



COMPANY NEWSLETTER

January 2017

MESSAGE FROM THE MANAGING DIRECTOR



Welcome to our first quarterly newsletter for 2017. As a valued client, friend or stakeholder we hope these pages will keep you informed on the latest developments at Proteomics International. The highlights continue to reflect the diversified nature of the company's activities from biomarker commercialisation to specialist protein analytical services.

2016 finished with an invited presentation to an international conference in India on the improved data from our novel, predictive test for diabetic kidney disease, PromarkerD.

This diagnostic test was created using our Promarker technology for biomarker discovery, and Proteomics International continues to invest in its method platform to maintain a world leading position in the provision of proteomics services. This is illustrated with a new publication on approaches to biomarker discovery (using the iTRAQ and TMT techniques).

The foundation for future success includes strategic partnerships with leading organisations both in Australia and internationally. Such partnerships allow Proteomics International to offer end-to-end testing in the protein drug development pipeline, and engage in the emerging area of companion diagnostics (CDx). We feature news on global player inVentiv Health alongside Linear Clinical, plus the Monash Antibody Technology Facility for production of key reagents for the PromarkerD test kit.

The strength of our partnerships and blue chip client base was recognised as Proteomics International won the State of Western Australia award for Exports for 2016. It was certainly pleasing to see the health and biotechnology sector out-pacing the old industries of mining and resources.

Finally, in December, PILL completed an oversubscribed \$2 million capital raising which will help accelerate key areas of the company's activities, and we look forward to bringing you more news on these developments next quarter.

Richard Lipscombe, PhD
Managing Director

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Diabetic kidney disease test, PromarkerD shows improved predictive ability

Further positive results from clinical studies confirmed PromarkerD is able to predict diabetic kidney disease up to four years in advance across all major clinical definitions of rapid decline in kidney function.

In a four year 576 person clinical study Proteomics International has shown PromarkerD can correctly predict 95% of the previously kidney disease-free diabetic patients who go on to develop chronic kidney disease. There is currently no available test for predicting the onset of diabetic kidney disease.

PromarkerD can also diagnose diabetic patients already suffering from chronic kidney disease that the current standard tests miss. The results were presented at the International Conference on Functional and Interaction Proteomics: Application in Food and Health in New Delhi, India.

PromarkerD test kit production deal signed

Proteomics International signed a production contract with Monash Antibody Technologies Facility, marking a strategic milestone in the commercialisation pathway for PromarkerD. The facility will produce the custom antibodies needed for a multiplex ELISA (Enzyme-linked immunosorbent assay), which is the precursor to a pathology lab In vitro Diagnostic (IVD) test.

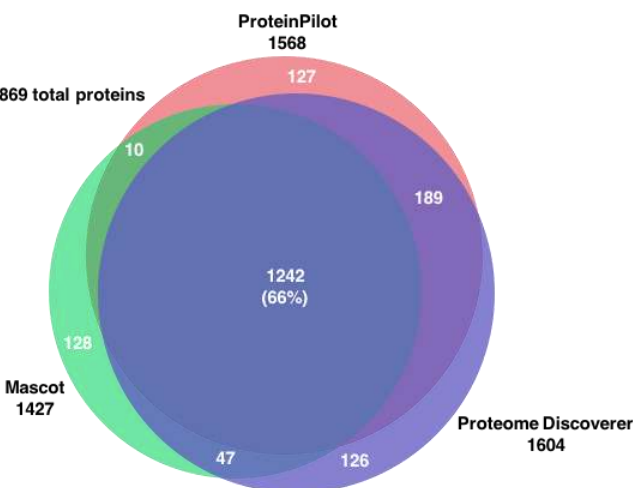
The deal represents the culmination of a detailed evaluation of global manufacturing options and the required make-up of the kit's components. In undertaking its own development pathway for PromarkerD as an IVD test kit, in conjunction with ongoing partnering and licensing discussions, Proteomics International has multiple, complementary commercialisation pathways for PromarkerD as a Laboratory Developed Test (LDT), standard clinical pathology IVD test and Companion Diagnostic (CDx).



