



ACCELERATING COMMERCIALISATION

## Clarity Pharmaceuticals - Targeting disease with accuracy

### Customer Story

#### *Imaging technology is guiding cutting edge drug development*

What if there was a way to target cancer and kill a tumour without any collateral damage?

This is where Clarity Pharmaceuticals Pty Ltd (Clarity Pharmaceuticals), a Sydney-based biotechnology company, is making a difference. Established in 2010, Clarity Pharmaceuticals leverages its proprietary SAR Technology, which allows peptides and antibodies to be radiolabelled and visualised with a powerful imaging technique called positron emission tomography (PET). Employed together with the perfect pairing of copper isotopes, the technology allows the development of next-generation radiopharmaceuticals for diagnosing and treating cancer and other life-threatening diseases. This approach allows development of innovative 'theranostic' (diagnostic and therapy) products.

By labelling a drug with a radioactive tag, doctors can watch the drug through imaging as it travels through the body and seeks its target. Being able to see the drug infiltrate the cancer allows doctors to treat the patient more accurately.

To enable this targeted treatment, Clarity Pharmaceutical utilises isotopes of copper. Copper-64 and positron emission tomography (PET) imaging help to confirm targeting and once there is confirmation that the drug actually goes to the tumour and is safe, copper-67 is used, which kills cancer in a localised manner, making the treatment safer and more efficient. Clarity Pharmaceuticals' CEO, Dr Matt Harris said, "It gives you a lot of confidence to treat the patient. This is opposed to getting a diagnosis, taking chemotherapy and then hoping the drug goes to the tumours. We actually visualise the drug first."



*Clarity Pharmaceuticals' imaging technique analyses PET scans.*

Clarity Pharmaceutical has developed its first drug, SARTATE™, which combines the pairing of copper radionuclides with specific targeting in neuroendocrine tumours, meningioma, neuroblastoma and other cancers. The success of SARTATE™ will pave the way for the broad use of the SAR Technology to improve the diagnosis and treatment of other cancers such as prostate cancer, breast cancer and other types of solid tumours. New products for these indications are currently in preclinical development.

"Our personalised-medicine approach promises to increase the safety and effectiveness of drugs and ultimately improve the patients' quality of life," Matt said.

Matt received an Accelerating Commercialisation Grant of \$1,000,000 in 2016. This funding and advice from Commercialisation Adviser Topaz Conway allowed his company to progress to human trials of its technology.

Clarity Pharmaceutical's technology is providing a valuable revenue stream. It's in demand in Australia and in Europe, North America and Asia, with major drug companies among its client base. The company raised investment of close to \$3 million between 2011 and 2015.

View [claritypharmaceuticals.com](http://claritypharmaceuticals.com)

### *Entrepreneurs' Programme*

The Entrepreneurs' Programme is the Australian Government's flagship initiative for business competitiveness and productivity.

The [Accelerating Commercialisation](#) element helps small and medium businesses, entrepreneurs and researchers to commercialise novel products, processes and services.

Check your eligibility by visiting the [Entrepreneurs' Programme](#) or call **13 28 46**.