

#### **INVESTOR PRESENTATION**

**MELBOURNE (AUSTRALIA) 27 June 2022:** Invion Limited (ASX: IVX) ("**Invion**" or the "**Company**") wishes to release the attached presentation, which will be used in upcoming meetings with various brokers and investor groups.

This announcement was approved for release by Thian Chew, Chairman of the Board.

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#### About Invion

Invion is a life-science company that is leading the global research and development of the Photosoft<sup>TM</sup> technology for the treatment of a range of cancers, atherosclerosis and infectious diseases. Invion holds the exclusive Australia and New Zealand license rights and exclusive distribution rights to Asia Pacific excluding China (other than Hong Kong, which is included in the Territory), Macau, Taiwan, Japan and South Korea to the Photosoft<sup>TM</sup> technology for all cancer indications. It also holds the exclusive rights to the technology in Asia Pacific (excluding Greater China) for atherosclerosis and infectious diseases. Research and clinical cancer trials are funded by the technology licensor, RMW Cho Group Limited, via an R&D services agreement with the Company. Invion is listed on the ASX (ASX: IVX).

#### About Photodynamic Therapy (PDT)

Invion is developing Photosoft<sup>TM</sup> technology as a novel next generation Photodynamic Therapy (PDT). PDT uses non-toxic photosensitisers and light to selectively kill cancer cells and promote an anti-cancer immune response. Less invasive than surgery and with minimal side effects, PDT offers an alternative treatment option aimed at achieving complete tumour regression and long-lasting remission.

## INVESTOR PRESENTATION

June 2022





## DISCLAIMER

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## COMPANY OVERVIEW DEVELOPING THE NEXT-GEN PHOTODYNAMIC THERAPY (PDT)

| ÷         | Meeting Clinical<br>Needs                           | <ul> <li>Major disease areas: Cancer, atherosclerosis and infectious diseases</li> <li>Advancing Photosoft™ technology – novel PDT photosensitiser INV043</li> <li>Collaboration with world-class expertise (Hudson Institute, Peter Mac)</li> </ul>                                                                                                             |
|-----------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | Demonstrated<br>Efficacy,<br>Protective<br>Immunity | <ul> <li>Regression of established tumours across multiple cancer types</li> <li>Immune response, protective immunity</li> <li>Improves efficacy of immune checkpoint inhibitor (ICI) treatments when used in combination therapies</li> <li>Strong therapeutic profile: Non-toxic at 100x therapeutic dose</li> </ul>                                           |
| <b>\$</b> | Multiple<br>Cancers, Future<br>Potential            | <ul> <li>Clinical stage cancer program</li> <li>Multiple cancer indications in Asia Pacific Territories<sup>2</sup></li> <li>Expanded Disease Areas: Atherosclerosis and Infectious Diseases (AID)</li> </ul>                                                                                                                                                    |
| Ć         | Sources of Value<br>Creation                        | <ul> <li>Clinical trials across multiple cancer indications in 2022-2023 and beyond</li> <li>Core clinical development funded by RMWC, inventor/ owner of Photosoft™</li> <li>Expansion of Territories in AID<sup>1</sup> and cancer<sup>2</sup></li> <li>Potential to partner with pharmaceutical industry on ICI to extend their patent protections</li> </ul> |

<sup>&</sup>lt;sup>1</sup> Includes Asia and Oceania (other than Australia and New Zealand, which are covered under a pre-existing distribution and licence agreement with RMW), and excludes Middle East, Russia and the specified territories of China, Hong Kong, Macau and Taiwan.

<sup>&</sup>lt;sup>2</sup> Includes all Asia Pacific countries excluding China (other than Hong Kong, which is included in the Territory), Macau, Taiwan, Japan and South Korea. Invion's rights with respect to development and distribution of Photosoft<sup>™</sup> technology in Australia and New Zealand will continue to be covered under the pre-existing agreements with RMW. Closing of transaction subject to shareholder approval.

