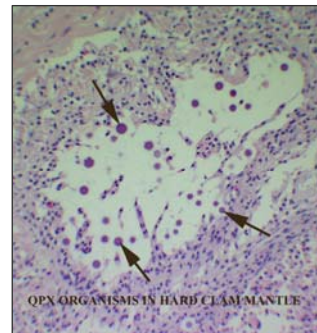


# QUAHOG PARASITE UNKNOWN (QPX) SAMPLING & ANALYSIS

## ***Background Information and Project Justification***

- General animal care at the Marine Resources Center/MBL
- Participation in a research project to monitor the dispersal and transmission of Quahog Parasite Unknown (QPX) in experimental clam plots in Barnstable Harbor.



*Foci of QPX infection in a paraffin embedded section of tissue*

## ***Primary Objective:***

This person will assist MRC staff with daily animal assessment and care. Research duties would primarily occur at WHOI in the laboratory of Dr. Rebecca Gast but would also occur to a small extent in the MBL laboratory of Dr. Roxanna Smolowitz. Research work would include monitoring clam plots, collecting water and clam samples and grossly processing the animals and materials. Molecular processing of samples for QPX will be done in conjunction with Dr. Rebecca Gast (WHOI) and would include nucleic acid extraction from clam, water and sediment samples, PCR amplification, quantitative PCR amplification, and denaturing gradient gel electrophoresis. Familiarity with molecular genetic concepts including PCR methods is highly recommended.

## ***Resources Available for this Project:***

- 24 hour access to the MBL library including pre-paid copying card for copying reprints etc.
- Access to an MBL computer terminal for literature/web searches.
- Limited wet-lab space with temperature controlled running seawater and fish holding tanks.
- Availability of specific MRC general use equipment; scales, water quality test kits etc.
- Access to Veterinary Laboratory equipment as needed.

## ***Skills Required:***

- Ability to perform extensive literature searches, web and library card catalog.
- Aptitude for understanding aquatic animal husbandry, physiology, and behavior.
- Accurate record keeping skills.
- Ability to work independently with minimal supervision.

## ***Estimated Time Commitment:***

The position is for a single, full-time intern/volunteer during the summer (40 hours per week, for 14 weeks) with a minimum of two days per week required for field-work (more may be desirable). All field-work will depend upon weather conditions and tidal state, so times will be variable. Interns/volunteers are expected to commit for at least a three month period.

***Project Supervisors:*** Dr. Roxanna Smolowitz (MBL) and Dr. Rebecca Gast (WHOI).

For current publications by Dr. Roxanna Smolowitz, including QPX research, please visit:  
[http://www.mbl.edu/research/resident/lab\\_smolowitz.html](http://www.mbl.edu/research/resident/lab_smolowitz.html)

For a description of current QPX research by Dr. Rebecca Gast, please visit:  
<http://www.whoi.edu/hpb/viewPage.do?id=1162&cl=4>