

ABBREVED CURRICULUM VITAE (CVA) – maximum 4 PAGES

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Part A. PERSONAL INFORMATION

CV date

16/06/2021

First and Family name	MARÍA JOSÉ CAMARASA RIUS		
Researcher codes	Open Researcher and Contributor ID (ORCID*)	0000-0002-4978-6468	
	SCOPUS Author ID (**)		
	WoS Researcher ID (**)		

(*) *Mandatory*

(**) *Optional*

A.1. Current position

Name of University/Institution	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS		
Department	INSTITUTO DE QUIMICA MEDICA		
Address and Country	Juan de la Cierva 3, 28006, Madrid (SPAIN)		
Phone number		E-mail	
Current position	Research Professor (Full professor)	From	2002
Key words	Medicinal Chemistry, Antivirals, Antitumor agents, leishmania, peptides, nucleosides, enzymatic inhibitors, antiparasitic agents		

A.2. Education

PhD, Licensed, Graduate	University	Year
Degree in Chemistry	Complutense University	1978
PhD in Chemistry	Complutense University	1982

A.3. General indicators of quality of scientific production

Number of Sexenios: **6 sexenios** periods (1983-1988, 1989-1994, 1995-2000, 2001-2006, 2007-2012) last one 2013-2018) exchange of the first (1983-1988).

a) Total number citations: **5612** (WOS, june 2021); **6878** (Google Scholar)

b) Publications: > **230**; > **140** (Q1); (> **70** in D1); (2012-2021): **55/42**

c) PhD Thesis supervised: **15** PhD thesis (total); (2012-2021): 8 PhD Thesis

d) h-index: **39** (SCOPUS), **42** (Google Scholar), (i10 index = **142**)

e) Patents: **18** (**4** licensed)

f) > **45** Invited lectures

Part B. CV SUMMARY (*max. 3500 characters, including spaces*)

Prof. Camarasa is PhD in Chemistry from the Complutense University of Madrid. After two years of postdoctoral stay at the Department of Medicinal Chemistry in the University of Birmingham (UK), she returned to the Institute of Medicinal Chemistry (CSIC), as postdoctoral (1985-1987). In 1987 she got a permanent position as *Tenured Scientist* and founded her own independent research group that is now a consolidated and highly prestigious team, composed by permanent staff with complementary profiles of expertise and know-how, and a variable number of postdoctoral and PhD students. In 1993 she was promoted to *Research Scientist* and since 2002 she is **Research Professor (Full Professor)**.

High experience in the *Management of Science and Scientific Societies*: **Head of the Chemotherapy Department** (1991-1994) and **Vice-Director** (1992-2001) of the IQM-CSIC; **Deputy co-Coordinator** of the Science and Chemical Technologies Area of the CSIC (2004-2011); from 2005 to 2010, **Deputy Member** of the Chemistry area of the ANEP (National Evaluation and Foresight Agency) of Spain; **Head of the Group** "Nucleosides and Analogues"; **President of the SEQT** (Spanish Society of Therapeutic Chemistry), 2004-2007; Currently is **Deputy Member** of the Coordinating Committee of the PTI Salud Global of CSIC and **Deputy Member** of the Comité de Ética of CSIC.



She developed a highly innovative cutting-edge research in the Medicinal Chemistry field, working in different therapeutic areas as, (re)emerging viral diseases (i.e. AIDS), parasitic diseases or bacterial and chemotherapy of cancer, each of them of important sanitary, social or economic impact. She performed, and still performs, her research career in a wide **network of international collaborations** in Spain, Europe, and the USA with top-laboratories with complementary expertise, skills and know-how, to more efficiently combat virus infections and cancer. Likewise, she has developed a novel and unique prodrug approach based on the DPPIV/CD26 enzyme. Her current active areas of research involve novel antiviral strategies to develop wide spectrum compounds able to interfere with (re)emerging viruses (i.e. influenza, coronavirus, EV71, yellow fever etc) and antiparasitic compounds mainly active against *Leishmania* with a unique and novel mechanism of action.