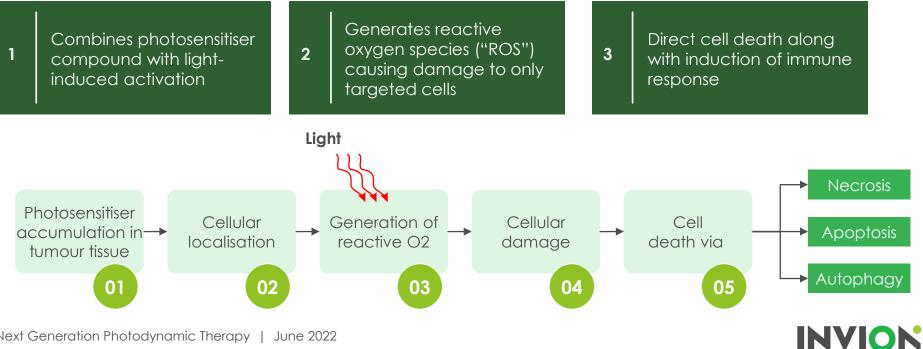


## THE PHOTOSOFT<sup>TM</sup> ADVANTAGE A NOVEL CANCER TREATMENT

NGPDT (Next-Gen PDT) is a ground-breaking technology that overcomes many of the shortcomings of early PDT technologies and aims to transform the treatment of a wide range of cancers

NGPDT is a minimally invasive modality for treating cancer that specifically identifies and destroys cancer cells whilst leaving the rest of the body's normal cells unharmed

#### **Photodynamic Therapy (PDT)** consists of three elements:



## LEAD DRUG CANDIDATE INV043 PATHWAY TO A US\$271B MARKET OPPORTUNITY<sup>1</sup>

Invion is leading the global research and development of the Next-Generation Photodynamic Therapy (NGPDT) called Photosoft<sup>TM</sup> for the treatment of a range of cancers, atherosclerosis and infectious diseases

#### Proof-of-Concept studies of lead candidate INV043 has been shown to:



Selectively absorbed by cancer cells and not healthy tissue



Effective in regressing multiple types of cancer in vivo



Stimulate the body's natural immune response



Work additively with blockbuster ICl<sup>2</sup> drugs



Be non-toxic, safe and have limited side effects



Support the translation into successful clinical trials<sup>3</sup>

<sup>1</sup> Oncology market <u>exceeded US\$270.5 billon</u> in 2021 and is forecast to grow at 10.2% CAGR between 2022 and 2028, according to GMI <sup>2</sup> Immune Checkpoint Inhibitor (ICI) therapies are part of the Immunotherapy market <sup>3</sup> Scheduled for 2H CY2022 or 1H CY2023



## **KEY PARTNERSHIPS** WORLD-LEADING INSTITUTIONS



- Global bioscience medical research institute
- Over 400 scientists focused on ground-breaking discoveries addressing complex problems in human diseases including cancer
- Photosoft<sup>™</sup> discovery and development
- Proof of Concept studies focused on safety and efficacy<sup>1</sup>
- Translational work into clinical trial preparations



- World-class institute that combines its premier cancer research capability with its ability to translate that directly into the clinic
- Currently conducting about 500 clinical trials in cancer
- Pre-clinical studies initially focus on high-risk ano-genital cancers
- Successful studies will pave the way for human clinical trials



## Findings

Proof-of-Concept Studies on INV043 undertaken by Hudson Institute





## IMPROVED API: INV043 KEY CHARACTERISTICS

#### Active against multiple cancers

- INV043 successfully regressed established T-cell lymphoma, triple negative breast and pancreatic cancers in vivo (n=4-8/group).
- Formulations enable multiple routes of administration.
- Treatment activates an immune response.

