

## Major pharmaceutical companies benefit from research at Advanced Photon Source

Research at the Advanced Photon Source is directly contributing to the development of new drugs and diagnostics. A major success story is Kaletra® from Abbott Laboratories. Since FDA approval in 2000, Kaletra has had positive impact on the progression of AIDS in patients infected with HIV virus, turning patients who were dying from AIDS into patients living with AIDS. In 2002, Kaletra® became most-prescribed drug in its class for AIDS therapy. A key to developing Kaletra® was Abbott Labs' research on the structure of the HIV protease, performed in 1996 at the Advanced Photon Source.

The Advanced Photon Source (APS) at Argonne National Laboratory produces the most brilliant X-rays for research available in the Western Hemisphere. Funded by the U.S. Department of Energy Office of Basic Energy Sciences, the APS attracts researchers from around the world for experiments in materials science, chemistry, biology, physics, earth and planetary science, and environmental science.

Large enough to encircle a baseball stadium, the 1,104-meter circumference APS accelerator houses a complex of machines and devices that produce, accelerate and store a beam of electrons that are the source of APS X-ray beams.

During the past year, well over 3,000 individual users conducted research at the APS. At the APS, scientists from different institutions, disciplines, and career stages can work together to carry out innovative research that



Major pharmaceutical companies across the nation conduct research at the Advanced Photon Source through IMCA-CAT, the Industrial Macromolecular Crystallographic Association Collaborative Access Team.

has the potential for positive impact in nearly every aspect of our lives. University professors and students interact daily with colleagues from industry and national laboratories, exchanging ideas both formally and informally through collaborations, seminars, and impromptu discussions.

One important way that major pharmaceutical companies across the nation gain access to the APS is through IMCA-CAT, the Industrial Molecular Crystallographic Association Collaborative Access Team, which is managed by The University of Chicago through the Center for Advanced Radiation Sources. IMCA-CAT's mission is "to provide an outstanding support environment for macromolecular crystallography by developing and operating an efficient, reliable, high-throughput facility at which both confidential and proprietary experiments can be readily and easily accommodated."

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