europass

Yamili Toum Terrones

Date of birth: 04/1986 | **Nationality:** Argentinian | **Gender:** Female |

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About me:
As most scientists, a passion for discovery and a drive towards the scientific method prompted me to enroll in formal chemistry studies gladly. I was raised in Argentina, the eighth-largest country in the world, the second largest in South America after Brazil. I have always been interested in research in the field of chemistry (more specifically: organic synthesis, material's chemistry, biological chemistry), with the motivation of developing products that could improve the quality of human life, in particular its health. Today, I am finishing my postdoctoral programm and I am looking for new professional opportunities to develop my innate empathetic leadership skills. I am particularly interested in joining research teams in the field of medicine, biology, chemistry and related areas, both in the public and private sector.

WORK EXPERIENCE

03/2019 – CURRENT – La Plata, Argentina

POSTDOCTORAL RESEARCHER – CONICET (CONSEJO NACIONAL DE INVESTIGACIONES CIENTÍFICAS Y TÉCNICAS)

- Integration of polyelectrolites, enzymes and supramolecular building blocks into single pore track-etched solid state nanochannels (SSN) in order to build chemical nanodevices displaying a wide variety of functional features (i.e. outstanding ability to control and manipulate the transport of chemical and biochemical species flowing through them). These nano-objects enable the construction of ionic circuits capable of sensing, switching, or separating diverse species in aqueous solutions).
- Batch organic synthesis and electrochemical synthesis of electroactive polymers (EP, soft building blocks). Characterization and structure elucidation.
- Self-assemblies of the EPs and different type of enzymes into SSN and its iontronic characterization.
- Development of both writing and oral communication skills (reports, scientific papers, conferences).
- Being able to quickly and easily access quality information (for example scientific literature) was essential to the performance of my job.

Chemistry | Professional, scientific and technical activities | yamilitoum@inifta.unlp.edu.ar |

https://www.inifta.unlp.edu.ar/ | Diagonal 113 and 64 S/N, 33PF+WW, La Plata, Argentina

04/2014 – 02/2019 – Buenos Aires, Argentina

PHD FELLOW – CONICET (CONSEJO NACIONAL DE INVESTIGACIONES CIENTÍFICAS Y TÉCNICAS)

- Synthesis of novel fluorescent probes of the tricarbocyanine family with optical activity in the near-infrared region. Development of aminotricarbocyanines-based biosensors of different analytes, in particular pH molecular sensors.
- Rational design and synthesis of fluorescent silica based bionanosensors using tricarbocyanines and common fluorophores.
- Material's testing in cultured cells, *in vitro* and *in vivo*.
- Development of both writing and oral communication skills (reports, scientific papers, conferences).
- Being able to quickly and easily access quality information (for example scientific literature) was essential to the performance of my job.

Chemistry | Professional, scientific and technical activities | https://www.argentina.gob.ar/cnea/cac |

General Paz Av. 1499, B1650, Buenos Aires, Argentina

01/2012 – 03/2014 – Ciudad Autónoma de Buenos Aires, Argentina

RESEARCH AND DEVELOPMENT PROJECT LEADER – MAPRIMED S.A.

- Research and development of different organic synthetic routes for the industrial production of APIs (Active Pharmaceutical Ingredients), from the lab scale to the plant scale (industrial plant and pilot plant).
- Troubleshooting of plant problems.
- Production of highly potent active pharmaceutical ingredients (HPAPIs) in agreement with good manufacturing practices (GMP).
- Work in teams with other sectors (Quality Assurance, Industrial and pilot plant).
- Report results regularly to managers and colleagues.

Research and Development Department | Professional, scientific and technical activities |

https://www.maprimed.com.ar/ |

Directorio Av. 6155, C1440ATA, Ciudad Autónoma de Buenos Aires, Argentina

https://www.lanacion.com.ar/sociedad/la-argentina-es-desde-hoy-el-unico-pais-que-produce-el-remedio-para-el-chagas-nid1458347/

01/2009 – 05/2010 – Buenos Aires, Argentina

INTERN STUDENT – BRITISH AMERICAN TOBACCO

- Quality Assurance of raw material and print production through instrumental techniques (Gas Chromatography, Mass Spectrometry, UV-Visible Absorption Spectroscopy).
- Control of plant's effluents. Research and development of new alternative techniques to quantify analytes of interest in the plant's effluents with the aim of adapting laboratory results to the needs of the plant.
- Troubleshooting of production plant problems.

Quality Department of the Graphic Area and Laboratory of essences and flavours | Manufacturing |

https://www.batargentina.com/

12/2010 – CURRENT – Ciudad Autónoma de Buenos Aires, Argentina

UNIVERSITY TEACHING ASSISTANT – UNIVERSITY OF BUENOS AIRES, FACULTY OF EXACT AND NATURAL SCIENCES

- Laboratory training, supervision, safety, and report writing for undergraduate chemistry students. Assist students on laboratory practices, individually or in groups.
- Prepare exams derived from the material discussed during the lectures, and lead a study session every week.

