INVION™

Transforming Photodynamic Therapy for novel & effective treatments for cancer

Investor Update
September 2019

INVION IS DEVELOPING PHOTOSOFT™ TECHNOLOGY, THE NEXT-GENERATION PDT

Lead products	Advancing Photosoft™ technology - a novel photosensitiser – with new IVX-PDT formulations in development for topical and intravenous use.
Powerful data	IVX-PDT is more effective in killing cancer cells in *in vitro* tests against ovarian cancer, compared to Photosoft™ Oral
2019 preparations for clinical studies in 2020	Multiple human clinical trials commencing in 2020 in Australia and then further global clinical development managed by clinical team at Invion.
Fully funded	Clinical development fully funded by The Cho Group, the inventor and owner of the Photosoft™ technology
Experienced Board and Management	Strong track record in taking new drugs from clinical development to regulatory approval and to market. Rapid progress made since licensing the technology in 2018
World-leading Scientific Advisory Board & Research	Globally renowned experts in specific cancer fields
Diverse portfolio	Licensed commercial rights for multiple applications across a range of cancers in Aus/NZ.

PHOTOSOFT™ TECHNOLOGY ADVANTAGES

How does Photosoft™ Technology differs from 1st generation PDT treatments:

- ✓ The compound can be activated at multiple wavelengths, allowing for both diagnostic and therapeutic use
- ✓ Water soluble – the compound doesn't accumulate in the body
- ✓ Can be administered via various routes – topical and intravenous.
- ✓ Demonstrates positive immune response (compared to established cancer treatments that are typically immunosuppressive)

INVION TEAM: EXPERTISE IN DRUG DEVELOPMENT

STRONG
EXPERIENCED LEADERSHIP

Craig Newton

COO, commencing as CEO 1 November 2019

- 30+ yrs operational experience in Biotech, Medical Devices and big Pharma.
- Previous senior roles at CSL Limited, Serono UK and Australian biotechs.
- Qualified in Medical Science, Management and Marketing.

Greg Collier PhD

MD & CEO, transitioning to Non-executive Director 31 October 2019

- 25+yrs experience in clinical drug development, corporate management, strategic planning and implementation across the global biotechnology industry
- Chairman of Phosphagenics Limited (ASX:POH)
- 150 peer-reviewed publications, 33 patents, Roche Award for Excellence

Melanie Farri,

CFO & Company Secretary

- Key experience in complex business activities, including restructure, IPO, M&A and shareholder action; board reporting, board operations and support, financial and compliance reporting
- Bachelor of Communication (Public Relations), and a Graduate Diploma in Applied Corporate Governance

Thian Chew

Chairman

- Managing Partner, Polar Ventures
- Executive Director, Goldman Sachs proprietary investing (New York, Hong Kong), public and private across capital structure
- Director, KPMG Consulting (Singapore, Sydney
- Senior Manager, KPMG (Taipei, Melbourne): Audit and assurance, IT risk management
- Former Chartered Accountant, MBA/MA Wharton School (Palmer Scholar)

James Campbell PhD MBA

Non-executive Director

- 20+yrs international experience in scientific research, research management, management consulting and venture capital
- CEO of ASX- listed biotechnology company, Patrys Limited (ASX:PAB)
- Former CFO & COO at ChemGenex Pharmaceuticals. Dr Campbell has also held research positions at the CNRS and the CSIRO

Alan Yamashita

Non-executive Director

- 16-yrs veteran at Goldman Sachs,
- Managing Director & Head of Asian Capital Markets for Merrill Lynch
- President, CEO and CIO of Search Alternative Investment Limited (SAIL)
- Managing Partner, Polar Ventures
- Executive Advisor of Mizuho Alternative Investments
- MPA Princeton, BA Yale

MANAGEMENT TEAM
GLOBAL EXPERTS IN DRUG DEVELOPMENT

ALEXANDER BENNETT

Technical Advisor

- 35+ years experience in senior technical and management at Rofin and at ICI.
- Product development, QA and international commercialisation of light source technology.
- Physics degree.

LOUISE WHITE

Manufacturing and Quality Advisor

- Over 35 years experience in the pharmaceutical industry
- 13 years experience in a sterile vaccine manufacturing company, CSL and over 22 years within SeerPharma.
- Senior roles in Virology R & D, Bacterial Vaccines Production, Quality Control and Production Planning.
- Registered auditor for the Australian Pesticides and Veterinary Manufacturing Authority (APVMA) and current Partner at SeerPharma

DR SEBASTIAN MARCUCCIO

Chemistry Advisor

- 15+ years experience in Pharmaceutical and organic chemistry developmental research
- 16+ years of commercial experience in smaller scale molecular based companies (as Managing Director and Founder)
- Currently an adjunct Professor at La Trobe University
- PhD in Organic Chemistry - ANU

XENIA SANGO

Regulatory and Clinical Development

- Over 25 years as a healthcare executive and independent consultant
- Senior clinical, regulatory and international commercialisation roles at CSL Limited as Senior Director of Influenza Commercial Operations; Director of International Registrations, and Head of Regulatory Affairs.
- Masters of Science (Chemistry)

CANCER LEADING
SCIENTIFIC ADVISORS

DR ANDREW STEPHENS

Scientific Advisory Board member

- 15+ years experience in novel treatment research and develop
- Founder of the Ovarian Cancer Biomarker Group at the Hudson Institute
- PhD in Biochemistry from Monash and Ovarian Cancer Research Foundation (OCRF) Research Fellow.

ASSOC. PROFESSOR LOUIS IRVING

Scientific Advisory Board member

- Lung Cancer; Respiratory Physician, Peter MacCallum Cancer Centre,
- Director, Clinical Training, Royal Melbourne Hospital
- Principal fellowships at the University of Melbourne, in Faculty of Medicine, and Department of Physiology
- Clinical, teaching and research interests in lung cancer, advanced bronchoscopy and COPD - has published over 100 scientific papers
- On the Lung Foundation Australia Lung Cancer Committee, the WCMICS lung cancer group and the Scientific Advisory Committee, National Research Centre for Asbestos Related Diseases.

DR LYNDA SPELMAN

Scientific Advisory Board member

- 26 years experience in dermatology with special interest in clinical research trials
- Founder and a director of the Queensland Institute of Dermatology,
- Principal Investigator of Veracity Clinical Research
- Honorary Secretary of the Queensland Skin and Cancer Foundation (QSCF) since 2000
- Conducted studies in wide range of dermatological conditions, including atopic dermatitis/eczema, chronic plaque psoriasis, palmoplantar psoriasis, hidradenitis suppuritiva, seborrheic keratosis, and superficial and nodular basal cell carcinoma

ASSOC. PROFESSOR NATHAN LAWRENTSCHUK

Scientific Advisory Board member

- Urologic Oncologist
- Director of Urology Research Centre, Epworth
- Urological surgeon and oncologist in the Uro-Oncology Service at the Peter MacCallum Cancer Centre, appointments at The University of Melbourne Department of Surgery and Olivia Newton-John Institute for Cancer Research at the Austin Hospital, Melbourne.
- Member of the Society of Urologic Oncology (the peak North American body for urology cancer surgery)

SIGNIFICANT PROGRESS IN FY 2019

MANUFACTURING-AGENT

- AMT engaged as contract developer and manufacturer
- Process innovations developed to generate higher purity drugs
- Stable supply

MANUFACTURING – LIGHT SOURCE EQUIPMENT

- Collaboration established with Chinese manufacturer of light source equipment
- New LAS-1 laser developed for Photosoft™ technology
- Equipment made and supplied

HUDSON RESEARCH COLLOBARATION

- Dr Andrew Stephens appointed to Invion Scientific Advisory Board
- Leading research institute
- Multiple science projects underway to advance Photosoft™ technology
- Focus on ovarian cancer

IMPROVED FORMULATION

- New formulations developed to deliver higher purity and potential application in multiple cancers.
- Data presented at ComBio 2018

SKIN CANCER PROGRAM

- Enhanced Gel formulation developed
- Industry experts Formulytica for formulation & vivoPharm for pre-clinical studies
- Clinical Site (Veracity, QLD) and Principal Investigator (Dr Lynda Spelman)selected.
- Dermal animal studies successfully undertaken.

