

Experiment 30-01-712

Pseudomonas aeruginosa is an opportunistic human pathogen which infects injured, immunodeficient, or otherwise 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.

During this experiment, 2 low resolution data sets were collected. A dataset was collected using one crystal of the pyoverdine outer membrane receptor from *Pseudomonas aeruginosa* bound to Fe-Pvd (new crystal form: space group: C2221). The second data set was collected using one crystal of the complex FpvA-TonB.

Several other crystals (more than 50) were also tested and the best diffracting crystals were saved to collect data at a highest resolution using beamlines such as ID23 or ID29.