EDUCATION AND TRAINING

05/2014 – 03/2019 – Intendente Güiraldes 2160, Ciudad Universitaria, Ciudad Autónoma de Buenos Aires, Argentina

PHD IN CHEMISTRY, INORGANIC, ANALYTIC AND PHYSICAL CHEMISTRY AREA – Faculty of Exact and Natural Sciences, University of Buenos Aires

https://exactas.uba.ar/

04/2005 – 06/2011 – Intendente Güiraldes 2160, Ciudad Universitaria, Ciudad Autónoma de Buenos Aires, Argentina

DEGREE IN CHEMISTRY – Faculty of Exact and Natural Sciences, University of Buenos Aires

https://exactas.uba.ar/

04/1999 – 12/2004 – Bolívar 263, Ciudad Autónoma de Buenos Aires, Argentina

BACHELOR DEGREE IN SCIENCES – Colegio Nacional de Buenos Aires, University of Buenos Aires

https://www.cnba.uba.ar/

LANGUAGE SKILLS

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B1	B1	B2
PORTUGUESE	A1	A1	A1	A1	A1
JAPANESE	A1	A1	A1	A1	A1
FRENCH	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

HONOURS AND AWARDS

12/2018

Postdoctoral Fellowship – National Scientific and Technical Research Council (CONICET)

https://www.conicet.gov.ar/

12/2013

PhD Fellowship – National Scientific and Technical Research Council (CONICET)

https://www.conicet.gov.ar/

08/2016

MARIE SKŁODOWSKA-CURIE Fellowship – European Union's Horizon Programme

I was awarded by the European Union's Horizon Programme and Marie Skłodowska-Curie Research and Innovation Staff Exchanges (RISE) to conduct a 4-month research stay in the Center for Cooperative Research in Biomaterials (CIC BiomaGUNE, Donostia, Basque Country) at Soft Matter Nanotechnology Group, leaded by Dr. Sergio E. Moya.
The main project was called *Hybrid Drug Delivery Systems Upon Mesoporous Materials, Self-Assembled Therapeutics and Virosomes* (HYMADE). In particular, my research during the fellowship period was in the field of nanomaterials science with the aim of constructing *folic acid-PEG modified silica nanoparticles for biological applications*.

PUBLICATIONS

Glyco-nano-oncology: Novel therapeutic opportunities by combining small and sweet

https://www.sciencedirect.com/science/article/abs/pii/S1043661816000426 – 2016

A silica supported tricarbocyanine based pH nanosensor with a large Stokes shift and a near infrared fluorescence response: performance in vitro and in live cells

https://pubs.rsc.org/en/content/articlelanding/2017/tb/c7tb00622e/unauth – 2017

High-sensitivity detection of dopamine by biomimetic nanofluidic diodes derivatized with poly(3-aminobenzylamine)

https://pubs.rsc.org/en/content/articlelanding/2020/nr/d0nr03634j – 2020

Electrochemically Addressable Nanofluidic Devices Based on PET Nanochannels Modified with Electropolymerized Poly-o-Aminophenol Films

https://pubs.rsc.org/en/content/articlelanding/2020/nr/c9nr10336h – 2020

Borate-driven modulation of the ionic current in gluconamide-functionalized SiO2-coated single nanochannels

https://pubs.rsc.org/en/content/articlelanding/2021/nr/d0nr07733j – 2021

Biomimetic solid-state nanochannels for chemical and biological sensing applications

https://www.sciencedirect.com/science/article/abs/pii/S016599362100248X – 2021

Ion track-based nanofluidic biosensors

https://link.springer.com/chapter/10.1007/978-981-16-9897-2_3 – 2022
Toum Terrones, Y. *et al.* (2022). Ion Track-Based Nanofluidic Biosensors. In: Chandra, P., Mahato, K. (eds) Miniaturized Biosensing Devices. Springer, Singapore.

CONFERENCES AND SEMINARS

2020 – 2021 – Buenos Aires
Nanopartículas fotoactivas de SiO2 basadas en la especiación controlada de azul de metileno en micelas inversas

VII Encuentro Argentino de Materia Blanda (Poster)
Toum Terrones, Y.; Torresán, M. F; Mirenda, M.; Rodríguez, H. B.; Wolosiuk, A.

2021 – 2021 – Buenos Aires
Transporte de iones modulado electroquímicamente en nanocanales modificados con poli-o-aminofenol

VII Encuentro Argentino de Materia Blanda (Poster)
Toum Terrones, Y.; Laucirica, G.; Cayón, V.M.; Cortez, M. L.; Toimil-Molares, M. E.; Trautmann, C.; Marmisollé, W. A.; Azzaroni, O.

