

CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date

2022-09-29

First name

	Miguel		
Family name	López-Lázaro		

(*) Mandatory

A.1. Current position

Position	Associate Professor (Profesor Titular de Universidad)		
Initial date	21-01-2009		
Institution	University of Seville		
Department/Center	Department of Pharmacology		
Country	Spain		
Key words	Pharmacology, Cancer		

A.2. Previous positions (research activity interruptions, art. 45.2.b)

Period	Position/Institution/Country/Interruption cause
1999-2009	Other Contracts at the University of Seville (US) and the University of New Castle (UK): Profesor Asociado Tiempo Parcial (US), Marie Curie Postdoctoral Individual Fellowship (UK), Profesor Contratado Doctor (US)

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed	University of Seville	1996
PhD	University of Seville	1999

Part B. CV SUMMARY (max. 5000 characters, including spaces)

I received a Ph.D. from the Department of Pharmacology at the University of Seville. I completed a Marie Curie Postdoctoral Fellowship from the Department of Cell and Molecular Biosciences at the Medical School of the University of Newcastle, UK. I currently hold a tenured Associate Professor position in Pharmacology at the University of Seville. I established and lead the research group Cancer (Andalusia, Spain), whose main purposes are to understand the disease and to develop selective anticancer treatments.

- I have supervised 4 PhD students: Dr. Antonio José León González (2012), Dr. José Manuel Calderón Montaña (2013), Dra. Estefanía Burgos-Morón (2015), Dr. Emilio Guillén-Mancina (2020), and I am currently supervising 2 PhD students (Julio José Jiménez-Alonso and Patricia Díaz Ortega).

- I have obtained official recognition of 24 years of research (1997-2021, 4 sexenios de investigación). I have participated in 50 peer-reviewed publications in the last 10 years. The list of publications can be accessed at: <https://orcid.org/0000-0003-2794-1647> (see links to [pubmed](#), [researchgate](#), [google scholar](#)). I have been included in the "Ranking of the World Scientists: World's Top 2% Scientists: (<https://doi.org/10.1371/journal.pbio.3000918>; <https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3>)"

- My research group have collaborated continuously with other research groups in the evaluation of the anticancer activity of different types of drugs (e.g., natural products, synthetic compounds, nanotechnology drug delivery systems).

- Currently, I am the principal investigator of a knowledge-transfer project in which we are developing artificial diets based on selective amino acid restrictions for the treatment of metastatic cancers. These artificial diets have shown remarkable anticancer effects in challenging animal models of metastasis in several cancer types. The Project started in 2018 and have received 180.000 euros. Part of the results have led to an international patent application ([WO2022064079A1](#) METABOLIC CANCER THERAPY).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Most important publications in books and journals with "peer review" and in conferences (see instructions).

López-Lázaro M. The stem cell division theory of cancer. **Crit Rev Oncol Hematol** 2018 Mar;123:95-113.IF:4.97 (Q1)

López-Lázaro M. Cancer etiology: Variation in cancer risk among tissues is poorly explained by the number of gene mutations. **Genes Chromosomes Cancer** 2018 Jun;57(6):281-293

López-Lázaro M. How many times should we screen a chemical library to discover an anticancer drug? **Drug Discov Today**. 2015 Feb;20(2):167-9. IF 2014: 6.691 (Q1, D1)

López-Lázaro M. Two preclinical tests to evaluate anticancer activity and to help validate drug candidates for clinical trials. **Oncoscience**. 2015 Feb 20;2(2):91-8 [PMC4381701](#)

López-Lázaro M. Selective amino acid restriction therapy (SAART): a non-pharmacological strategy against all types of cancer cells. **Oncoscience**. 2015, 10;2(10):857-66. [PMC4671952](#)

Recio R, Vengut-Climent E, Mouillac B, Orcel H, **López-Lázaro M**, Calderón-Montaño JM, Álvarez E, Khiar N, Fernández I. Design, synthesis and biological studies of a library of NK1-Receptor Ligands Based on a 5-arylthiosubstituted 2-amino-4,6-diaryl-3-cyano-4H-pyran core: Switch from antagonist to agonist effect by chemical modification. **Eur J Med Chem**. 2017 Sep 29;138:644-660 (Q1, D1)

