PRESS RELEASE 12/08

New Biochemistry building opens at the University of Oxford

The new £49 million Biochemistry building at the University of Oxford designed by Hawkins\Brown architects is now complete. The distinctive 12,000 sq m facility with its glass facades and coloured glass fins brings together 300 lecturers, researchers and students previously based in a number of separate buildings. Inside, a 400 sq m atrium with breakout spaces and specially commissioned artworks encourages collaboration between the researchers.

The Biochemistry Department at Oxford University is the largest in the UK and is internationally renowned for its research in the understanding of DNA, cell growth and immunity. Previously the department’s scientists have had to conduct research in outmoded buildings spread across the Science Area in the centre of Oxford.

The brief for the new building was to achieve a new ethos of “interdisciplinary working” where the exchange of ideas is promoted in a large collaborative environment. At the same time space was required to enable the research groups to focus on their cutting-edge work in state-of-the-art laboratories.

The building challenges public perceptions of the inaccessible nature of research. All of the elevations are transparent, with the laboratories visible at the external face. This open and transparent approach makes a statement about the value and integrity of the biomedical research inside.

The new facilities bring together over 300 researchers and post graduate students working together in bioinformatics, chromosome biology, molecular biophysics and biochemistry. The project reflects the increasingly interdisciplinary nature of scientific research, which no longer relies on traditional departmental demarcations but requires “thinking” spaces which facilitate cross fertilization of ideas.

All of the interior spaces revolve around a 400sqm organic shaped naturally ventilated, timber clad atrium. Dramatic sculptural staircases criss-cross the atrium, which facilitate chance encounters and conversations between researchers. Informal meeting areas are dispersed across the atrium on all five floors. Open plan write-up areas also share the atrium space. All the cellular office accommodation has full height glazed partitioning to allow greater transparency and availability.
“This is a beautiful, innovative and functional building. It allows conversations to happen that wouldn’t otherwise take place in a thousand years.”

Prof. Kim Nasmyth, Head of Biochemistry

The external envelope of the new Biochemistry Building is constructed using a unitised curtain walling system. Subtly coloured laminated glass fins fixed vertically within the mullions wrap the full perimeter of the building, framing views in and out of the building as well as providing a single architectural language which unifies the building. The colours of the fins pick up on the rich red, terracotta, orange, brown and plum of the surrounding buildings, providing a bold yet complementary take on the historic setting of Oxford. Due to the tight site the building is only ever viewed obliquely and this arrangement ensures good daylight for users while controlling long views into and out from the building to provide a degree of privacy. The glass fins cast ever-changing coloured light and shadows across the elevations, making patterns of light within the building and across the surrounding streets.

The new Biochemistry’s art programme “Salt Bridges” was a major constituent in providing this creative and thought-provoking environment. Lead artist Nicky Hirst was appointed by the Department to work with the Department and Hawkins Brown in creating a strategy for accommodating challenging site-specific art within the building.

The digital artist Tim Head was awarded a residency with the Structural Bioinformatics and Computational Biochemistry (SBCB) Department. His residency has explored the interface between high-end computation for biomolecular simulations and contemporary digitally-based visual art, both of which are concerned with visual representation of abstract concepts and data. Tim has produced two pieces of work for the building: “Open Field” a digitally printed carpet for the atrium with a four-way repeat which creates a pattern that is neither uniform nor random; and “Light Cycle” a digital, kinetic, light installation for the atrium wall which uses computer programming to set up a series of colour movements mirroring the use of simulations used by the researchers to virtually explore the behaviour of protein molecules.

“This work provides a metaphor for the visualisation of numerical data concerning the evolution in time of complex protein systems. It will serve to remind researchers that what they see on their screens are abstract representations of the behaviour of molecules, not the molecules themselves.”

Prof. Mark Sansom, Director SBCB

“I wanted to explore the electronic space of the computer screen – to isolate the properties that are intrinsic to the electronic space and get rid of the things that I felt were borrowed from other mediums. You are left with something that is purely electronic……. It’s the electronic Modernism.”

Tim Head
Fine art photographer Peter Fraser was commissioned by the Department to undertake a residency documenting the construction period of the building. Peter has created a large archive of exquisite images as the old buildings were demolished and the new building was created.

