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INVITROCUE™
Transforming bioanalytics

Personalised oncology treatments
for better patient outcomes

February 2018

Invitrocue (ASX:IVQ)
CEO, Steven Fang



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Investment Highlights

- **Addressing a massive market need** in personalised medicine – est US\$300 B for oncology analytics
- **First mover advantage** – limited number of global competitors
- **Disruptive platform technology** – potential for establishing a new standard of care to guide current oncology treatment procedures
- **Highly-scalable business model** – a versatile and powerful platform technology with wide applicability and low-cost implementation
- **Diversified operating risks** – multiple revenue streams with immediate go-to market
- **Strong patent protection** – patents granted in key markets such as the US, UK, Australia, Germany, Singapore, Japan and China
- **High caliber team** - led by Dr Steven Fang and an international Scientific Advisory Board



Commercial Pathway & Value Inflection Points

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2016

- Achieved triple-digit CAGR since 2015
- Fast-growing revenue stream
- International recognition of IP portfolio
- Global engagement with prestigious cancer centers

2017

- First revenue achieved for Onco-PDO
- Identified and engaged KOLs for each cancer type by country

2018

- Initial launch of services through clinical KOLs
- Move to kit-based sales of the same price point
- Commercial rollout of Onco-PDO to Asia Pacific and Europe

Looking forward

- Launch of cancer-specific proprietary kits for scale-up in other labs in 2018-2019
- Continued revenue growth bases on commercial validation of core cell-based assaying business
- Expansion of Onco-PDO to the European market

Achievements for 2017

WHAT WE SAID WE WOULD DO

Grow Sales in cell base assay

Secure new / repeated orders

First Indications for PDO

Garvan Institute Trial

First Joint Lab to offer PDO service

Market expansion

WHAT WE ACHIEVED

Strong continuous growth in FY2017

New customers / repeated contracts

OSCC + Colorectal Cancer

Secured ethics approval, awaiting validation trial

Launch July 2017 by Minister of Trade Hamilton Smith

Currently operate in 4 countries; Singapore, Hong Kong, China, Australia

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Core Services and Products

Liver Cell Services and Products

- Lab based human liver models
- 3D cell culture platform and cell-based assay business
- Used for drug testing to reduce risk, cost and shorten time to market
- Used to assess safety and effectiveness of drugs in infectious diseases and wound healing

Personalised Precision Oncology

- Use of proprietary **Onco-PDO™ technology** platform for the growth of tumor avatars to help reduce the guesswork and cost involved for cancer treatment

Human Liver Services and Products

Liver Cell Services and Product Offering

Clinical liver assay services:

- Drug Metabolism (DMPK) assays
- Liver toxicity assays
- Infectious diseases assays testing for Hep B and C
- Liver disease modeling

Humanised liver products:

- HepaCur fresh hepatocytes (liver cells)
- Mice carrying humanised liver cells



Human Liver Products: Market Opportunity

Rising need for *in vitro* human liver models for screening for liver disease drugs due to:

- Growing geriatric population and increasingly unhealthy lifestyle patterns driving increase in global liver disease cases
- Current lack of an available effective cure for a number of liver diseases:
 - Hepatitis B
 - Fatty liver and non-alcoholic steatohepatitis (NASH)
- Global liver disease treatment market valued at \$12.4 billion in 2009



Most new
drugs fail in
clinical trials
due to liver
toxicity

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Personalised Precision Oncology: Onco-PDO™

The Increasing Burden of Cancer

2013 - 2020

WORLDWIDE CANCER CASES are projected to increase by

 **50%**

From 14 million to 21 million

WORLDWIDE CANCER DEATHS are projected to increase by

 **60%**

From 8 million to 13 million

Source: American Cancer Society: Global Cancer Facts and Figures

Rising Costs of Cancer Treatments

CANCER TREATMENTS

35%

are effective

TREATMENT COSTS

ARE
RISING



TREATMENT OUTCOMES

HAS NOT IMPROVED



SINCE 20 YEARS AGO

The future of effective cancer treatments: Personalised medicine

We are focused on the development of personalised oncology drugs driving the best outcome for cancer survival.

