

## Mark R. Burns, Ph.D.

Aminex Therapeutics, Inc. President and CSO

*presents a talk entitled*

### ***Cancer Immunotherapy and Polyamines: Preclinical to Clinical Translation of Combined Polyamine Biosynthesis and Transport Inhibition Approach***

**7:45 pm Thurs. October 5**

OHSU Center for Health and Healing (CHH) RM 1a/1b 3rd floor  
3303 SW Bond Ave, Portland, OR 97239

**Third Floor**

map: <https://tinyurl.com/CHH-waterfront>

#### Dinner reservations

***Dinner and Lecture reservations FIRM deadline 9 AM Tuesday Oct. 3.***

**Schedule: 6:00 pm social; 6:45 pm buffet dinner; 7:45 pm talk**

Portland Section 2018 Officer election

Undergraduate Poster Symposium [reingold@juniata.edu](mailto:reingold@juniata.edu)

National Chemistry Weekends sign up to volunteer [hoffman@up.edu](mailto:hoffman@up.edu)

Pauling Medal [Symposium](#) update

Contact [Jean Eames](#) or [Scott Vanderwerf](#) if you have questions

## Oct. 5 ACS meeting Mark Burns, Ph.D

### **Title of Talk: *Cancer Immunotherapy and Polyamines: Preclinical to Clinical Translation of Combined Polyamine Biosynthesis and Transport Inhibition Approach.***

**Abstract:** Tumorigenesis is associated with increased polyamine levels and involves the induction of ornithine decarboxylase (ODC), the initial rate-limiting enzyme in polyamine biosynthesis, and increased uptake of polyamines from the blood and diet. As well as contributing to proliferation, polyamines exert an immunosuppressive effect towards the tumor. Aminex Therapeutics is developing a combination, two-drug approach to inhibit both polyamine biosynthesis (DFMO) and transport (AMXT 1501) for oncology. Preclinical data using this approach against multiple mouse oncology models highlight the increased immune response to the tumor after reduction of the immunosuppressive polyamine metabolites from the tumor microenvironment. Neuroblastoma is an aggressive childhood cancer frequently associated with MYCN and ODC deregulation. In neuroblastoma cell lines, Aminex's drug combination was highly synergistic ( $CI < 0.5$ ). Prophylactic treatment of neuroblastoma-prone TH-MYCN transgenic mice significantly extended survival. Treatment of mice with small palpable tumors with AMXT 1501/DFMO in combination with cyclophosphamide/topotecan significantly improved survival (5/9 long term survivors compared to 0/10 and 0/9 for cyclo/topo and AMXT 1501/DFMO, respectively;  $P < 0.001$  in each case). Polyamine levels were significantly decreased in mice undergoing AMXT 1501/DFMO treatment compared to DFMO or AMXT 1501 alone. These data strongly support an immune suppressive role for polyamines and clinical evaluation of AMXT 1501/DFMO is planned in 2017. In addition to presenting the scientific and clinical

promise of Aminex's approach, the speaker will describe his experience founding, raising finances and managing a virtual drug development company.

**Bio:** Dr. Burns is the founder of Aminex. He licensed Aminex's patents from his former company and led Aminex's initiation, fund-raising and the company's scientific efforts. Mark earned a PhD at the University of Michigan and post-doctoral training in bio-organic chemistry at Rice University. During his over 20 years of experience in biotechnology, Mark led the discovery efforts resulting in Aminex's AMXT 1501/DFMO assets and their preclinical efficacy and mechanism of action evaluations. Mark has obtained 15 U.S. Patents and published 21 scientific papers. He has extensive experience in the fields of medicinal, combinatorial, enzyme inhibitor design, analytical and process chemistry.

## Portland Section Election

**The 2018 slate of officers was announced** to Portland Section members by email, postcard, and at the Sept. 7 Section meeting at Lewis & Clark Law School. Email notice of online voting will be sent to members who have opted for email delivery; paper ballots will be mailed to members whose names are suppressed in email or who have opted out of email or who do not have email.

## Portland Section Upcoming Events

Upcoming Events in Portland Section ACS include:

- [Undergraduate Poster Symposium](#)  
October 22
- National Chemistry week-ends Oct. 21-22 and 28-29 contact Angela Hoffman [hoffman@up.edu](mailto:hoffman@up.edu) to volunteer
- Linus Pauling Medal [Symposium](#) Nov. 18.



