



THE UNIVERSITY OF
MELBOURNE

LIFE SCIENCES

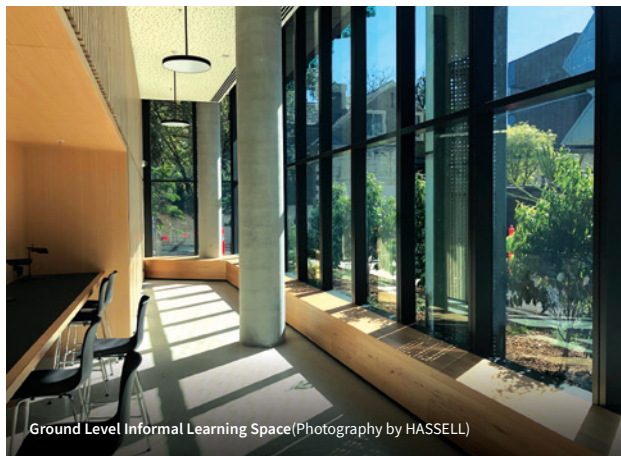
LEARNING AND TEACHING

BUILDING 125

Positioned on the corner of Royal Parade and Tin Alley is the University's first shared life sciences learning and teaching space. It delivers the highest quality formal and informal learning spaces for the University's three faculties working within the life sciences. Together these faculties, the Faculty of Veterinary and Agricultural Sciences, the Faculty of Science and the Faculty of Medicine, Dentistry and Health Sciences, play a role in solving the global challenges of the future. These challenges include improving human and animal health, providing essential natural resources and protecting the diversity of life on our planet.

Its world class facilities include large practical laboratories for the teaching of biosciences, biomedicine, veterinary science and microbiology as well as spaces for problem-based learning, teaching in small groups and a variety of student and collaborative work areas.

The shared spaces can seat 746 students within the formal teaching spaces and when at capacity can accommodate 1184 students and staff across all spaces, this improves space efficiency and the environmental footprint required to deliver learning and teaching in the life sciences. The building is the University's second 6 Star Green Star building and its first scientific building to achieve this rating. In addition to the learning spaces there is a café on the ground floor and end of trip and recreational facilities on the lower ground floor.



Ground Level Informal Learning Space(Photography by HASSELL)

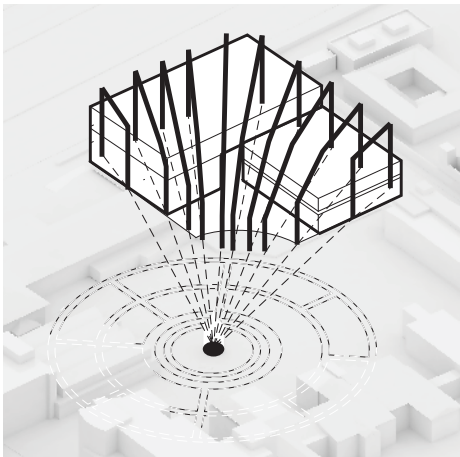


Building 125 (Photography by University of Melbourne)

