

# Development of unique tagging technology for Diprivan anaesthetic



AstraZeneca

## Developed and patented Programmable Magnetic Resonance (PMR) technology.

### Expertise and domain knowledge

- Digital health
- Tagging technology
- Pharmaceuticals
- Transfer to manufacture



## Our client asked:

AstraZeneca asked us to develop an automated drug identification system for the use of Diprivan (propofol) in its Diprifusor product – a Target Controlled Infusion (TCI) system. Accurate drug identification was vital in order to verify that the drug in use was Diprivan, and to differentiate between the two concentrations of drug available. Diprivan was also reaching the end of its patent life and needed new functionality to improve clinical care and protect AstraZeneca's market position.

## The project story:

- We identified Programmable Magnetic Resonance (PMR) as a possible secure tagging system for this application, and were then asked to develop a prototype PMR label and reader for Diprifusor
- PMR, developed and patented by Sagentia Innovation, uses encoded acousto-magnetic labels to create a remote-read identification system
- In the Diprifusor application, a small PMR label, programmed to carry specific information, is attached to the pre-filled drug syringe. When the syringe is inserted into the systems infusion pump, a reader integrated into the pump body interrogates the PMR label automatically.
- The system was fully tested and documented for reliability and regulatory approval
- We developed manufacturing equipment, quality system and were responsible for transfer to high-volume manufacture

## Results: deliverables and outcomes

- The PMR technology enabled optimal anaesthesia, lower risk infusion and faster recovery times
- Cost-effective solution that provided real market protection after Diprivan reached the end of its patent life
- New features generated greater demand for Diprivan and protected AstraZeneca's margins

## Contact us

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