INVION

INVION PDT
MECHANISM OF ACTION

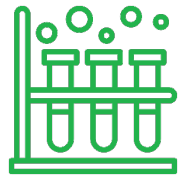
ADVANTAGES OF PHOTOSOFT™ TECHNOLOGY

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



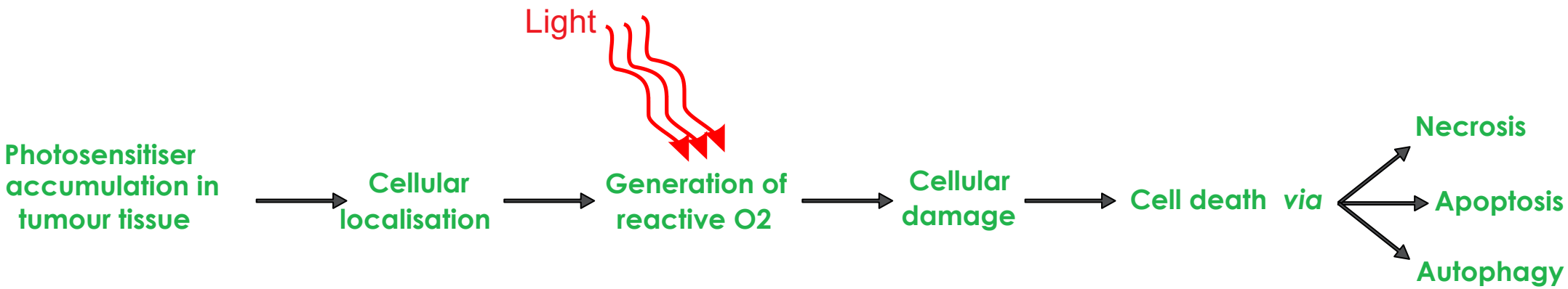
Has advantages in wavelength, solubility and selectivity

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

PHOTODYNAMIC THERAPY:
A NOVEL CANCER TREATMENT

Photodynamic therapy (PDT)

- Combines photosensitiser compound with light-induced activation
- Generates reactive oxygen species causing damage to organic molecules
- Direct cell death and induction of inflammatory response



NEXT GENERATION PDTs: 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

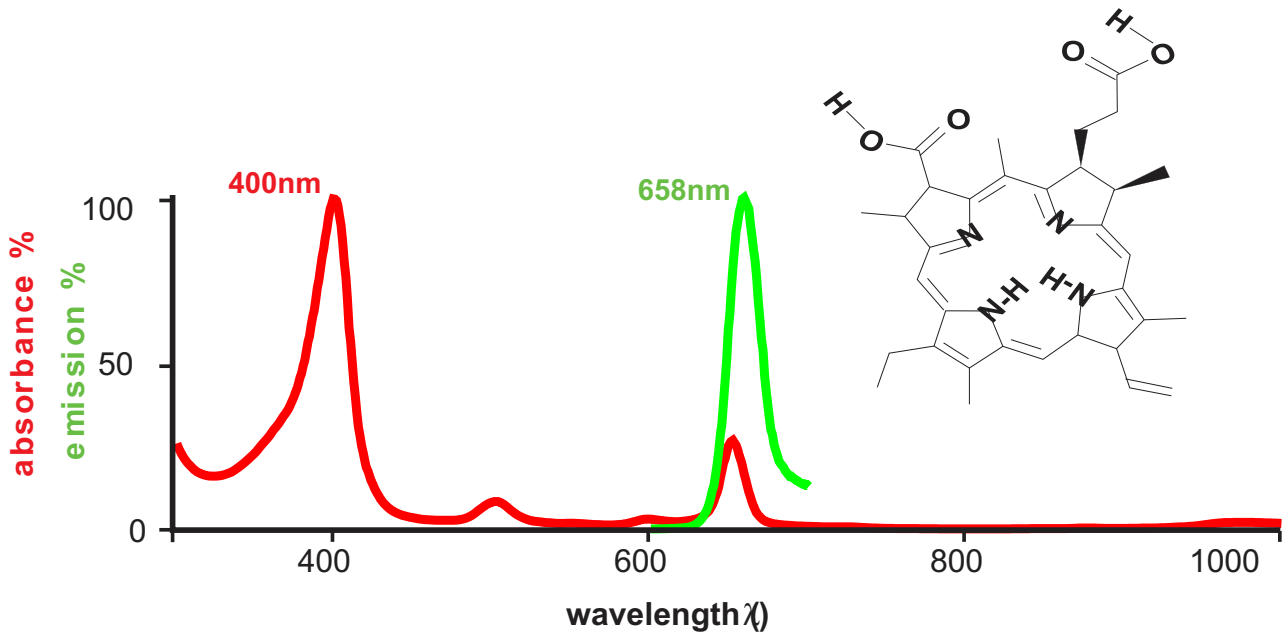
- Next iteration of Photosoft™ technology
- New drugs based with higher purity with potential for use in multiple cancers
- Topical and IV delivery

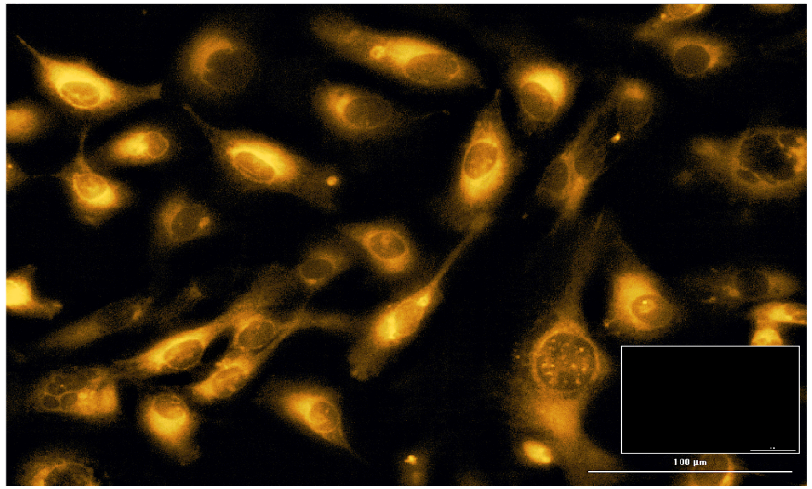
SPECTRAL CHARACTERISTICS OF PHOTOSOFT™ AND IVX-PDT

Blue light excitation produces red fluorescence for cellular visualisation

- Absorption maxima at 400nm, with additional peaks at 550 and 652nm
- Single emission peak at 658nm

With this ability to absorb light at two wavelengths Invion's IVX-PDT has multiple applications – when activated with the lower wavelengths IVX-PDT acts as a diagnostic imager, lighting up the tumour. When activated by the second light wavelength IVX-PDT generates the oxygen free radicals that kill the cancerous cells.

