

ESRF	Experiment title: Stuctural studies of Dextranase BAG: Uppsala (II)	Experiment number: LS-1935
Beamline: ID14 4	Date of experiment: from: 06 July 2001 to: 07 July 2001	Date of report: 28 August 2001
Shifts:	Local contact(s): Hassan Belrhali	Received at ESRF:

Names and affiliations of applicants (* indicates experimentalists):

- T. Alwyn Jones, Uppsala University, alwyn@xray.bmc.uu.se Jerry Stahlberg, Swedish Univ. Agric. Sciences, jerry@xray.bmc.uu.se
- *Martin Hallberg, Uppsala University, martin-h@xray.bmc.uu.se
- *Mats Sandgren, Uppsala University, mats@xray.bmc.uu.se
- *Wimal Ubhayasekera, Uppsala University, wimal@xray.bmc.uu.se

Report:

Dextranase hydrolyses the ? -1,6-glycosidic linkage within the dextran molecule and releases smaller isomaltosaccharides. We are studying dextranase from the fungus *Penicillium minioluteum* recombinantly expressed in *Pichia pastoris*. A mutated *dex* gene, with all three potential N-glycosylation sites removed by mutagenesis, are used for expression to obtain protein with improved crystallization ability. No structure of any dextranase is available.

During this visit a complete MAD datasets from dextranase crystals containing 50% incorporation of selenomethionine was collected.