On 5 July 2013, the University of Adelaide officially opened its new $100 million science and research building, The Braggs, named after two of its greatest alumni, 1915 Nobel Laureates Sir William Henry Bragg and his son, Sir William Lawrence Bragg.

Today the University honours their work with the Braggs building. The Braggs building is the newest building on campus and a facility built to support student discovery in science and the continuation of world-class research. It offers both the most modern and very well-equipped facilities for a great learning experience.

**Nobel Laureates**

William Henry Bragg and his son William Lawrence were jointly awarded a Nobel Prize in 1915 for their discovery and experimentation of X-ray crystallography. Their discovery was so significant that 100 years on it still effects many aspects of our lives—from determining the structure of DNA and proteins, to developing new drugs and chemicals. As the only father and son combination to have been awarded the prestigious Nobel Prize, they are today recognised as one of the most scientifically brilliant teams in history. University of Adelaide researchers regularly use the Braggs’ techniques in their studies of materials.

Sir William Henry Bragg spent 22 years at the University of Adelaide, as Elder Professor of Mathematics and Physics from 1886 to 1908, and his pioneering work with X-rays and radium started at the University of Adelaide.

Sir Lawrence Bragg graduated from the University of Adelaide in mathematics in 1908 and in 1915 won the Nobel Prize jointly with his father. At 25, Sir Lawrence Bragg remains the youngest scientist ever to win the Nobel Prize.

**The Building**

The Braggs has more than 10,000 square metres of research and teaching facilities with unique specialised laboratories as well as a 420-seat lecture theatre, two floors of state-of-the-art teaching laboratories and additional student and staff space.
The flexibility of this modern teaching space has increased space utilisation and enabled consolidation of the teaching which was previously spread across three buildings and across three of the Faculty’s schools. This consolidation has additionally allowed the bringing together of teaching technical support from each of these areas under a new administrative and operational structure.

### Specific Design Features

- Located in the developing science and research precinct on the North Terrace Campus.
- 10,146m² gross floor area.
- Brings together physicists, chemists and biologists to pursue a new trans-disciplinary approach to science.
- Contains a 420 seat lecture theatre.
- The full length of the southern façade is transparent, and has been designed as a large multi storey breezeway.
- The solid panels within the façade are a warm red/orange colour, providing a respectful reference to the red brick environment of the early buildings on campus.
- The façade uses the fundamental tenets of the IPAS research as an inspiration: light reflecting and refracting in a different way.
- The envelope of each floor mirrors the varying wavelengths of the visible light spectrum as the façade material ‘folds’ in a concertina like fashion around the building. On each level the folded angle adjusts creating a delicate variation between all levels of the building, with each level reflecting and refracting light in a different way.
- The building is serviced with low temperature variable air volume (VAV) air conditioning, with mixed mode operation in the offices and common areas to utilise free cooling afforded by natural ventilation (energy saving).
- Building incorporates rainwater harvesting and storage. Water is collected and diverted to underground storage tanks beneath the Maths Lawn. This water is re-used for flushing toilets.
- Teaching floors have access laboratory benches which can be height adjusted.
- The ceiling in the Braggs Lecture Theatre brings the outside façade into the space.
- The Braggs building has been used to deliver lectures, tutorials and practicals, exposing as many students as possible to the highest quality contemporary teaching spaces.
- The Braggs has received the following industry awards:
  - Jack McConnell Award for Public Architecture at the South Australian Architecture Awards from the Australian Institute of Architects on 14 June 2013.
  - Excellence in a Commercial/Industrial Building over $50 million—Landmark Project Award at the Master Builders Association Building Excellence Awards on the 16 August 2013.
  - National Commendation award for Public Architecture at the National Architecture Institute Awards held 7 November 2013.
  - Award of Excellence for Commercial (Extra Large) Category at the National Electrical and Communications Association (NECA) awards on the 23 August 2013.

### Research Facilities

The Braggs accommodates the University’s world-leading Institute for Photonics and Advanced Sensing (IPAS), and other research areas including biological, biomedical, genetics and bioinformatics research. Facilities include glass development and processing, optical fibre fabrication, laser and device development, luminescence dating, environmental genomics, DNA forensics, molecular biology, photonic sensor development, and synthetic, surface and bio chemistry, plus offices to co-locate researchers and students from a broad range of scientific disciplines, including collaborations with China via the Zhendong Centre.

### Teaching Facilities

Two floors have been primarily devoted to providing the latest teaching environment while utilising the latest technologies. The conceptualisation and design was undertaken with close consultation from the potential end users, namely academics, technical staff and most importantly the students, resulting in a teaching space built with science teaching needs firmly in mind. Three wet labs, one multi-purpose dry laboratory and several tutorial rooms, combined with adjacent preparation and storage areas, have enabled hands-on practicals to be undertaken which provide high quality student learning across the breadth of biology (genetics, biochemistry, microbiology, zoology, botany, ecology) as well level 1 physics.

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