NSERC-Create grant in Complex Dynamics: Call for Undergraduate Summer Research Applications

**Background:** A network of researchers in complex dynamics has been formed at McGill, Université de Montréal, McMaster, Concordia, Western, and Toronto, together with the MNI and the Rotman Research Institutes, who specialize in nonlinear periodic oscillations underlying human biological rhythms that are critical to heart rate, sleep, and respiration, as well as attention, memory, and motor activity. Scientists model the complex dynamics of nonlinear oscillations that arise among neurons or individuals, among crowds, and in social networks. Funded by NSERC-Create, the network delivers training in five primary areas: mathematical foundations; neuroscientific foundations; developmental dynamics; disruptive dynamics; and group dynamics. Further information about the researchers can be found at https://goo.gl/uGgp6B

**Undergraduate Summer Training:** The Complex Dynamics network is recruiting undergraduates from within and outside Canada to participate in a 16-week research training experience. Applicants who are currently enrolled in a full-time undergraduate program in an NSERC-related field (natural science and engineering) are eligible to apply. Please note that medical residents and students holding NSERC, CIHR, or SSHRC fellowships for the same time period are not eligible to apply. The CD-Encounter research experience is a 16-week, full-time research fellowship, which will start between May 3-15, 2017. Students accepted in the program will receive a $4,500 stipend from the Create grant plus $1125 from the supervisors’ individual grant toward the stipend.

**Instructions to applicants:** Please carefully examine the research interests of the research members in this network who can serve as supervisors. Only applicants sponsored by supervisors who are members of the CD network are eligible to apply. We strongly recommend that applicants first contact the prospective supervisors via email (listed at https://goo.gl/uGgp6B) to determine whether they are accepting undergraduate students for summer 2017 in the Complex Dynamics Training grant. Due to the limited number of awards (4), only one application per applicant and one application per supervisor will be considered. Applications will be judged on: student’s academic record; research match to supervisor; training network goals; and balance across training themes. The application form can be downloaded at the same link (see “useful links” at the bottom).

**Applications** must include an unofficial transcript of undergraduate training and the following 2 forms: Undergraduate Application and Project Summary to be completed in collaboration with the prospective supervisor. Both applicants and supervisors must sign the completed forms. Applications must be received by 5pm EDT, Thursday, April 27, 2017 and should be submitted by email to dynamics.create@gmail.com as (scanned) attachments. If unofficial transcripts are not obtainable by the due date, please provide a list of undergraduate coursework taken with grades. Due to the very short time left before summer, we are sorry we are not able to extend the deadline. Please note that applications MUST show signatures of applicants and supervisors. All students accepted into the program will be notified by May 2. We apologize for the short time in which to apply this year; the grant became available in April 2017. Next year’s deadlines will be sooner (in March).