Experiment 30-01-741 report

Pseudomonas aeruginosa is an opportunistic human pathogen which infects injured, immunodificient, or ortherwise compromised patients. Under iron-limited conditions, the bacterium secretes a major siderophore: pyoverdine (Pvd). Pvd seems to play an important role in infection by competing with transferrin for iron in order to overcome the iron-withholding mechanism present in mammals. It is transported through the outer membrane of *P. aeruginosa* by FpvA. Pvd is also able to bind gallium.

At the time of the experiment, only very small crystals of the complex between FpvA and TonB were obtained. Therefore data were collected using a new crystal form of FpvA-PvdFe. During this experiment, several crystals were tested. Several crystals diffracted beyond 3.1 Å resolution and 2 data sets were collected using crystals of the pyoverdine outer membrane receptor from *Pseudomonas aeruginosa* bound to PvdFe.

The cell parameters are: a=174.073 b=122.727 c=118.153 Å, β=121.275° and 2 molecules are in the asymmetric unit. The space group is C2. The data were processed and scaled using XDS.

Crystal	1	2
Wavelength (Å)	0.979795	0.979795
Resolution (Å)	2.65	2.65
Number of reflections	137315	237320
Unique reflections	60121	61128
Completeness (%)	97.1	98.1
I/sI	9	9.21
Rsym (%)	9.7	15.4

The phase problem will be solved by molecular replacement using the SeMet-FpvA-Pvd atomic coordinates.