**Cascade ProDrug, Inc.**

Associate Scientist Position – ONAMI Graduate Student Internship

**Job Description**

* Design and Run preclinical studies to assess and validate the potential of the Hypoxia Activated Prodrug Vinorelbine N-Oxide (“VRNO”) as a candidate for the treatment of cancer.
* Run HPLC assay to assure quality of VRNO supply. Work with Cascade Custom Synthesis to provide improved quality and additional supply if needed.
* Conduct research to develop and optimize a laboratory scale microfluidic method for preparing and loading Liposomes encapsulating VRNO (“VRNOLi”).
* Conduct standard analytical measurements to assess quality attributes of the VRNOLi produced.
* Develop and run proliferation assay in multiple Human and Mouse tumor cell lines dosed with Vinorelbine (“VR”), VRNO and VRNOLi under normoxic and hypoxic conditions to determine the LC50 ratio for hypoxic induction.
* Design studies to assess the Pharmacokinetics (“PK”) in healthy mice, assess the efficacy in Syngeneic Mouse Models as well as Human Xenograft, Orthotropic and Humanized Mouse Models as VR, VRNO and VRNOLi monotherapies as well as in combination with immune oncology therapies. Assess the pros and cons for conducting the studies in house or contracting with a CRO.
* Learn and adapt methods, procedures and standard test protocols used for Vinblastine N-Oxide and Vinblastine N-Oxide Liposome and apply them here.
* Maintain laboratory notebook. Collect and analyze data and present results to the development team on a regular basis. Write and submit monthly summaries.

**Desired Skills & Experience**

* Current Graduate Student or recent recipient of MS or PhD.
* Completed Bachelor’s Degree or higher in a Biological Science, Pharmacology, Bioengineering or Chemistry.
* Demonstrated knowledge of cancer biology and the drug development industry.
* Techniques in Cell Culture, Animal Studies, Analytical Chemistry, Liposome Formulation and Analytical Measurement skills and knowledge are preferred.
* Ability to work independently; troubleshoot and solve problems in real time.
* Good interpersonal and communication skills to work effectively with a small, dynamic team responsible for product development.
* U.S. Citizenship or permanent work visa

**Company Description**

Cascade Prodrug, Inc., located in Eugene, Oregon, is a preclinical stage oncology therapeutic development company possessing a novel, prodrug platform chemistry; switching FDA approved chemotherapies off and enabling the tumor microenvironment to switch it on - killing the cancer while significantly removing side-effects. CPD100, the lead prodrug compound, has impressively demonstrated in preclinical studies improved safety and efficacy in mouse xenograft human NSCLC and mouse orthotropic human pancreatic cancer animal models when compared to current clinical standards of treatment.

Location of work: Academic Laboratory at Oregon Health and Sciences University Center for Life Sciences Building, where Company sponsored work can be carried out.

Proposed Start Date: Sept 1st, 2018

Duration: 6-9 months

Company Mentor: August Sick, [ajsick@comcast.net](mailto:ajsick@comcast.net)

Supervised by: Dr. Adam Alani