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Dear Luke Moertel

Gobert G N, Stenzel D J, McManus D P, Jones M K. The ultrastructural architecture of the adult *Schistosoma japonicum* tegument. Int. J. Parasitol. 2003;33:1561-1575.

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Appendix B Additional Calculations

Calculation of Quantity of RNA/DNA by Spectrometer:

RNA = A_{260nm} x 40 x Dilution

DNA = A_{260nm} x 50 x Dilution

Normalisation of secondary real time PCR CT results.

PCT = Confidence thresholds (CT) of primary data set

SCT = CTs of secondary data set

M = Mean (average)

Normalised CT = SCT x (M^{SCT} / M^{PCT})

Calculation of copy number.

Primary	Secondary	CT	Normalised CT
cm3466a		19.15	**19.15**
cm3466b		19.89	**19.89**
cm3466c		18.73	**18.73**
	cm3466d	22.14	**19.35**
	cm3466e	22.5	**19.66**

Mean-CT = **19.36**

All Contig 3466 CNs are calculated CN = 10^ (-0.281 * mean-CT + 11.646). If the mean-CT is 19.36 $\pm$ 0.45 then Copies = 10 to the power of (-0.281 multiplied by **19.36** plus 11.646). Thus, the copy number for a mean-CT of **19.36**. is **1606349.34**. Fold differences shown are calculated from the lowest copy number (CN) of the sample list.

Appendix C Supplementary Tables and Files

Supplementary Tables and Files are available on the DVD disk accompanying this thesis, and can be obtained by double clicking 'main.html'.

Supplementary Table	Description
Supplementary Table 1	Master file
Supplementary Table 2	GO categories
Supplementary Table 3	GO Biological Function
Supplementary Table 4	GO Molecular Function
Supplementary Table 5	Molecular Function GO Clustering
Supplementary Table 6	Microarray data SJPVSJC mixed sex
Supplementary Table 7	Microarray data SJPVSJC males
Supplementary Table 8	Microarray data SJCVSJP females
Supplementary Table 9	Venn diagram clustered probes
Supplementary Table 10	GO characterised SJP/C mixed sex probes
Supplementary Table 11	Microarray data SJPMVSJPF gender
Supplementary Table 12	Microarray data SJCMVSJCF gender
Supplementary Table 13	GO characterised male and female probes

Supplementary File	Description
Supplementary File 1	Electropherograms of total RNA
Supplementary File 2	Detailed list of 8 contigs used in real time PCR analysis

Additional Files/Figures included on disk

The Feature Extracted files for microarray experiments are available on disk

Appendix D Keywords

Fc: Fragment of antibody without antigen-binding sites, generated by cleavage with papain; the Fc fragment contains the C-terminal domains of the heavy immunoglobulin chains.

Granulomatous reaction: This local inflammatory response is manly composed of macrophages, lymphocytes and eosinophils [200].

Hepatic and Periportal fibrosis: Fibrous tissue expansion of portal fields (liver) with fibrosis extending along the terminal centracinar portal veins assuming the appearance of "stellate" (star shaped) fibrosis.

in silico: Performed by a computer

Megabase/s: Unit of length for DNA fragments, equal to 1,000,000 nucleotides.

Nucleoside/s: Nucleotide/s lacking phosphate residues.

Photo-lithographic masks: A series of laser designed templates for an individual microarray chip as used by Affymetrix.

Portal hypertension: An increase in blood pressure of the portal vein due to anatomic or functional obstruction.

Portosystemic: Relating to connections between the portal and systemic venous systems.

Trilaminate/heptalaminate tegument: Three/five layers of bilayer membrane located on the apical edge of the tegument.

Zip spin: One to three second spin in a centrifuge at variable speeds.

Appendix E Papers Published from this Thesis