Brief CV Ernesto Quesada del Sol

Ernesto Quesada obtained his Bachelor Degree (Licenciatura) in Sciences (specialised in Organic Chemistry) in 1995 at Universidad Autónoma de Madrid (UAM). In 1997 he got the MSc at the Dpt. of Organic Chemistry-UAM, supervised by Prof. Tomás Torres. Afterwards, he joined the Spanish National Research Council (CSIC), where he carried out the PhD at Instituto de Química Orgánica General (IQOG) and Instituto de Química Física *Rocasolano* (IQFR) jointly supervised by Prof. Francisco Amat-Guerri and Ulises Acuña (granted by MEC fellowship, 1996-1999). As complementary formation, he carried out three short stays as PhD visiting student at CNRS-Université Louis Pasteur (Strasbourg, France) guided by Profs. Guy Ourisson and Yoichi Nakatani. He holds the PhD since 2000 (UAM, cum laude). His PhD was framed at the interface between organic and physical chemistry, focused on the synthesis of fluorescent probes directed to study biological membranes.

After a year hired at IQFR (2000; fluorescent labelling of leishmanicides and anticancer agents), he moved as postdoctoral researcher at Dpt. Natural Products IQOG (2001-2002; total synthesis of natural products and chemistry of carbohydrates) guided by Prof. S. Valverde. He joined the University of York (UK) as associated researcher (2003-2005) supervised by Prof. R. J. K. Taylor, where his work was focused on total synthesis of naturally-occurring compounds and methodological approaches (tandem and microwave-mediated processes). In 2005 he was granted an I3P contract (JAE-DOC) at Instituto de Química Médica CSIC (IQM), where he was appointed as Tenured Scientist (Científico Titular) in 2007.

Throughout his career, he has carried out a research covering different scientific fields: molecular materials (MSc), spectroscopy/fluorescent labelling (PhD), total synthesis of natural products and synthetic methodology (Postdoctoral). His background ranges several disciplines and merges complementary knowledges. Additionally, his activity has been performed always integrated in networks of multidisciplinary research with leading laboratories contributing with complementary competencies. In any case, his involvement in the projects has been focused on organic chemistry as the core discipline of his duties and expertise.

Since he joined the IQM, **Ernesto Quesada** has been member of the research group "*Nucleosides and Analogues as a source of bioactive molecules"* (**IQM-GN**), where he has carried out research directed to the discovery of chemotherapeutics against relevant diseases through innovative strategies. His responsibilities lie on the design, synthesis, isolation and characterization of novel molecular entities to be further studied by the network of collaborators committed with the investigation. Among them, it must be highlighted Profs. F. Gago and Antonio Jiménez (UAH) and Profs. D. Schols and J. Neyts (Rega Institute-Catholic University of Leuven (Belgium)), involved in the biological evaluation of the synthesized compounds.

Ernesto Quesada has been involved in several research projects and networks (including 12 national competitive funded projects and 2 research contracts), mainly related to two major research subjects: a) the search for agents directed to inhibit the entry of prevalent (HIV) or emerging (enteroviruses, flaviviruses and SARS-CoV-2) viral pathogens (in close collaboration with Dr. Ana San Félix and Prof. María José Camarasa at IQM-GN); b) the role of amphiphilic benzyl ammomium salts acting as antagonists of TLR4 receptor (inflammation/pain) and novel leishmanicidal agents.

He has co-authored >30 research articles in international peer- reviewed journals (h-index: 13) and 2 book chapters. The **ResearcherID** (B-7823-2008), SCOPUS (7007144049) and **ORCID** (0000-0001-6886-0523) codes provide open access and detailed information regarding his scientific production and indicators of the quality of the contributions. He has also co-authored >50 communications to national and international meetings. He is also member of two Associated Research Units (unidades asociadas) between IQM-CSIC and the Universidad Rey Juan Carlos (URJC, Madrid) and the Universidad de Alcalá (UAH, Madrid).

He has supervised >20 people at different levels (short-term student internships or guided practices of laboratory technicians) supervised several *Trabajos Fin de Grado* (TFG) and *Trabajos Fin de Máster* (TFM; MSc project) and currently supervising a PhD (ongoing). It must be highlighted the supervision of 2 hired postdoctoral researchers and 4 hired laboratory technicians (granted by 2-year contracts each one). He is regular reviewer of international scientific journals journals (Bentham; Wiley-Blackwell; Elsevier; RSC; MDPI) and has been member of organising committees of scientific meetings. He has also performed complementary activities such as teaching in Master programs (UAM and UCM), postgraduate and specialization courses (CSIC) as well as outreach activities (conferences, workshops, etc.).

Open digital researcher identifiers

ORCID: 0000-0001-6886-0523

Researcher ID: B-7823-2008

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Selected representative contributions (up to 10)

Articles

E Quesada, J Delgado, C Gajate, F Mollinedo, AU Acuña, F Amat-Guerri. Fluorescent Phenylpolyene Analogues of the Ether Phospholipid Edelfosine for the Selective Labeling of Cancer Cells. *J. Med. Chem.*, **2004**, 47, 5333.

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Review article

A Flores, E Quesada. Entry inhibitors directed towards glycoprotein gp120: an overview on a promising target for HIV-1 therapy. *Curr. Med. Chem.*, **2013**, *20* (*6*), 751-771 (editor's choice article of this issue).

Book chapter

R Abín, V López-Miranda, A San-Félix, E Quesada. *Pradimicin and Benanomicin Antibiotics: From Antifungal Polyketide Natural Products to Antiviral Agents with a Unique Carbohydrate-Binding Mode of Action.* In: *Frontiers in Natural Product Chemistry*, Volume 7, **2021**, *Chapter 2,* pages 31-109.

Patent

A San-Félix, MJ Pérez-Pérez, E Quesada, M Gargantilla, B Martínez, R Geller, C Francés. C2-thioether tryptophan trimers and tetramers and use thereof. **European patent EP21382679**. CSIC/Universidad Valencia. Application: 23/07/2021.