She is a recipient of a variety of national (private and governmental) and international **grants** as principal investigator (PI): 26 National Projects financed by the Plan National, the CAM, FECYT and CSIC. and 12 European Projects (financed by the EU and NATO) as PI (responsible of the Spanish team) and recently an iNEXT H2020 project (July 2018). She has participated in several international bilateral agreements and in contracts with national and international pharmaceutical companies.

She is author of **more than 230 articles** mostly in international high impact peer-reviewed journals. Contributed to **6 book chapters** and is the **Editor of one Book**. Co-inventor of **18 patents** approved and/or pending, 4 of them licensed. She has supervised **15 PhD thesis**. She has trained personnel (national and foreign) at different stages (postdoctoral, graduate and Erasmus students).

She received various national and international **awards and recognitions**, including the prestigious and highly competitive **René Descartes Prize 2001** of the European Commission, in recognition of her work in the field of AIDS. In 2009 was Nominated to L'OREAL-UNESCO Award 2009 For Women in Science. In 2018 she has been recognized as one of the 426 most important women scientists working in Spain.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (2012-2021)

- 1.- Revuelto, H. De Lucio, J.C. García-Soriano, P. Sánchez-Murcia, F. Gago, A. Jiménez-Ruiz, M.J. Camarasa, S. Velázquez. Highly Efficient Dimerization Disruption of *Leishmania infantum* Trypanothione Reductase by Triazole-phenylthiazoles. *J. Med. Chem.* **64**, 6137-6160 (2021).
- 2.- M. Ruiz-Santaquiteria, B. M. Illescas, R. Abdelnabi, A. Boonen, A. Mills, O. Martí-Marí, S. Noppen, J. Neyts, D. Schols, F. Gago, A. San-Félix, M.-J. Camarasa, N. Martín. Multivalent Tryptophan- and Tyrosine-Containing [60]Fullerene Hexa-Adducts as Dual HIV and Ev71 Entry Inhibitors. *Chem. A Eur. Journal* (DOI: <https://doi.org/10.1002/chem.202101098>) (2021).
- 3.- F.J. Luque, M.J. Camarasa. HIV-1 Envelope Spike MPER: From a Vaccine Target to a New Druggable Pocket for Novel and Effective Fusion Inhibitors. *ChemMedChem.* **16**, 105-107 (2021).
- 4 5.- S. de Castro, T. Ginex, E. Vanderlinden, M. Laporte, A. Stevaert, J. Cumella, F. Gago, M.J. Camarasa, F.J. Luque, L.Naesens, S. Velázquez. *N*-benzyl 4,4-disubstituted piperidines as a potent class of influenza H1N1 virus inhibitors showing a novel mechanism of hemagglutinin fusion peptide interaction. *Eur. J. Med. Chem.* **194**, 112223 (2020).
- 5.- P.A. Sánchez-Murcia, S. de Castro, C. García-Aparicio, M.A. Jiménez, A. Corona, E. Tramontano, N. Sluis-Cremer, L. Menéndez-Arias, S. Velázquez, F. Gago, M.J. Camarasa. Peptides Derived from the β 7/ β 8 loop of HIV-1 Reverse Transcriptase p51 Subunit as “Hotspot-Targeted” Dimerization Inhibitors. *ACS Med. Chem. Lett.* **11**, 811-817 (2020).
- 6.- B. Martínez-Gualda, L. Sun, O. Martí-Marí, S. Noppen, R. Abdelnabi, C.M. Bator, E. Quesada, L. Delang, C. Mirabelli, H. Lee, D. Schols, J. Neyts, S. Hafenstein, M.J. Camarasa, F. Gago, Ana San-Félix. S scaffold simplification strategy leads to a novel generation of dual HIV and enterovirus-A71 entry inhibitors. *J. Med. Chem.* **63**, 349-368 (2020)
- 7.- A. Revuelto, M. Ruiz-Santaquiteria, H. de Lucio, A. Gamo, A.A. Carriles, K.J. Gutiérrez, P.A. Sánchez-Murcia, J.A. Hermoso, F. Gago, M.J. Camarasa, A. Jiménez-Ruiz, S. Velázquez. Pyrrolopyrimidine vs imidazole-phenyl-thiazole scaffolds in nonpeptidic dimerization inhibitors of *Leishmania infantum* Trypanothione reductase. *ACS Infect. Dis.* **5**, 873-891 (2019).
- 8.- S. de Castro, M.J. Camarasa. Polypharmacology in HIV inhibition: can a drug with simultaneous action over two relevant targets be an alternative to combination therapy?. *Eur. J. Med. Chem.* **150**, 206-227 (2018).
- 9.- S. de Castro, G. Fernández-Cureses, G. Andrei, P.A. Sánchez-Murcia, B. Korba, F. Gago, J. Balzarini, M.J. Camarasa. Conservation of antiviral activity and improved selectivity in PMEO-DAPym upon pyrimidine to triazine scaffold hopping. *Antiviral Res.* **122**, 64-68 (2015)



