

e-mail sent to the APS MX user community on 1/11/2023

## **Beam time at Diamond Light Source will be available for APS MX users**

The Advanced Photon Source (APS) is undergoing an extensive upgrade, one that will enhance the brightness of its X-ray beams by up to 500 times. The APS will pause user operations on April 17, 2023, to facilitate the installation of a new electron storage ring for this upgrade. The year-long installation period begins one week later, on April 24, 2023. During this time, the APS will not be accessible to users. User operations are scheduled to resume in April 2024.

We recognize the impact of this 12-month pause on the macromolecular crystallography (MX) community. The APS has more than half of the MX beamlines in the United States and accounts for approximately 60% of the MX productivity in the country. We have therefore worked hard to mitigate the effects of the temporary shutdown of the APS. In June, we hosted a town hall meeting to inform structural biology users of the possibilities offered at other U.S. light sources, and to inform our community about the modes of access. In addition, thanks to the hard work of our colleagues and collaborators abroad, we are pleased to announce a significant bilateral agreement with the Diamond Light Source in the United Kingdom to assist the APS MX community during the APS Upgrade installation period.

Under this arrangement, MX users of the APS will be able to apply through the APS for access to beam time on four high-throughput MX beamlines at Diamond during the APS Upgrade installation period. Applications for this access will be open to APS MX users performing non-proprietary research.

As part of this agreement, APS is also working with Diamond on a reciprocal arrangement to design and construct a new high-throughput MX beamline at sector 21 of the APS (the Life Sciences CAT sector). The new beamline will serve Diamond MX users during Diamond's shutdown for its own Diamond-II upgrade. We want to thank our partners at LS-CAT, Alfonso Mondragon, Spencer Anderson and the board of LS-CAT for their support and collaboration. We would also like to thank Dave Stuart, Dave Hall, Gwyndaf Evans and the Board of Diamond for working with us on this exciting collaboration opportunity.

Full details of the process of obtaining beam time at Diamond for the APS upgrade are being finalized and will be shared in the very near future. For more information or to ask questions, please email Bob Fischetti ([rfischetti@anl.gov](mailto:rfischetti@anl.gov)).

As always, we appreciate your support of the APS.

Best wishes for a happy and safe holiday season!

Sincerely,  
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APS Director

Dennis Mills  
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Bob Fischetti  
Group Leader, X-ray Science Division  
Life Sciences Advisor to the APS Director