

Maité SYLLA

(born IYARRETA VEITÍA, in Santa Clara, Cuba)

Full professor at National Conservatory of Arts and Crafts (Cnam, Paris)

PhD in Medicinal Chemistry,

Doctor of Pharmacy (Pharm.D.)

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Full professor in bioorganic, organic, and medicinal chemistry at Cnam

My research interests are focused on medicinal chemistry and drug discovery. I am interested in developing new bioactive molecules bearing privileged structures for the treatment of inflammatory/autoimmune diseases, infectious diseases, and cancer.

Education

2017: Habilitation à diriger des recherches, Paris-Saclay University, France

Drug repositioning: towards new therapeutic molecules

2002: PhD in Medicinal Chemistry, São Paulo University, Brazil

Conception, synthesis, and biological evaluation of novel mefloquine derivatives.

Supervisor: Pr. Maria A. Barata da Silveira, Pharmacy Department

1996: Specialization in Therapeutic Chemistry and Natural Products (Maestria), University of Havana, Cuba.

*Pharmacognosy, phytochemistry and biological evaluation of *Portulaca oleracea* L*

Supervisor: Pr. Armando Cuellar, Pharmacy Department

1993: PharmaD, Chemistry and Pharmacy Faculty, Martha Abreu de Las Villas University (UCLV), Santa Clara, Cuba.

*Standardization of a method of inclusion of the active product 1- (5-bromofur-2-yl) -2-bromo-2- nitroethylene (G1) in the *Drosophila melanogaster* culture.*

Supervisor: Pr. Antonio Pérez Donato, CBQ Center

Research experience

Sep 2020-- Full Professor, Laboratory of Genomics, Bioinformatics and Molecular Chemistry (GBCM), Cnam, Paris, France

Jan 2019-Jul 2020: Associated Professor, GBCM Laboratory, Cnam, Paris, France

Sep 2006-Dec 2018: Associated Professor, Laboratory of Molecular Chemistry, Engineering of Chemical and Energy Processes, Cnam, Paris, France

Sep 2003-Mar 2006: Postdoctoral Researcher, Paris-Sud University, BioCIS- CNRS Laboratory, France

Sep 2002-2003, 1994-1997: Associated Professor in Medicinal Chemistry, Pharmacy Department, UCLV, Santa Clara, Cuba.

Sep 1993-Aug 1994: Assistant researcher, Formulation and stability Team, Bioactive Chemicals Research Center at UCL, Santa Clara, Cuba.

Scientific responsibilities

Project leader:

2017-2019: Development of new antibacterial molecules: repositioning, pharmacomodulation, synthesis and biological studies. Hubert Curien program (PHC) UTIQUE 2017. Collaboration with the Biotechnology Center of Sfax, University of Sfax, Tunisia.

2015-2017: Natural products of the coumarin type and terpenoids extracted from Cuban plants: Isolation, analytical characterization, synthesis and anti-inflammatory activity. French Embassy in Cuba. Collaboration with the UCLV, Cuba.

2012-2013: Pharmaceutical innovation: conception, synthesis and biological evaluation of new anti-inflammatory molecules. Collaboration with the Genomic and Bioinformatics Laboratory of Cnam.

Projects with scientific co-responsibility:

2018-2020: Theranalpha, ANR Projet- Theranostic small molecule TNF inhibitors/ Synthesis strategies, supervision of doctoral students and postdoctoral internships, management of the chemical library.

2016-2017 and 2020-2022: Evaluation of the anti-angiogenic effects of selected coumarin derivatives. National Council for Scientific Research of Lebanon. Collaboration with Lebanon University.

2015-2016: Synthesis of hybrid small molecules inhibiting TNF α . Collaboration with the biotechnology company PEPTINOV/ Implementation of synthesis strategies, monitoring the progress of the project, management of the chemo library and supervision of Master students.

2014: Synthesis of dipeptides, industrial partnership with ISOCHEM/Development of synthesis pathways, financial management, follow-up and discussion with the manufactures, supervision of the chemical synthesis and report of activities.

Educational responsibilities

Project leader:

2020-2022: Learning project CAP'VR Chemistry Agro Pharma Virtual Reality: Teaching in Immersion for jobs in the Chemical, Pharmaceutical and Food Industries: towards virtual reality and interactive experimental simulation. Collaboration with industrial partnership MIMBUS and Immersive Learning Lab.

Since 2016: National pedagogical Responsible of the chemistry general license (LG04004A).

2015: Pedagogical project "Mutualized teaching unit, Practical work on organic molecules and polymers". Project financed by the SITI school, Cnam.

Major administrative responsibilities

Sep 2020-- Vice Director of the doctoral school Sciences des métiers de l'ingénieur (SMI, ED 432)

Since 2018: Elected member of the GBCM laboratory council

2017-2020: Elected member of the National Teaching Team "Healthy Living Chemistry" Council

2014-2018: Member of the CMGPCE laboratory council

Awards and Fellowships

2019: Laureate of Blâtand Program

2018: Laureate of the scientific excellence reward (*PEDR*)

2005: Prize for the most cited article in the period 2003-2006 in *J. Bioorg. Med. Chem.*, 13, 2005, 1293-1304

1998: Postgraduate Scholarship CAPES-MES (Cuban Ministry of High Education)

1997: Prize for the best Young Assistant Professor of the Faculty of Chemistry and Pharmacy

1996: Prize for the best methodological work of the Faculty of Chemistry and Pharmacy

1993: Gold Medal, (PharmaD) Talent Student (accelerated cursus with a year of research) (1991-1993).