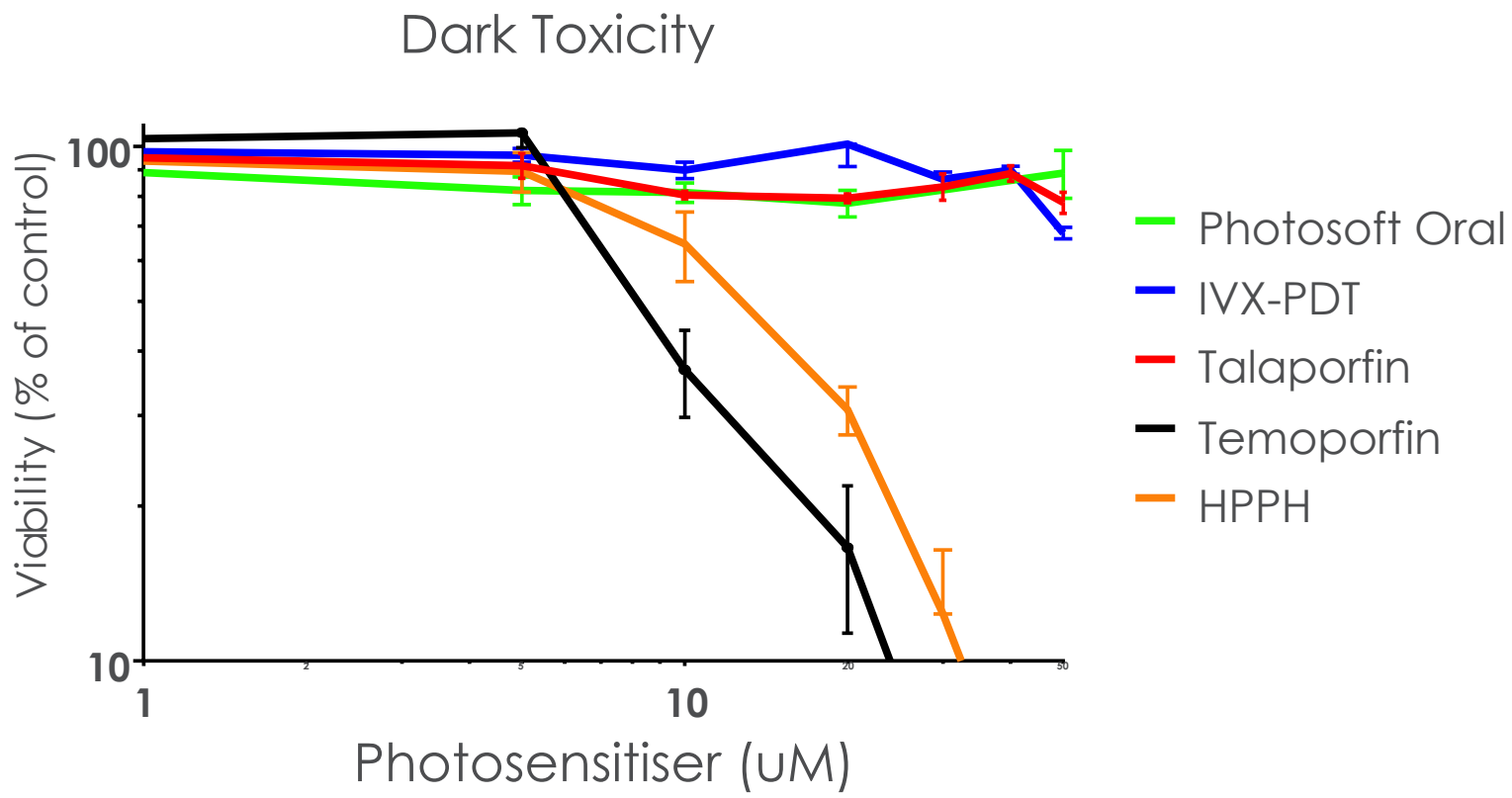




Ovarian cancer cells stained with Photosoft™. Inset, ovarian cancer cells without Photosoft™.

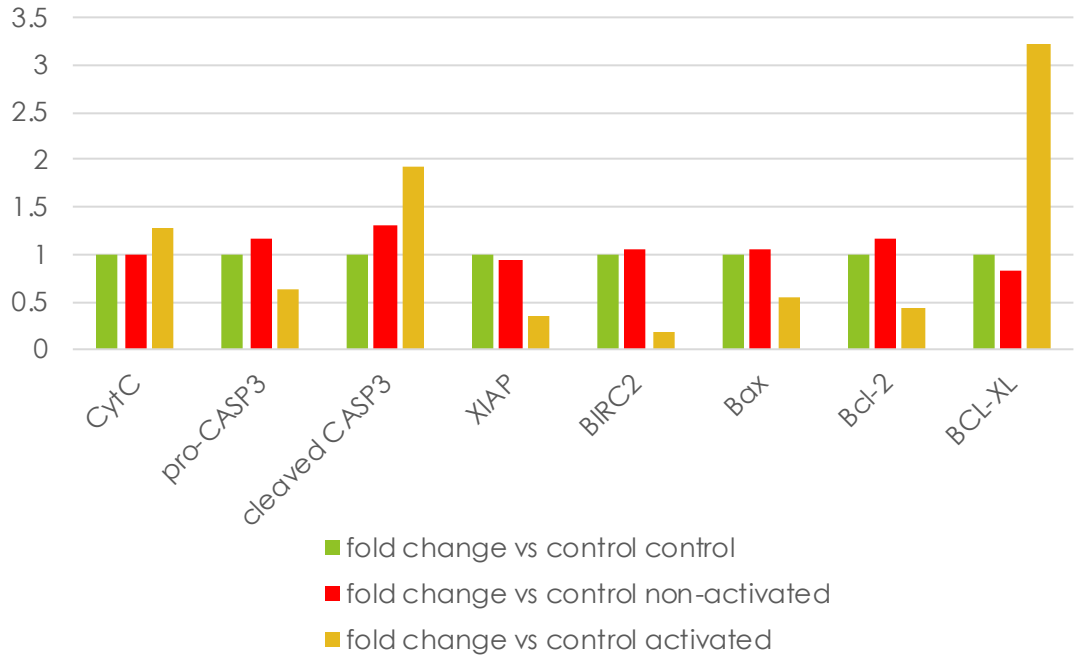
PHOTOSOFT AND IVX-PDT
NOT ACTIVATED BY AMBIENT LIGHT

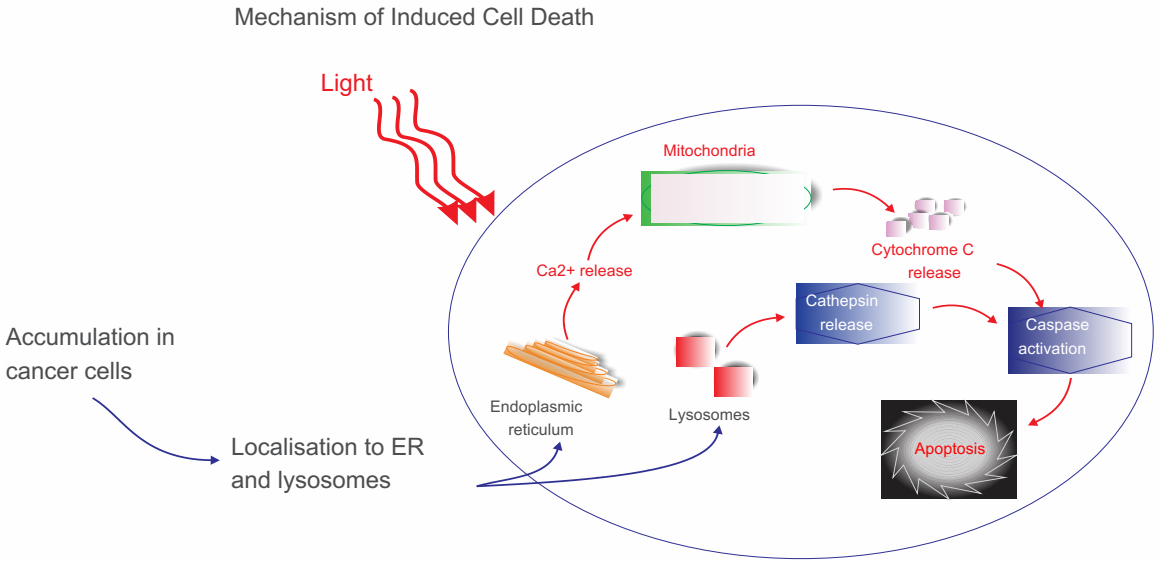
- Cancer cells incubated with increasing photosensitiser concentrations for 24hrs
- No evidence of cytotoxicity prior to activation
- The Photosoft shows significantly lower "dark toxicity" than Temoporfin (Foscan™) and HPPH (Photochlor™) – without light activation the compound is 100% inert



IVX-PDT INDUCED APOPTOSIS
VIA ER CALCIUM FLUX AND CASPASE ACTIVATION

- Cell death pathways induced on IVX-PDT activation explored using antibody array
- IVX-PDT treatment resulted in release of cytochrome C, caspase 3 cleavage, and altered abundance of multiple apoptosis-related proteins. Validates that the cell death is not a random occurrence but a consequence of the **cytotoxicity created through the activation of IVX-PDT**