Romero-Ben E, Mena Barragán T, García de Dionisio E, Sánchez-Fernández EM, Garcia Fernández JM, Guillén-Mancina E, **López-Lázaro M**, Khiar N. Mannose-coated polydiacetylene (PDA)-based nanomicelles: synthesis, interaction with concanavalin A and application in the water solubilization and delivery of hydrophobic molecules. **J Mater Chem B**. 2019 Oct 9;7(39):5930-5946. (Q1)

Recio R, Lerena P, Pozo E, Calderón-Montaño JM, Burgos-Morón E, **López-Lázaro M**, Valdivia V, Pernia Leal M, Mouillac B, Organero JÁ, Khiar N, Fernández I. Carbohydrate-

Based NK1R Antagonists with Broad-Spectrum Anticancer Activity. **J Med Chem.** 2021 Jul 22;64(14):10350-10370. doi: 10.1021/acs.jmedchem.1c00793. (Q1, D1)

Jiménez-Alonso JJ, Guillén-Mancina E, Calderón-Montaña JM, Jiménez-González V, Díaz-Ortega P, Burgos-Morón E, **López-Lázaro M.** Artificial Diets Based on Selective Amino Acid Restriction versus Capecitabine in Mice with Metastatic Colon Cancer. **Nutrients.** 2022 17;14(16):3378. doi: 10.3390/nu14163378. (Q1)

C.3. Projects or research lines in which you have participated.

Interés de los Polifenoles en Inflamación Crónica y Cáncer: Papel en los Sistemas Celulares de Regulación Mitocondrial y del Inflamasoma. Junta de Andalucía (Proyectos de Excelencia; P12-AGR-430), from 2014 to 2018, PI: Dra. Virginia Motilva Sánchez, 164.555 euros.

Diseño y Síntesis de Nuevos Sistemas Moleculares y Supramoleculares Nanométricos como Herramientas útiles en Síntesis Asimétrica y Biomedicina. Plan Estatal 2013-2016 Retos (CTQ2013-49066-C2-1-R), PI Dr. Nouredine Khiar El Wahabi, from 01-01-2014 to 31-08-2017, 127.050 euros.

Síntesis de nuevos nanosistemas funcionales con diferentes tamaños y topologías. Aplicaciones para la lucha contra el cáncer y las infecciones bacterianas y víricas. Plan Estatal Retos (CTQ2016-78580-C2-1-R), PI: Dr. Nouredine Khiar El Wahabi, from 30-12-2016 to 29-12-2019, 90.000 euros.

Fármacos multidiana estructuralmente relacionados con isotiocianatos naturales: diseño, síntesis y aplicaciones terapéuticas. PAIDI: Proyectos I+D+i (P20_01171), IP: Dra. Inmaculada Fernández Fernández, from 05-10-2021 to 30-06-2023, **XXX euros**

Dietas artificiales basadas en restricciones selectivas de aminoácidos para el tratamiento de cánceres metastásicos. Contratos Arts. 68/83 LOU ([3388/0836](#)), PI: Dr. **Miguel López-Lázaro**, from 30-06-2018 to 29-06-2022), 180.000 euros.

C.4. Participation in technology/knowledge transfer activities and exploitation of results.

Khiar el Wahabi, Nouredine, Fernandez Fernandez, Inmaculada, Recio Jiménez, Rocio, López Lázaro, Miguel, Calderón Montaña, José Manuel. Antagonistas de los receptores NK1 derivados de hidratos de carbono, método de obtención y uso médico. Patente de invención, Propiedad industrial. Solicitud: 2015-05-27
<https://patents.google.com/patent/WO2016189179A1/es>

Miguel LÓPEZ-LÁZARO, José Manuel CALDERÓN-MONTAÑO, Julio José JIMÉNEZ-ALONSO, Emilio GUILLÉN-MANCINA, Víctor JIMÉNEZ-GONZÁLEZ, Alfonso MATE-BARRERO, María Concepción PÉREZ-GUERRERO, Estefanía BURGOS-MORÓN. Metabolic cancer therapy. Application: ES2020070571W.2020-09-23. Publication: WO2022064079A1.2022-03-31. <https://patents.google.com/patent/WO2022064079A1/en>