#### Strong therapeutic profile

- No toxicity identified up to 100x the therapeutic dose
- Selectively retained into tumours *in vivo*:
  - Within hours accumulates in tumour mass
  - Within a day INV043 is not detectible in healthy tissue
  - Remains concentrated within tumour mass for >3 days

#### Highly potent and selective

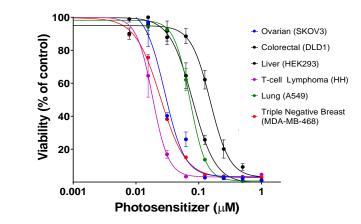
- ~600x greater photoxicity than Talaporfin sodium (a widely used photosensitiser).
- No observed off target toxicity.
- No "dark" toxicity" until 20 to 300 times the therapeutic dose.

#### Theragnostic potential

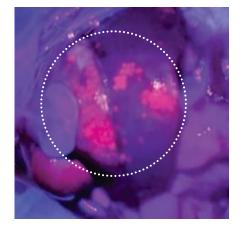
Two distinct light activations wavelengths

- **Diagnostic**: Fluorescence providing highly visible definition of tumour mass and margins.
- **Therapeutic**: Activation of INV043 causes rapid cancer cell death and tumour regression.

#### INV034 activity against multiple cancer cell types



#### INV043 fluorescing in a tumour under light

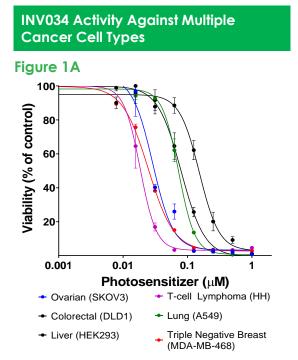




## DESIRABLE THERAPEUTIC PROFILE MULTIPLE CANCERS, HIGH POTENCY, LOW NON-SPECIFIC TOXICITY

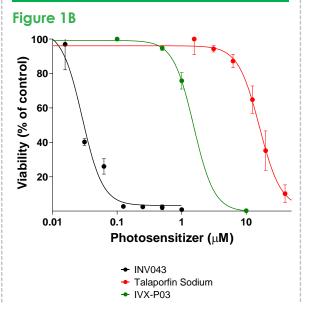
INV043 phototoxicity was evaluated in multiple human cancer cell types including ovarian, colorectal, kidney, lung, triple negative breast and T-cell lymphoma. Assays were performed in vitro with 4 replicates per data point.

INV043 is Active Against Multiple Im Cancer Types: with IC90 (the for concentration required to kill 90% of (p cells) as low as 30nM against some ~6 cancer types (Fig 1A).



**Improved Potency:** INV043 had ~50fold greater phototoxicity than IVX-P03 (previously developed by Invion) and ~600-fold greater phototoxicity than clinically approved photosensitizer Talaporfin sodium **(Fig 1B)**.

Phototoxicity: INV043 vs IVXPO3 vs Talaporfin Sodium



Low Toxicity: INV043 was not activated by ambient light, and no evidence of "dark toxicity" was observed until reaching 20-300 times the effective treatment dose (Fig 1C).

#### **INV034 Photo- and Dark-Toxicity**

#### Figure 1C

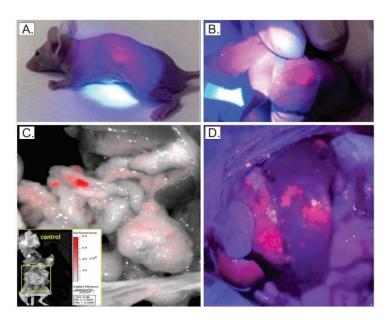
| Phototoxicity<br>(IC90) μM | Dark Toxicity<br>(IC10) μΜ | Cancer<br>Type             |
|----------------------------|----------------------------|----------------------------|
| 0.06                       | 9.49                       | Ovarian<br>(SKOV3)         |
| 0.14                       | 29.52                      | Lung<br>(A549)             |
| 0.03                       | 10.25                      | Lymphoma<br>(HH)           |
| 0.20                       | 8.16                       | Liver<br>(HEK293)          |
| 0.33                       | 9.20                       | Colorectal<br>(DLD-1)      |
| 0.07                       | 13.25                      | Breast<br>(MDA-MB-<br>468) |

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## IN VIVO PROOF OF CONCEPT: TUMOUR LOCALISATION SELECTIVITY IN PRIMARY AND METASTATIC TUMOURS, NON-TOXIC

Localisation in vivo was monitored over time using the intrinsic fluorescence of **INV043** under blue light.