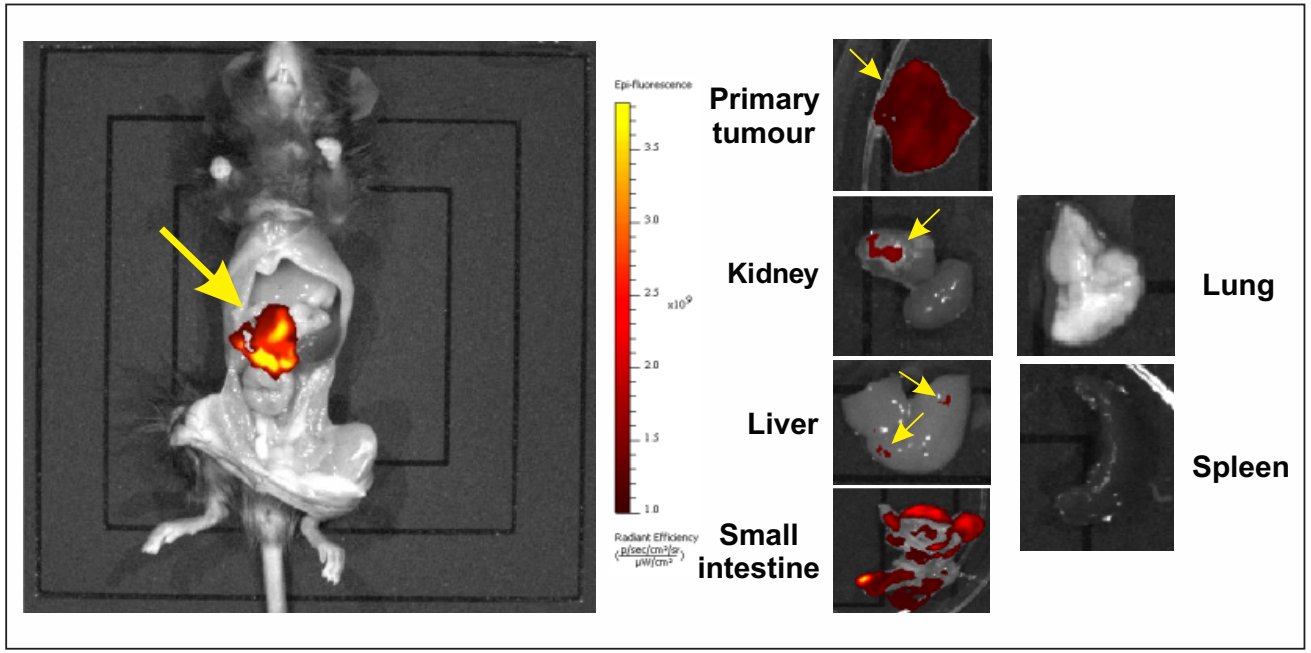
Verified in various assays and panels examined by the Hudson Institute of Medical Research, the above model represents the likely Likely combination of apoptotic and necrotic death induced

IVX-PDT LOCALISES TO TUMOR TISSUE IN MOUSE MODEL OF OVARIAN CANCER

- Mice with advanced ovarian cancer administered IVX-PDT (intraperitoneally)
- Study undertaken by Hudson institute of Medical Reseach

Mice trial findings :

- Clear and specific accumulation in tumour tissue
- Both primary tumour and metastatic lesions detected – the IVX-PDT compound clearly identifies the cancerous tumour tissue
- No localisation to non-tumour tissue detected – the compound is selectively taken up by the tumour cells and **NOT normal tissue**



HUDSON INSTITUTE OF MEDICAL RESEARCH

INVION

INVION'S PRIORITY AREAS OF DEVELOPMENT

IVX-PDT:
OPTIMISING THE DRUG AND THE MANUFACTURING PROCESS

AIM:
To generate a IVX-PDT Active Pharmaceutical Ingredient (API) that is high purity, stable, soluble, acceptable to regulatory authorities and able to be made at large scale. Based on the Photosoft technology.

TO DATE:
Invion has undertaken extensive chemistry development to generate high purity, stable, soluble APIs - named IVX-P02 and IVX-P03 – and successfully conducted characterisation testing.

FURTHER DEVELOPMENT:
Invion will conduct further chemistry work to optimise the Active Pharmaceutical Ingredient and to define the large-scale manufacturing process by end 2019. This API must be used in the clinical studies so that the regulatory authorities can assess the API that will be marketed and sold following approval.

LASER LIGHT SOURCE FOR IVX-PDT
DEVELOPED TO MEET INVION REQUIREMENTS

Guilin Xingda Photoelectric Medical Device Co. Ltd, a leading supplier of medical laser equipment in China, was commissioned by Invion to develop and supply laser light source devices, built to Invion's exacting specifications:

- ✓ Highly controlled, high power emission of infra-red laser light
- ✓ Enhanced user interface to optimise ease of use for customers
- ✓ Universal application planned for via use of "universal" power supply and icon-based design
- ✓ Ensuring compliance with operational and safety standards
- ✓ Laser probe design optimised to varying clinical applications

Multiple LAS1 devices have been received by Invion from Xingda, they have passed Invion's rigorous acceptance testing, have been successfully used in the pre-clinical studies, and will be used in the clinical studies.

SKIN CANCER PROGRAM
A POWERFUL NEW TREATMENT OPTION

Invion will be pursuing superficial BCC (sBCC) and Actinic Keratosis (AK)

Product Characteristics

- Therapeutic
- Topical Application
- Gel formulation
- Fast drying
- Incubation Time (up to 24 hours)
- Illumination with light source at 652 nm

Collaborations established:

Formulytica

- Engaged to develop topical formulation of IVX-PDT
- Gel formulation developed

***vivo*Pharm**

- Engaged to undertake pre-clinical studies
- Dermal studies in animal (2 species) in 2019 suggests gel formulation is well tolerated.

Veracity Clinical Research (QLD)

- Engaged to run human skin cancer studies
- Dr Spelman as Principal Investigator

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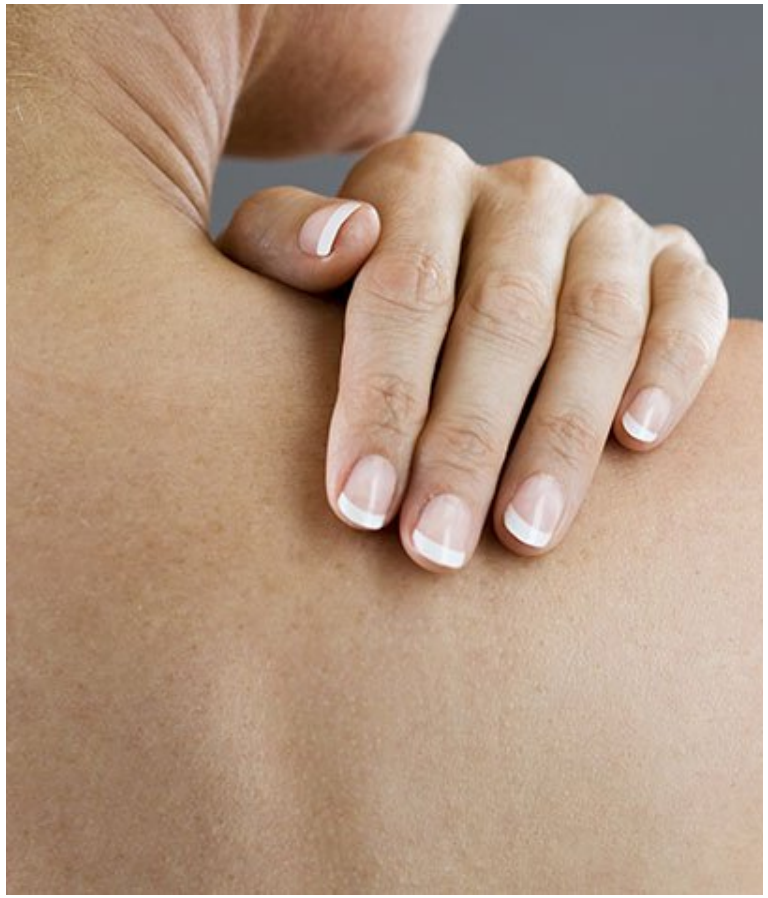
IVX-SKIN: USING INVION'S TOPICAL PDT PRODUCT

Using Invion's Topical PDT Product, *IVX-SKIN*, to treat skin cancers

- Basal Cell Cancer (BCC)
- Actinic Keratosis (pre-cancer)
- Squamous Cell Cancer (SCC)

Skin cancer is the most common cancer worldwide, with over 50 million cases of skin cancer and actinic keratosis (pre-cancer) diagnosed every year