10.- J. Fernández-Lucas, M.J. Camarasa (Editors). Enzymatic and Chemical synthesis of nucleic acid derivatives. Willey-VCH Verlag GmbH & Co. KGaA, Boschstr. 12, 69469, Weinheim, Germany. **Print ISBN:** 978-3-527-34376-8; **ePDF ISBN:** 978-3-527-81207-3; **ePub ISBN:** 978-3-527-81209-7; **oBook ISBN:** 978-3-52781210-3 (2019).

C.2. Research projects (2012-2021)

- 1.- **Characterization and blocking through peptides and small molecules of target proteins involved in the proliferation of pathogen microorganisms and cancer cells** (Coordinated Project). MINECO/Plan Nacional (Programa Biomedicina) **Ref. SAF2015-64629-C2-1-R**. January 2016–December 2018. **Prof. María José Camarasa** (Coordinator). Instituto de Química Médica (IQM-CSIC). 302.500 €. Role of Prof. M.J. Camarasa: Coordinator and Principal Investigator of Sub project 1 (SP1).
- 2.- **Integration of strategies for the design and discovery of ligands with affinity for challenging targets of therapeutic interest in highly prevalent (AIDS OR CANCER) or neglected (LEISHMANIASIS) diseases.** (Coordinated Project). MINECO/Plan Nacional (Programa Biomedicina) **Ref. SAF2012-39760-C02**. January 2013-December 2016. **Prof. María José Camarasa** (Coordinator). Instituto de Química Médica (IQM-CSIC). 327.600 €. Role of Prof. M.J. Camarasa: Coordinator and PI of SP1.
- 3.- **BIPEDD-2. Bioinformatics Integrative Platform for structureE-based Drug Discovery 2.** Comunidad de Madrid-CAM- CAM- Programa de actividades de I+D entre grupos de Investigación (Edición Biociencias) **Ref. P2010/BMD-2457**. January 2012-April 2016. Prof. Federico Gago (Coordinator). Universidad de Alcalá. 952.469,25 € (the whole project) 115.430 € (our group at IQM). Role of Prof. M.J. Camarasa: Coordinator of Medicinal Chemistry and PI of the group at IQM.
- 4.- **Innovative agents against Leishmania. Dimerization inhibitors of Tripanothyon Reductase (TryR).** CSIC (Programa Proyectos iIntramurales Especiales) **Ref. 201280E093**. July 2012-December 2015. Dr. Sonsoles Velázquez (PI). Instituto de Química Médica (IQM-CSIC). 120.060 €. Role of Prof. M.J. Camarasa: PI of the group and co-responsible of non-peptide inhibitors.
- 5.- **Chemotherapeutic agents against widespread pathogens (HIV AND LEISHMANIA): Exploring novel targets and/or new mechanisms of inhibition.** (Coordinated Project). MICINN/Plan Nacional (Programa Biomedicina) **Ref. SAF2009-13914-C02**. January 2010-December 2013. **Prof. María José Camarasa** (Coordinator). Instituto de Química Médica (IQM-CSIC). 442.860 €. Role of Prof. M.J. Camarasa: Coordinator and PI of SP1.
- 6.- **Multitarget paradigm for innovative ligand identification in the drug discovery process (MuTaLig).** European Union COST H2020 Actions, **Ref. COST CA15235 MuTaLig**. April 2016 – April 2020. Prof. Stefano Alcaro (Coordinator). University of Catanzaro (Italy). Grant for travelling and organizing of the meetings. Role of Prof. M.J. Camarasa: PI of the IQM group (substitution MC).

