**Ivan E. Perez**

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347-445-8049 Perez.Ivan.E@gmail.com

**Summary of Qualifications**

* Scientist with over 4 years of organic synthesis, materials and medicinal chemistry experience seeking to capitalize upon strong qualitative and analytical skills as a research chemist.
* Optimized a 3-step one-pot synthesis of novel small molecule treating agent from 36% to 85%, contributing to a cost effective treatment of carbon black (CB) for rolling resistance and tread wear tire applications.
* Collaborated with multiple groups for analysis of optimization of treated CB performance in synthetic based rubber (SBR).

**Professional Experience**

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

Chemist responsible for research in CB surface modification for tire rolling resistance and tread wear in rubber tires.

* Optimized syntheses of novel treating agents potentially leading to cost effective CB treatment methods.
* Probed oxidation methods of carbon blacks for kilogram and lab scale preparations.
* Conducted one-off experiments of target syntheses, CB treatment, and associated analytical sample preparation.
* Collaborated with internal and external analytical and testing departments to secure relevant data for managers.
* Designated and maintained safety parameters for novel experiments and equipment as LabRAT’s and LeRAT’s.

**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.

**Contel Group (Brooklyn College Chemistry Department)**—*Visiting Scholar* **May 2012—August 2012**

* Undergraduate researcher responsible for the synthesis of novel cyclopalladate complexes for cisplatin-like medicinal chemistry applications.
* Learned inorganic synthesis techniques, (e.g., inert atmosphere, freeze-pump-thaw, schlenk apparatus, and glovebox use).

**Schaus Group (Boston University Chemistry Department)**—*Research Assistant* **September 2011—February 2012**

Undergraduate researcher responsible for the methodology development of asymmetric 1,4 conjugate addition into *ortho* quinone methide (*o*-QM) system by indole analogues.

* Responsible for synthesis of bench stable *o*-QM substrates, and BINOL phosphoric acid catalysts.
* Learned standard organic synthesis techniques, (e.g., NMR, Chiral-HPLC, standard reaction setups, air sensitive reactions).

**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, 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, ChemAxon cheminformatics suite, Waters MassLynx, Origin Lab, Pfeiffer Vacuum proprietary MS software.

**Laboratory:**

* Four years of experience designing and executing organic synthesis experiments in support of product leads in materials chemistry, drug discovery and asymmetric methodology development.
* Engineering experience with design and maintenance of 10L reactor, lab scale tube furnace with attached GC-MS.
* Set parameters and compiled safety documentation of 10L reactor, general organic syntheses, and CB treatment.
* Experience with advanced analytical techniques including NMR (Heteronuclear, 2D experiments), IR, UV/vis, LCMS/UPLC, GCMS, 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 GMP, GLP and FDA regulations.

**Work Experience**

**Boston University (Department of Mathematics and Statistics) –***Grader* **September 2011—May2014**

On campus grader responsible for the grading of exams, quizzes and homework of calculus I and II classes.

* Graded for a range of class sizes (20-120 students).
* Graded accurately and personalized tips to each student while on tight deadlines and short notices.

**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. James A. Belmont—Supervising Manager, *Vice President* at Cabot Corporation

(James.Belmont@cabotcorp.com, 978-670-6109)

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

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

3. Kristen C. Mascall—Former Colleague, *Assistant Professor of Chemistry* at Brandeis University

(Kmascall@brandeis.edu, 781-736-2545)