CURRICULUM VITAE

Assunta Giordano, PhD

PERSONAL INFORMATIONS

Istituto di Chimica Biomolecolare-CNR, Via Campi Flegrei, 34 80078 Pozzuoli (NA)- Italy
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Scopus Author ID: 35617957500
Sex Female **Date of birth** 14/08/1971 **Nationality** Italian
Languages: Italian (Mother tongue); English (C1 understanding, speaking, writing).

CURRENT POSITION

From 27 December 2001 to date: researcher at the Institute of Biomolecular Chemistry (ICB) of the Italian National Research Council (CNR), Pozzuoli (NA), Italy

WORK EXPERIENCE

05/2013 to date: associate researcher at the department of Pharmacy of the University of Salerno within the Framework Agreement between CNR and University of Salerno.
Research activities and responsibilities: Development of synthetic compounds with anti-inflammatory and antitumor activities. Supervision of undergraduate and PhD students and research fellows.

10/2006-03/2007 Visiting Researcher at the Division of Molecular Biosciences- Faculty of Natural Sciences- Imperial College London (UK) in the laboratory of prof. Ann Dell.
Research activities: structural characterization of glycans and glycoproteins by mass spectroscopy.

09/2005-12/2005 Visiting researcher at the Istituto di Chimica del Riconoscimento Molecolare (ICRM-CNR) in Milano, Italy.
Research activities: application of enzymes to organic synthesis.

1999-2002: Research fellowship position on: "Natural product synthesis" at the Department of Organic Chemistry-University of Salerno.
Research activities: synthesis of marine natural products having a biological activity.

EDUCATION

01.02.1999 PhD in Chemistry at the University of Salerno with the thesis "Structural and synthetic studies on janulosimide, a marine peptidic toxin".
1995 Qualification to practice as a freelance chemist**.**
23.05.1995 Degree in Chemistry at the University of Salerno. Vote 110/110 *cum laude*.

RESEARCH EXPERIENCE AND PRINCIPAL INTERESTS

The research activity of Dr. Assunta Giordano started at the Department of Organic Chemistry, University of Salerno, where she completed her PhD and spent two years as a postdoctoral fellow. In

this period her work was focused on the synthesis of marine natural products having a biological activity. The work was specially centered on the study of new methodologies for the enantioselective synthesis of organic compounds.
After moving to the Institute of Biomolecular Chemistry (National Research Council), her interests shifted on: i) the application of enzymes in the organic synthesis; ii) the isolation and chemotaxonomic analysis of extremophilic bacteria; iii) the structural elucidation of polysaccharides and glycoproteins from Bacteria and Archaea.
i) The research work was focused on the catalytic activities of glycosyl hydrolases and glycosynthases (engineered enzymes) from thermophilic microorganisms and from marine organisms. Moreover, in collaboration with a research group of the Institute of Protein Biochemistry (IBP-CNR), Dr. Giordano worked on the synthesis of chiral alcohols by using dehydrogenases/reductases (ADHs) from thermophilic microorganisms.
ii) In collaboration with a microbiologist group of her institute, Dr. Giordano was also involved in the study of new species of halophilic and alkaliphilic microorganisms and their chemotaxonomic and phylogenetic characterization.
iii) Dr. Giordano was visiting researcher at the Division of Molecular Biosciences of the Imperial College (London), in the laboratory of prof. Ann Dell. In these months she worked on the structural characterization of glycans and glycoproteins by mass spectroscopy.
From 2013 to date she is associate researcher at the department of Pharmacy of the University of Salerno. In the last years, her research topics include the development of synthetic compounds with anti-inflammatory and antitumor activities. Dr. Assunta Giordano participates in two research projects funded by the AIRC foundation ("Inhibition of mPGES-1 and modulation of PGE2 biological activity for the treatment of colon cancer"; “Identification of novel anti-leukemia agents targeting the bromodomain of BRD9.”). These research activities concern the design, synthesis and study of the biological activity of inhibitors of the mPGES-1 and BRD9 proteins.
Microsomal prostaglandin E2 synthase-1 (mPGES-1) is a membrane protein responsible for the conversion of prostaglandin H2 to prostaglandin E2 (PGE2) in the inflammatory cascade. PGE2 is a mediator of inflammatory and tumor processes. In fact, it participates in tumor growth, promotes angiogenesis and inhibits apoptosis and the immune response, but also plays an important role in normal physiological activities. The mPGES-1 protein is an inducible isoform, expressed in pathological conditions, ie when an inflammatory and/or tumor state occurs, thus favoring its progression. Therefore, this enzyme is an excellent pharmacological target for treating these pathologies.
The bromodomain-containing protein 9 (BRD9), is a subunit of the chromatin remodeling complex SWI/SNF. Recent studies have shown that this protein is an important factor in a number of diseases, such as small cell lung cancer, cervical cancer, and hepatocellular carcinoma. The SWI / SNF complex also plays a key role in acute myeloid leukemia. The involvement of BRD9 in this pathology makes it a promising target and stimulates the identification of BRD9 inhibitors for use as antileukemic drugs.

QUALIFICATIONS AND AWARDS

29/01/2014 Qualification as Associate Professor in Chemistry and Pharmaceutical, Toxicological and Nutraceutical Technologies (Abilitazione a professore II fascia nel settore concorsuale 03/D2 Chimica e Tecnologie Farmaceutiche, Tossicologiche e Nutraceutiche).
2005 awarded by the National Research Council with “Premio Incentivazione del personale ricercatore sui risultati della ricerca dell'anno 2005” for young researchers of CNR.

PUBLICATIONS OVERVIEW

H-index (Scopus database) 22 (total citations 1222), the most cited article has 105 citations