## Research Note

21st November 2014

## Proteomics International Laboratories Limited

## proactive investors AUSTRALIA

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#### **Recommendation: Speculative Buy**

Sector: Healthcare & Biotechnology

12 month price target: \$0.35-\$0.46

ASX Code: PIQ

Share Price Offering Price: \$0.20

Pre-IPO Shares: 35.4M

Plus performance rights for a maximum of

10M shares

Unlisted options: 3.3M

Post IPO Cash: \$3.5 - \$5.0M

Market Cap Pre-IPO: \$7.08M

Market Cap Post IPO: \$11.08M-\$13.08M

#### Major Shareholders (pre-IPO)

Directors: 28.5M shares

Others: 6.9M shares

IPO: 20M – 30M shares

Chairman: Terry Sweet

Managing Director: Richard Lipscombe

**Directors:** John Dunlop

Bill Parker

#### Author:

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# Proteomics International Laboratories seeks \$6M for ASX listing to fund growth of protein analysis businesses

- Proteomics International Laboratories Ltd (ASX:PIQ) is seeking to raise a minimum of \$4 million and a maximum of \$6 million from to fund the growth of its three protein analysis businesses.
- The Perth-based company specialises in the area of proteomics the study of the structure and function of proteins.
- It has a central technology that performs protein analysis across three areas: an analytical services business, a diagnostics business and a drug discovery business. The PIQ technology enables the study of proteins on an industrial scale.
- Already, the company has established 40 key clients and has generated total revenues of \$7.5 million since 2001.
- Over \$6.5 million has been invested in research & development and a portfolio of intellectual property ("IP") which now allows for a commercialisation phase.
- PIQ is at an advanced stage of commercialising a test for diabetic kidney disease after a two-year \$2m study supported by Commercialisation Australia.
- The market for proteomic testing is considerable. PIQ's analytical business provides contract research and analytical testing, and operates in the proteomics market which is estimated to be worth \$20.8 billion by 2018.
- PIQ does not intend using its resources to develop diagnostic tools or drugs, but seeks to licence the discovered IP to major pharma groups, who have the required resources for development.
- This business model is a leveraged approach intended to reduce requirement for large amounts of capital, spreading risk.
- Proactive Investors has initiated coverage and a 6 -12 month price target of \$0.35 - \$0.46 per share. Speculative Buy



#### **BACKGROUND**

- Proteomics International Laboratories Limited (ASX:PIQ) is an innovative biological research and drug discovery company working to make a difference in people's lives by developing simple diagnostic tests for common diseases and discovering new therapeutic drugs. Proteomics International Laboratories is the parent company of Proteomics International, which was established in 2001.
- The Company is currently seeking to issue 20 30 million shares at \$0.20 per share to raise up to \$6.0 million via an IPO, and list on the Australian Stock Exchange. Scheduled Closing date of the issue is 28<sup>th</sup> of November, 2014, and ASX listing is set for 16<sup>th</sup> December, 2014. A copy of the prospectus is available on the Company website at <a href="https://www.ProteomicsInternational.com">www.ProteomicsInternational.com</a>
- Use of funds and timeline are set out under "Use of proceeds from IPO and business model", and "Catalysts".
- The Company operates in 3 synergistic business units that are located at the Harry Perkins Institute in Western Australia, and are unified by a common platform technology.

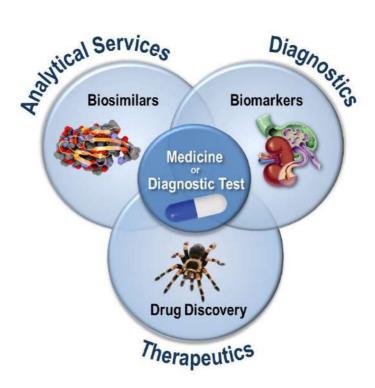


IMAGE ONE: THREE SYNERGISTIC BUSINESS UNITS ARE DRIVERS FOR SUSTAINED AND LONG TERM GROWTH MODEL

#### **Analytical Services**

This division provides analytical and consulting services on a contract research basis to a broad range of blue chip pharmaceutical, biotechnology and academic clients worldwide. These services focus on the identification of molecules, their differential expression and full characterization.



