

Busy Bruno



As an adjunct professor in the Department of Physics at the University of Guelph, Bruno Tomberli has a lot on his plate. He's not only involved in two AFMNet projects, but he's also presenting at seminar series, doing research on the thermo-physical properties of antioxidants for NSERC, and co-supervising a master's student and a PhD student.

His main project in AFMNet focuses on Super Critical Fluid (SCF) extraction theory, trying to get a better handle on the solubility of antioxidants in carbon dioxide (see page 9 in the first issue of ADVANCE). And now he is in the middle of testing a new theory using an abstract model system, with promising results. He's co-supervising a master's student at Guelph working on free radical quenching by anti-oxidants via electron transfer.

The second project he's involved with is mainly co-supervising PhD student Victor Vivcharyuk, who is going to present his research at a Biophysics conference in February. Victor has been calculating binding energies between antimicrobial peptides and membranes using computer simulation.

Bruno was also a presenter at the Soft Matters seminar series. There he made new contacts with people from Guelph's Biology department, which he says is a huge benefit of being involved with a network like AFMNet.

He has also been preparing a new proposal for more applied SCF research to attack biofilms.

On top of all this, Bruno is also an NSERC-funded adjunct professor.

“As HQP we can’t just wait for a faculty position to open up in order to get funding for our research,” he says. “It’s not easy to do, but there is funding available.”

Bruno credits his initial interest in biophysics to the imaginative and inspiring David Pink, St. Francis Xavier University. “He’s a cool guy, who takes chances in his research.” He also credits his PhD supervisor, Chris Gray, University of Guelph, for having very high standards in his research.