

Professional Development: Dr Pat Scott, Banting Postdoctoral Fellowship 2011

In addition to being provided the best research experience, our postdoctoral fellows will be trained in the professional skills that will aid them in succeeding in their future endeavours and reaching their full potential. McGill's commitment to the overall professional development of our postdoctoral fellows is enshrined in the document [Commitments of Postdoctoral Scholars and Supervisors](#) and the accompanying [Letter of Agreement for Postdoctoral Education](#) that outlines the training objectives of the postdoc, an individualized training program to achieve those goals, and the responsibilities that define the working relationship between the supervisor and the postdoc to achieve those objectives. McGill's commitment to presenting a variety of opportunities to attain the full complement of professional skills provides an excellent environment to fulfil the aim of the Banting Postdoctoral Fellowships "to attract top-tier postdoctoral researchers...who will positively contribute to the country's economic, social and research-based growth".

McGill Graduate and Postdoctoral Studies, under the direction of the Graduate Education Officer, has formed partnerships with Teaching and Learning Services, Libraries, the Career Planning Office, and other units across the University to offer a comprehensive suite of workshops under the umbrella of [SKILLSETS: Professional Development Workshops for Graduate Students and Postdoctoral Fellows](#). These workshops provide opportunities to attain general transitional/professional skill development under the nine basic themes of communication & interpersonal skills, research management & leadership, integrity & ethical conduct (responsible conduct of research), dissemination of research & knowledge translation, critical & creative thinking, career development, teaching competence, life skills, and societal & civic responsibilities. Postdoctoral fellows also are invited to take part in workshops organized for McGill professors to improve their teaching, supervisory and mentoring skills.

Other opportunities are available through McGill's Office of Technology Transfer, for guidance on technology transfer and intellectual property, and the Career Planning Service (CaPS), for help in maximizing employment opportunities, including coaching in interview skills and preparing curriculum vitae. Postdocs at McGill belong to the Postgraduate Students' Society and the affiliated Association of Postdoctoral Fellows, providing opportunities for networking and knowledge exchange with their colleagues across the university.

The research program proposed here will provide many opportunities for Dr. Scott to further develop his professional and academic skills. The research will be disseminated through articles in the leading high energy and astrophysics journals, and via presentations at international conferences. Dr. Scott will be the lead author and presenter, providing an excellent avenue for the improvement of his scientific writing and speaking. The wide variety of collaborators required for the success of the global fits program, both at McGill and beyond, will also extend his collaborative experience and communication abilities. He will obtain experience authoring and managing large public computer codes, by way of the SUFit, DMBayes and SuperBayeS packages outlined in the proposal. Grant-writing experience will be provided by participation in Prof. Cline's various grant applications, and in applying for startup funding for Dr. Scott's own group as the Banting Fellowship draws to a close.

Dr. Scott will gain invaluable teaching experience as course coordinator for the course *Practical Numerical Methods in Physics*, and a wealth of direct supervisory experience with 2 students of Prof. Cline's, and one each of Prof. Brandenberger and Prof. Holder. Dr. Scott will also gain experience in conference organization, as it is expected that he will be primarily responsible for arranging at least one workshop/meeting at McGill on the topic of the fellowship during its tenure (with the support of the Department and/or High Energy Theory and Astrophysics groups).