



**Transforming Photodynamic  
Therapy for novel & effective  
treatments for cancer**

Update for quarter ending 31 March 2020



# COMPANY OVERVIEW

## DEVELOPING THE NEXT-GEN PDT



Developing Photosoft™ technology and new IVX-PDT formulation to treat range of cancers



World leading collaboration partners: Hudson Institute of Medical Research and Peter MacCallum Cancer Centre



Research and clinical development funded by The Cho Group, the inventor and owner of the Photosoft™ technology



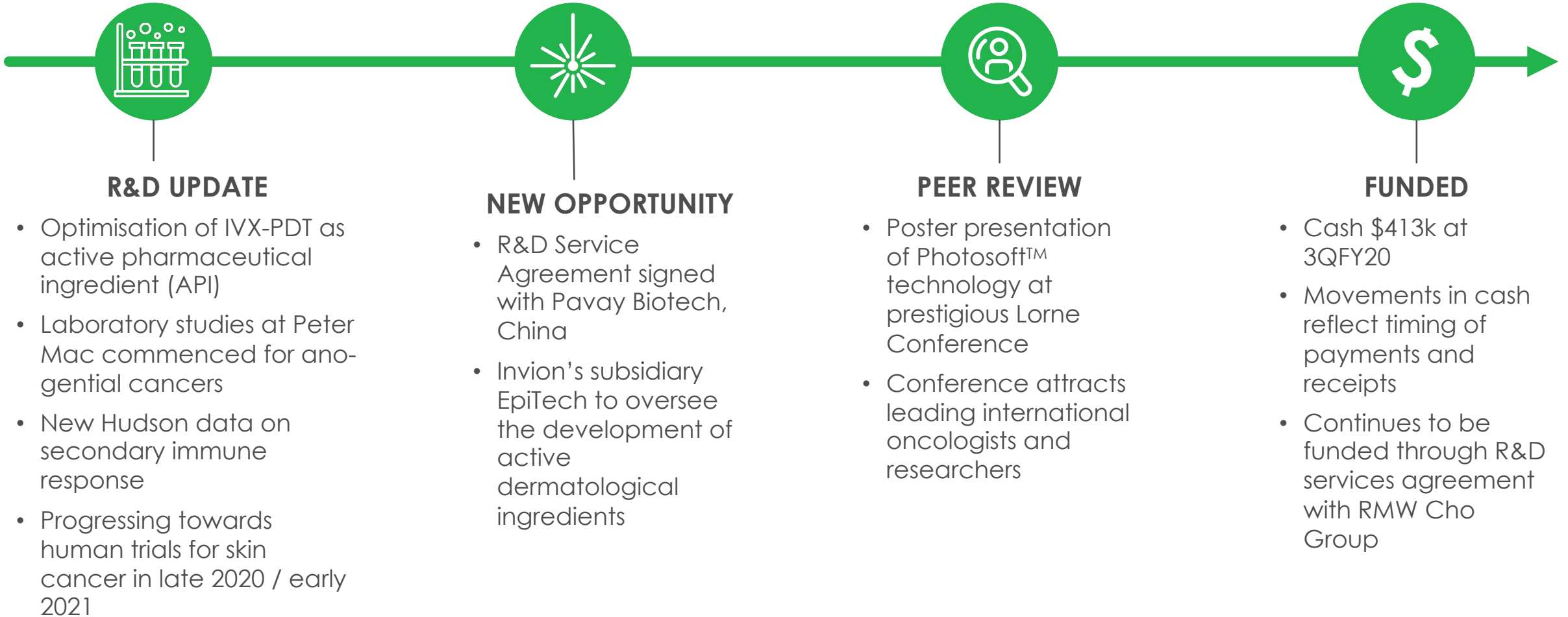
First clinical trial expected in late 2020 or early 2021 in skin cancer



Exclusive commercial rights in Aus/NZ for multiple applications across a range of cancers

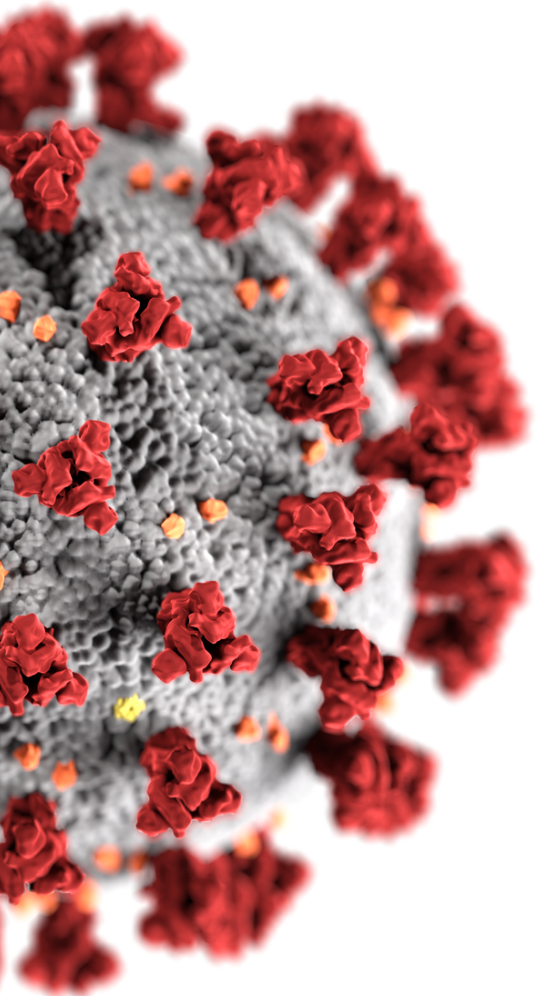
# RECENT ACHIEVEMENTS

## PROGRESS TOWARDS COMMERCIALISATION



# COVID-19 IMPACT

## MANAGING THE DISRUPTION



Global crisis impacting on the work of research community including on Invion partner organisations