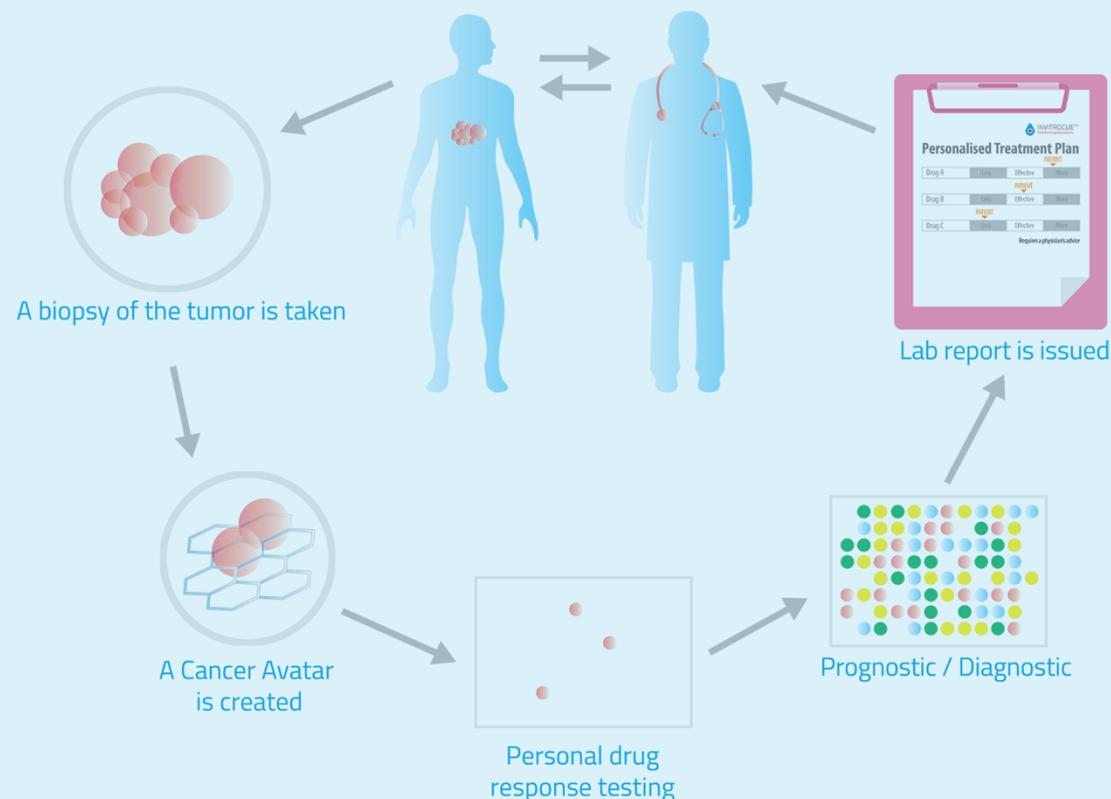
Our platform technology offers patient-specific cancer information to guide oncologists in their selection of drugs and therapies to achieve the best clinical outcome.

Platform Technology: Onco-PDO™

Our proprietary 3D cell-scaffolding technology, Onco-PDO™ (Oncology Patient-Derived Organoid) enables:

- patient-derived cancer cells (organoids) to be cultured in laboratories
- Organoids used for testing against a panel of drugs to guide oncologist's clinical decisions specific to each patient