The average annual growth in these sales over the last five years has been 34%. The Company focuses its services on the Asia-Pacific region with long established agencies in India, Malaysia, Singapore and Japan, and recently extended its agency network to Hong Kong/China, Brazil and Indonesia.

Approximately 50% of all sales are export and includes a recent partnership with inVentiv Health Clinical a leading global supplier of drug development services.

This work includes assisting pharmaceutical manufacturers to provide data packs for regulatory submission in Europe, India and China.

The Company's Western Australian laboratory is the first facility in the world to receive ISO 17025 laboratory accreditation for proteomics services, which is the most widely used laboratory standard for US Federal testing laboratories. This recognises the Company's ability to consistently achieve technically valid results and global reputation for technical excellence.

#### **Diagnostics**

The Company has developed a versatile platform technology for discovering diagnostic tests based on the differences in the protein make up of people with and without a particular disease. By comparing blood or other samples taken from both sick and healthy people, the Company is able to produce a set of "biomarkers"- biological signatures that can be used to test for a particular condition.

The discovery of a new biomarker creates intellectual property that can be used to generate several forms of diagnostic test that include:

- A specialist diagnostic test that is run by approved laboratories that are major reference laboratories such as the Mayo Clinic, and Quest Diagnostic.
- o A clinical test for the wholesale and end-user pathology markets.
- A test that could be used to monitor a patient's response to a drug therapy (companion diagnostics).

The Company is actively working in the field of diabetic kidney disease where it has discovered a biomarker panel that can be licensed as a diagnostic test. This has led to a \$2 million investment in a large clinical study and instigated on going commercialisation talks with other entities.

This will fill a major unmet need where 1 in 10 of the world's population is afflicted by diabetes, and 35% of adults with diabetes develop chronic kidney disease, and 20% end up with kidney failure.

Clinicians require better tools to deliver more effective diagnosis, prognosis and treatment monitoring, and pharmaceutical companies require better methods to reduce drug failure rates.

The different types of test each constitute possible unique products, and potential revenue streams that are not limited to human medicine and include animal and plant life. This includes a current research contract with a major US veterinary company to develop a new test for parasites in pets. This versatility means the platform can be used to target a very wide range of problems.



#### **Therapeutics**

Proteomics is using venom from Australia's uniquely evolved wildlife to look for compounds that could become the painkillers and antibiotics of the future. Unlike randomly screened plants, studying venom is a targeted approach to drug discovery that has already produced commercial success that includes several peptide drugs that are on the market to treat heart attacks, high blood pressure, and diabetes.

Traditional random screening of molecules is expensive, time consuming and ineffective and typically yields only 100 lead molecules from 100,000 starting molecules. This process can take between three and six years to find candidates for clinical testing.

Proteomics International Labs targeted approach will be applied to find lead molecules which show promise in combating pain (potential morphine replacement) or infection, and will take months as compared to years for traditional screening. Infection is an area of particular interest as the world faces increasing problems with antibiotic resistant bacteria such as golden staph (*staphylococcus aureus*).

The Company plans to collect venom from insects that are found in the Northern Territory and then prescreen and test 50 venoms per year. The 3 best molecules will then enter pre-clinical development with the aim of moving into clinical testing.

This approach is already paying dividends with the discovery of 5 lead compounds.

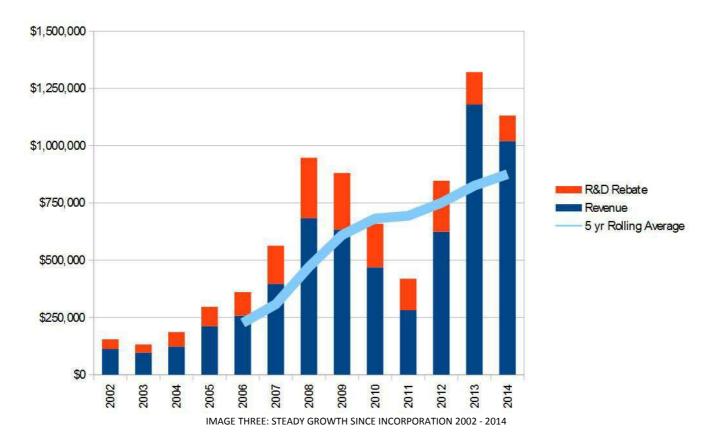
#### ADVANCES IN TECHNOLOGY BOOST DEVELOPMENT GROWTH POTENTIAL

Only 12-15 years ago, identifying a single protein in a sample through a process called sequencing took 24 hours, and required comparatively large amounts of highly purified sample. Today, the Company is able to identify a protein in 10 seconds and complex mixtures such the blood of a diabetic patient, can be identified in a single day.

