10(1), pp. 165-181 (2018)

9. Branched High Molecular Weight Glycopolypeptide with Broad-Spectrum Antimicrobial Activity for the Treatment of Biofilm Related Infections.

Mauro, N., Schillaci, D., Varvarà, P., (...), Maida, C.M., Giammona, G. *ACS Applied Materials and Interfaces* 10(1), pp. 318-331 (2018)

10. Graphene nanosystems as supports in siRNA Delivery

Campora, S., Mauro, N., Griffiths, P., Giammona, G., Ghersi, G. *Chemical Engineering Transactions* 64, pp. 415-420 (2018)