2020 – 2021 – Mar del Plata, Buenos Aires
Desarrollo de una nanobiosensor de dopamina basado en la integración de un amino-derivado de polianilina en nanocanales de estado sólido

XX Encuentro de Superficies y Materiales Nanoestructurados (Poster)
Toum Terrones, Y.; Laucirica, G.; Cayón, V.M.; Cortez, M. L.; Toimil-Molares, M. E.; Trautmann, C.; Marmisollé, W. A.; Azzaroni, O.

2018 – 2018 – La Plata, Buenos Aires

Nanosensor fluorescente dual de pH en el Infrarrojo cercano (NIR) para detección cuantitativa.

XVIII Encuentro de Superficies y Materiales Nanoestructurados (Poster)
Toum Terrones, Y., Abbas, J.; Spagnuolo, C.C, Wolosiuk, A.

2016 – 2017 – Villa Carlos Paz, Córdoba, Argentina

A silica supported tricarbocyanine based pH nanosensor with a NIR response: performance in vitro and in live cells

XX Congreso Argentino de Físico Química y Química Inorgánica (Oral presentation)
Toum Terrones, Y., Coluccio Leskow, F., Bordoni, A.V., Acebedo, S.L., Spagnuolo, C.C., Wolosiuk, A.

2015 – 2016 – Vienna, Austria

SiO2 Nanoparticles as platforms of diagnosis and treatment of diseases

HYMADE Meeting (Oral presentation)
Toum Terrones, Y., Di Silvio, D., Villacorta, A.M., Moya, S.E., Wolosiuk, A.

COMMUNICATION AND INTERPERSONAL SKILLS

Oratory skills

I consider the efficient communication of my ideas in verbal, written and visual forms is central to articulating the right messages and receiving suitable direction. In order to improve my communication skills, I took an oratory course with Gerry Garbulsky, (PhD in Materials Science (MIT), Head of *TED en español*).
This skill helped me to dictate more than 15 public conferences to communicate my work to my peers and to the society. Also, while working in Maprimed S.A., I could coordinate various 6-month projects across 4 different areas in order to deliver the new active pharmaceutical ingredients on time for the clients.
https://aprenderdegrandes.com/

Emotional Intelligence and active listening

I naturally care about team members and people in general. I always practice kindness and sensitivity in my workplace by sharing my own feelings and giving space for the other members to do the same. I believe that putting myself in someone's position and seeing the world through their eyes offers a unique perspective that can, sometimes, inform my own actions.
During the pandemic of COVID-19, I created a regular video meeting with my peers in order to to give us a sense of community. The community is key to support each others, share our difficulties and our achievements.

Teamwork and problem solving

I love working in teams, because I see how our skills are complementary. I always try to encourage the team to build a collabotative working environment. As an example, during my postdoc at Softmatter Lab, I could take part in a binational team (Argentina-Germany) and we could publish more that 5 scientific papers.

TECHNICAL SKILLS

2012 – CURRENT

Liquid Cromatography and Gas Chromatography

2012 – CURRENT
NMR spectroscopy for molecule structure determination

2012 – CURRENT
Organic synthesis

2019 – CURRENT
Electrochemical and ion transport measurements

NETWORKS AND MEMBERSHIPS

2015 – CURRENT
Asociación Argentina de Investigación Físico Química

Argentina

2016 – CURRENT
Sociedad Argentina de Investigación en Química Orgánica

Argentina

05/2022 – CURRENT
Somos Buscadoras

Argentina https://somosbuscadoras.com/ https://youtu.be/NeYHQRpYnhM

HOBBIES AND INTERESTS

Travelling around the world is my favourite hobbie

Travelling around the world, tasting new foods, cooking, and reading. Also, I like doing yoga, stretching, running and I practice breathing relaxing techniques. I love art and museums are a motivation for me. I like meeting new people, and visiting my friends around the world.

RECOMMENDATIONS

Prof. Dr. Omar Azzaroni – Manager – azzaroni@inifta.unlp.edu.ar

Academic formation: PhD. in Chemistry
Position: CONICET researcher – Adjunct Professor of Physical Chemistry (UNLP)
Office: INIFTA – Office B2
Phone: 54-221- 425-7430 (ext. 181)

http://softmatter.quimica.unlp.edu.ar

Prof. Dr. Alejandro Wolosiuk – Manager – wolosiuk@cnea.gov.ar

Academic formation: PhD. in Chemistry
Position: CONICET researcher
Office: CNEA-Centro Atómico Constituyentes

http://www.qnano.com.ar/index.html

Dra. Laura Llauger Bufi – Manager – llauger.bufi@gmail.com

Academic formation: PhD. in Organic Chemistry
Position: R&D Head, Química Sintética S.A. (Insud Pharma), Alcalá de Henares, Madrid, España.