“There are three things in particular that make Peter’s images of interest to me as a Biochemist. Firstly they are concerned with what things are made of. Secondly he is documenting a process of physical change and ‘capturing the intermediates” which is what we do as scientists. Thirdly the mark of a great scientist is to see what everyone else sees but to think what no-one else has thought. Peter achieves this in his photography.”

Prof. Jonathon Hodgkin

Six large-scale photographs of Peter’s work are on permanent display in the main seminar room and a 7m x 3m diptych is displayed at first floor level of the atrium.

Nicky Hirst has created two large-scale pieces for the new Biochemistry building; “The Glass Menagerie”, a large-scale design for the front elevation of the building which features a series of ink blots made by the artist using the Rorschach Inkblot Test. The Test is scored largely on how you see rather than on what you see and asks the question how does someone view and organise the world around them.

Nicky’s second piece “Portal” is a decorative frame on the ground floor glass wall overlooking the atrium wall. Its design is a fiction, a variety of decorative and graphic imagery including Victorian framing patterns, bank notes and biochemical imagery. The design is fine in detail around the perimeter and empty in the middle reflecting the building plan with intense laboratory activity at the edges and an open atrium in the middle.

The fourth artist, Annie Cattrell was commissioned to create a large-scale, sculptural work for the atrium in the form of an “artist’s chandelier”. Annie’s piece, called “0 to 10,000,000” is inspired by plasma, the fourth state of matter, in which particles at a very high temperature break down into their basic components and are highly dynamic. Cattrell uses the interaction of a morphed flock of birds as a metaphor for particles in their most fluid and active state. “0 to 10,000,000” consists of over 150 iridescent bird forms individually suspended from the atrium roof.

The new building is the first stage of a major redevelopment of the Science Area. When this is linked to the Radcliffe Observatory Quarter development it will represent hundreds of millions of pounds worth of investment in the infrastructure of the University of Oxford.

In order to create a clear site of sufficient scale to achieve a world-class facility for the Biochemistry Department, the University had to demolish a range of buildings, including listed structures from the historic core of the University’s Scientific Campus.
To win planning consent the architects had to persuade the English Heritage Advisory Council, the Planning Authority and the full Oxford City Council that the Hawkins\Brown scheme would provide a worthy replacement and create an outstanding facility for the Department of Biochemistry.

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Key dates:
Appointed: December 2003
Design phase: Jan 2004- Dec 2006
Construction phase: Jan 2007- Sept 2008
Completion: October 2008

Project Credits:
Funding Client: Mike Wigg, Oxford University Estates Directorate
User Client: Denis O’Driscoll, Department of Biochemistry
Design Team: Russell Brown, Oliver Milton, Louisa Bowles, Hazel York, Morag Morrison, Chloe Sharpe
Associate Director
In charge of project: Oliver Milton

Consultants:
Structural Engineer: Peter Brett Associates
Acoustic Consultants: Peter Brett Associates
Services Engineer: Foreman Roberts
Contractor: Laing O’Rourke
Project Management: PDCM
Cost Consultant: Turner and Townsend
Interior Designer: Hawkins\Brown
Laboratory Design Consultant: CUH2A
Art Consultant: Louise O’Reilly, Freelance Associate, Artpoint
Arts Advisor: Paul Bonaventura, Ruskin School of Drawing and Fine Art

Hawkins\Brown has been at the forefront of British architecture for twenty years, producing buildings of a consistently high quality for a wide variety of clients. Current projects in development include the redevelopment of Park Hill, Sheffield, the UK’s largest listed structure; the Corby Cube, a new civic hub and theatre to kick start the major redevelopment of this former steel town and major new campuses for Coventry and Kingston Universities.

www.hawkinsbrown.co.uk
Oxford University’s Medical Sciences Division is one of the largest biomedical research centres in Europe. It represents almost one-third of Oxford University’s income and expenditure, and two-thirds of its external research income. Oxford’s world-renowned global health programme is a leader in the fight against infectious diseases (such as malaria, HIV/AIDS, tuberculosis and avian flu) and other prevalent diseases (such as cancer, stroke, heart disease and diabetes). Key to its success is a long-standing network of dedicated Wellcome Trust-funded research units in Asia (Thailand, Laos and Vietnam) and Kenya, and work at the MRC Unit in The Gambia. Long-term studies of patients around the world are supported by basic science at Oxford and have led to many exciting developments, including potential vaccines for tuberculosis, malaria and HIV, which are in clinical trials.