## 2017 Pauling Medal Symposium

The 2017 Pauling Medal Symposium honoring MIT Professor [Christopher "Kit" Cummins](#) will be held on Saturday November 18, 2017 from 1pm to 5pm, at Portland State University.

The symposium is followed by a reception and poster session. The symposium, reception, and poster session are free and open to the public.

A Banquet (tickets required) including presentation of the Medal will follow the symposium, reception, and poster session.

Information for the Symposium, reception/poster session, and Banquet will be available on the [2017 Pauling Medal Symposium website](#).

The Symposium speakers include

- [Stephen Lippard](#): Research in Professor Lippard's laboratory at MIT involves bioinorganic chemistry.
- [Dan Nocera](#): The Nocera lab at Harvard University studies the basic mechanisms of energy conversion in biology and chemistry.
- [Don Tilley](#): the Tilley Group carries out research on inorganic, organometallic, polymer, and materials chemistry at UC Berkeley.

The Pauling Medal Award recognizes outstanding achievement in chemistry and is presented annually by the Puget Sound, Oregon, and Portland Sections of the ACS. The award is named after Dr. Linus Pauling, a native of the Pacific Northwest, because of the inspiration of his example.

Prof. Cummins' citation reads "For unparalleled synthetic and mechanistic studies of early transition metal complexes, including reaction discovery and exploratory methods of development to improve nitrogen and phosphorous

utilization."

The Award Chair for the 2017 Pauling Medal Award is Dirk Iwata-Reuyl; Dave Stuart and Theresa McCormick are symposium co-chairs.

## 2017 Poster Symposium and Career Fair Oct. 22 at PSU SRTC

If you did research during the summer of 2017, at your home campus, at another campus, at a government lab, at a company, please consider presenting your results at the annual ACS Poster Symposium and Career Fair. It does not need to be high impact work—just tell us what you did. [Online Registration](#) will include entries in seven divisions. Researchers from non-chemistry departments are welcome, as long as there is some connection to chemistry. There will be first place prizes of \$150; most divisions will award second place prizes of \$75. The deadline for registering is October 11; **the first five entries will receive a bonus \$10 prize. Free food and beverages will be provided for all present!**

Posters should [conform to ACS guidelines](#), which are pretty flexible.

The Symposium will take place Sunday, October 22, 2017, in the SRTC Building at the corner of 10th Ave and Montgomery at Portland State University, from 4-7 PM. Recruiters will be available in Room 247 from 3:00-4:00 for a panel discussion and general questions about careers and applications. All presenters and attendees are welcome to attend.

Parking is available in Parking Structure 3 on the PSU campus (payment required) located at the south end of a long block between SW Montgomery, 12th Ave, Market, and 13th Ave. Take 12th Ave off Exit 1D on I-405 north.

For further information visit the [Poster Website](#) or contact Dave Reingold [reingold@juniata.edu](mailto:reingold@juniata.edu) or Marilyn Mackiewicz [mackiewi@pdx.edu](mailto:mackiewi@pdx.edu).

## 2017-2018 MEETINGS

DATE	SPEAKER/ EVENT	AFFILIATION	TITLE/TOPIC	VENUE
Oct 5, 2017	Mark Burns	President and CSO, Aminex Therapeutics (Seattle)	“Cancer Immunotherapy and Polyamines: Preclinical to Clinical Translation of Combined Polyamine Biosynthesis and Transport Inhibition Approach.”	OHSU Center for Health & Healing
Nov 2, 2017	Two local companies (to be determined)		Company pitches to Chemical Angel Network	OHSU Center for Health & Healing
Dec 7, 2017	Wine, Cheese and Chocolate Tasting		Chemistry-focused tasting	Cellar 503
2018	Michael Cohen	OHSU, Physiology and Pharmacology Department		

### *Portland Section Officers*

Chair: Jean Eames  
 Chair-Elect: Scott Vanderwerf  
 Secretary: Elaine Nam  
 Treasurer: Dave Reingold

Councilor: Angela Hoffman  
 Councilor: Marcie Merritt  
 Alternate Councilor: Warren Ford  
 Alternate Councilor: Aida Melendez

### *Portland Section contact information*

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 503.912.4360

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<http://portland-or.sites.acs.org>