- **INV043 localises to tumour:** Intratumoral (IT for subcutaneous tumours) or intraperitoneal (IP for metastatic peritoneal tumours) administration resulted in strong localiSation to tumour deposits (Fig 2A-D).
- Selectively retained in tumour tissue: Both primary and metastatic tumour deposits retained INV043 for at least 3 days following administration (Fig 2). Fluorescence was readily visible under blue light; and highlighted small (<1mm) metastatic deposits that were otherwise invisible to the naked eye (Fig 2D).</li>
- **Non-toxic**: No toxicity was identified over the short (24hr) or long term (1 week) at doses up 5mg/kg; and **INV043** did not induce detectible photosensitivity under ambient light.



#### Figure 2: Localisation of INV043 in tumour tissue using fluorescence.

INV043 was administered at 1mg/kg either intratumorally (IT) or intraperitoneally (IP). Fluroescence was visualized under a blue light and photographed using a standard camera phone (A, B, D) or using an IVIS Lumina III instrument (C). N=4-8 mice/group.

(A, B) INV043 was strongly localised to tumour mass and margins in subcutaneous breast (A) and pancreatic (B) tumours; and within one hour of administration was excluded from surrounding healthy tissues. Fluorescence was retained within tumour mass for at least 3 days.

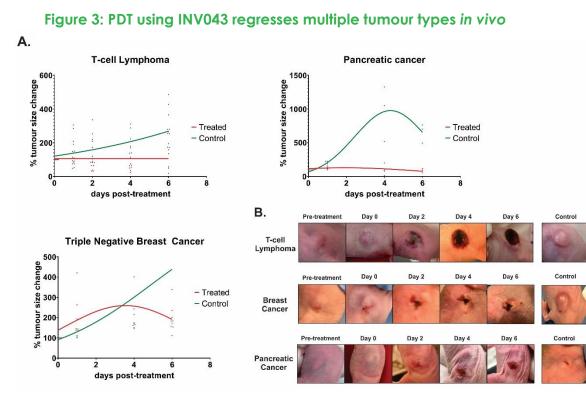
(C, D) INV043 rapidly localized to metastatic breast (C) and ovarian (D) cancer deposits in the peritoneal cavity after IP administration. Within 24 hours INV043 was not detectible in healthy tissues, but remained concentrated within tumour mass and metastatic nodules throughout peritoneal cavity for at least 3 days. Fluorescence highlighted small metastatic nodules in the peritoneal cavity that were not visible to the naked eye (Fig 2D).



## IN VIVO PROOF OF CONCEPT: TUMOUR REGRESSION SIGNIFICANT REGRESSION ON MULTIPLE TUMOUR TYPES

**INV043** was used to treat implanted T-cell lymphoma, breast and pancreatic cancers in vivo (n=4-8/group).

Low dose INV043 (0.1mg/kg) was administered by IT injection and laser light (220J/cm^2) applied after 1.5hrs. Control animals received either laser or **INV043** alone. Tumours were measured for 1 week following treatment to assess change in tumour size. **Significant tumour regression was achieved in all cases**.



T-cell lymphoma, breast or pancreatic cancers grown subcutaneously in nude mice (n=4-8/group) were treated twice within 24hrs as described.

(A) All tumour types regressed following treatment, as determined by decrease in measurable volume. Lymphoma and pancreatic cancers responded within 1-2 days; breast cancers took longer to show evidence of tumour reduction.

