

**PETER MACCALLUM CANCER CENTRE TO COLLABORATE WITH INVION  
ON PRE-CLINICAL DEVELOPMENT OF PHOTODYNAMIC THERAPY**

- **Peter Mac to commence pre-clinical studies using Invion's IVX-PDT in 2020**
- **This is Invion's second research partnership with a world-leading cancer institute following agreement with Hudson Institute of Medical Research in 2018**
- **Collaboration on studies with Peter Mac follows encouraging pre-clinical data in ovarian cancer with Hudson Institute**
- **Peter Mac pre-clinical studies to focus on high-risk ano-genital cancer**
- **Subject to findings studies will pave the way for clinical trials to be undertaken with IVX-PDT in anal and penile cancers**

**MELBOURNE (AUSTRALIA) 31 October 2019:** Invion Limited (ASX: IVX) ("Invion" or "Company") is pleased to announce that it has signed a research agreement with world-renowned research organisation, Peter MacCallum Cancer Centre (known as "Peter Mac").

Under the agreement, Peter Mac will undertake pre-clinical and in-vitro studies on Invion's IVX-PDT Photodynamic therapy for ano-genital cancers, including penile and anal cancer.

The research partnership follows the encouraging studies using IVX-PDT in ovarian cancer undertaken by the Hudson Institute of Medical Research, a leading independent research organisation based in Melbourne. Invion initiated a research agreement with Hudson in March 2018.

**Large unmet need for new ano-genital cancer treatments**

The Peter Mac pre-clinical studies, which will commence in 2020, will be overseen by leading cancer research scientist, Professor Robert Ramsay, who is Group Leader and Joint-Head Gastrointestinal Cancer Program at Peter Mac.

"We are keen to investigate the potential use of IVX-PDT in ano-genital cancers where new treatments are badly needed," said Professor Ramsay.

"Peter Mac has the world's largest bank of annotated squamous cell cancer (SCC) lines from patients with anal and penile cancers.

"By building a portfolio of pre-clinical data, we anticipate that this work, and that of others, will facilitate clinical trials to address the clinical treatment gap for ano-genital cancers."

Penile and anal cancers are usually diagnosed late as patients are often reluctant to seek medical advice until their condition worsens. This means many cancer sufferers miss the potential benefit of early intervention and instead have to endure painful and high-risk treatments.

Associate Professor Nathan Lawrentschuk, urological surgeon and oncologist in the Uro-Oncology Service at Peter Mac will also be involved in the pre-clinical studies.

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"The current treatment of penile cancer typically involves surgery, and often chemotherapy in advanced cases, and this treatment regime despite refinements has not changed in the last two to three decades," Assoc Prof Lawrentschuk says.

"Quality of life can be drastically affected with significant psycho-sexual impact and so a less radical treatment option would make a big difference to lives of these people."

### Scope of the research partnership

Subject to the outcomes, the laboratory studies undertaken at Peter Mac will pave the way for clinical studies to be undertaken with IVX-PDT.

Under the Research Consultancy Agreement, the proposed studies at Peter Mac will aim to determine the following:

- Identify the molecular mechanism(s) of SCC deaths induced by IVX-PDT
- Determine how effective the drug is in realising SCC tumour regression and induced cell destruction in pre-clinical models
- Determine the impact of IVX-PDT on immune function in vivo
- Establish the efficacy of IVX-PDT for the ablation of SCCs in vivo
- Effective dose treatment for Invion's product, IVX-PDT, to administer the drug to patients to be assessed in clinical trials

Craig Newton, Invion's Incoming Chief Executive Officer said: "We are delighted to be working with the high-calibre scientists and clinician researchers at Peter Mac, which is a world-class cancer institute offering a range of human tissue banks, sophisticated in-vitro and in vivo models of cancer and cutting-edge facilities.

"For ano-genital cancer, IVX-PDT may offer a potential treatment option based on access to the tumour by the activating light and a different mode of tumour cell killing. That would be a great benefit not only to patients, but also their families and carers."

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### Investor enquiries

Incoming CEO, Craig Newton  
T: +61 3 9081 6005  
E: [investor@inviongroup.com](mailto:investor@inviongroup.com)

### Media enquiries

Brendon Lau  
T: 0409 341 613  
E: [brendon@vantagepointpartners.com.au](mailto:brendon@vantagepointpartners.com.au)

### 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).

### About Peter Mac

The Peter MacCallum Cancer Centre is one of the world's leading cancer research, education and treatment centres globally and is Australia's only public hospital solely dedicated to caring for people affected by cancer. It has over 2,500 staff, including more

Invion Limited ABN 76 094 730 417

722 High Street, East Kew, VIC 3102 Australia

P: +61 3 9081 6005 W: [www.inviongroup.com](http://www.inviongroup.com)

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than 580 laboratory and clinical researchers, all focused on providing better treatments, better care and potential cures for cancer.

### **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.