C.3. Contracts

- 1.- **Desarrollo de compuestos para la regulación de la actividad del coactivador transcripcional p300 en patologías tumorales, inflamatorias, infecciosas o autoinmunes. Papel del sitio de fosforilación de la serina 384 (Ser384) por PKC- θ como diana utilizada por el inhibidor viral A238L** (Coordinated Project). FECYT(former Genoma España). July 2011-December 2015. Dr. Yolanda Revilla (Coordinator). Centro de Biología Molecular Severo Ochoa (CBMSO-CSIC). 250.000 € (70.000€ to our group at IQM). Role of Prof. M.J. Camarasa: PI of IQM group.
- 2.- **CBA Project: Design, synthesis and structural characterization of organic molecules.** KULeuven Research and Development, **Ref: 02040490001**. January 2009-December 2016. M.J. Pérez-Perez (PI). 656.102,66 € . Role of Prof. M.J. Camarasa: PI of IQM group, researcher responsible of CBAs design.

C.3. Contracts, technological or transfer merits (2012-2021)

- 1.- MTA (Material transfer Agreement) between GlaxoSmithKline, CSIC and Universidad de Alcalá. June 2020 (for 3 years). Sonsoles Velázquez and María José Camarasa. Role of Prof. M.J. Camarasa: co-IP and PI of IQM group.
- 2.- research and collaboration Agreement between CSIC, Katholieke Universiteit Leuven, The Scripps Research Institute, University of Barcelona, University of Istanbul. February of 2020. Sonsoles Velázquez and María José Camarasa. Role of Prof. M.J. Camarasa: co-IP and PI of IQM group.

C.4. Patents



- 1.- M.J. Camarasa, S. Velázquez, A. Revuelto, A. Jiménez-Ruiz, F. Gago, H. De Lucio, P. A. Sánchez-Murcia, M. A. Toro. N^o:EP17382868 (European Patent). PCT/EP2018/086174 (20/12/18) **Triazole-phenyl-thiazole heterocycles as innovative inhibitors of trypanothione reductase and their use as leishmanicides.** *Country of priority:* Europe. *Priority date:* 20-12-2017. CSIC and Universidad de Alcalá.
- 2.- J. Balzarini, M.J. Camarasa, S. Velázquez. N^o: 14/547,988. **Compositions for the treatment or prophylaxis of viral infections.** *Country of priority:* USA. *Priority date:* 09-11-2014. CSIC and KULeuven (Belgium).
- 3.- J. Balzarini, M.J. Camarasa, S. Velázquez. N^o: 0717526.8. (International Patent, WO2009030410-A1). **New nucleoside compounds useful in the manufacture of a medicament for the prophylaxis or treatment of viral infections caused by varicella zoster virus, e. g. chicken pox or shingles.** *Priority countries:* United Kingdom (GB2452556-A) extended to Taiwán (TW200927147-A), Pakistán (33689-502001PK). *Priority date:* 12-03-2012. *Owner entities:* CSIC and KULeuven (Belgium). *Licensed to :* Fermavir (USA).
- 4.- J. Balzarini, M.J. Camarasa, S. Velázquez. N^o: 0717526.8 (European Patent). **Improvements in or relating to compositions for the treatment or prophylaxis of viral infections.** *Priority countries:* Europe extended to Pakistán (number: 33689-502001PK), Taiwan (number: 33689-502001TW). *Priority date:* 07-09-2007. *Owner entities:* and KULeuven (Belgium). *Licensed to:* Inhibitex (USA).

