



	Experiment title: Trichinella spiralis Macrophage Inhibitory Factor (TsMIF)	Experiment number: LS-1527
Beamline: ID14-3	Date of experiment: from: 17/11/99 to: 18/11/99	Date of report: 22/2/00
Shifts: 1	Local contact(s): Sigrid Stuhmann	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): Mark Roe – ICR* David Meyer - Dept of Infectious & Tropical Diseases London School of Hygiene & Tropical Medicine		

Report:

TsMIF was crystallised in four forms (P3, R3, P222 and C2). Data was collected on ID14-3 in November on the P3 (1.8Å) and C2 (1.6Å) forms. The structure was solved by molecular replacement using the highly homologous hMIF structure (pdbcode: 1mif). There are two trimers in the asymmetric unit and initial refinement was carried out using NCS. In the final stages, the restraints were removed. The current R-factor is 0.272 and the Rfree is 0.300. We are in the process of locating and adding water. Interestingly there is a large piece of electron density near the N-terminal proline of each monomer, the site of the keto-enol tautomerase activity. The substrate of TsMIF is presently unknown. We are currently trying to identify this molecule. This work is being written up and should be submitted to Biochemical Journal next month.