Poster Presentations

[MS10-P15] RecentAdvances in Laboratory X-ray Systems for Structural Biology: Sources, Detectors and Applications. Tadeusz Skarzynski

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While the majority of macromolecular X-ray data are currently collected using highlyefficient beam lines on an ever increasing number of synchrotron lines, there is still a need for low-maintenance, reliable systems for in-house experiments. In addition to crystal screening and optimization of x- ray experiments before a successful synchrotron trip, the home system allows collection of data as soon as the crystals are produced to get the initial solution of novel structures and is invaluable in the quick turnover often required in ligand-binding studies.

We will describe the changing landscape of X-ray sources, detectors and software that have been developed by the main suppliers of X-ray systems in recent years for in-house use and the diverse range of tools for structural biology laboratories. Examples of newly developed solutions currently available to the macromolecular crystallography community will be presented, showing that data collection "at home" is still an attractive proposition complementing the use of synchrotron beamlines.

Keywords: X-ray technology; detectors; X-ray sources