Globally, the understanding of genetics has grown remarkably in recent years, thanks to genome sequencing studies such as the Human Genome Project. These genetic maps on which proteomics is based have become faster and easier to create, and genome projects have been completed or are underway for a wide range of other organisms such as cattle, influenza, and wheat.

These advancements in science have happened in parallel with an exponential increase in computer processing power, allowing Company scientists to analyse enormous data sets. Mass spectrometers have become more sensitive and significantly faster, and can now analyse microscopic samples. This can determine if a person has a disease or not, and can identify proteins, some of which might be present at only one part in several billion.

#### FINANCIALS SHOW STEADY GROWTH



The Company has garnered a gross income that exceeds \$7.5 million since it was incorporated in 2001, and sales from analytical and consulting services are showing 34% average growth per annum over the most recent five years.

Future revenue streams are likely to be generated from up-front payments, research and development funding, milestone payments, and out licensing.

#### **MANAGEMENT TEAM**

Terry Sweet FAICD is Non-Executive Chairman, and has been a Director of several listed companies over the past 30 years in both executive and non-executive capacities that include XRF Scientific Ltd, Western Biotechnology Ltd, Heartlink Ltd, and Scientific Services Ltd. He originally trained as a chemist and is now involved with the development and supervision of technology commercialisation.

Dr. Richard Lipscombe PhD (London), MA (Oxford) is Managing Director and co-founder of the Company in 2001. He is a highly skilled business manager and protein chemist expert in analysing bio-molecules using proteomics techniques, and has extensive expertise in chemistry, immunology, mass spectrometry, peptide synthesis, high performance computing and robotics. He has international experience developed over a 29-year period in Australia, USA and the UK.

Mr John Dunlop BSc is Non-Executive Director, and has been a director of several ASX-Listed companies covering mineral exploration, finance and analytical laboratories including a founding directorship of the beta-carotene producer Western Biotechnology Limited (subsequently acquired by Hoffman-La-Roche), and founding director of Sheen Analytical Services (which listed as Scientific Services Ltd).



Dr. Bill Parker PhD (UWA), BSc (London) is Non-Executive Director and co-founder of the Company, has over 30 years of experience in university and commercial laboratories. He was also a founding director of the ASX listed Western Biotechnology Ltd, consultant to the WA State government in technology development and technology park management, and director of the Australian Solar Council.

#### **SKILLED PERSONNEL**

The Company has assembled a team of scientists skilled in biology, chemistry and bioinformatics {the study of biological information} to harness advances in genome sequencing, computer processing power and mass spectrometry. The experience of the team is further enhanced by its interaction with the Australian proteomics community - the term 'proteome' was first coined in Australia in 1994 and the country remains a world leader in the field of proteomics.

#### **GLOBAL REACH IS ALREADY VERY SIGNIFICANT**



IMAGE FOUR: GLOBAL REACH STRECHES ACROSS MANY GLOBAL MARKETS

#### INTELLECTUAL PROPERTY

The Company has amassed substantial proteomics expertise and developed and optimised a range of proteomics based methodologies that can be applied for analytical purposes and/or to develop diagnostics and therapeutics. This expertise or "know how" is proprietary to the Company and is carefully managed to ensure it remains a substantial source of competitive advantage for the Company.

Proteomics International Labs has also used the patent system to protect certain products derived using its platform technology and expertise, that form two key patent families. The first of these patent families is directed to biomarkers for a range of diabetes related conditions.



The second patent family consists of granted patents directed to methods for determining the oxidation status of a protein sample and can be used to assess a range of reactive oxygen species (e.g. free radicals) associated pathologies and diseases.

#### PROTEOMICS MARKETS AND GLOBAL POTENTIAL

Proteomics is the large-scale mapping of the structure and function of proteins. Unlike our genes, the protein make-up in our bodies differs from cell to cell and changes considerably over time. A cancerous cell, for instance, will have significantly different proteins to a healthy cell. Understanding proteomics can speed up diagnosis and the identification of drugs that can be used to treat diseases.

