CURRICULUM VITAE

Name: **DÍAZ JIMENA ESTELA**

Born: May 3, 1983, Buenos Aires, Argentina.

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Education

Master Degree in Pharmacy, University of Buenos Aires, 2008.

Ph.D., University of Buenos Aires, 2013.

Languages

Spanish (mother language)

English: fluent (speaking, reading, writing)

Italian: intermediate (reading); basic (speaking, writing)

French: basic (speaking, reading, writing)

German: basic (speaking, reading, writing)

Publications

- 13 Publications in international journals:

1- “Conformational and Stereodynamic Behavior of Five- to Seven Membered 1–Aryl-2-iminoazacycloalkanes” Jimena E. Díaz, Andrea Mazzanti, Liliana R. Orelli, Michele Mancinelli
ACS Omega, 4, 4712-4720 (**2019**)

2- “Synthesis of dihydroquinazolines from 2-aminobenzylamine: N3-aryl derivatives with electron-withdrawing groups” Nadia Gruber, Jimena E. Díaz, Liliana R. Orelli
Beilstein Journal of Organic Chemistry, 14, 2510–2519 (**2018**)

3- “Syntheses of 3,4- and 1,4-dihydroquinazolines from 2-aminobenzylamine”
Jimena E. Díaz, Silvia Ranieri, Nadia Gruber, Liliana R. Orelli
Beilstein Journal of Organic Chemistry, 13, 1470-1477 (**2017**)

4- “Microwave-assisted cyclizations promoted by polyphosphoric acid esters: a general method for 1-aryl-2-iminoazacycloalkanes” Jimena E. Díaz, Ma. Cruz Mollo, Liliana R. Orelli
Beilstein Journal of Organic Chemistry, 12, 2026–2031 (**2016**)

5- “Atropisomerism in Amidinoquinoxaline *N*-Oxides: Effect of the Ring Size and Substituents on the Enantiomerization Barriers” Jimena E. Díaz, Nicolas Vanthuyne, Hélène Rispaud, Christian Roussel, Daniel Vega, Liliana R. Orelli
Journal of Organic Chemistry, 80, 1689-1695 (**2015**)

6- “Amidinoquinoxaline *N*-oxides as novel spin traps”
Nadia Gruber, Lidia L. Piehl, Emilio Rubin de Celis, Jimena E. Díaz, María B. García, Pierluigi Stipa, Liliana R. Orelli
RSC Advances, 5, 4, 2724-2731 (**2015**)

7- “An efficient synthesis of N-alkyl-N-arylputrescines and cadaverines”
María C. Mollo, Nadia Gruber, Jimena E. Diaz, Juan Á. Bisceglia, Liliana R. Orelli.
Organic Preparations and Procedures International (OPPI) 46:5, 444-452 (**2014**)

8- “Conformation and stereodynamics of 1,2-diaryltetrahydropyrimidine and of its five- and seven-membered ring analogs” Jimena E. Díaz, Nadia Gruber, Lodovico Lunazzi, Andrea Mazzanti, Liliana R. Orelli
Tetrahedron 67, 47, 9129-9133 (**2011**)

9- “1,n-Diamines. Part 4: synthesis of 1-aryl-2-alkyl-1,4,5,6,7,8-hexahydro-1,3-diazocines”
Jimena E. Díaz, Nadia Gruber, Liliana R. Orelli
Tetrahedron Letters 52, 48, 6443–6445 (**2011**).

10-“1,n-Diamines. Part 3: Microwave-assisted synthesis of *N*-acyl-*N′*-arylhexahydropyrimidines and hexahydro-1,3-diazepines”
Juan Á. Bisceglia, Jimena E. Díaz, Romina A. Torres, Liliana R. Orelli
Tetrahedron Letters 52, 41, 5238–5240 (**2011**)

11-“1,n-diamines. Part 2: Synthesis of acyclic and heterocyclic *N*-arylputrescine derivatives”
Jimena E. Díaz, Juan Á. Bisceglia, Ma. Cruz Mollo, Liliana R. Orelli
Tetrahedron Letters 52, 16, 1895-1897 (**2011**)

12-“New atropisomers derived from amidinoquinoxaline *N*-oxides: synthesis and NMR study” Jimena E. Díaz, Ma. Beatriz García, Liliana R. Orelli
Journal of Molecular Structure 982, 1-3, 50-56 (**2010**)

13-“An Efficient Synthesis of *N*-Arylputrescines and Cadaverines” Natalia P. Link, Jimena E. Díaz, Liliana R. Orelli
Synlett 5, 751-754 (**2009**)

- 1 Book Chapter:

“Recent applications of microwave-assisted cyclizations promoted by polyphosphoric acid esters to the synthesis of nitrogen heterocycles” Liliana R. Orelli, Juan Á. Bisceglia, Nadia Gruber, Jimena E. Díaz, María C. Mollo.
Synthetic Approaches to Nonaromatic Nitrogen Heterocycles, 2 Volume Set. Editor: Ana María Faisca Phillips. Editorial: Wiley, October **2020**. ISBN: 1119708702.