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Anticipated delays of up to six months to Invion's pre-clinical and clinical studies (subject to ongoing assessment)

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Phase 1b trial for BCC expected in late 2020 or early 2021 (vs. original plan for 1H2020)

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Other human studies including those for ano-genital cancer may be similarly impacted and may only begin in 2021 (vs. original plan for 2H2020)

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Invion has instigated appropriate cost-saving and cash preservation measures

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Management monitoring situation closely and will provide updates

# RESEARCH PARTNERSHIPS

## UPDATE ON PROGRESS



- New data links tumour destruction with Photosoft™ to anti-tumour immune response in mice with ovarian cancer
- More conclusive data on immune response expected in 2020
- Data supplements original finding that Photosoft™ technology shrunk tumours in mice by more than 50% in three weeks



- Pre-clinical work commenced in ano-genital cancers in March quarter
- In-vitro study to look at activity of IVX-PDT on squamous cell cancer cells which cause ano-genital tumours.
- First results expected in 2020
- Successful results will pave way for clinical trials in cancer patients

# MILESTONES - DEVELOPMENT TIMELINE

SUBJECT TO COVID-19 IMPACT AND STANDARD REGULATORY APPROVALS

|   |   |  |  |  |
|---|---|--|--|--|
| <ul style="list-style-type: none"><li>• Further data from Hudson on Photosoft™ technology and secondary immune response</li></ul> | <ul style="list-style-type: none"><li>• Pre-clinical results from Peter Mac on ano-genital cancer study</li></ul> | <ul style="list-style-type: none"><li>• Phase 1b Trial commences for skin cancer</li></ul> | <ul style="list-style-type: none"><li>• Results from Phase 1b trial for skin cancer</li><li>• Phase 1 Trial on ano-genital cancer begins</li></ul> | <ul style="list-style-type: none"><li>• Results from Phase 1 ano-genital trial</li></ul> |
| <b>H1 2020</b>  | <b>H2 2020</b>  | <b>H1 2021</b>   | <b>H2 2021</b>   | <b>H2 2022</b>   |

# PHOTODYNAMIC THERAPY: A NOVEL CANCER TREATMENT

## Photodynamic therapy (PDT)

1

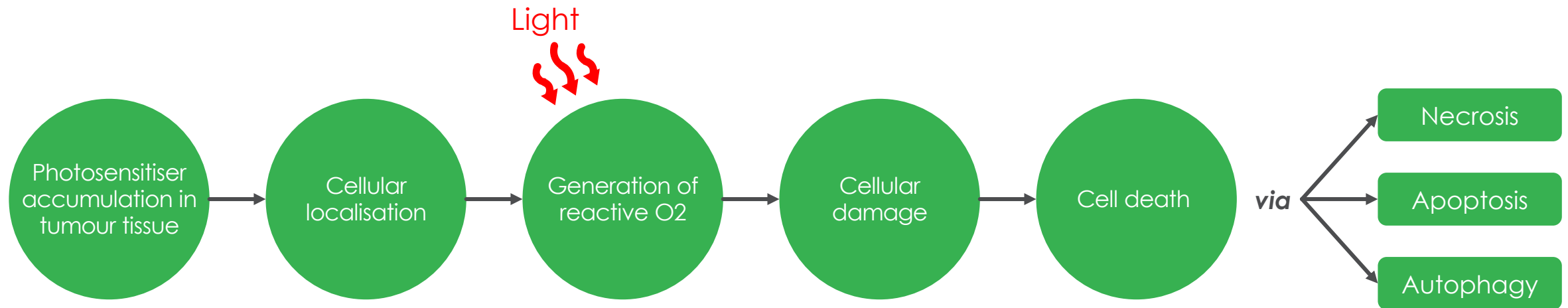
Combines photosensitiser compound with light-induced activation

2

Generates reactive oxygen species causing damage to organic molecules

3

Direct cell death and induction of inflammatory response



# ADVANTAGES OF PHOTOSOFT™ TECHNOLOGY



PDT is a proven, effective cancer therapy. Photosoft™ has been improved since inception



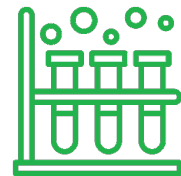
Is inert without light and rapidly clears from cells



Absorbs light in wavelengths to “light up” a tumour (diagnostic) or activate oxygen free radicals that kill cancer cells



*In vivo* tests show that if injected, it is selectively taken up by the cancer cells, not normal tissue



Has advantages in wavelength, solubility and selectivity



More effective at killing cancer cells at lower concentrations. Cell death is not random and is well characterised



# NEXT GENERATION PDT: PHOTOSOFT™ TECHNOLOGY & IVX-PDT

## Photosoft™ Technology

- Chlorin- based photosensitiser, multiple excitation peaks
- Blue light – strong red fluorescence for lesion visualisation
- Red light – generation of ROS for directed tissue ablation
- Non-toxic and tolerated at high doses

## IVX-PDT

- Next iteration of Photosoft™ technology
- New drugs based with higher purity with potential for use in multiple cancers
- Topical and IV delivery

# SUMMARY

## BUILDING SHAREHOLDER VALUE



Development of Photosoft™ technology is funded via R&D Services Agreement



Optimised IVX-PDT developed based on Photosoft™ technology



Targeting first human clinical trial for skin cancer (BCC) late 2020/early 2021



Australian BCC treatment market estimated to be worth \$500m by the Cancer Council



As results and data continue to emerge, development plan to widen to target range of cancers

**INVION**<sup>®</sup>