Proteomics International Laboratories is targeting markets for Proteomics, Biomarkers, and Peptides.

#### **PROTEOMICS**

The global market for proteomics is expected to reach \$20.8 billion in annualised sales by 2018. In addition, the market for bio-engineered protein drugs had annualised sales of \$152 billion in 2013 and a compound annualised growth rate of 7.2%, and included 7 of the top 10 selling drugs globally.

Between 2013 and 2017 a dozen protein-based drugs (known as biologics) with combined revenue of \$50 billion will come off patent and, as a consequence, many companies are gearing up to manufacture generic versions known as biosimilars. These protein drugs are very large molecules and are much more difficult to copy than traditional medicines like paracetamol and aspirin. The complexity of these molecules and the competition for market share is driving a need for specialist analytical services of the type provided by Proteomics International Laboratories.

The Company is targeting the analytical testing of biosimilars to generate services and sales.

#### **BIOMARKERS**

The market for Biomarkers (new diagnostics) is currently at \$17.5 billion in annualised sales and is predicted to reach \$40.8 billion by 2018, with proteomics and genomics technology holding around a 75% market share.

#### PEPTIDE THERAPEUTICS

The Peptide therapeutic markets are currently valued at \$17 billion in annualised sales and are growing at 10% per year, driven by genomics and "new science".

Genomics is a discipline in genetics that applies recombinant DNA, DNA sequencing methods, and bioinformatics to sequence, assemble, and analyse the function and structure of genomes (the complete set of DNA within a single cell of an organism).



#### INVENTIV HEALTH CLINICAL COLLABORATION

In February 2014 PILL announced a co-marketing agreement with inVentiv Health Clinical, a leading provider of global product development services to pharmaceutical, biotechnology, generic drug, and medical device companies, offering therapeutically specialised capabilities for Phase I-IV clinical development, bioanalysis, and clinical staffing.

The agreement will allow clients to transition seamlessly from the analytical work to clinical trials, both needed to bring a new biosimilar drug to market.

US Food and Drug Administration (FDA) regulations specify a range of pre-clinical testing and characterisation work that needs to be done before a biosimilar drug can proceed to human tests.

These characterisation services are an area in which PILL has specialized since 2001 and inVentiv Health Clinical sought to partner with PILL to complement its own strength in clinical trials.

This mutually beneficial collaboration is designed to help both companies to attract new clients by offering drug developers a broader point of engagement and a unified pathway through each of the steps required to meet FDA regulations.

#### **USE OF PROCEEDS FROM IPO AND BUSINESS MODEL**

The Company has expended over \$6.5 million in research and development and amassed an intelligence base, expertise, and a portfolio of intellectual property which (following the IPO) will allow it to move into a commercialisation phase.

The Company does not intend using internal resources to develop such diagnostic tools or drugs, but plans to licence the discovered IP to major pharma groups, who have the resources to undertake the required development and trials.

This business model is a considered and leveraged approach which is intended to reduce the requirement for huge amounts of capital, and can spread risk over multiple compounds and potential revenue streams.

Funds raised from the IPO will be utilised to expand each of the 3 business units and accelerate commercialisation as follows:

Drug and biomarker discovery expenses	\$1.0 - \$1.5million
Technical staff costs	\$1.0 - \$1.5 million
Marketing and sales	\$0.5 - \$0.75 million
Managerial and facility expenses	\$0.5 - \$0.6 million
Expenses of IPO	\$0.6 - \$0.74 million
Working capital	\$0.4 - \$0.468 million
Debt repayment	\$0.0 - \$0.442 million
Total	\$4.0 - \$6.0 million



#### **GROWTH PLAN - 3 MONTHS**

- Analytical services 1 Roll out contract research services in six new Asian countries via regional agencies;
- Analytical services 2 Expand marketing of biosimilars analysis service (ISO 17025), primarily focused on India and China.
- Diagnostics For PILL's existing panel of biomarkers for diabetic kidney disease, commercialisation ongoing with known interest from major pharmaceutical and diagnostic companies.
- Therapeutics Establish full operations of therapeutic discovery pipeline, with preliminary data acquisition in progress.

