GRADUATE STUDENT OPPORTUNITIES
LAMPREY RESEARCH

Studentships for graduate research on the following lamprey-related research are available in the Department of Biological Sciences at the University of Manitoba. Please contact Dr. Margaret Docker (dockerm@cc.umanitoba.ca) or Dr. Steven Whyard (whyard@cc.umanitoba.ca) for more details.

1. GENE SILENCING TECHNOLOGIES IN LAMPREYS – A PROOF-OF-CONCEPT (M.SC.)

The primary objective of this project is to develop gene silencing (RNA interference) technologies for lampreys, which can be used to: 1) assess the function of genes (identified in the newly-sequenced sea lamprey genome) by creating loss-of-function mutations; and 2) develop species-specific RNAi-based lampricides. The position would ideally start in January 2009, and is dependent on successful funding.

2. IDENTIFICATION OF CANDIDATE GENES ASSOCIATED WITH FEEDING TYPE IN LAMPREYS (M.SC. OR PH.D.)

Nonparasitism has arisen independently and repeatedly in most lamprey taxa, where larvae of "paired" species are morphologically similar or indistinguishable but one species becomes parasitic following metamorphosis and the other does not feed at all as an adult. It is assumed that feeding type is hereditary and that size differences at maturity result in reproductive isolation between parasitic and nonparasitic lampreys, but populations producing both feeding types have been observed. The primary objective of this project would be to identify genes differentially expressed in the different feeding types (and potentially in hybrids) prior to and during metamorphosis. This student would ideally start in January 2009, but could start as late as September 2009.