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## **BioSAXS: High flux SAXS beamline dedicated to solution scattering at the Australian Synchrotron**

*Tuesday, 6 September 2022 15:45 (30 minutes)*

In recent years the Australian Synchrotron received \$94.1 million funding from over 20 stakeholders for the construction of new beamlines. The BRIGHT program will expand the beamline infrastructure of the Australian Synchrotron and will increase both its capacity and capabilities. A Small Angle X-ray Scattering (SAXS) beamline is currently being commissioned as part of the BRIGHT program. BioSAXS is due to be available for users from March 2023. The beamline was given a 2 m straight at the storage ring and in order to maximize the photon flux, a superconducting undulator and a double multilayer monochromator were selected in order to monochromatize synchrotron X-Rays between 8-15 keV. The experimental end station consists of an in-vacuum photon counting detector, offering full automation of set up changes and optimised conditions for time-resolved dynamic studies of particles in solution. The BioSAXS beamline will host all types of solution scattering experiments ranging from biological systems to soft matter, chemistry and material sciences. The flux at the sample is expected to be  $\sim 5 \times 10^{14}$  ph/sec and will give the opportunity to users to measure weakly scattering samples and low concentration samples, improving the service and capabilities that are offered to the scattering community in Australia, New Zealand and the Asia-Pacific region.

### **Would you like to participate in the Poster Prize competition?**

No

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