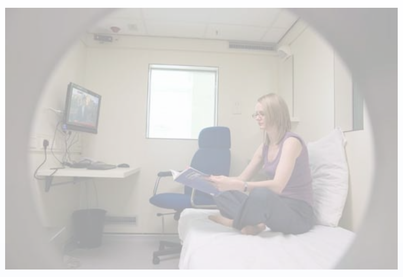
Development of the Human Metabolism Research Unit

Introduction

The Human Metabolism Research Unit (HMRU) has been developed through a partnership between University Hospitals Coventry and Warwickshire NHS Trust (UHCW) and the University of Warwick Medical School. The Unit is under the direction of Professor Sudhesh Kumar, who holds a joint position at UHCW and Warwick Medical School. Professor Kumar also leads the Warwickshire Institute for Diabetes, Endocrinology and Metabolism – an international centre for excellence in human metabolic research based at UHCW. The Human Metabolism Research Unit is also supported by researchers within the School of Engineering and the Department of Physics at the University of Warwick, who have developed successful mathematical models of a number of disease processes and their treatments. The clinical trial infrastructure and investigators at UHCW are supported by dedicated clinical trial professionals, nursing and nutrition support staff. All research studies are carried out to the highest standards. UHCW provides 24-hour clinical cover for the Unit, and governance is assured by the Research & Development team.



The Unit has been funded by Birmingham Science City, UHCW NHS Trust and Warwick Medical School. The design, build, installation and commissioning of the Unit was a collaborative venture, the progression of which is shown in these illustrations.

April 2009: Science City Translational Medicine funding awarded to fund 2 whole room calorimeters to be built by Maastricht Instruments

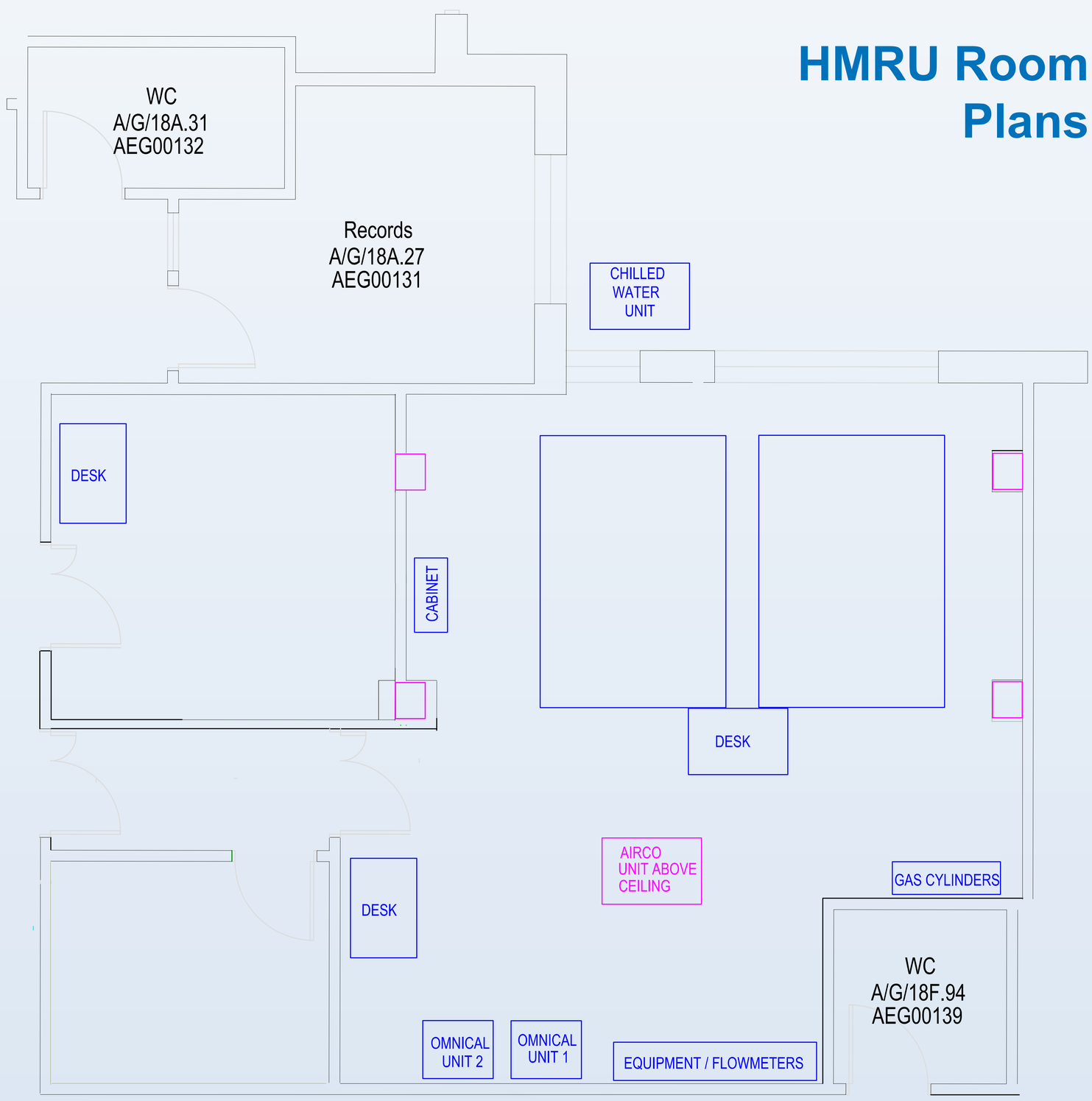
May 2009:

