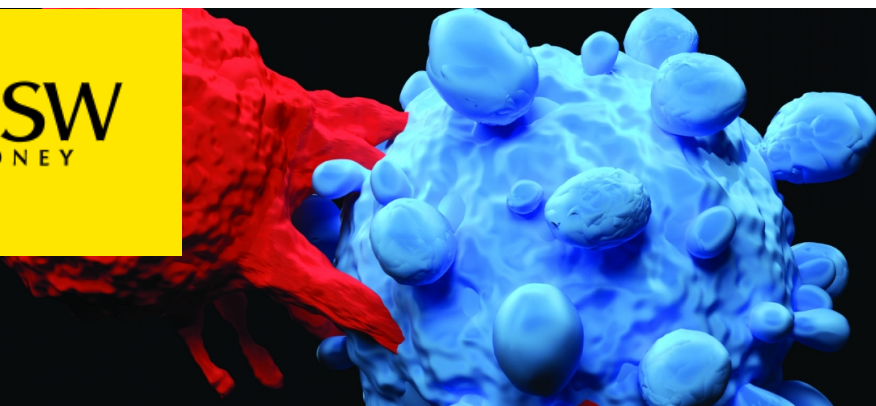




UNSW
SYDNEY



Imaging killer immune cells targeting tumours

Research and development of quantitative methods focused on understanding how cytotoxic immune cells can be harnessed for the treatment of solid malignancies. Specialise in revealing both the biological and mechanical processes that underpin the search, recognition and elimination phases of killer immune cell-mediated tumour rejection.

Competitive advantage

- Multidisciplinary team, instruments and methods incl. cell biology, immunology, physics, mathematics, engineering, computational modelling and simulations
- Quantitative analysis of precise cellular changes, movements, interactions and communications that enable immune cells to eliminate solid tumours

Impact

- Understanding how killer immune cells find and target solid tumours
- Testing of pharmaceuticals and protocols in quantitative assays
- Co-development of novel methods and intellectual property

Successful outcomes

- Active collaboration with clinicians, researchers and industry who seek expertise in precise and quantitative investigations at the interface between cancer and immunology
- Developing widely adopted open source image analysis solutions
- Illuminating cellular phenomena that enhance tumour rejection and infiltration

Capabilities and facilities

- State-of-the-art microscopy suites and biomedical laboratories
- Access to cutting-edge 3D live cell and intravital microscopes
- Advanced image analysis platforms
- Computational simulation and modelling infrastructure
- Immunocompetent and immunocompromised animal models
- In vivo adoptive cell transfer models
- Virus-based gene delivery and therapy
- Biophysical instrumentation

Our partners

- Children's Hospital at Westmead
- Royal Adelaide Hospital

More Information

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