

“Establishing Methods for Evaluating Anti-tumor Therapies for Treatment of Pseudomyxoma Peritonei Using Gene Profiles and Immortalized Cells”

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The present report is first six month report on a PMPRF/NORD project that started in February 2011. This is a translational project with a large and challenging laboratory component but we appointed an experienced post-doctoral scientist to meet these challenges.

We have had some delays due to regulatory and ethics issues, which have now been resolved. Our tissue accrual is behind schedule due to totally unanticipated change in disease referral pattern to the Christie Hospital, a national treatment centre. This is being addressed as the availability of normal appendiceal tissue is set to rise as our clinical practice has shifted towards a larger number of laparoscopic right colon resections (where appendix tissue is surplus).

Despite these set-backs, we have achieved four important landmarks:

1. We have collected frozen PMP material with reduced ischemia time suitable for gene expression profiling studies.

2. We have validated extraction of suitable RNA from our samples following laser capture micro-dissection and confirmed that we are able to detect significant changes in gene expression levels between PMP material and normal controls.

3. We have manipulated a colorectal cancer cell line to derive a goblet cell line and mimic PMP in the laboratory.

4. We have confirmed previous findings through immunohistochemistry staining studies and are developing image analysis methodologies with the aim of applying these in the validation of the results of our gene expression studies.