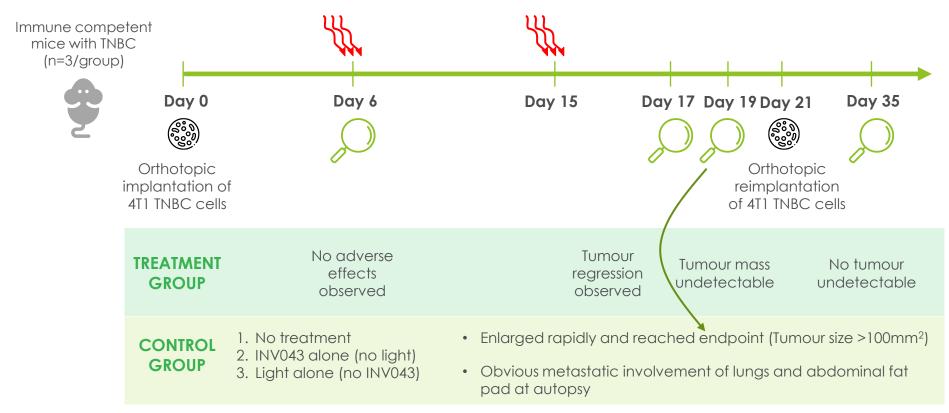
(B) Immediately following laser activation tumour tissue became less palpable and developed a "bruised" appearance. Tumour necrosis was evident within 2 days as a distinct darkening of tumour mass beneath the skin. A visible eschar subsequently formed in all cases after 2-4 days. Neither laser nor INV043 without light activation had any measurable effect (not shown).

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## PROOF OF CONCEPT: PRIMARY TUMOUR PILOT STUDY REGRESSION AND PROTECTIVE IMMUNITY

#### Treatment with established tumours (INV043 with light)

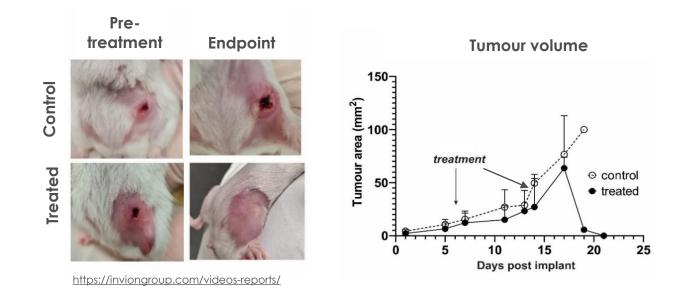
- INV043 was injected intratumorally (0.1mg/kg)
- 16 hours later, illuminated with red light
- No anaesthesia required, no adverse effects observed





## PROOF OF CONCEPT: PRIMARY TUMOUR PILOT STUDY REGRESSION AND PROTECTIVE IMMUNITY

- Triple Negative Breast Cancer (TNBC) is a hard-to-treat cancer resistant to most chemotherapies
- Proof of Concept (PoC) pilot showed complete regression of TNBC in vivo following INV043 treatment
- Tumour mass undetectable two weeks after initial treatment and no scarring evident
- No recurrence of disease, re-challenge with TNBC implant could not re-establish new tumours, suggesting development of protective immunity
- Additional PoC tests being carried out by Hudson Institute



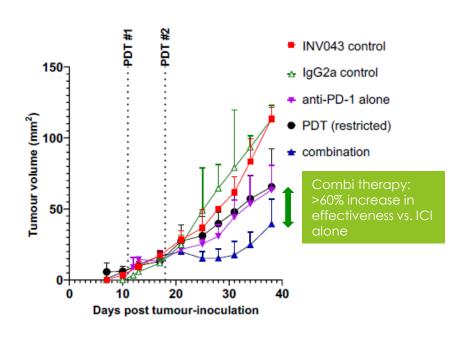
#### Figure 4. PDT using INV043 results in complete regression of established tumours.

