

Ph.D. OPPORTUNITY IN SALMONID EVOLUTIONARY FUNCTIONAL GENOMICS

We are currently looking for a Ph.D. candidate that would be involved in our ongoing research program aiming at elucidating the physiological and genomic bases of hybrid heterosis (hybrid vigour) in the brook charr (*Salvelinus fontinalis*). The research program is based on a multidisciplinary approach that integrates i) the quantification of hybrid vigour for several adaptive traits that can also be important for aquaculture, ii) the comparative analysis of gene expression profiles by means of a 16000 cDNA microarray and RT-PCR, and iii) the endocrine basis for this regulation. More specifically, the Ph.D. candidate will be responsible for testing at the gene expression level two alternative hypotheses generally invoked for explaining heterosis. First, the dominance hypothesis implies that the expression of partially deleterious recessive alleles observed in parental forms will be masked in the hybrid progeny. In contrast, the overdominance hypothesis predicts that the combination of divergent alleles at a given locus will result in increased performance in the hybrid progeny.

We are primarily looking for a candidate with strong laboratory expertise in functional genomics, a solid theoretical background in evolutionary biology, as well as expertise in management and analysis of large data bases. The chosen candidate is expected to be enrolled in our P.D. program by May 2006.

To apply, please send a cover letter describing your research interests, a complete CV and names of three references by e-mail to Louis.Bernatchez@bio.ulaval.ca

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