June 2009:

July 2009:

August 2009: UHCW NHS Trust provide capital budget to provide space to develop the unit

HMRU Room Plans



University Hospitals Coventry and Warwickshire NHS Trust

THE UNIVERSITY OF WARWICK

Birmingham Science City ideasforlife

Advantage West Midlands
www.advantagewm.co.uk

MAASTRICHT INSTRUMENTS

University Hospitals Coventry and Warwickshire NHS Trust

Development of the Human Metabolism Research Unit

March 2010: Tests, acceptance and transfer of ownership, Maastricht

April 2010:

March 2010: Tests, acceptance and transfer of ownership, Maastricht

From left to right; Paul Schoffelen (Department of Human Biology, Maastricht University), Adrian Wilson (Director of Clinical Physics and Biomedical Engineering, UHCW NHS Trust; Professor of Physics, Warwick University), Emile Arnoldussen (Business Developer, Maastricht Instruments), Sudhesh Kumar (Professor of Medicine, Diabetes and Metabolism, UHCW NHS Trust; Pro Dean, Research, Warwick Medical School), Ceri Jones (Head of Research & Development, UHCW NHS Trust), Filipa Vance (Birmingham Science City Project Manager, Translational Medicine - Clinical Research Infrastructure and Trials Platform).

All equipment asset tagged

Inner workings

External view

Internal view

Professor Sudhesh Kumar delighted with equipment

Entire chamber

University Hospitals Coventry and Warwickshire NHS Trust

Development of the Human Metabolism Research Unit

April – August 2010: Room conversions at UHCW NHS Trust

Site meeting

Room conversion

September - December 2010: Whole Body Calorimeter build at UHCW NHS Trust

Material arrives on site

Rooms under construction

Nearing completion

Rooms under construction

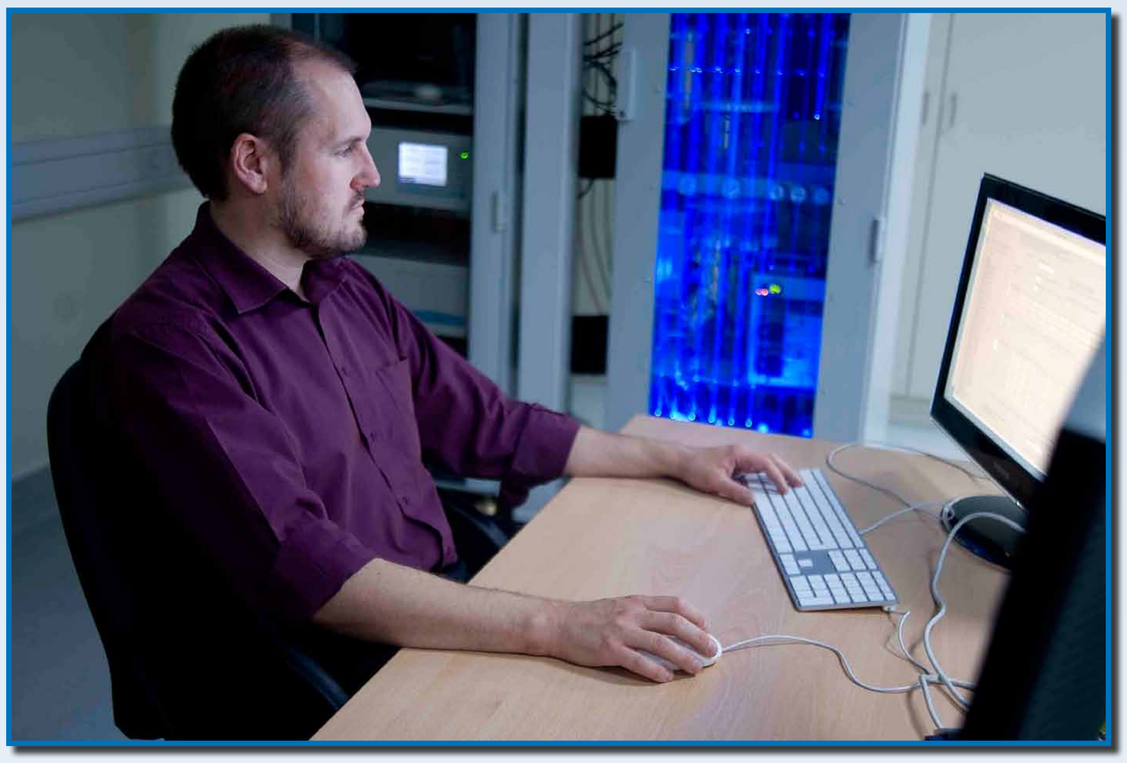
University Hospitals Coventry and Warwickshire NHS Trust

