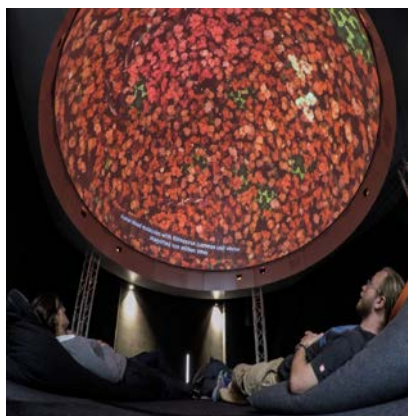




Australia's
Global
University



EPICentre is a shared UNSW visual analytics centre, undertaking research in the fields of art, science, design, engineering and medicine.



Human blood molecules

More information

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Visual Analytics in an Era of Big Data

Expanded Perception & Interaction Centre

Competitive advantage

Visualisation as a Microscope for Big Data

- Highest-resolution cylindrical screen in the world.
- Largest travelling hemispherical dome (full-dome).
- Unique labs delivering visual analytics solutions across the scales.
- Close integration with Data61 big data (health) applications & customers.

Recent research projects

- Single molecule: visualising molecules and cellular architecture.
- Operating theatre of the Future: advanced metabolic pathways.
- Visual story-telling for decision making and episodic memory retrieval.
- Collaboration with Data61 on cyber resilience and blockchain visualisation

Successful applications

- The Big Anxiety (art+science+people): <https://www.thebiganxiety.org/>.
- ARC LIEF grant: Australian Metabolic Phenotyping Centre (AMPC) – collaboration with Murdoch University, Department of Health WA, ICL.

Facilities and infrastructure

- **EPIcylinder**: 7-m in diameter, 340-degree panoramic projection with 33 speakers (surround audio). Resolution of 120 million pixels in 3D.
- **DomeLab**: 6-m 3D hemispheric projection (full-dome). The system is designed to travel both nationally and internationally.
- **XR-Lab**: features several hardware solutions to develop and deliver fully featured Virtual Reality and Augmented Reality applications.
- **AVIE-SC**: 160-degree cylindrical screen driven by two 3D projectors.



Our experts

- A/Professor Tomasz Bednarz (UNSW A&D, CSIRO Data61).
- Scientia Professor Dennis Del Favero (UNSW A&D).
- A/Professor Nalini Pather (UNSW Medicine).