Current treatments for skin cancer/actinic keratosis not ideal

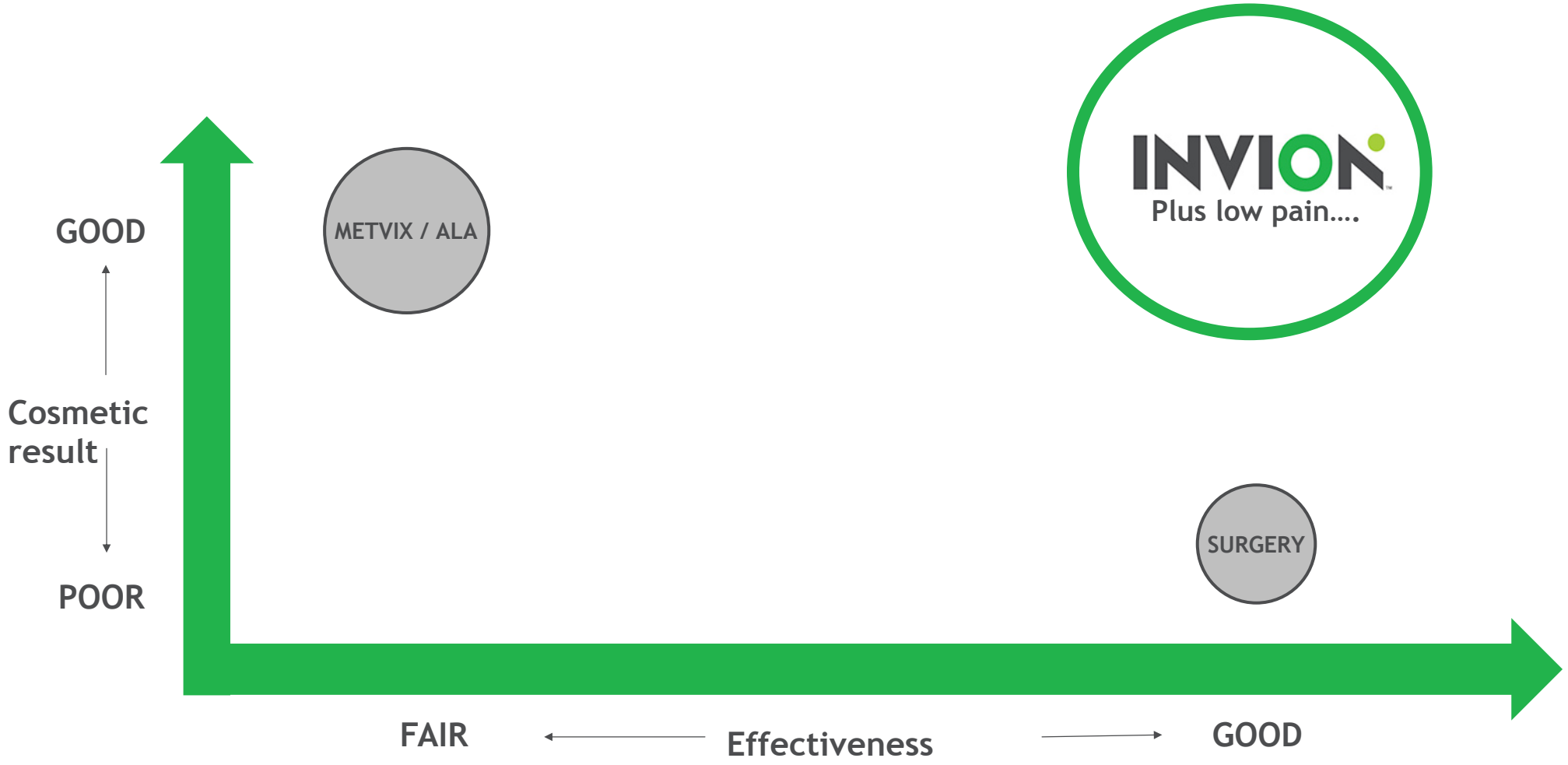
Surgery/cryotherapy

- The standard therapy
- Works well, but cosmetic results are poor, with scarring and discolouration

Current PDT – Metvix/ALA

– Cosmetic results are good but doesn't work as well as surgery
- Painful

FOR SKIN:
POTENTIAL FOR UNIQUE POSITIONING



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IVX-SKIN:
PATH TO SUCCESS AND CLINICAL STUDIES

Invion will optimise the *IVX-SKIN* drug/light combination to build clinical and commercial success

Strategy: Target indications where we are differentiated by being less painful (eg vs Metvix) and better than surgery.

Skin cancer Phase Ib Trial

- Superficial Basal Cell Cancer (BCC)
- Optimise drug/light combination
- Study efficacy, pain, cosmesis
- Up to 40 patients
- Patient treatment starts H1 2020 at Veracity Clinical Research

Phase III Trial: compare Invion vs Metvix and surgery in BCC

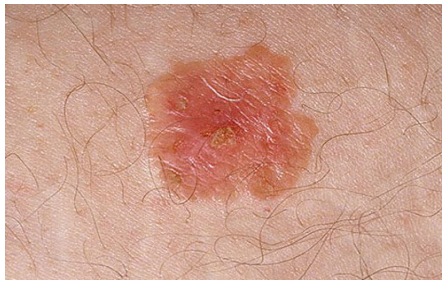
- Use optimised drug/light combination
- Study efficacy, pain, cosmesis
- Up to 100 patients in each arm – aiming for 50 per arm
- Use outcome data to support registration of *IVX-SKIN*
- Following successful completion of Phase 1b study

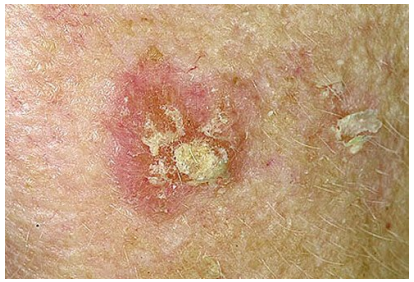
Phase III Trial: compare Invion vs Metvix and cryotherapy in AK

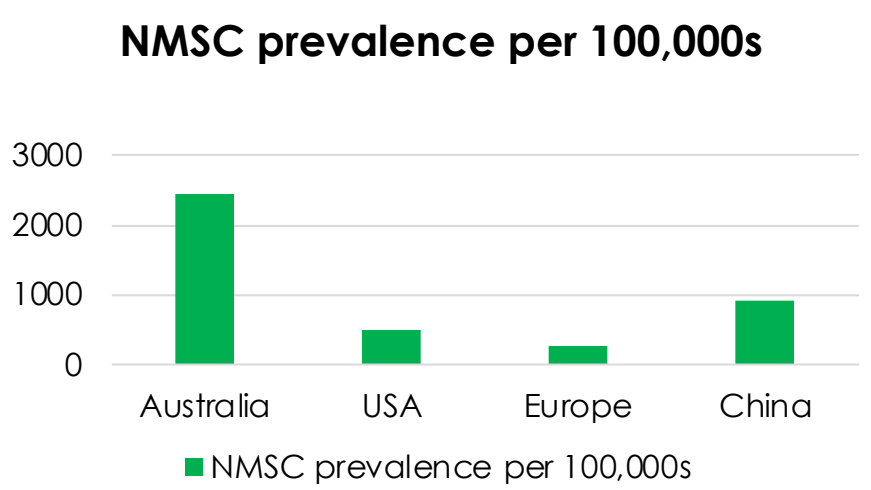
- Use optimised drug/light combination
- Study efficacy, pain, cosmesis
- Up to 100 patients in each arm – aiming for 50 per arm
- Use outcome data to support registration of *IVX-SKIN*
- Following successful completion of Phase 1b study

IVX-SKIN: NON MELANOMA SKIN CANCER (NMSC) AND ACTINIC KERATOSIS(AK)