Development of the Human Metabolism Research Unit

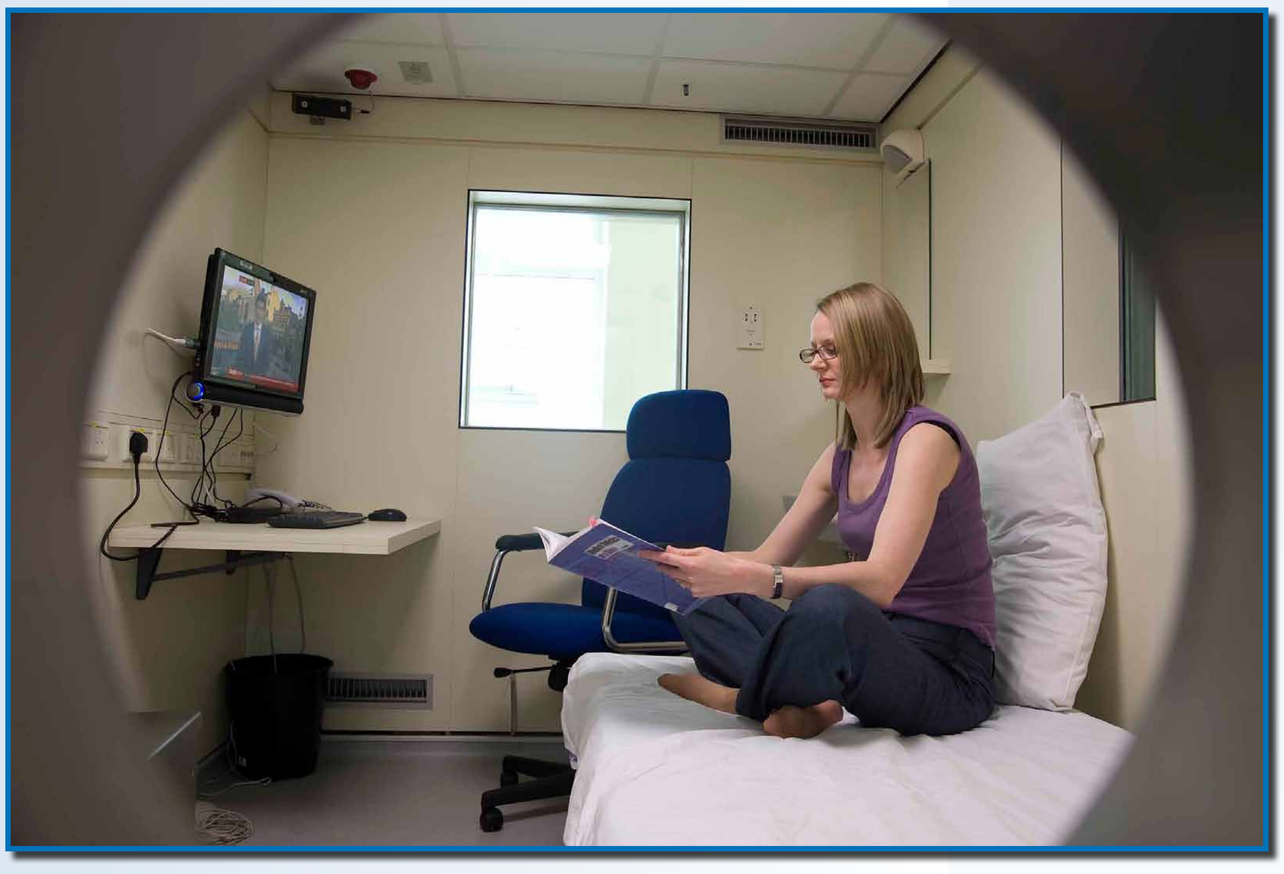
January – March 2011: Commissioning and testing of new facility

Left to right: Adrian Wilson (Director of Clinical Physics and Biomedical Engineering, UHCW NHS Trust; Professor of Physics, Warwick University), Patrick Cremers (Project Leader/Engineer, Royal DSM N.V.), Paul Schoffelen (Department of Human Biology, Maastricht University), John Hattersley (Senior Clinical Scientist, UHCW NHS Trust), Emile Arnoldussen (Business Developer, Maastricht Instruments)

April 2011: Open for business!



Rooms under construction



University Hospitals Coventry and Warwickshire NHS Trust