BCProteomicsNetwork

BC PROTEOMICS NETWORK TRAVEL PROGRAM: APPLICATION FORM FOR CNPN 2011

- The joint conference of the Canadian National Proteomics Network (CNPN 2011) and the Enabling Technologies for Proteomics (ETP 2011) will take place at the Fairmont Banff Springs Hotel in Banff, AB on May 8-11, 2011.
- For more information about the conference, visit www.cnpn.ca or www.etpsymposium.com
- In order to encourage as many BC students as possible to attend this event, the BCPN will provide 10 travel stipends, valued at $400 each.
- Please fill out the information below in order to apply for a travel stipend for this conference.

ELIGIBILITY

- In order to qualify for a BCPN travel stipend, the applicant must either be a student permanently enrolled in a degree program at an academic institution in BC, or a postdoctoral fellow permanently employed by an academic institution in BC and within three years of having completed a Ph.D.
- Only one travel stipend will be awarded per applicant per calendar year.
- The travel stipend is intended to be a partial reimbursement of travel costs and will be paid out after the conference upon provision of receipts.
- Allowable expenses under this program include transportation, accommodation and conference registration fees.
- A short report and statement of expenditures is required after attending the conference.
- The deadline for receipt of applications for this opportunity is March 15, 2011. Successful applicants will be notified within 2 weeks.

APPLICATION

- Fill out the applicant information below.
- Attach a one paragraph justification explaining the benefits of attending this conference and how it is relevant to your research.
- Attach the abstract that you have submitted for the conference, along with the confirmation email.
- Send your completed application and attachments to the BC Proteomics Network at admin@bcpn.ca

APPLICANT INFORMATION

Last Name	Carter	First Name	Davin
Department and/or institution	UBC Biomedical Research Centre		
Position within institution	Ph. D. student		
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Carter BCPN Travel Stipend Justification

As a newcomer to proteomics, the CNPN conference and ETP symposium offer a fantastic opportunity to learn about the state of the art in proteomics directly from principle investigators from across Canada. I hope to make the most of the conference by attending both the hands on workshop, the structural proteomics workshop and as many sessions of the joint conference as I can. The conference will offer an in-depth introduction that will help me marry my mass spectrometry hardware design background with proteomics. I am looking forward to sharing and getting feedback on my poster "Fusing Atmospheric Pressure ECD (AP-ECD) with nanospray to track Post-Translational Modifications with a "standard" mass spectrometer." We have increased the capability of our mass spectrometer by using photoelectrons to produce ECD like spectra. I am especially interested in hearing from the proteomics community to whether they would adapt this inexpensive technology to their existing atmospheric pressure ionization spectrometers. I look forward to sharing our work, hearing what hardware development others have done and seeking input for future designs.

Carter CNPN Abstract

Confirmation number: 4d7be60679545

Title

Fusing Atmospheric Pressure ECD (AP-ECD) with nanospray to track Post-Translational Modifications with a "standard" mass spectrometer

Authors

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Abstract

One concern of current mass spectrometry is the difficulty of analyzing labile Post- Translational Modifications (PTMs) with traditional collision induced dissociation (CID). In contrast to traditional CID, electron capture dissociation (ECD) and its related technique, electron transfer dissociation, offer direct identification and localization of labile PTMs but generally require specialized mass spectrometers. Using a modified PhotoSpray™ photoionization lamp we have recently added the capability of performing ECD to our nanospray CID Q-ToF. The modified AB Sciex PhotoSpray™ source was interfaced with a QStar XL Q-ToF so that ions from a nanospray emitter could be exposed to photoelectrons generated from acetone to induce electron capture dissociation. With the photoionization lamp off, and no photoelectrons present, ionized peptides were admitted into the MS as in traditional nanospray - allowing conventional high sensitivity LC-MS. When the photoionization lamp was on, the resulting photoelectrons caused ECD in source. C- and z-type fragment ions were admitted into the mass spectrometer, allowing high sensitivity LC-AP-ECD- MS. AP-ECD is also able to produce fragment ions with labile PTMs retained, allowing for both sequencing and localization of the PTMs, equivalent to modern ECD or ETD available on specialized instruments. The new AP-ECD source can be incorporated in-line on any atmospheric pressure ionization instrument; in fact, switching to this source has enabled our Q-ToF MS to identify labile modifications on peptides at the fmol level with no need for ion trapping.