1993: Annual Prize of Scientific Merit. (PharmaD)

Memberships and editorial activities

2018: Chairman of the 1st On line International Franco-Tunisian workshop on Medicinal Chemistry, Biotechnology, and Physical Chemistry, Cnam, Paris, France, 2018, BIOCHEMPHYS-01, MOL2NET 2018

2016: Co-editor of a special issue of the *Journal Current topics in medicinal chemistry*

Since 2008: Member of SCT, Société de chimie thérapeutique

Since 2007: Member of SCF, Société chimique de France

Reviewer for: *Bioorganic and Medicinal Chemistry, International Journal of Molecular Sciences, Letters in Drug Design and Discovery, ACS Sustainable Chemistry & Engineering, European Journal of Medicinal Chemistry; Bioorganic Chemistry, Journal of Agricultural and Food Chemistry, Journal of Enzyme Inhibition and Medicinal Chemistry, Molecules.*

Scientific supervision France: **7** PhD, **5** post-doc, **12** Master 2, **5** Master 1, **8** License, **4** BTS; Spain: **1** PhD (MSCA); Cuba: **12** PharmaD students

Scientific production

50 publications, including **25** articles in international peer-reviewed journals, **3** publications in refereed national journals, **15** proceedings in refereed international conferences, **6** proceedings in refereed national conferences, **1** proceedings book. Co-inventor of **1** patent on ternary complexes containing valproic acid, **11** invited conferences (9 international), **15** oral communications, **57** poster communications.

7 Major publications

* *corresponding author [Impact factor; n° of citations]*

1. E. Goya-Jorge, C. Rampal, N. Loones, S. J. Barigye, R. Gozalbes, C. Ferroud, M. Sylla-Iyarreta Veitia*, R. M. Giner*. Targeting the aryl hydrocarbon receptor with a novel set of triarylmethanes. *European Journal of Medicinal Chemistry*, **2020**, 207, 112777. DOI : 10.1016/j.ejmech.2020.112777, [IF 5.57].
2. E. Goya-Jorge, F. Abdmouleh, L. E. Carpio, R. M. Giner, M. Sylla-Iyarreta Veitia*. Discovery of 2-aryl and 2-pyridinylbenzothiazoles endowed with antimicrobial and aryl hydrocarbon receptor agonistic activities, *European Journal of Pharmaceutical Sciences*, **2020**, 151, 105386, DOI : 10.1016/j.ejps.2020.105386, [IF 3.61].
3. C. Ricco, F. Abdmouleh, C. Riccobono, L. Guenineche, F. Martin, E. Goya-Jorge, B. Liagre, M. Ben Ali, C. Ferroud, M. EL Arbi, M. Sylla-Iyarreta Veitia*. PEGylated triarylmethanes: Synthesis, antimicrobial activity, anti-proliferative behavior and *in silico* studies. *Bioorganic Chemistry*, **2020**, 96, 103591, DOI : 10.1016/j.bioorg.2020.103591, [3.83; 1].
4. A. Rayar, N. Lagarde, F. Martin, F. Blanchard, B. Liagre, C. Ferroud, J-F Zagury, M. Montes, M. Sylla-Iyarreta Veitia*. New selective cyclooxygenase-2 inhibitors from cyclocoumarol: synthesis, characterization, biological evaluation and molecular modeling. *European Journal of Medicinal Chemistry*, **2018**, 146, 577-587, DOI : 10.1016/j.ejmech.2018.01.054 [5.57; 2].
5. Rayar, N. Lagarde, C. Ferroud, J-F Zagury, M. Montes, M. Sylla-Iyarreta Veitia*. Update on COX-2 selective inhibitors: chemical classification, side effects and their use in cancers and neuronal diseases. *Current Topics in Medicinal Chemistry*, **2017**, 17(26), 2935-2956, DOI : 10.2174/1568026617666170821124947, [3.39; 17].
6. M. Sylla-Iyarreta Veitia*, D. Siverio-Mota, V. Lerari, M. Marín, R. M. Giner, F. Dumas, C. Ferroud, L. Vicet-Muro, Y. Rivero-Guerra, P. A. M. de Witte, A. D. Crawford, V. J. Arán and Y. Marrero-Ponce. Fishing anti-Inflammatories from known drugs: *in silico* repurposing, design, synthesis and biological evaluation of bisacodyl analogues as potential anti-inflammatory agents. *Current Topics in Medicinal Chemistry*, **2017**, 17(25), 2866-2887, DOI : 10.2174/1568026617666170817161953, [3.39; 2].
7. K. Fidaly, C. Ceballos, A. Falguières, M. Sylla-Iyarreta Veitia A. Guy, C. Ferroud*. Visible light photoredox organocatalysis: a fully metal-free direct asymmetric alkylation of aldehydes. *Green Chemistry*, **2012**, 14, 1293–1297, DOI : 10.1039/C2GC35118H, [9.48; 101].