Glen Weiss, M.D.

TITLE:

MicroRNA Regulation in Cancer

MINIMUM QUALIFICATIONS:

Lab experience is preferred, but not required.

BACKGROUND:

MicroRNAs are small non-coding RNAs of 20-22 nucleotides implicated in cancer biology. Recently characterized, these new class of gene regulators have sparked enormous research efforts. MicroRNAs are predicted to regulate at least 50% of all human genes. The Lung Cancer Unit has several projects focused on elucidating microRNA regulation of key oncogenes. This is an ideal opportunity for highly-motivated and dedicated students with a desire to develop a publication track record.

SUMMARY:

The student is responsible for timely, careful, and thorough technical execution of laboratory experiments as designed and directed by scientists in the Lung Cancer Unit. The experiments may include cell-based assays (proliferation, migration, apoptosis, cell-adhesion, invasion, etc.), molecular biology (nucleic acid extraction, RNA/DNA ratio and quality, qRT-PCR, qPCR, DNA sequencing, vector transfection [plasmid construction], microRNA knockdown), and various protein assays (western blot, immunoprecipitation, immunofluorescence, immunohistochemistry). The student will be responsible to keep updated, well-annotated laboratory notebooks documenting details and outcomes from the experiments. Close collaborative interaction with the other research personnel to coordinate the routine maintenance of the laboratory and execution of experiments is required. This includes reagent preparation and on-demand clean-up of your experiments and lab waste. Active participation in lab meetings to discuss research progress, challenges, and lab operational issues is strongly encouraged. A one year commitment of at least 15 hours/week is required to work on these projects.

CONTACT:
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