Mice with established 4T1 breast tumours treated with INV043 PDT at days 6 and 13 post-implant. Tumour size monitored until endpoint ( $\geq$ 100mm<sup>2</sup>). Treatment regressed established tumours to an undetectable level within 14 days of treatment. No tumour regrowth observed. n=3/group; mean +/- SD



## PROOF OF CONCEPT: IMMUNE CHECKPOINT INHIBITORS (ICI) COMBINATION THERAPY FOR A US\$140B MARKET<sup>1</sup> (BY 2030)

- Immune checkpoint inhibitors are widely used for the treatment of lung cancer and melanoma. However, ICI treatments are typically only effective on a small proportion of patients
- Proof of Concept (PoC) pilot showed both INV043 (under restricted administration) and anti-PD-1 therapies achieved a very similar level of tumour growth restriction following therapy, with tumour growth reduced by ~40% compared to controls
- A combination of INV043 with anti PD-1 provided substantially enhanced restriction (~65%) of tumour growth, with clear tumour regression despite the sub-optimal INV043 treatment protocol used



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## Figure 5. INV043-PDT combines with immune checkpoint inhibition to regress tumour mass.

Mice with established 4T1 breast tumours were treated using a restricted INV043 PDT protocol and / or anti PD-1 antibody over a period of 14 days. Tumour size was monitored until endpoint (tumour size  $\geq$ 100mm<sup>2</sup>).

Monotherapies restricted tumour growth compared to untreated controls; combination therapy regressed and stabilized tumours and achieved a ~65% reduction in tumour size at endpoint. INV043 control, no light activation; IgG2a control, isotype antibody control; combination, PDT+ anti PD-1. Additional control groups have been omitted for clarity. *mean* +/- SD, n=4/group.

The research activities involving the use of animals were carried out in accordance with relevant guidelines and regulations as well as with appropriate Animal Ethics Committee approval.

<u>1 https://www.alliedmarketresearch.com/immune-check-point-inhibitors-market</u>



## THE WAY FORWARD MULTIPLE CATALYSTS AND MILESTONES

#### Australia

- **Proof of Concept (PoC)** Building on in vivo work further demonstrating both safety and efficacy profiles
- **Pre-clinical Preparations**: Building foundations for clinical trials in multiple indications and internationally
- **Clinical Trials**: With strong in vitro and in vivo results demonstrating both safety and efficacy profiles, and across multiple cancer types, the next steps will be to conduct clinical trials in multiple indications, including
  - Skin Cancer (superficial basal cell carcinoma)
  - Anogenital Cancer
  - Other solid tumour cancers TBC<sup>1</sup>
- **GMP manufacturing and scale up**: Building capacity to scale up for global late-stage trials and commercialisation

#### Expand Internationally: Leveraging

Global

Leveraging Australian clinical trial data into later stage programs in the US and other major markets

Atherosclerosis and Infectious Diseases (AID) Early stage broad based discovery Identification of target indications

Proof of Concept on targeted indications

<sup>1</sup> RMW Cho Group ("RMW") as licensor of Photosoft<sup>TM</sup> technology, is pursuing independent research in parallel with Invion's R&D efforts including a prostate cancer trial. The research is complementary/supplemental to Invion's development program. To the extent that Invion becomes aware of material information relating to RMW's studies, Invion will release the information to the ASX in compliance with its disclosure obligations (noting however that Invion is not involved in RMW's studies and does not have direct access to information)

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Cancer

AID

## MANAGEMENT TEAM THE RIGHT EXPERTISE FOR SUCCESS



#### THIAN CHEW EXECUTIVE CHAIRMAN & CEO

- Managing Partner, Polar Ventures
- Executive Director, Goldman Sachs
- Director, KPMG Consulting, Senior Manager KPMG
- Adj. Prof. HKUST, MBA/MA Wharton School



#### DR ANDREW STEPHENS HUDSON INSTITUTE, R&D

- 15+ years in novel treatment R&D
- Founder, Ovarian Cancer Biomarker Group, Hudson Institute
- Postdoc. positions, the Uni. of Sydney and Prince Henry's Institute, PhD Biochemistry Monash Uni
- Published extensively, holds several patents