- Doctoral Thesis

"Synthesis and stereochemical study of heterocyclic amidines and related compounds”, University of Buenos Aires. March 2013.

- Participation at 22 congresses, 9 of them international congresses.

Scientific Experience

Researcher, CONICET (2016-present)

Postdoctoral Researcher (2013-2016)

Ph. D. Student (2008-2013)

Short stages in other Laboratories

2015 June-September	-Laboratory Domecq & Lafage, Hospital Alemán, Argentina Research topic: “Determination of the antimicrobial activity of dihydroquinazolines” Tutor: Dr. Liliana Fernández Canigia
2014 October	Industrial Chemistry Department “Toso Montanari”, University of Bologna, Bologna, Italia

	Tutor: Prof. Andrea Mazzanti
2013 September-November	Industrial Chemistry Department “Toso Montanari”, University of Bologna, Bologna, Italia Research topic: “Determination of enantiomerization barriers and absolute configuration of atropisomeric nitrogen heterocycles using dynamic NMR and circular dichroism” Tutor: Prof. Andrea Mazzanti
2009 May-July	Chirosciences, Laboratoire Stereochimie Dynamique et Chiralité, Paul Cézanne University, Marseilles, France. Research topic: “Chiral separation and determination of enantiomerization barriers of novel atropisomeric nitrogen heterocycles using chiral HPLC” Tutor: Prof. Christian Roussel

Mobility grants

2013	International grant of University of Buenos Aires for a stage in the Industrial Chemistry Department “Toso Montanari”, University of Bologna, Bologna, Italy
2009	International grant of University of Buenos Aires for a stage in the Laboratory Chirosciences, Laboratoire Stereochimie Dynamique et Chiralité, Paul Cézanne University, Marseilles, France.

Fellowships

2013-2016	CONICET Post-doctoral Research Fellowship. Advisor: Dra. Liliana R. Orelli and Prof. Andrea Mazzanti
2011-2013	CONICET Graduate Student Research Fellowship. Type 2 Advisor: Dra. Liliana R. Orelli
2008-2011	CONICET Graduate Student Research Fellowship. Type 1. Advisor: Dra. Liliana R. Orelli

Courses

11 postgraduate courses in the fields of Organic Synthesis, NMR, X-Ray Crystallography and Molecular Modelling.

Teaching Experience

From 2005, Professor Assistant in the University of Buenos Aires, Faculty of Pharmacy and Biochemistry, Department of Organic Chemistry. Courses: Organic Chemistry I, Organic Chemistry II, Introduction to Organic Synthesis, Forensic Chemistry.

Updated: May 4, 2020

Jimena Díaz was born in Buenos Aires, Argentina in 1983. She received her PhD in Organic Chemistry in 2013 under the supervision of Prof. Liliana Orelli, at the University of Buenos Aires. During her PhD she spent 2 months in the group of Prof. Christian Roussel at the Laboratory Chirosciences in the University Paul Cezanne (Marseilles, France) where she worked on the chiral separation and determination of enantiomerization barriers of amidinoquinoxaline *N*-oxides using chiral HPLC.

In 2013 she obtained a postdoctoral fellowship under the supervision of Prof. Liliana Orelli and Prof. Andrea Mazzanti. During this time, she completed two short stages in the Industrial Chemistry Department “Toso Montanari”, University of Bologna (Bologna, Italy) where she worked on the determination of the enantiomerization barriers of 2-iminoazacycloalkanes and related compounds using dynamic NMR and computational methods.

Currently, she holds a researcher position in the National Scientific and Technical Research Council (CONICET) and a teaching position in the University of Buenos Aires. Her main research interest is the study of nitrogen heterocycles, including the development of efficient methods for their synthesis and the study of their biological applications. She also studies the conformational aspects of axially chiral derivatives using spectroscopic and computational methodologies.