Pedro L. Sánchez Cruz, M.Sc.
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OBJECTIVE:	To seek for a position in all areas of the chemistry field, specialist in research and development.
EDUCATION:	Master of Science in Chemistry, University of Puerto Rico, Mayagüez Campus, Mayagüez, Puerto Rico. Graduated in June 1999 Bachelor of Science in Chemical Engineering, University of Puerto Rico, Mayagüez Campus, Mayagüez, Puerto Rico. Graduated in June 1994
LICENSES	Puerto Rico Chemist License #4631
EXPERIENCE:	Instructor of General Chemistry, Department of Chemistry – University of Puerto Rico- Humacao Campus. (January 2007 to December 2022) Tania Malave, Ph.D., Department-Chair Technician in Scientific Research, Research Program, Department of Chemistry –University of Puerto Rico at Humacao. (January 2002 to June 2020) Antonio E. Alegria, Ph.D., Chairperson of Research Program Instructor of General and Organic Chemistry, Department of Chemistry –University of Puerto Rico- Mayagüez Campus. (January 1999 to December 2001) Maria Aponte, Ph.D., Department-Chair Instructor of General Chemistry, Science Department, Pontificia Universidad Catolica de Puerto Rico- Mayagüez Campus. (January 2000 to December 2001) Oscar Perez-Laguillo, Ph.D., Sciences Department-Chair Instructor of General Chemistry, Biology, Chemistry, and Environmental Science Department, and Mathematics and Physical Sciences Department, Inter American University- San German Campus. (January 1998 to December 1999) Prof Amalia Vasquez, Biology and Chemistry Department-Chair
RESEARCH:	Works in synthesis of organ metallic complexes. Cobalt(II) complexes with Benzimidazoles Mayra E. Cádiz, Ph.D., Project Chairman. January 1996 to December 1998.

ACTIVITIES:	40th Puerto Rico Interdisciplinary Meeting (PRISM) the 55th ACS Junior Technical Meeting (JTM) University of Puerto Rico-Humacao Campus April 9, 2022 Poster section in the 14th In Vivo ESR/EPR Spectroscopy and Imaging; 11th International EPR Spin Trapping/Spin Labeling. May 2010. Condado Plaza Hotel, San Juan, Puerto Rico Poster section in the 61st Southeast Regional Meeting of the ACS (SERMACS). October 2009. Puerto Rico Convention Center, San Juan, PR. Poster section in the 28th ACS Senior Technical Meeting, Puerto Rico Section. Nov 2004. Costa Dorada Beach Resort, Isabela, P.R. 34th ACS Junior Technical Meeting, and 19th Puerto Rico Interdisciplinary Scientific Meeting. March 1999. University of Puerto Rico, Mayagüez Campus, Mayagüez, P.R. Poster section in the 22nd ACS Senior Technical Meeting, Puerto Rico Section. November 1998. Cielo Mar Hotel, Aguadilla, P.R. Oral presentation and poster section in the 33rd Latin-American Congress of Chemistry. July 1998. Westin Rio Mar Hotel,P.R.
PUBLICATIONS:	**1.** Shan, Y., Cadiz, M. E., Sánchez-Cruz, P. and Huang, S. **Dichlorobis(1-methyl-1*H*-benzimidazole-N^3)cobalt(II)** Acta Cryst., **C55**, 1262-1263 (1999). **2.** Alegría, A. E., Rivera, L., Cordones, E., Castro, V. and Sanchez, P. **Role of membrane charge and semiquinone structure on oxygen consumption rates**, *J. Chem. Soc. Perkin Trans*. 2,**11**,1823 – 1828 (2002). **3.** Alegria, A. E., Sanchez-Cruz and P., Rivas, L. **Alkaline-earth cations enhance ortho-quinone-catalyzed ascorbate oxidation.,** *Free Radic. Biol. Med***., 37**, 1631-1639 (2004). **4.** Alegria, A. E., Flores, W., Cordones, E., Rivera, L., Sanchez-Cruz, P., Cordero, M. and Cox, O. **Reductive activation and thiol reactivity of benzazolo[3,2-a]quinolinium salts.,** *Toxicology*, **199**, 87-96 (2004). **5.** Alegria, A. E., Sanchez, S., Sanchez-Cruz, P., Nieves, I., Cruz, N. G., Gordaliza, M. and Martin-Martin, M. L., **Terpenylnaphthoquinones are reductively activated by NADH/NADH dehydrogenase.** *Toxicol. Environ. Chem.*, **87**, 237–245 (2005). **6.** Alegria, A. E., Sanchez-Cruz, P. and Lopez-Colon, D. **Sonochemically induced covalent binding of calf**

