ASX Announcement
13 May 2025 (Melbourne, Australia)
Optiscan Imaging Ltd (ASX: OIL)

Optiscan Progresses Robotic Surgery Collaboration with Mayo Clinic

Optiscan and Mayo Clinic have combined to significantly advance the development of a digital confocal laser endomicroscopic imaging system for use in robotic surgery.

Highlights

- Optiscan, in combination with the Mayo Clinic, has advanced the development of its digital confocal laser endomicroscopic imaging system for use in robotic surgery.
- This development project has evolved out of the Know-How Agreement signed by Optiscan and the Mayo Clinic in mid calendar year 2024.
- The milestones achieved to date in the Optiscan/Mayo Clinic robotic surgery collaboration cover all target deliverables at the 12-month anniversary of the Agreement.
- Both groups have focused on co-development of accessories that allow the incorporation of Optiscan's imaging probe into the robotic surgical field.
- The development plan is on track, with the next phase of the project to take place at the Mayo Clinic Florida campus.

Optiscan Imaging Limited (ASX: OIL) ('**Optiscan**' or the '**Company**') is pleased to announce significant progress in the development of a robotic-compatible digital endomicroscopic imaging system, in a collaboration with prestigious US medical group, the Mayo Clinic.

Optiscan/Mayo Clinic Know-How Agreement deliverables

Optiscan and the Mayo Clinic have been working closely together post the signing of a Know-How Agreement back in mid calendar year 2024 (see ASX announcement dated 13 May 2024). This Agreement has leveraged Optiscan's expertise in high-resolution endomicroscopic imaging technology and Mayo Clinic's leadership in robotic surgery and clinical care to deliver better results from the perspective of both surgical precision and patient outcomes.

Optiscan and the Mayo Clinic have made significant advancements as part of their 24-month co-development plan to design an innovative imaging system tailored for robotic-assisted breast cancer surgeries. The intended purpose of this technology is to provide surgeons with high-resolution, real-time microscopic-level imaging during robotic-assisted surgical procedures, enabling more accurate tissue classification, cancer cell determination, and cancer margin assessment. This capability is expected to streamline surgical workflows, enhance decision-making, and reduce the likelihood of follow-up surgeries.

Development milestones to date

To date, both the Company and the Mayo Clinic have worked together to progress three distinct tasks covered by the Agreement.

The need to understand robotic-assisted surgical workflows: Optiscan engineers and clinical staff have worked with leading robotic breast surgeon, Dr Mara Piltin, who is based at Mayo Clinic's Rochester campus, to understand robotic-assisted surgical workflows and the most ideal way of incorporating endomicroscopic imaging systems within varied surgical settings.

Hardware and software requirements of a standalone imaging system: Optiscan and the Mayo Clinic have worked to identify hardware and software requirements of a standalone imaging system that has the highest level of autonomy from the robotic surgical systems, but at the same time is also capable of integrating with as many robotic systems as possible. This provides the Company with the opportunity of creating an imaging system that is agnostic to specific robotic manufacturers, and purposefully focuses on commonalities between robotic systems that are used by operating surgeons. An imaging stream from a prototype Optiscan device was connected to a surgical robotic platform at the Mayo Clinic, and it was verified that the Optiscan system was compatible with all imaging features such as picture-in-picture visualisation. This demonstrated the feasibility of providing intraoperative microscopic imaging to complement standard camera views to surgeons, using the same interfaces they currently use during precision surgery.

The creation of prototypes of imaging probe accessories: The two teams have worked on creating prototypes of imaging probe accessories that allow the integration of endomicroscopic probes with a wide range of surgical instruments designed to perform specific actions during a surgery, such as cutting, grasping, retracting, or holding tissue during robotic-assisted surgery.

Combining the Mayo Clinic's expertise in robotic surgery and clinical care with Optiscan's cutting-edge imaging technology, both groups are taking a significant step toward redefining surgical precision. Together, this new system aims to develop transformative solutions that will set new benchmarks in patient outcomes and healthcare innovation.

Future development milestones flowing from the Agreement

The Agreement includes provisions for a structured development process, with milestones to guide the design, testing, and validation of the imaging system. Target outcomes from the Agreement are well on the way to being realised. Key agreed development milestones have already been delivered, including:

- The definition of system requirements, needs, regulatory considerations and commercial opportunities and constraints
- Concept development and feasibility assessment
- System requirements review, techno-clinical-commercial value proposition, product positioning and competitive advantage assessment
- Concept selection, design inputs and enhancements, prototyping and benchtop testing, and project review and realignment.

The Optiscan/Mayo Clinic team has moved to the prototyping and preclinical testing stage as further enhancements are made to the accessory prototypes, before they are assessed by the surgical team in a preclinical environment.

The next phase of this work will take place at the Mayo Clinic Florida campus, with the relocation of Dr Piltin to that site. Having access to a second site in addition to Mayo Clinic Rochester has the potential to open up additional opportunities for collaboration between the two organisations which are currently being discussed.

Optiscan CEO and Managing Director, Dr Camile Farah, said: "We are thrilled with the outcomes delivered to date from our collaboration with the Mayo Clinic. Just twelve months on from Optiscan signing a Know-How Agreement with this prestigious US medical care organisation, both groups have materially progressed an imaging system for use in robotic surgery. Harnessing the core strengths of both groups, all target deliverables at the 12-month anniversary of the Agreement have been met.

"This collaboration clearly highlights the versatility of our imaging platform. It will set the stage for the platform's application across a range of clinical settings, improving both surgical precision and patient care. Optiscan and the Mayo Clinic are now busy developing a structured development process, which will have multiple milestones to guide the design, testing, and validation of this imaging system.

"Mayo Clinic's commitment to innovation aligns perfectly with Optiscan's vision. The work we are doing together aims to enhance the standard of care in breast cancer surgery by integrating state-of-the-art imaging into the robotic surgical process, with potential to deliver better outcomes for patients while advancing the future of robotic-assisted surgical procedures.

"Our collaboration with the Mayo Clinic is just one part of Optiscan's commitment to transforming healthcare through innovation. Over the months ahead, we look forward to providing further updates to the market on our collaboration plan with the Mayo Clinic as well as other news flow that will clearly demonstrate the progress being made in our stated plans to grow Optiscan's suite of unique software and hardware-related MedTech products."

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This announcement has been authorised for release by the Board of Optiscan.

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About Optiscan

Optiscan Imaging Ltd (ASX: OIL) is a commercial stage medical technology company creating a suite of digital pathology and precision surgery hardware and software solutions that enable live optical biopsy for life sciences, diagnostic and surgical applications. Optiscan pioneered the development and manufacturing of miniaturised digital endomicroscopes with spatial resolution more than 1000x that of medical CT and MRI.

Using a revolutionary "tissue contact" method, Optiscan's patented technology produces super high-resolution digital pathology images for cancer diagnosis and surgical treatment, to unlock real-time insights during surgery, diagnostics, and pre-clinical research. By enabling live, non-destructive, 3D, in-vivo digital imaging at the single-cell level, Optiscan's technology supports earlier disease detection, precision treatment, and improved patient outcomes across a wide selection of clinical applications and settings.

The global addressable market for Optiscan's medical imaging technology extends beyond traditional surgery and pathology, to also encompass the fast-growing digital health market including robotic surgery. With an expanding product suite and increased demand for digital health solutions, Optiscan is uniquely positioned to bridge the gap between surgery and pathology and deliver better outcomes for healthcare professionals and their patients.

To learn more about Optiscan, visit www.optiscan.com or follow us on LinkedIn, X or Instagram.

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