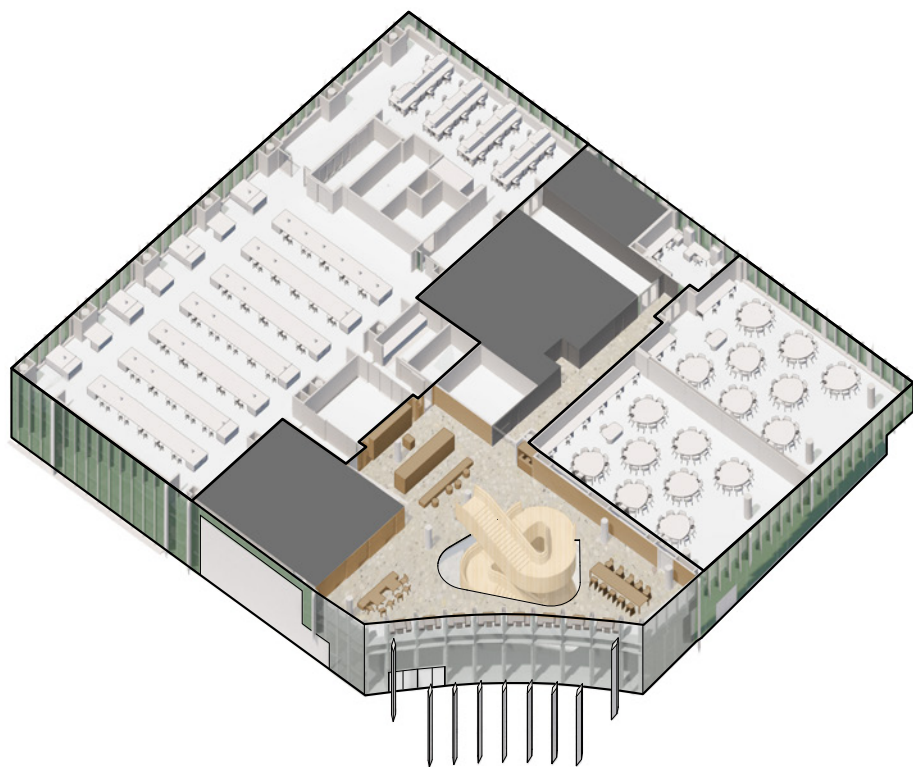
PRESERVING THE SYSTEM GARDEN

Building 125 celebrates the historic elements of the campus particularly the System Garden, which was originally conceived for the teaching of bioscience over 160 years ago.

The building is designed to work harmoniously into the surrounds of the garden with the Building 125 footprint referencing the garden's original circular shape. The result is a new, protected entrance into the garden from Tin Alley, which provides students and the public with enhanced access to the System Garden. The new building's internal design incorporates both a terrace garden and interior plantings, which speaks to the history of the site as a place that showcases plant diversity and promotes social interaction and learning. The roof top terrace garden and an exterior deck adjoining the System Garden at ground level, provide student and the public with space for social activities and informal learning.



System Garden(Photography by HASSELL)



ARCHITECTS' STATEMENT

“Diverse threads of the vast interrogation of nature we call science are coming together in a rich and mutually informative intellectual tapestry.”

— Laureate Professor Peter C. Doherty

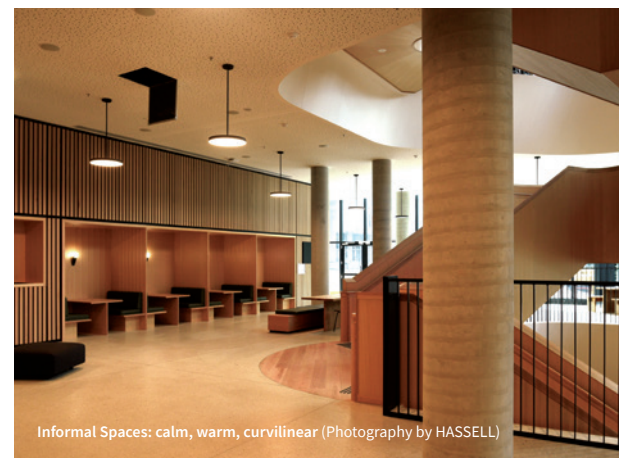
The building concept is to create two distinct types of space and experience. One structured and focused, the other informal and collaborative. From the interior fit-out to the façade, the function and aesthetics of space are finely tuned to enable different ways of thinking and learning.

Formal learning space such as the laboratories, are designed to create a focus on the task at hand; they are linear, highly functional, efficient in their arrangement, and monochromatic. The façade in these spaces is clear and simple, to provide unobstructed views to the gardens.

Informal learning space, in contrast, is designed to enable collaboration and choice.



Lab Spaces: machined, clear sight and linear (Photography by HASSELL)



Informal Spaces: calm, warm, curvilinear (Photography by HASSELL)



These spaces are warm, curvilinear, public and can be occupied in a variety of ways. The fins of the façade are condensed in these spaces to intensify connection with the System Garden beyond.

The façade fins radiate from the concentrically arranged System Garden, and recall the historical conservatory structure once at the centre of the garden. An abstracted biological pattern derived from the artworks of PhD students, provides a perforated texture to strengthen the narrative of the building.

