

## **Maribel C. Navarro A.**

Born in Maracaibo, Venezuela

14-05-1965

Associate Full-Researcher

*Chemistry Center*

Venezuelan Institute of Scientific Researches (I.V.I.C.)

(Since May 1995)

### *Education:*

Central University of Venezuela, Faculty of Sciences, School of Chemistry.

Lic. in Chemistry (1991).

Thesis supervisor : Dr. Reinaldo Compagnone.

Venezuelan Institute of Scientific Researches (I.V.I.C.), Chemistry Center .

PhD in Chemistry (March 1995).

Thesis supervisor : Dr. Roberto Sánchez-Delgado.

Postdoctoral work at the Purdue University, Indiana-USA, with Prof. Harry Morrison (1997-1998)

### *Professional Experience*

Deputy head of the chemistry Center (Nov 2002 –Feb 2004)

Member of the Commission Technical of Sciences in Chemistry-FONACIT (2001- 2003)

Member of the Academic Commission at IVIC (March-2003-2004)

Adjunct Assistant Professor of the University of North Carolina-USA (Jul.-Sep 2005)

Head of the Bioinorganic Chemistry Laboratory (June 2006)

Visiting professor at University of Western Australia (2008), with Prof. Sue Berners-Price

### *Scientific Awards*

-Visiting research Scholar at Belgium (University of Liege) from the Community Economic European (CEE) (Oct 91-March 92)

-Visiting research Scholar at France (Institute Jacques Monod /University of Paris) from the French Embassy (Nov.-Dec. 1993).

-"José Felix Ribas" Order (First Class) awarded to young people of outstanding achievement (Venezuelan Government, February 1994).

-"Orinoquia Prize" (second place) awarded to applies Investigation (1996)

-PPI National Research Council of Venezuela (FONACIT) July 1996- at present

Research area: inorganic/organometallic chemistry

Current research interests:

-Development of novel metallic drugs against different diseases (Leishmania, Cancer, Arthritis, Chaga's Disease, Malaria).

-Synthesis and characterization of new DNA-interacting metal compounds.

- Use of bioactive metal complexes in homogeneous catalysts for oxygenation of aromatic molecules.

Author of 45 papers, one chapter of book and 2 patents.

Selected publications.

- 1.- Maribel Navarro, Hilda Pérez, Roberto A. Sánchez-Delgado. Towards a Novel Metal-Based Chemotherapy Against Tropical Diseases 3. Synthesis and Antimalarial Activity of Novel Gold- Chloroquine Complex. *Journal of Medicinal Chemistry*. 40, (12), 1937-1939. 1997.
  - 2.- Maribel Navarro, Efrén J. Cisneros-Fajardo, Teresa Lehmann, Roberto Sánchez-Delgado, Reinaldo Atencio, Pedro Silva, Renee Lira, Julio Urbina. Toward a Novel Metal-Based Chemotherapy Against Tropical Diseases 6. Synthesis and Characterization of New copper and gold Clotrimazole and Ketoconazole Complexes and Evaluation of their Activity Against *Trypanosoma cruzi*. *Inorg. Chem.* 40, 6879-6884, 2001.
  - 3.- Maribel Navarro, Efrén José Cisneros-Fajardo, Aníbal Sierralta, Mercedes Fernández-Mestre, Pedro Silva, Dwight Arrieche, Edgar Marchán. Design of copper DNA intercalators with leishmanicidal activity. *J. Biol. Inorg. Chem.* 8, 401-408, 2003.
  - 4.- Maribel Navarro, Efrén José Cisneros-Fajardo, Mercedes Fernández-Mestre, Dwight Arrieche, Edgar Marchán. Synthesis, characterization, DNA binding study and biological activity against *leishmania mexicana* of  $[Cu(dppz)_2]BF_4$ . *J. Inorg. Biochem.* 97, 364-369, 2003..
  - 5- Maribel Navarro, Flor Vásquez, Roberto A. Sánchez-Delgado, Hilda Pérez, Joseph Schrevel, Véronique Sinou. Toward a Novel Metal-Based Chemotherapy Against Tropical Diseases 7. Synthesis and in vitro Antimalarial Activity of new gold-chloroquine complexes. *J. Med. Chem.* 47, 5204-5209, 2004.
  - 6.- Maribel Navarro, Helen Goitia, Pedro Silva, Mait Velásquez, Luis E. Ojeda, Germán Fraile. Synthesis and characterization of new Copper- and Zinc-Chloroquine complexes and their activities on respiratory burst of polymorphonuclear leukocytes. *J. Inorg. Biochem* 99, 1630-1636, 2005.
  - 7.- Maribel Navarro, Prieto Peña Nayarit, Colmanares Ibis, González Teresa, Miriam Arsenak, Peter Taylor Synthesis and characterization of new palladium-clotrimazole and palladium-chloroquine complexes showing cytotoxicity for tumor cell lines in vitro. *J. Inorg. Biochem.* 100, 152-157, 2006
  - 8.- Maribel Navarro, Clara Hernández, Ibis Colmenares, Paola Hernández, Mercedes Fernández, Anibal Sierralta, and Edgar Marchán Synthesis and Characterization of  $[Au(dppz)_2]Cl_3$ . DNA Interaction Studies and Biological Activity Against *Leishmania (L) mexicana*. *J. Inorg. Biochem.* 101, 111-116, 2007.
  - 9.- Gonzalo Visbal, Edgar Marchan, Alexis Maldonado Zulay Simoni, Maribel Navarro. Synthesis and Characterization of Platinum-sterol hydrazones complexes with Biological Activity Against *Leishmania (L.) mexicana*. *Journal Bioinorganic Chemistry* 102, 547-554, 2008.
  - 10.- Maribel Navarro. Gold complexes as potential anti-parasitic agents. *Coordination Chemistry Review*. 253, (2009) 1619-1626.
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