#### **GROWTH PLAN - 12 MONTHS**

- Analytical services Expand contract service operations using extra capacity of team.
- Diagnostics 1 Complete first year programme of biomarker discovery pipeline targeting new diabetes related complications, using highly curated clinical samples:
  - Clinical samples to be analysed and candidate biomarkers identified.
- o Diagnostics 2 For PILL's existing panel of biomarkers for diabetic kidney disease:
  - Seek to conclude negotiations with a global diagnostic company to roll out a laboratory developed test (LDT) or an in vitro diagnostic test (IVD);
  - Seek to conclude negotiations with a global pharmaceutical company to use its test as a Companion Diagnostic (CDx) to support drug development.
- Therapeutics Complete first year programme of therapeutic discovery pipeline targeting pain and infection:
  - 50 venoms to be collected and pre-screened;
  - Targeted approach used to identify candidates for validation by bioassay and testing in model systems;
  - Three lead molecules to be selected for pre-clinical development and commercialisation.



#### MULTIPLE CATALYSTS FOR NEAR TERM VALUATION GROWTH DRIVEN BY IPO FUNDING

#### Target milestones & timeline

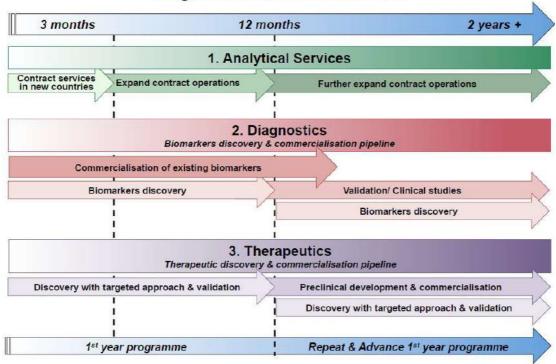


IMAGE FIVE: TARGET MILESTONES AND TIMELINE

#### **KEY DATES**

Lodgement of Prospectus with ASIC	27 October 2014
Opening Date	3 November 2014
Closing Date	28 November 2014
Allotment of Shares under Prospectus	5 December 2014
Shares commence trading on ASX	16 December 2014

#### **KEY PRO FORMA OFFER DETAILS**

Offer Price: \$	50.20
Minimum number of Shares under Offer 2	.0,000,000
Maximum number of Shares under Offer 3	0,000,000
Maximum total number of Shares after Offer 6	5,478,952
Maximum market capitalisation at \$0.20 \$	13.1 million



#### **ANALYSIS & VALUATION**

**Proteomics International Laboratories** will carry a market capitalisation of \$11.08 - \$13.08 million at issue price, and cash of \$3.5 - \$5.0 million following completion of the IPO and listing on the ASX, depending on the amount raised in the listing.

Peer group comparison includes:

- o **Proteome Sciences** (AIM:PRM) which is based in London and carries a market capitalisation of \$120.7 million. PRM is involved with biomarker discovery, validation, and assay development and reported revenues of £2.14 / A\$3.89 million for 2013.
- o **Caprion Proteomics** was sold to Capital Growth Partners in 2012 in a deal that valued the entity at \$28 million. Caprion is a Montreal based company that is working with biomarker discovery, immune monitoring, diabetes, oncology and infectious diseases.

In August of 2013 **Applied Proteomics** secured \$28 million in funding to commercialise its blood test for colon cancer.

Deals completed in 2014 include:

- Cassion Biotech and Novo Nordisk for out-licence of delivery technology for insulin and core therapeutics for up to \$167 million in milestones and royalties.
- Zealand Pharma and Boehringer Ingelheim for development of Glucagon and GLP-1 receptor for up to \$513 million in milestones.
- **Kforce Clinical Research** total buyout by **inVentiv Health** for functional outsourcing and contract research services for \$50 million.

These valuations and deals provide a guide to a valuation of \$28 million for peers working within this space, with additional upside that can be measured at multiple times of this valuation. Based on these and on our estimate of the valuation of the assets including IP, we arrive at a valuation metric of \$19.8 million to \$26 million for Proteomics International Labs using our base valuation.

This results in our 12 month valuation level of \$0.35 - \$0.46 per share (based on 55.4 million shares).

We note that the Company has potential to exceed this level of valuation based simply on the number of milestones and catalysts that could eventuate over the next 12 months.

We keep noting that the Australian biotech sector is extremely undervalued relative to its international peers, and that technological advances continue to under pin the sector.



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