Within the informal spaces are two key circulation points, an evocative stair and a less obvious lift. The stair weaves throughout the space to connect

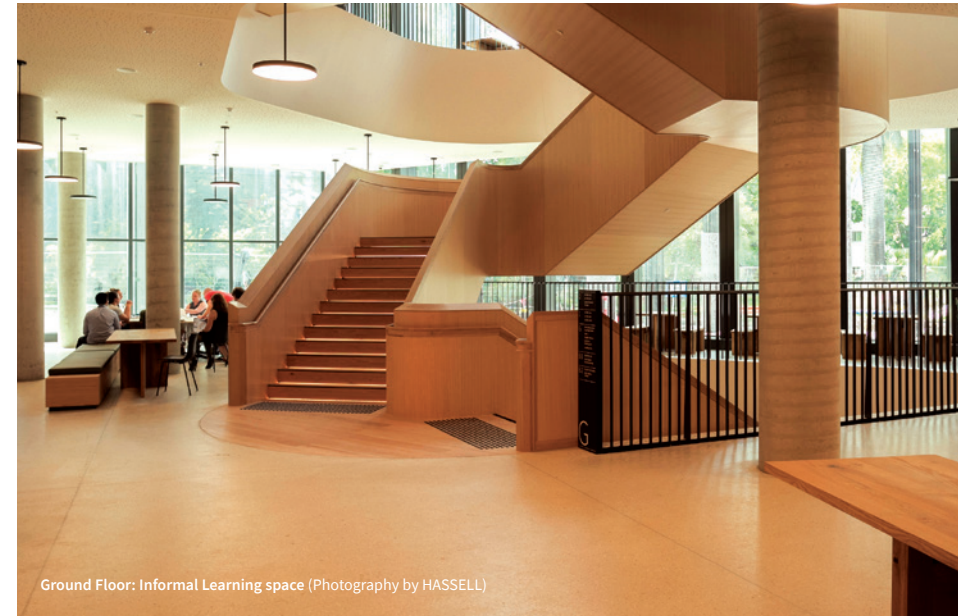
people and activities with each other, orienting the landings to views to the System Garden and arrival points to the teaching spaces.

The lifts, deep in the core of the building and separated from outside world, provide a moment of immersion and intensity. The biological artwork lining the space is intense and colourful, enabling imagination and wonder on the journey from floor to floor.

The new building acknowledges its key campus corner location by responding to, the heritage of the System Garden, landscape setting of Royal Parade, gateway of Tin Alley and future contribution of the life sciences community.



Lower Ground (Photography by Earl Carter)



Ground Floor: Informal Learning space (Photography by HASSELL)

KEY LEARNING AND TEACHING SPACES

Ground Floor: Collaborative Learning Centre

This 144 seat space is designed for students to come together in small groups to build knowledge and understanding through shared endeavour. A variety of different settings enable a progressive pedagogy in which groups of 6 students work collaboratively on the course material presented on their screens, while developing their shared thought process on white boards and personal devices.

The combination of booths and group tables allows students to engage with their group and speak up in a safe, more intimate setting, while retaining a sense of the larger cohort in the remainder of the space. A number of the booths have video conferencing to enable group work across campuses.

Tutors can roam the space with the ability to listen in and engage with each group. Audio-visual controls allow a live image of the tutor across the entire cohort without having to rely on a direct line of sight to all students.

Level 1: Dry Lab 1

This 144 seat space challenges students to explore and extend their understanding through a range of materials, both real and virtual. Students work in groups of three to study and discuss microscopic slides and data on the shared screens.

The pedagogy is supported by curated specimens in cabinets and a series of shared microscopes that are linked to the audio-visual system. The large projection screens allow tutors to address the entire class or they can roam around and engage in discussions with the students.

KEY LEARNING AND TEACHING SPACES

Level 1: Wet Lab 1

This wet lab is an active learning environment with a focus on veterinary, biology and microbiology practicals. The space is designed to retain maximum visibility over the benches and to limit visual distraction and focus the attention on the bench-work. The innovative audio-visual system has directional speakers which allows the 140 seats to be one class or broken into two (80:60) or three (60:40:40) separate classes.