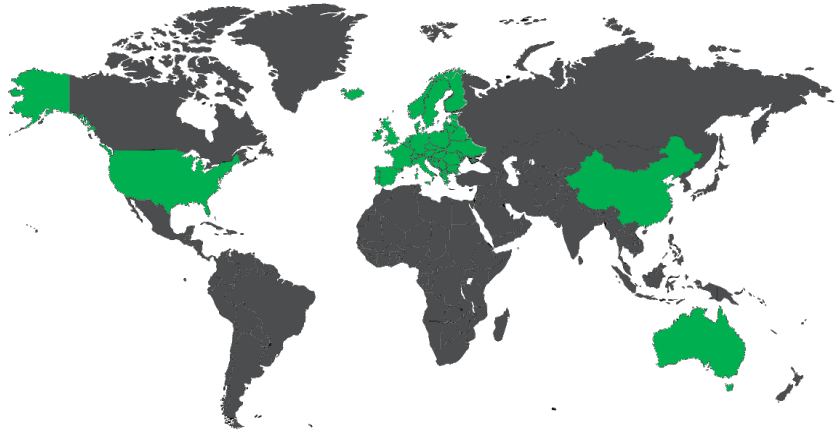
- 99% of skin cancers are non-melanoma.
- BCC accounts for 70% of NMSC with SCC about 25%.
- AK is a common pre-cancerous skin lesion which may progress to SCC. Australia has the highest prevalence of AK ranging between 40-60% of the population.
- NMSC and AK are growing
  - SCC incidence is growing by 3–10% per year
  - BCC incidence rate has risen between 20–80% in the US in last 30 years
  - NSMC: Australia has the highest incidence of NMSC in the world.
  - Australian market for BCC and AK is approx. AUD 703m.
  - AK: Photo Dynamic Therapy accounts for a major revenue share in the actinic keratosis treatment market



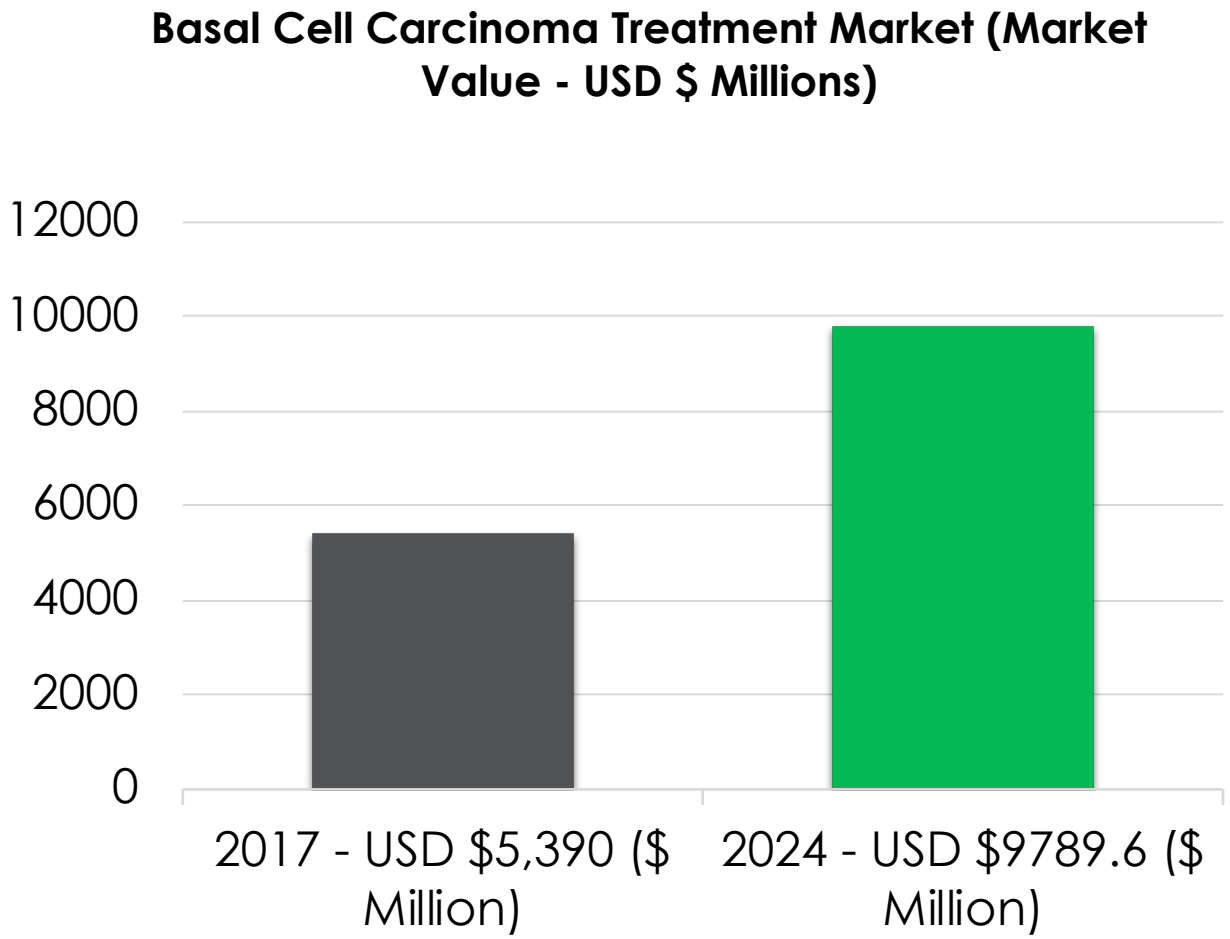




Over 132m patients in USA, China, Europe and Australia with NMSC or AK



IVX-SKIN: NON MELANOMA SKIN CANCER (NMSC) AND ACTINIC KERATOSIS(AK)

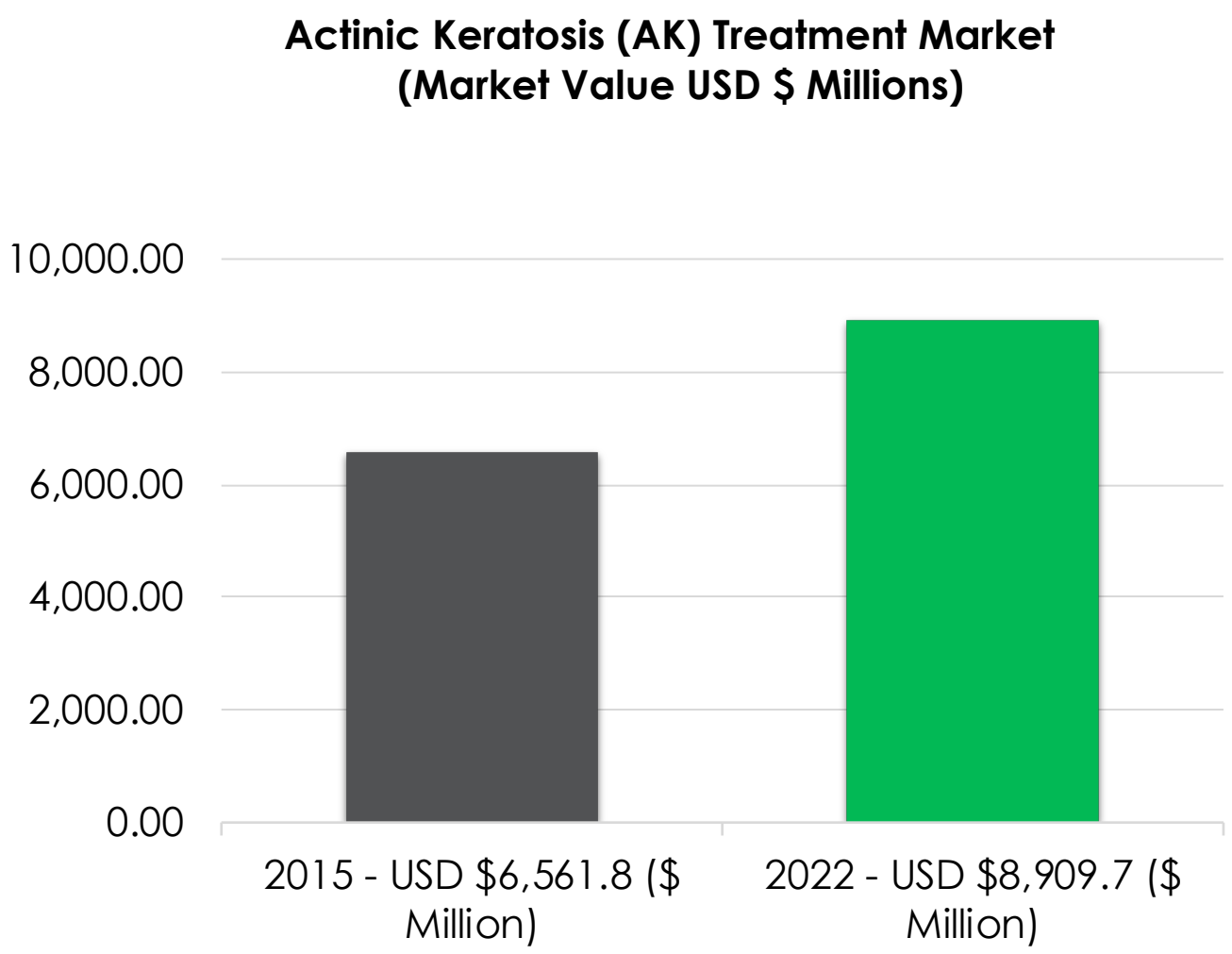


"Basal Cell Carcinoma Treatment Market global report'

