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Prof. Dr. Alina Montero Torres

Professor of Organic and Medicinal Chemistry

Synthesis, Drug Discovery and Molecular Design Specialist

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Department of Synthesis and Drug Design, CBQ (Centro de Bioactivos Químicos). [Central University of Las Villas](#), Santa Clara, 54830, Villa Clara, Cuba.

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EDUCATION

Bachelor of Science (B.Sc): Pharmaceutical Sciences, [Central University of Las Villas](#), Santa Clara, Villa Clara, Cuba, 7/96.

Graduated with honour (Golden Diploma and Diploma for best student of the University 1996), 7/96.

Philosophical Doctor (Ph.D): Chemical Sciences, Rostock University, Germany. 5/02.

Language skills: Spanish good (mother tongue), German good, English good.

Teaching main interests: Organic, bioorganic, and medicinal chemistry as well as “rational” drug design.

Research main interests: Synthesis and characterization of new chemical entities with promising biological properties, medicinal chemistry, “rational” (computer-aided) drug design, characterization of molecular similarity and computational (virtual and *in silico*) screening.

WORK EXPERIENCE

Attached researcher at Central University of Las Villas, Cuba. Taught courses: Bioorganic Chem. I and II. 07/04 - present
Post-doctoral fellowship at Rostock University, Germany. 04/05 – 06/05

Assistant researcher at Rostock University, Germany. Taught courses: General and Organic Chem. 06/00 – 07/01

PhD research at Rostock University, Germany, under supervision of Prof. Dr. Klaus Peseke (DAAD Scholarship). 09/97 – 12/01

Researcher at Central University of Las Villas. 09/96 – 07/04

Some Recent Publication...

Alina Montero-Torres, Rory N. García, Yovani Marrero, Yanetsy Machado, Juan J. Nogal, Antonio R. Martínez, Vicente J. Arán, Carmen Ochoa, Alfredo Meneses, and Francisco Torrens. Non-stochastic Quadratic Fingerprints and LDA-Based QSAR Models in Hit and Lead Generation Through Virtual Screening: Theoretical and Experimental Assessment of a Promising Method for the Discovery of New Antimalarial Compounds. *E. J. of Med. Chem.* **2005**, *accepted for publication*.

María Celeste Vega, **Alina Montero-Torres**, Yovani Marrero, Miriam Rolón, Alicia Gómez, José Antonio Escario, Vicente J. Arán, Juan José Nogal, Alfredo Meneses and Francisco Torrens. New Ligand-Based Approach for the Discovery of Antitrypanosomal Compounds. *Bioorg. Med. Chem. Lett.* **2006**, 16,1898-1904.

Alina Montero-Torres, Maria Celeste Vega, Yovani Marrero-Ponce, Miriam Rolon, Alicia Gomez-Barrio, Jose Antonio Escario, Vicente J. Aran, Antonio R. Martinez-Fernandez and Alfredo Meneses-Marcel. A novel non-stochastic quadratic fingerprints-based approach for the *in silico* discovery of new antitrypanosomal compounds. *Bioorg. Med. Chem.*, **2005**, 13, 6264-6275.

Marrero-Ponce, Y.; **Montero-Torres, A.**; Romero-Zaldivar, C.; Iyarreta-Veitía, I.; Mayón Pérez, M.; García Sánchez, R. Non-Stochastic and Stochastic Linear Indices of the “Molecular Pseudograph’s Atom Adjacency Matrix”: Application to “*in silico*” Studies for the Rational Discovery of New Antimalarial Compounds. *Bioorg. Med. Chem.* **2005**, 13, 1293-1304.

Alina Montero, Holger Feist, Manfred Michalik, Ivo Rudloff, Klaus Peseke. Synthesis of Aryl- and Hetaryl-C-Substituted Alditoses by Ring Transformation of 2-Formyl-Glycals. *J. Carb. Chem.*, **2004**, 23, 5, 313 – 324.

Alina Montero, Holger Feist, Manfred Michalik, José Quincoces, Klaus Peseke. Synthesis of precursors for new pyrimidine acyclo-C-nucleoside analogues by ring transformation of 2-formylgalactal. *J. Carb. Chem.* **2002**, 21, 305-312.

Alina Montero, Holger Feist, Manfred Michalik, José Quincoces, Klaus Peseke. Ring Transformations of 2-Formylglycals with C,N-Dinucleophiles. *Synthesis* **2002**, 5, 664-668.

Ernesto Estrada, Eugenio Uriarte, **Alina Montero**, Marta Teijeira, Lourdes Santana, Eric De Clercq. A Novel Approach for the Virtual Screening and Rational Design of Anticancer Compounds. *J. of Med. Chem.* **2000**, 43, 1975-1985.