Level 2: Wet Lab 2

This 128 seat wet lab and active learning environment has a focus on biochemistry, molecular biology and pharmacology practicals. The space is designed for technology intensive learning and teaching. The directional speakers allow the total capacity to be broken up into separate classes configured around multiples of sixteen students. The innovative support space allows for cross faculty preparation involving specialist equipment.

Level 2: Physiology Dry Lab

This 50 seat flexible space is designed for physiology practicals for students working in pairs. The cabinets, electronic measuring equipment and computers are integrated in the joinery which is cantilevered from the walls. The benches are on wheels to enable large equipment, for example massage tables and exercise bikes, to be used, or they can be rearranged to allow a workshop mode.

Lower Ground: Veterinary Anatomy

The teaching spaces in the basement are dedicated to veterinary anatomy. The basement spaces offer 140 students a haptic learning experience in which students can feel and develop a thorough understanding of animal anatomy.



Level 1: Dry Lab 1 (Photography by HASSELL)



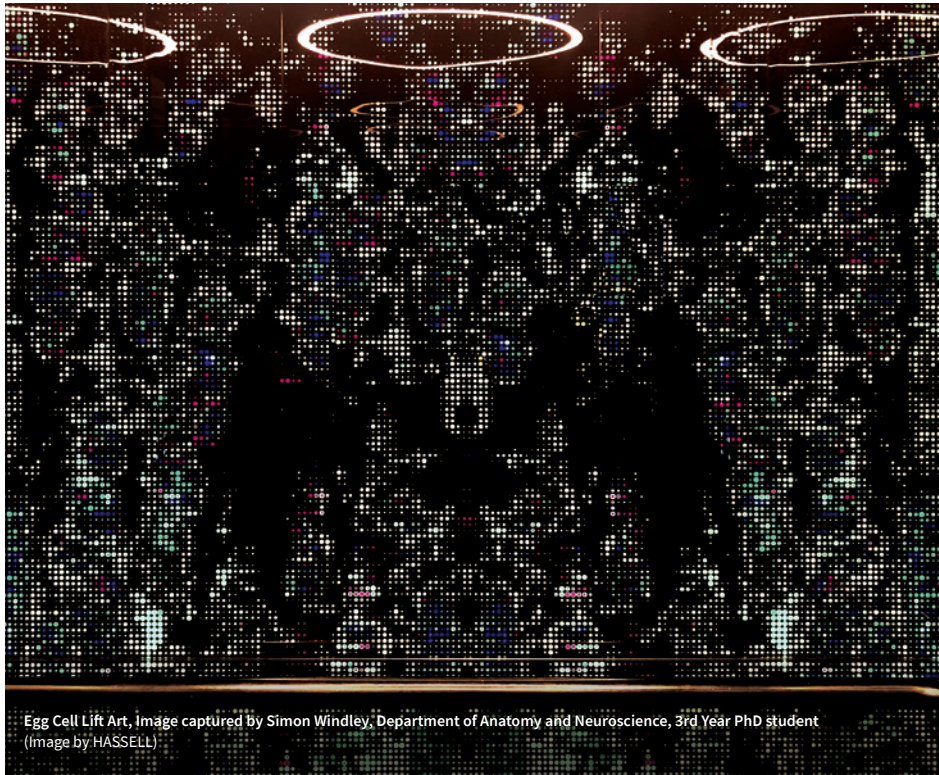
Level 2: Wet Lab 2 (Photography by Earl Carter)



Ground Floor: Collaborative Space (Photography by HASSELL)



