

**PHOTOSOFF™ TECHNOLOGY SHRINKS OVARIAN CANCER BY MORE THAN HALF  
IN PRE-CLINICAL TRIAL**

- **Mice with ovarian cancer treated with Photosoff™ Technology at leading independent research organisation Hudson Institute**
- **Photosoff™ Technology caused the immediate and specific death of tumour tissue with tumours shrinking to less than half their original size in three weeks**
- **No apparent adverse effects in the surrounding healthy tissue**
- **First scientific demonstration showing Photosoff™ Technology kills tumour cells in vivo (in a living organism)**
- **Data supports view that IVX-PDT based on Photosoff Technology can potentially be used on a range of solid cancers**

**MELBOURNE (AUSTRALIA) 27 November 2019:** Invion Limited (ASX: IVX) ("Invion" or "Company") is pleased to announce the results from a pre-clinical study undertaken by Hudson Institute of Medical Research.

The study used the first batch of Australian-made Photosoff™ compound on mice with ovarian cancer. Researchers at Hudson Institute analysed both immediate and medium-term effects on tumours and observed the following:

- Photosoff™ caused the immediate and specific death of tumour tissue, with no apparent adverse effects in the surrounding healthy tissues.
- The size of the tumours in animals treated with Photosoff™ Technology reduced to less than half of their original size over a three-week period.

Importantly, Hudson Institute observed that tumour destruction was accompanied by an influx of immune cells, indicating an anti-tumour immune response.

This is significant because current cancer treatments, such as chemotherapy, can kill healthy cells and suppress the body's natural ability to fight infections.

This pre-clinical study marks the first scientific demonstration of the Photosoff™ Technology in a clinically relevant model and supports Hudson Institute's original laboratory findings that Photosoff™ can rapidly kill cancer cells in vitro (outside of a living organism).

Dr Andrew Stephens, head of the Ovarian Cancer Research at Hudson Institute said: "These results suggest that Photosoff™ Technology may be an effective method to achieve targeted tumour destruction. Over the coming months we will be working with the Photosoff™ Technology to characterise how tumour destruction and immune response are linked, paving the way for clinical trials using Photosoff™ Technology as a cancer therapy."

Ovarian cancer is a devastating disease and new treatment options are badly needed.

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"There are 1,500 new cases of ovarian cancer in Australia every year with around 4,000 to 5,000 Australians currently living with the disease. Internationally, there are around 240,000 new cases a year," said Craig Newton, Chief Executive Officer of Invion.

"The grim reality is that nearly half of those diagnosed with the cancer will succumb to the disease within five years of the diagnosis. We are hoping that Photo-Dynamic therapy (PDT) can help address this challenge."

Invion is developing an optimised version of Photosoft™ called IVX-PDT, which is better suited to large-scale GMP manufacturing while meeting clinical and regulatory requirements.

Data from Hudson Institute's study with the Photosoft™ Technology supports the view that IVX-PDT can potentially be used to treat a range of solid cancers.

As previously announced to the market, Invion will be commencing Phase 1b human trials of IVX-PDT to treat skin cancer, while Peter MacCallum Cancer Institute will be commencing studies using IVX-PDT for the treatment of ano-genital cancer in 2020.

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### About Invion

Invion is a drug delivery company that is leading the global research and development of Photosoft™ technology for the treatment of a range of cancers. Invion holds the Australia and New Zealand license rights to the Photosoft™ Technology. Research and clinical trials are funded by the technology licensor, The Cho Group, via an R&D services agreement with the Company. Invion is listed on ASX (ASX:IVX). For further information please contact [investor@inviongroup.com](mailto:investor@inviongroup.com).

### About Hudson Institute of Medical Research

Hudson Institute is a leading Australian medical research institute recognised internationally for discovery science and translational research into cancer, inflammation, reproductive health and pregnancy and infant and child health.

Our 475 scientists study human health and disease at a molecular and cellular level to discover how biological systems work and how disease and disability can be prevented or treated. Our close ties with clinicians and industry give us the ability to translate our discoveries into new preventative approaches, therapies and devices for patients.

We are a founding member of the Monash Health Translation Precinct with partners Monash Health and Monash University. Our integrated research teams include clinicians, nurses and

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clinical trial coordinators who both inform research programs based on patient need and advance these discoveries back to the clinic.

Working alongside clinicians in Melbourne hospitals for more than 50 years, Hudson Institute scientists pioneered IVF and stem cell discoveries and are now leading developments in paediatric cancer and the human microbiome. Our worldwide scientific and medical collaborations provide a foundation for transformative healthcare programs across the globe.

### **About Photodynamic Therapy (PDT)**

Invion is developing Photosoft™ technology as an improved next generation Photodynamic Therapy. PDT uses non-toxic photosensitisers and visible light in combination with oxygen to produce cytotoxic-reactive oxygen that kills malignant cells, shuts down tumours and stimulates the immune system. A potential alternative to surgery, and in contrast to radiotherapy and chemotherapy which are mostly immunosuppressive, PDT causes acute inflammation, expression of heat-shock proteins, and invasion and infiltration of a tumour by leukocytes.