

## Evolutions in Synchrotron based Integrated Structural Biology at SOLEIL

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A proposal for a high brilliance upgrade to the SOLEIL synchrotron radiation source is expected to increase the beam brightness by > 50 times on beamlines used for life sciences. The combined expertise of the life sciences beamline teams at SOLEIL form the HelioBiology section, which has been, for the last 4 years, developing a post-upgrade approach to structural biology. This approach will be presented, paying particular attention to facilities that are novel to SOLEIL including *in-vivo* crystallisation [1], microfluidic devices and their synchrotron applications [2], and concrete efforts towards an integrated approach to structural problems. Initial proposals for structural biology facilities (including an on- and off- beamline portfolio of instruments) will be presented, drawing on recent examples to illustrate the approach.

This work is presented on behalf of the members of the HelioBio scientific section at SOLEIL (<https://www.synchrotron-soleil.fr/en/research/house-research/biology-health-heliobio>).

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