- Global basal cell carcinoma market was valued approximately USD 5,390 million in 2017 and is expected to generate revenue of around USD 9,789.6 million by end of 2024
- Market growth expected at a CAGR of around 8.9% between 2018 and 2024.[1]

[1]Zion Market Research has published a new report titled "Basal Cell Carcinoma Treatment Market by Treatment Type (Surgery, Drugs, and Others) and by End-user (Hospitals, Specialty Clinics, and Other End Users): Global Industry Perspective, Comprehensive Analysis, and Forecast, 2017 – 2024" - https://www.zionmarketresearch.com/report/basal-cell-carcinoma-treatment-market

IVX-SKIN: NON MELANOMA SKIN CANCER (NMSC) AND ACTINIC KERATOSIS(AK)



"Actinic Keratosis Market By Treatments Growth, Share, Opportunities & Competitive Analysis, 2016 – 2022":

- Global actinic keratosis market was valued at USD 6,561.8 Million in 2015 and is expected to reach USD 8,909.7 Million by 2022
- Market growth expected at a CAGR of around 4.35% between 2016 and 2022.[1]

[1] Actinic Keratosis Market By Treatments (Destructive Treatment, Photodynamic Therapy, Topical Medications, Chemical Peels And Dermabrasion) - Growth, Share, Opportunities & Competitive Analysis, 2016 – 2022"

- https://www.credenceresearch.com/report/actinic-keratosis-market

IVX-SKIN:
TIMELINE TO PRODUCT REGISTRATION SUBMISSION*

* Anticipated timeline, subject to change

Invion's expected product development timeline to regulatory submission:

H1 2020
- Pre-clinicals completed
- Phase 1b Clinical Trial commences in BCC at Veracity Clinical Research (QLD)

H2 2020
- Phase 1b Clinical Trial - results

H1 2021
- Phase 1b Clinical Trial in BCC – long term follow up
-

H2 2021
Phase III Clinical Trial commences in Actinic Keratosis
- Phase III Clinical Trial in BCC – results
- Product Registration Submission - BCC

IVX SOLID CANCER PROGRAM:
EXPLORING INTRAVENOUS TREATMENT FORMULATIONS

Invion is undertaking initial IV development to support future clinical studies.

Invion will begin clinical studies of IV formulations in solid cancer treatments with a small, controlled orphan studies in mesothelioma and / or lung cancer.

Initial studies will position Invion's future development of treatments for other solid tumour indications.

Product Characteristics

- Therapeutic treatment
- Intravenous (IV) compound formulation
- Treatment activated by laser probe
- Compound selectively taken up by cancer cells, not normal tissue

***vivo*Pharm**

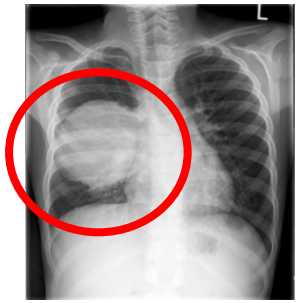
- Engaged to undertake pre-clinical studies

Formulator

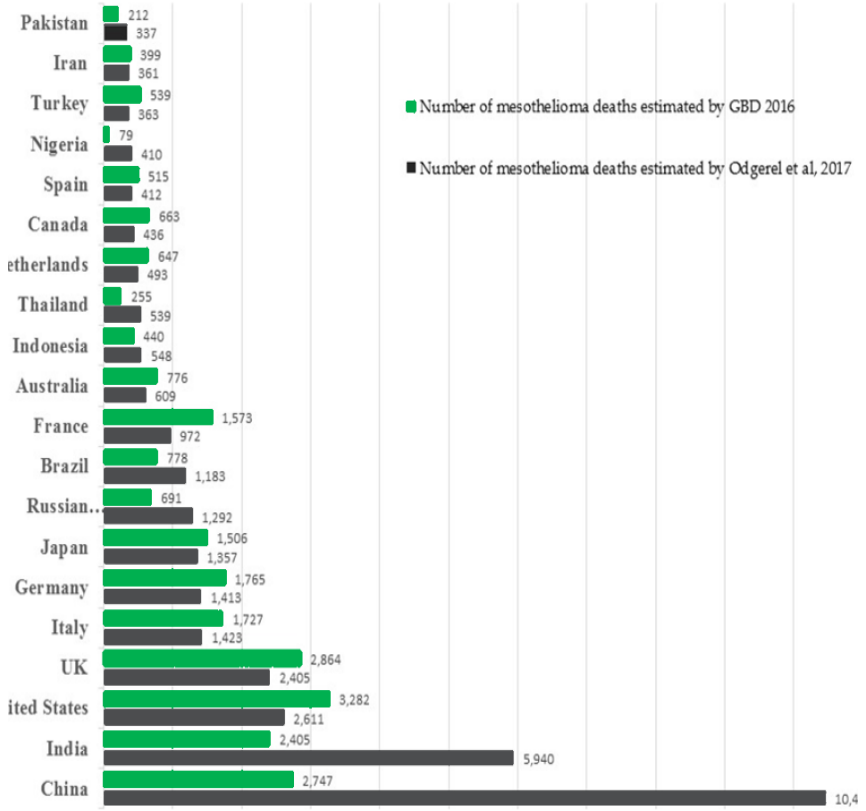
- Engaged to develop IV formulation
- Ready for clinical studies in 2020

IVX-MES:
MESOTHELIOMA – A GROWING CANCER MARKET

- Lung cancer accounts for 54–75 per cent of all occupational cancer.
  - Asbestos related cancer accounts for 55–85 per cent of lung cancer and causes other cancers
- Asbestos causes an estimated 255,000 deaths annually – of which work-related exposures are responsible for 233,000 deaths
- Negative impact of Mesothelioma and Asbestos related cancer worldwide:
  - Reported loss for Western European and European Union countries of 0.70% Gross Domestic Product (GDP) or 114,900 million USD.
  - The USA has asbestos-related productivity losses of approximately 0.36% of GDP, or 86,100 million USD.
  - All WHO region's designated as "High income countries" had an estimated loss of 0.48% of GDP caused by asbestos related cancer
- 2,030,000 tons of Asbestos used annually despite being banned in 55 countries.
- Present Asbestos consumption and exposure is expected to cause negative ramifications for the following 30–50 years later. [1]

