

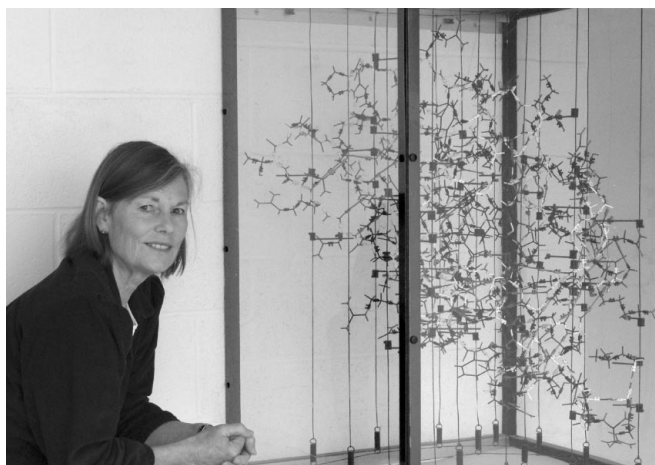
current events

This section carries events of interest to the synchrotron radiation community. Works intended for this section should be sent direct to the Current-Events Editor (s.hasnain@dl.ac.uk).

Diamond gets its Life Science Director

Louise Johnson, David Phillips Professor in Molecular Biophysics at Oxford University, has joined the Diamond Light Source as Life Science Director from 1 October 2003. Louise has taken up this appointment while keeping her responsibilities at Oxford and will be dividing her time equally between the two.

Professor Johnson has made distinguished contributions to protein crystallography and structural biology. Her book, *Protein Crystallography*, with Professor Sir Tom Blundell, published in 1976 by Academic Press, has been used by several generations of research students and crystallographers alike. Her research work and scientific leadership are held in high esteem internationally.



Professor Johnson.

Louise Johnson gained her PhD in 1965 from the University of London. For her PhD she carried out one of the first crystallographic studies of complexes of lysozyme (an enzyme) and competitive inhibitors. Her results provided the first model of an enzyme-substrate complex and the first formulation of a stereochemical mechanism of enzyme catalysis. The significance of this work can be appreciated by an account by Max Perutz when writing an obituary of David Phillips [*J. Synchrotron Rad.* (1999), **6**, 945–946], "Certain moments are deeply engraved in my memory. One is the Monday morning in March 1953 when Crick called me into his room to show me his and Jim Watson's double helical model of DNA which immediately revealed the molecular basis of heredity. Another is the moment when David Phillips, Louise Johnson and Charles Vernon made me first understand how an enzyme works." In the mid-1980s, using the Synchrotron Radiation Source at Daresbury, she solved the structure of glycogen phosphorylase, a large structure by the then standard (~98 kD). She used this to promote the study of enzyme catalysis in crystals. Her work on this enzyme and its complexes has provided a deep insight into the control of enzyme activity by allosteric effectors and by reversible phosphorylation. More recently she has been addressing the problems of specificity and control of phosphorylase kinase, the enzyme that regulates phosphorylase.

She moved to Oxford in the mid-1970s where she was a Lecturer in Molecular Biophysics before being appointed David Phillips Professor of Molecular Biophysics and the Head of the Laboratory of

Molecular Biophysics. She was elected Fellow of the Royal Society in 1990 and recently became a Dame in the Queen Elizabeth II honours list.

Professor Johnson commented, "I am delighted to be joining such an exciting scientific research organization. Since 1981, with the commissioning of the UK's first synchrotron facility at Daresbury, synchrotron light sources have revolutionized biological research. Diamond will be a significant upgrade on present resources".

Daresbury enters into collaboration with the Institute of Crystallography and Kurchatov Synchrotron Radiation Centre in Moscow

On 29 September 2003, a Memorandum of Understanding (MOU) was signed between Daresbury, the Institute of Crystallography and Kurchatov Synchrotron Radiation Centre to promote collaboration in areas of mutual interest including synchrotron radiation science and technology, protein crystallography, structural genomics, nanostructures and nanotechnology, X-ray optics and imaging.

The Institute of Crystallography in Moscow was founded in 1943 with Aleksei Shubnikov as its founding director and has been served by many eminent crystallographers including Nikolai Belov and Boris Vainshtein. The synchrotron source at the Kurchatov Institute was initiated in the 1980s but the 2.5 GeV source was only completed recently. In late 1999, President Putin inaugurated the Kurchatov Synchrotron Radiation Centre. This is the first dedicated synchrotron radiation source in Russia and currently several beamlines are being commissioned including one each for protein crystallography, XAFS, small-angle X-ray scattering, powder diffraction and LIGA.

The Synchrotron Radiation Source at Daresbury opened in 1981, was upgraded in 1986 and the late-1990s through the implementation of a high-brightness lattice and several insertion devices, and has had close links with the Soviet scientists since its inauguration. Daresbury Laboratory is developing its science campus with large-scale facilities: SRS, 4GLS, a high-performance computer and a Super STEM.



The 2.5 GeV Kurchatov Synchrotron Radiation Source. Inset: Dr Hywel Price and Professor Kovalchuck signing the MOU. Professor Samar Hasnain and Professor Svetlana Zheludeva, Deputy Director, are seen in the background.

Soleil begins to take shape

The construction of Soleil has started in earnest. The shape of Soleil can begin to be seen from a recent photograph taken in early October 2003 (shown on the right). Soleil is located close to the current French synchrotron facilities DCI and Super-ACO at LURE in Orsay. LURE will close in December 2003. The close proximity of the original synchrotron radiation laboratory to Soleil has allowed an efficient transfer of skilled staff from LURE. Soleil expects to begin operation in January 2006 with 12 beamlines. To cover the two-year dark period, a new beamline has been built at the Swiss Light Source in Zurich, Switzerland, and arrangements have been made with several synchrotrons, including Elettra in Italy and the National Synchrotron Light Laboratory in Brazil.



Construction site of Soleil.