thymus DNA by aziridinylquinones. *Radiat. Res.*,**164**; 446-452 (2005).

7. Alegria, A. E., Sanchez-Cruz, P., **Orthoquinone-enhanced ascorbate oxidation. Combined roles of lipid charge and the magnesium cation.** *Toxicol. Environ. Chem.* **90**, 327-340 (2008)
8. Alegria, A. E., Sanchez-Cruz, P., Kumar, A., Garcia, C., Zayas, B., Gonzalez, F. A., Orellano, A., Gordaliza, M. **Thiols oxidation and covalent binding of BSA by cyclolignanic quinones are enhanced by the magnesium cation**. *Free Rad. Res.* **42**, 70-81 (2008).
9. Alegria, A. E., Dejesus-Andino, F.,* Sanchez-Cruz, P. **Quinone-enhanced sonochemical production of nitric oxide from s-nitrosoglutathione.** *Ultrason. Sonochem.*, **16**,190–196 (2009).
10. Sanchez-Cruz, P. Alegria, A. E., **Quinone-Enhanced Reduction of Nitric Oxide by Xanthine/Xanthine Oxidase.** *Chem. Res. Toxicol.* **22**, 818-823 (2009).
11. Sanchez-Cruz, P., Garcia, C., Alegria, A. E. **Role of quinones in the ascorbate reduction rates of S-nitrosoglutathione.** *Free Radic. Biol. Med.* **49**, 1387-1394 (2010).
12. Sanchez-Cruz, P., Dejesus-Andino, F., Alegria, A. E. **Roles of hydrophilicities and hydrophobicities of dye and sacrificial electron donor on the photochemical pathway**. *J. Photochem. Photobiol. A: Chem.* 236, 54-70 (2012).
13. Sanchez-Cruz, P., Santos, A., Diaz, S., Alegria, A. E. **Metal-independent reduction of hydrogen peroxide by semiquinones.** Chem. Res. Toxicol., *27*, 1380–1386 (2014).
14. Kumar, A., Chelvam, V., Sakkarapalayam, M., Li, G., Sanchez-Cruz, P., Piñero, N.S., Low, P.S., Alegria, A.E. (2016) **Synthesis and evaluation of folate-conjugated phenanthraquinone for tumor-targered oxidative chemotherapy**. Open Journal of Medicinal Chemistry, 2016, 6, 1-17.
15. Sanchez-Cruz, P., Alegria, A.E. (2016) **Photosensitized production of nitric oxide and peroxynitrite from a carbon-bound diazenium diolate and 2-methyl-2-nitrosopropane.** Journal of Photochem. and Photobiol. A: Chemistry 330, 79-85.
16. Sanchez-Cruz, P., Vazquez, K., Lozada-Delgado, E., Valiyeva, F., Sharma, R., Vivas-Mejia, P., Alegria, A.E. **Photosensitized co-generation of nitric oxide ande singlet oxygen enhanced toxicity against ocarian**

	cancer cells. Journal of Nanoparticle Research 24(4). April 2022
PATENT:	US Patent Office Application: # 61/222,368: UPR-9121 – "Functionalized 4-aza-2,3-didehydropodophyllotoxin Derivatives" (iEdison Invention Report Number: 0578705-10-0002).
SKILLS:	Good knowledge in HPLC, GC, EPR, FT-NMR, FT-IR, UV-Vis, GC-MS, oxygen consumption, and others instruments. Good knowledge in methods of teaching.
REFERENCES:	Available upon request.