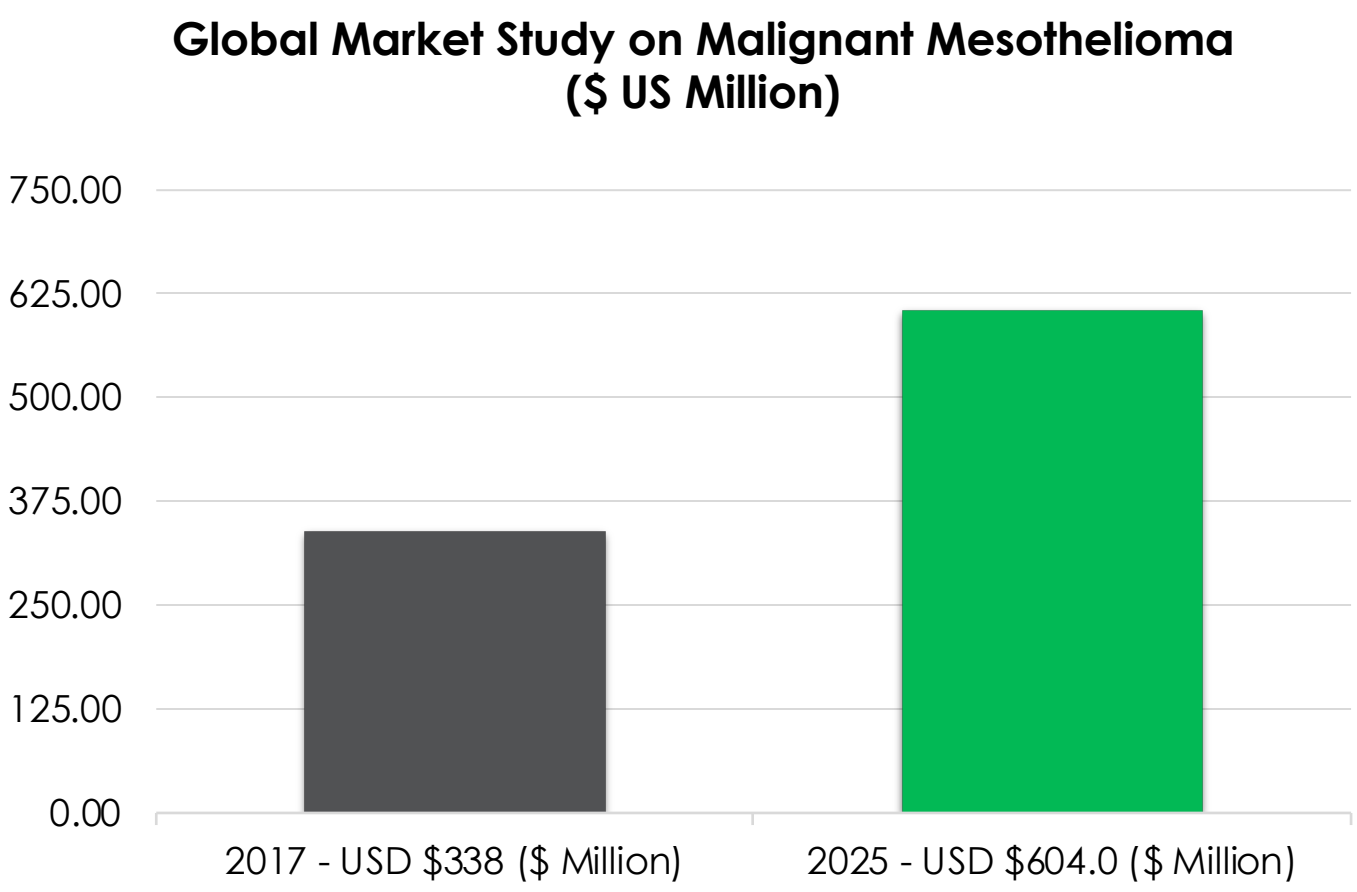


Comparison of Global Burden of Mesothelioma Deaths for leading countries in terms of mesothelioma deaths (Estimates)



[1] https://www.ncbi.nlm.nih.gov/pubmed/29772681

IVX-MES:
MESOTHELIOMA – POTENTIAL MARKET



"Global Market Study on Malignant Mesothelioma' – Market research:

- Global malignant mesothelioma market was valued approximately USD 338 million in 2017 and is expected to generate revenue of ~USD 600 million by end of 2025
- Market growth expected at a CAGR of around 7.5% between 2017 and 2025.[1]

[1]Persistance Market Research has published a new report titled "Global Market Study on Malignant Mesothelioma: Cisplatin and Combination Segment Projected to be the Second Most Lucrative Segment by Drug Type' - https://www.persistencemarketresearch.com/market-research/malignant-mesothelioma-market.asp

IVX SOLID CANCER PROGRAM
TIMELINE TO PRODUCT REGISTRATION SUBMISSION*

Invion's expected product development timeline to approval:

* Anticipated timeline, subject to change

H1 2020
- Disease-related Laboratory studies commence at research institute

H2 2020
- Phase 1b Clinical Trial commences

H1 2021
- Phase 1b Clinical Trial - results

H2 2021
- Phase 1b Clinical Trial – long-term follow up
- Phase III Clinical Trial commences

H2 2022
- Phase III Clinical Trial - results
- Product Registration Submission

OTHER APPLICATIONS OF IVX-PDT
DEVELOPING NEW TREATMENT OPTIONS

Ovarian cancer

Invion will continue to support the scientific research being done at the Hudson Institute to define the activity of the Photosoft Technology in ovarian cancer

The Hudson work includes the demonstration of activity in cell lines and in animal models of ovarian cancer, along with the optimisation of treatment parameters and exploration of the immune-related activity of the Photosoft Technology.

Other Topical Conditions

Invion will leverage its novel topical formulation to explore its potential for use in other topical cancers, thus providing new treatment options.

As with the Hudson Institute work in ovarian cancer, Invion will seek to collaborate with expert scientists, doctors and research institutes related to the cancers under investigation

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UPCOMING MILESTONES

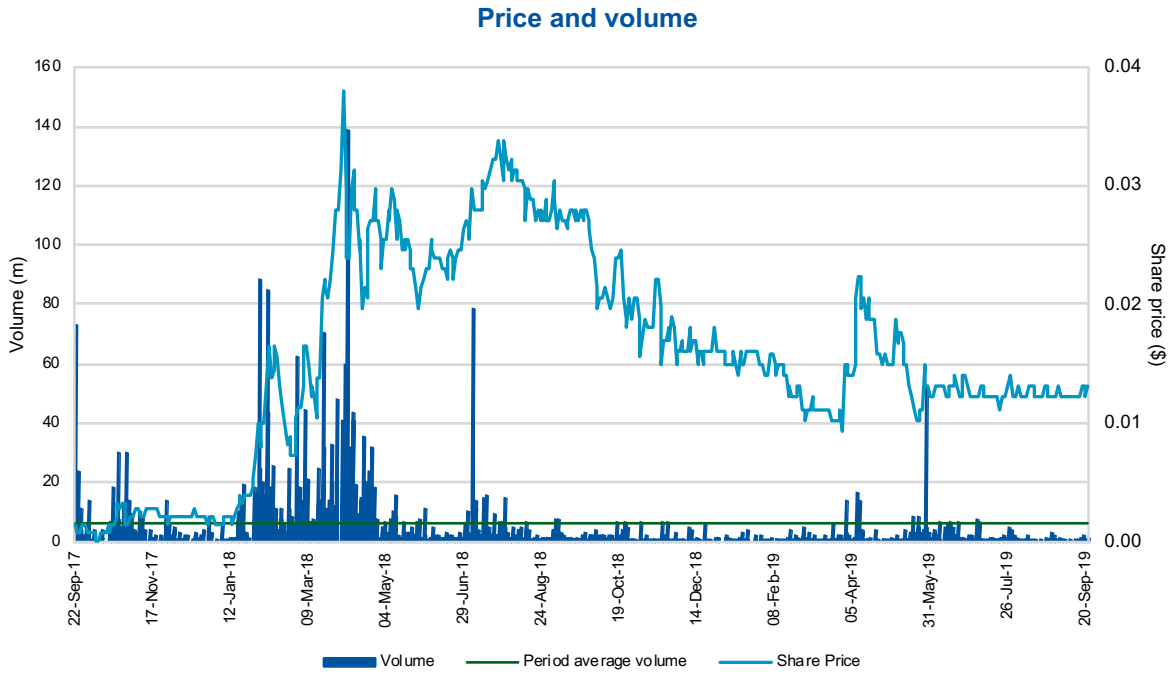
	H1 2020	H2 2020	H1 2021	H2 2021	
Pre-clinical results					
Collaboration with research institute/s					
Disease-related Solid Cancer Laboratory studies commence at research institute					
Phase 1b Clinical Trial commences in BCC					
Clinical site appointed for solid cancer studies					
Exploration of other topical cancer opportunities					
Phase 1b Clinical Trial commences in solid cancer					
Phase 1b Clinical Trial in BCC – results					
Phase III Clinical Trial commences in BCC					
Phase 1b Clinical Trial in solid cancer - results					
Phase III Clinical Trial in BCC – results					
Product Registration submission for IVX-SKIN					
Phase III Clinical Trial commences in AK					
Phase III Clinical Trial commences in solid cancer					

MARKET OVERVIEW

$0.016
(at 24th September 2019)

Market Cap A$88m
(at 24th September 2019)

Focus	Clinical-stage life sciences company developing the Photosoft™ technology as a treatment for a range of cancers
Issued Shares	5,500,606,300
Cash (at 30th June 2019)	AUD $0.771M
Revenue from contracts with customers (year ended 30 June 2019)	$3.882M
Symbol/ Exchange	ASX: IVX



Substantial shareholders	%IC
UNLIMITED INNOVATION GROUP LIMITED	51.16
POLAR VENTURES LIMITED	9.91
MR HONSUE CHO	5.17

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