C.5. Management of Scientific Activity (Institutional responsibilities and Societies)

- Deputy co-Coordinator of the Science and Chemical Technologies Area of the CSIC (2004-2011)
- Deputy Member of the Chemistry Area of ANEP (National Evaluation and Foresight Agency) (2005-2010).
- Vice-Director of the Instituto de Química Médica (IQM-CSIC) (1991-2001)
- Head of the Chemotherapy Department (IQM-CSIC) (1991-1994)
- President of the Spanish Society of Therapeutic Chemistry (SEQT) (2004-2007)
- Member of the Executive Board of the International Society for Nucleosides, Nucleotides and Nucleic Acids (IS3NA) (2010-2016).

C.6. Direction of Works

- Supervisor of **8 PhD Thesis** (2012-2021) and 9 Master Thesis. Selected Thesis (**The last three**):
 - 1.- (18/10/2019) **A. Revuelto Pérez.** *Disruptores heterocíclicos de la dimerización de la TryR de L. Infantum como herramientas terapéuticas innovadoras.*
 - 2.- (23/05/2017) **G. Fernández Cureses.** *Síntesis de nucleósidos no convencionales de estructura novedosa como potenciales agentes antivirales.*
 - 3.- (01/03/2016) **M. Ruíz Santaquiteria.** *De péptidos a peptidomiméticos en la búsqueda de Inhibidores novedosos de la tripanotión reductasa de Leishmania infantum (Li-TryR).*

C.7. Other Merits (Awards, Editorial Boards, International Comitees, etc)

- 1.- **Scientific Awards:** two international (UK) prizes. In **2001** the highly competitive and prestigious **René Descartes Prize** of the European Commission for Scientific and Technological Excellence Through European Collaborative Research. Nominated in 2008 to the **L'OREAL-UNESCO Awards 2009 "For Women in Science"** in the field of the physical Sciences. 2.- **Editorial Boards:** (a) **Member of the Boards of:** *Nucleos, Nucleot and Nucleic Acids* (since 1998), *Curr Top Med Chem* (since 2005), *ChemMedChem* (since 2005), *Current HIV Research* (2006-2017), *J. Med Chem* (2013-2016), *Antiviral Chem Chemother* (since 2016). (b) **Guest Editor:** of a special issue of *Curr Top Med Chem* (2004). (c) **Member by invitation:** of the panel of "programme of development of the publication" of *Nature* (2008-2009); and of the "panel reading survey" of *Nature* (2009-2010).
- 3.- **International and National Evaluation Comitees:**
 - **Jury member** of the "EFMC Ehrlich AWARD-2010" of the European Federation of Medicinal Chemistry (EFMC); **Jury member** of the "2014 EFMC Prize for a Young Medicinal Chemist in Industry" and of the "2014 EFMC Prize for a Young Medicinal Chemist in Academia" of the EFMC; **Member of the Selection Committee** for the 2019 Tenure track professorship appointment procedure in the field of Medicinal Chemistry of Chemotherapeutics (JC 9739), University of Vienna; **Ad hoc reviewer** for grant proposals of International Agencies (FWO, Belgium; KULeuven Proposals, Belgium; AECID, Venezuela, etc); **Member of the selection comitees** of different grant applications (Ramón y Cajal and Juan de la Cierva and Fullbright programs); Board member of different comissions to evaluate the grant applications for projects of Plan Nacional (Spanish funding agency).