Onco-PDO™ PERSONALISED DRUG TESTING

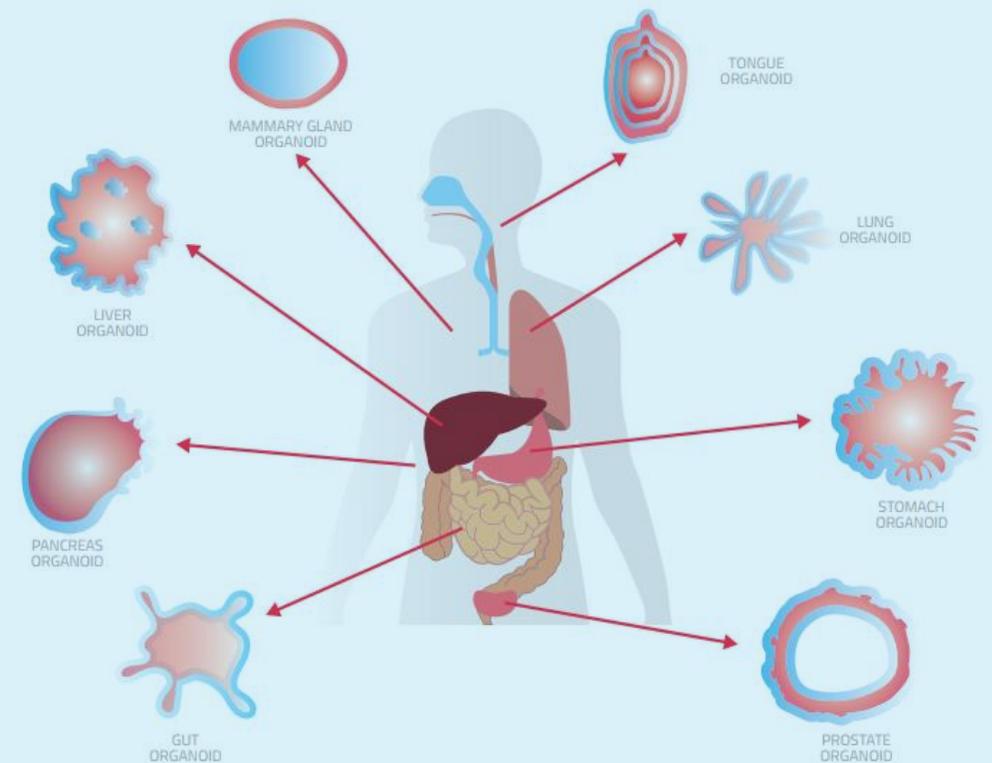


Onco-PDO™: Value Proposition

Onco-PDO™ disrupts current oncology treatment processes through the creation of tumor avatars (organoids), allowing:

- Real-time guidance for improved preclinical testing
- New cancer drug validation
- Enables effective clinical outcome prediction
- Providing personalised medicine at a more affordable price

Tumor Avatars Are Now a Reality



Onco-PDO™: Ahead of the Competition

Current competition utilises Patient Derived Xenographs (PDX) which uses mice models for the growth of patient-derived tumors.

Advantages of Onco-PDO™:

- Is significantly more cost effective
- Allow for faster turnaround time (within 2 weeks vs 3 months)
- Provide higher scalability
- Not required to use mice models (limited to only 2-3 drugs lines per mice)



Reasons to Invest

- Important and existing unmet market needs
 - Growing cancer market
 - Technology to disrupt current cancer treatments
- Novel, innovative and patented products and services
 - Initial launch of services through KOL clinical lab in 2018
 - Launch of cancer specific kits for scale up in all other labs 2018-2019
- Diversified operating risks
 - Fast growing and significant revenue stream
 - Achieving 3 digit CAGR since 2015
 - Diversified revenue stream
 - Immediate go to market model with low regulatory hurdles
- Attractive exits and IRR
 - Potential dual listing/relisting within next 24 months
 - Strong interest from big pharma
 - Strong licensing potential for specific cancer tests



Management Team & Advisory Board

Board of Directors

Dr Steven Fang,
Executive Director and Founder

Mr Chow Yee Koh,
Non Executive Director
and Company Secretary

Professor Harry Yu,
Non Executive Director
and Scientific Mentor and Advisor

Ms Jamie Khoo Gee Choo,
Non Executive Director

Ms Ee Ting Ng,
Non Executive Director

Dr Andreas Lindner,
Non Executive Director

Management Team

Dr Steven Fang,
Executive Director and Founder

Martin D. Bach,
Vice President of Operations

Dr Ramanuj Dasgupta,
CSO (Non-Exec), Onco-PDO

Dr Sunny Tan,
Senior VP, Scientific Affairs and
Business Development

Tony Adams,
Senior VP, Investor Relations

Advisory Board

Prof Alex Matter MD

Dr Ram Dasgupta PHD

Prof Joseph King-Tak Lee MD FACR

Associate Prof Soo Yong Tan MBBS
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BSC, MBBS, MD, FRCSEd FRCS

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Lyer MBBS PHD FRCSEd



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Thank You

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