

ENGINEERING A SMARTER MEDICAL FUTURE

CLIENT : St Vincent's Hospital Melbourne (SVHM)
MAIN CONSTRUCTION COMPANY : Kane Constructions
ARCHITECT : Denton Corker Marshall (DCM)
STRUCTURAL ENGINEER : Arup
SURVEYOR : McKenzie Consulting Group

Aikenhead Centre for Medical Discovery is Australia's first biomedical engineering research centre on a hospital campus. The 11-storey facility will feature state-of-the-art labs, a full height atrium, and educational spaces.

Located in the heart of Melbourne's healthcare precinct, the Aikenhead Centre for Medical Discovery (ACMD) represents a landmark in Australian medical research and innovation.

Kane Constructions, a multi-award-winning commercial builder, was appointed to deliver this technically complex, and Australia's first, biomedical engineering research centre co-located within a major hospital campus.

The ACMD facility brings together clinical researchers, biomedical engineers, scientists, and industry innovators under one roof. The project forms a strategic hub for collaboration between institutions such as St Vincent's Hospital Melbourne, University of Melbourne, RMIT, the Bionics Institute, St Vincent's Institute, Swinburne University and Australian Catholic University. Kane's role was pivotal in translating this ambitious vision into a state-of-the-art, 11-storey structure that blends high-tech laboratories with flexible research and education spaces.

Kane's engagement began with the early works package, including the demolition of the former Aikenhead Wing on the operational St Vincent's campus. Managing demolition in

a live hospital environment required precision, planning, and extensive co-ordination. Kane deployed detailed risk mitigation strategies and worked in close collaboration with hospital staff to ensure minimal disruption to ongoing clinical services.

The new ACMD facility includes a diverse suite of specialist spaces: 3D printing labs, clinical simulation facilities, PC2-certified laboratories, engineering workshops, and educational facilities. Delivering this range of technical zones within a vertical building footprint required Kane to coordinate complex services, including vibration-sensitive floor construction and advanced HVAC systems tailored for both medical and engineering applications.

Each level had specific design requirements and performance standards. Kane worked alongside principal consultants Denton Corker Marshall (architect), Arup (structural, façade, acoustic, fire engineering), Lehr Consultants International (services), Johnstaff (Superintendent), and MBM (quantity surveying) to ensure these were met without compromise.

The building's design was inspired by crystalline formations, a motif that speaks

to both medical and engineering discovery. Key features include a full-height atrium and a striking external façade made of sculpted aluminium panels and glazed curtain walls. Kane's ability to translate architectural vision into a functional, buildable reality was instrumental in achieving the desired balance between form and function.

With multiple institutions invested in the outcome of ACMD, Kane's proven experience in stakeholder management was critical. Regular working group meetings, transparent reporting, and collaborative decision-making processes were implemented throughout the build. This ensured that all partners remained aligned on budget, schedule, and scope while accommodating refinements along the way.

The team's experience delivering health, research, and education projects of similar scale gave stakeholders confidence in Kane's ability to navigate complexity with clarity and control.

Kane's delivery of ACMD also focused on future sustainability. The project incorporated energy-efficient design principles, smart building systems, and long-term adaptability across research and teaching spaces. The facility is designed to accommodate rapid technological evolution, essential for a centre committed to driving Australia's medical device and digital health innovation.

ACMD will be a catalyst for life-changing health innovation, from surgical robotics and bionic implants to new imaging technologies and wearable health devices. For Kane Constructions, delivering the ACMD was more than a construction project, it was a contribution to the future of Australian healthcare.

For more information contact Kane Constructions, phone 03 8420 1200, website www.kane.com.au