#### DR SEBASTIAN MARCUCCIO CHEMISTRY

- 15+ years in Pharmaceutical and organic chemistry developmental research
- 16+ years commercial experience in molecular based companies (Managing Director / Founder)
- Adj. Prof. La Trobe University, PhD Organic Chemistry ANU



#### ALEXANDER BENNETT TECHNICAL ADVISOR, LIGHT

- 35+ years in R&D, manufacturing and commercialisation of scientific instrumentation incl. ISO certifications
- GM Forensic Light Sources, Rofin Australia.
- Led Medical Light Source trial for PDT in skin cancers Peter MacCallum Cancer Centre





#### MELANIE LEYDIN CFO

- 25+ years in accounting profession
- Partner, Vistra
- CFO and Co. Secretary multiple biotech companies
- Fellow Gov. Institute of Australia, Chartered Acc't

#### NICOLETTA MUNER REGULATORY AND CLINICAL DEVELOPMENT

- 20+ years non-clinical and clinical drug development, quality, manufacturing, incl. EMA and US FDA approval
- Founder Canary Regulatory Affairs
- Global Regulatory Affairs, Clinuvel Pharmaceuticals
- Pre-clinical and regulatory affairs, Pfizer

## 9

#### LOUISE WHITE MANUFACTURING AND QUALITY

- 35+ years in the pharmaceutical industry, 13 years in vaccine manufacturing, CSL, Partner SeerPharma
- Senior roles in virology R&D, bacterial vaccines production, quality control and production planning
- Registered auditor for APVMA



#### KIM STEEL CLINICAL TRIAL MANAGEMENT

- 15+ years managing global and clinical drug and device studies from Phase 1-IV across 14 countries
- Director, Sapro Consulting
- Project Director, Novotech
- Project Manager, Pacific Clinical Research Group



## SUMMARY



**Promising Early Results**: Total tumour regression, immune response, potential ICI combination therapies



Well Funded: Cancer program fully funded & AID partially funded by RMWC



Multiple Growth Options: Large addressable markets, multiple indications, partnership opportunities



World-Leading Partnerships: Collaboration with internationally renowned Peter Mac and Hudson Institute



**Clinical Trials**: Human trials across several cancer types expected to commence 2022-2023



**Experienced Management**: The right mix of expertise in life science and commercialisation



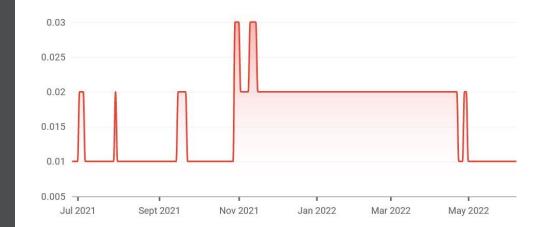
## MARKET OVERVIEW

\$0.01 (as of 15 Jun 2022)

### Market Cap A\$64.2m

| Focus                                       | Clinical-stage life sciences<br>company developing the<br>Photosoft™ technology as<br>a treatment for a range of<br>diseases including cancers |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Issued Shares                               | 6,416,513,644                                                                                                                                  |
| <b>Cash</b><br>(31 March 2022)              | AUD \$8.1M                                                                                                                                     |
| <b>Revenue</b><br>(Year ended 30 June 2021) | \$2.330M                                                                                                                                       |
| Symbol/ Exchange                            | ASX: IVX                                                                                                                                       |

12 Months Share Price\*



| TOP 10 SHAREHOLDERS*          | %IC  |
|-------------------------------|------|
| Polar Ventures Limited        | 8.50 |
| NGPDT Greater China Limited   | 8.50 |
| RMW Cho Health Technology Ltd | 5.01 |
| RMWC Pty Ltd                  | 4.90 |
| BNP Paribas Nominees Pty Ltd  | 4.66 |
| Mr Honsue Cho                 | 4.44 |
| ACSLNC Pty Ltd                | 3.80 |
| Yong Chen                     | 3.12 |
| Mei Jun Lin                   | 2.34 |
| Citicorp Nominees Pty Limited | 2.31 |

\*As of 15 Jun 2022



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