ESRF	**Experiment title:** Gastrophylus intestinalis Hb	**Experiment number:** LS-1517
Beamline: ID14-3	**Date of experiment:** from: 10.09.99 to: 12.09.00	**Date of report:** 29.02.00
Shifts: 1	**Local contact(s):** E. Mitchell	*Received at ESRF:*

Names and affiliations of applicants (* indicates experimentalists):

(*) Alessandra Pesce, Martino Bolognesi
Advanced Biotechnology Center
INFM-University of Genova
Largo Rosanna Benzi, 10
I-16132 Genova
Italy

Report:

Small crystals (0.1X0.1X0.3 mm^3) of oxidized *Gastrophylus intestinalis* hemoglobin have been extensively tested on the beamline without recording significant diffraction. The protein is held to exert an unusual function in that this parasite lives in the intestine of horses, and respires oxygen from the air bubbles which are ingested with food. It is possible that the hemoglobin serves functions other than oxygen transport (oxygenase, for example). The reason for the failure to obtain diffraction are being investigated, and new crystals of the recombinant protein are being tested in house.