**Ivan E. Perez**

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**Summary of Qualifications**

* Scientist with two years of industrial synthetic organic chemistry experience seeking to apply chemistry to bettering environmental safety standards and hazardous waste disposal.
* Improved a 3-step one-pot synthesis of novel small molecule treating agent from 36% to 85%, in areas of Environmental impact, reactor safety conditions and reaction duration.
* Over three years of experience with modern analytical methods (GC-MS, LC-MS, NMR (Including 2D experiments).

**Professional Experience**

**Research and Development (Élan Chemical Company)***—Synthetic Organic Chemist* **December 2015—March 2016**

Chemist assisting Director of R&D in development of viable production processes for naturally derived aromatics.

* Synthesized naturally derived precursors for application in pilot scale synthesis of natural aromatics.
* Evaluated tanker material quality by using internal standard methods in GC-MS.
* Developed purification methods of crude precursors in syntheses of natural aromatics.

**Performance R&D (Cabot Corporation)** –*Research Associate* **June 2014—October 2015**

Chemist investigating Carbon Black (CB) surface modification for tire rolling resistance and tread wear in rubber tires.

* Maintained and updated compound inventories of 500+ compounds, laboratory equipment and hazardous waste.
* Conducted and optimized a myriad of target syntheses, CB treatment, and associated analytical sample preparations.
* Collaborated with internal and external analytical and testing departments to secure relevant data for managers.
* Upheld safety standards and contributed to the safety dialogue with the Safety Health & Environment dept. (SH&E).

**Beeler Research Group (Boston University Chemistry Department)**—*Research Assistant* **September 2012—May 2014**

Undergraduate research applying organic synthesis to explore the medicinal chemistry of a PrPSc proliferation inhibitor.

* Sole technician responsible for synthesis of target molecule and related analogues.
* Collaborated with internal biochemists and Harris group at BUMC towards design of pull-down analogues.
* Regularly presented research updates formally at group meetings and informally to P.I. at subgroup meetings.
* Maintained personal compound inventory of synthetic intermediates and those delivered to collaborators.

**Education**

B.A. in Chemistry with ACS certification, Boston University **September 2010—May 2014**

*Graduate Coursework:* (CH644) Medicinal Chemistry, (CH741) NMR Spectroscopy, (CH641) Organic Reaction Mechanisms, (CH631) Inorganic Coordination Chemistry, (CH643) Synthetic Methods of Organic Chemistry.

**Technical Skills**

**Operating Systems:** Microsoft Windows, Linux(Ubuntu), Mac OSX

**Office Tools:** Microsoft Office Suite

**Scientific Software:** iLabber, Scilligence and ArtusLabs electronic lab notebooks(ELN), ACD/Labs spectroscopy suite, MestreNova, Schrödinger Jaguar and Maestro, Spartan, Gaussian, Cambridgesoft ChemBiooffice Suite(Chemdraw), ChemAxon cheminformatics suite, Waters MassLynx, Origin Lab, Pfeiffer Vacuum proprietary MS software, SciFinder.

**Laboratory:**

* Four years (two years in an academic setting) of experience designing and executing organic synthesis experiments in support of product leads in materials chemistry, commercial production and medicinal chemistry.
* Engineering experience with design and maintenance of 10-22L reactors, lab scale tube furnace with attached GC-MS.
* Set parameters and compiled safety documentation of 10L reactor, general organic syntheses, and CB treatment.
* Experience carrying out lab scale to sub kilogram scale reactions and purifications.
* Experience with advanced analytical techniques including NMR (Heteronuclear, 2D experiments), IR, UV/vis, LC-MS, HPLC, GC-MS, CD, DSC, TGA.
* Experience with Swagelok and Unistrut assembly and modification.
* Well versed in a broad range of reaction mechanisms, and practical laboratory procedures.
* Demonstrated aptitude for practical, synthesis improvement, and analytical skills.
* Knowledge of cGMP, GLP and FDA regulations.

**Awards**

1. Undergraduate Research Opportunity Program Faculty Matching Grant **January 2013**

2. Undergraduate Research Opportunity Program Student Research Award **May 2013**

**Presentations**

1. Initial Probing into Mechanism of Action of PrPSc Proliferation Inhibitor. Perez, I.; Herres, J.; Harris, D.; Beeler. A.

Undergraduate Research Symposium, Boston University, Boston, MA October 17, 2012.

**References**

1. Joshua Wimble—Former Colleague in Performance R&D, *Senior Research Associate* at Cabot Corporation

(Josh.wimble@cabotcorp.com, 978-670-6143)

2. Aaron B. Beeler—Undergraduate P.I., *Assistant Professor of Chemistry* at Boston University

(Beelera@bu.edu, 617-358-3487)

3. Fred Schreiber—Supervising Manager, *Director of Research and Development* at Elan Chemical Company

(FSchreiber@elan-chemical.com, 973-344-8014 Ext.114)