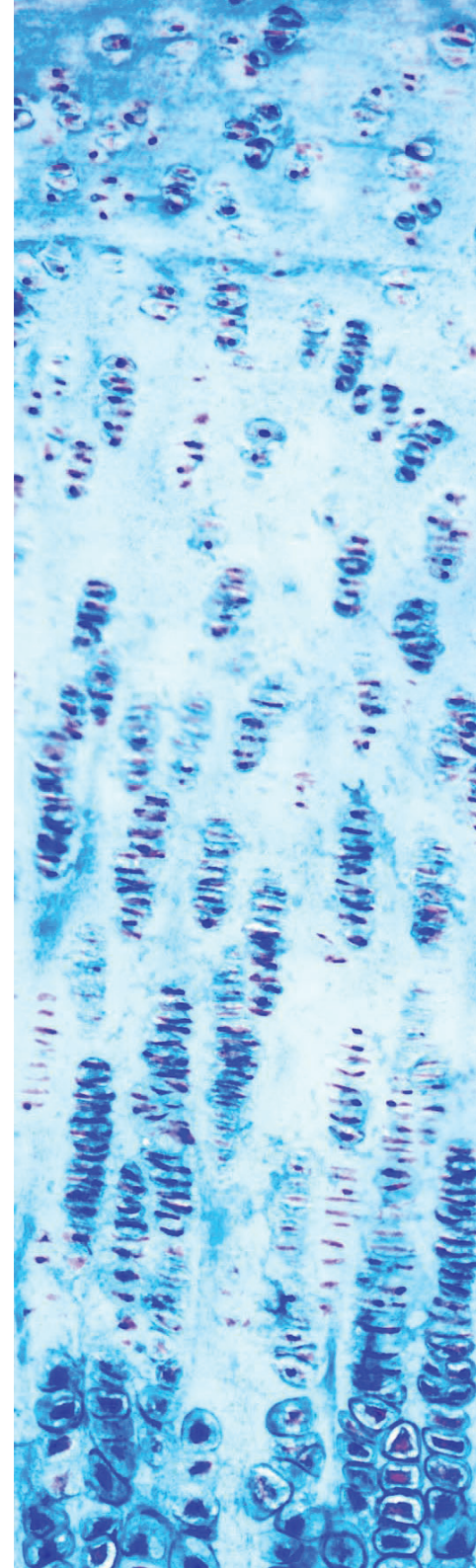
Level 2: Physiology Dry Lab (Photography by HASSELL)



Egg Cell Lift Art, Image captured by Simon Windley, Department of Anatomy and Neuroscience, 3rd Year PhD student
(Image by HASSELL)



Sugar Gum, Alexander Knox (Photography by HASSELL)



ART

A design competition was held as a means of incorporating student work into the built form of the building.

Facade Artwork

Throughout the glass work of the facade and in one of the lift cars is an image created by Babatunde A. Ayodele, a Postdoctoral Research Fellow in Musculoskeletal Biology.

The microscopic image of an equine cartilage shows the arrangement of chondrocytes, the cells that form and maintain cartilage.

Lift Artwork

Within the second lift car is an image created by Simon Windley, a 3rd Year PhD student with the Department of Anatomy and Neuroscience. The image is of a quintuple stained mouse ovary at the time of birth displaying the various stages of follicle development.

Sugar Gum Reuse

A Sugar Gum that once stood east of the former building was removed to accommodate the new building. This sugar gum has been reused and now provides four seats along Tin Alley as well as a dramatic internal sculpture designed by Alexander Knox. The sculpture is positioned in the Entrance Foyer and is approximately 3.5m high x 2.4m wide and weighs 3,965kg.

Left: Equine Cartilage Image used throughout facade and lift cart.
(Captured by Babatunde A. Ayodele, PhD Student)



Lower Ground: Informal Study Space (Photography by HASSELL)

QUICK FACTS

Consultant Team	Principal Consultant and Architect, HASSELL Interior Design, HASSELL Landscape, HASSELL Structural/Civil, Irwin consult General Building Services, Norman Disney Young Facade Engineer, Arup NCC/DDA Consultant, Mckenzie Group Traffic and Waste Management, SALT3 ESD and Acoustic Engineer, AECOM Signage and Wayfinding, Studio Semaphore Heritage Architect, RBA Architects
Client	University of Melbourne
Project Manager	Aurecon
Builder	Kane Constructions
Size	10,250 m ² Gross Floor Area
Cost (\$ AUS)	\$100 million Total End Cost
Energy Rating	6 Star Green Star



Staircase (Photography by HASSELL)



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