Comprehensive comparisons of iTRAQ and TMT reproducibility

Proteomics International has recently published a comprehensive study on the reproducibility of Isobaric Tags for Relative and Absolute Quantification (iTRAQ) and Tandem Mass Tag (TMT) experiments¹. The study demonstrates the advantages of using iTRAQ 4-plex reagents over iTRAQ 8-plex and TMT 6-plex reagents, provides estimates of technical duplicate and triplicate reproducibility, and emphasises the value of running replicate analyses¹. The results indicate that: (i) iTRAQ 4-plex gives greater proteome coverage comparatively, (ii) The reproducibility for protein identification is ~70% and ~60% for duplicate and triplicate experiments, respectively, and (iii) The reproducibility for differential expression is ~30% and ~20% for duplicate and triplicate experiments, respectively¹. [Full article](#)

Proteomics International offers comprehensive quantitative proteomics analysis. Please contact us to discuss your projects and experimental designs.



Overlap of proteins identified from 4-plex experiments by different search engines¹

1. Casey T, Khan J, Bringans S, Koudelka T, Takle P, Downs R, Livk A, Syme R, Tan K, and Lipscombe R (2016) Analysis of Reproducibility of Proteome Coverage and Quantitation Using Isobaric Mass Tags (iTRAQ and TMT). Journal of Proteome Research



Drug developments - comparison of size and complexity



21 atoms

Aspirin

analgesic first derived from tree bark.
180 atomic mass units



Penny Farthing
20kg



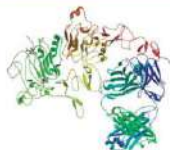
723 atoms

Insulin

peptide used in diabetes management.
5,808 atomic mass units
32 x aspirin



Mini Cooper
650kg



25,000 atoms

Herceptin®

engineered Monoclonal Antibody used for treating breast cancer and chronic kidney failure.
150,000 atomic mass units
850 x aspirin • 26 x insulin



F18 Jet Fighter
17,000kg

Protein drugs can perform highly complex functions that simple chemicals cannot perform.

Seven of the world's ten best selling drugs are protein-based drugs.

Proteomics International and Linear offer end-to-end testing and clinical trials

Proteomics International signed a partnership agreement with Linear Clinical to offer a comprehensive analytical testing and clinical trial package. The new service targets the fast-growing biopharmaceuticals and oncology markets, and has the potential to double Proteomics International's analytical services revenue.

Commencing in early FY17, Proteomics International will offer advanced bioanalytical testing for clinical trials performed at Linear. The company will test the patient response to drugs (pharmacokinetic testing), analysing blood samples to determine how long a drug stays in a person's system. It will become one of only three companies to provide this specialist testing in Australia.

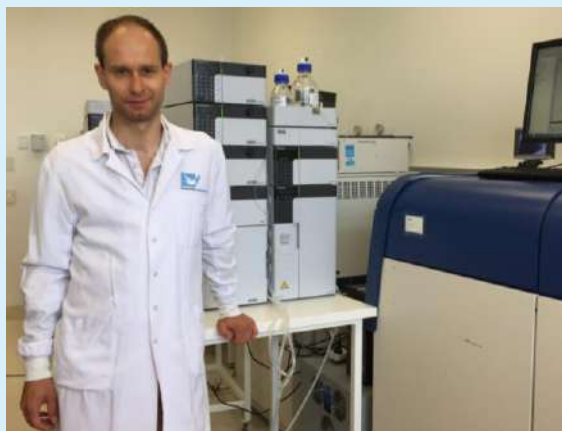
Staff Profile

Dr Tomas Koudelka: Research Scientist

Dr Tomas Koudelka is a specialist in the use of mass spectrometry for protein analysis, At Proteomics International, Tom now oversees the company's involvement in its new flagship bioanalytical service - pharmacokinetics: the measurement of drugs in human plasma over time to determine how long they persist in a person's system. Tom is currently visiting the Bioanalytical Department of inVentiv Health in Princeton, one of the world's top clinical research organisations, for an advanced training and technology transfer.

Previously Tom was a part of Proteomics International integrated biosimilar team dealing with full protein characterisation, specialising in post translational modifications including disulphides mapping and glycan analysis.

Tom graduated with a PhD in chemistry at the University of Adelaide and worked at the Adelaide Proteomics Centre. Tom then gained expertise in various proteomics analyses as a Post Doctorate Researcher at the Institute of Experimental Medicine in Germany for several years.



Proteomics International wins WA Exporter of the Year award

Proteomics International's outstanding international success was recognised with the award of State Exporter of the Year at the Western Australian Industry and Export Awards in October. The company beat Fortescue Metals Group and shipbuilding giant Austal to take out the top prize, and also won the Health and Biotechnology category for the second year running.





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Listing
Australian Securities Exchange

Market Capitalisation based on share price of 25 cents
A\$14.7 million

Stock Code
ASX: PIQ

Cash Position
A\$2.4 million (31/12/2016)

Issued Capital – Ordinary shares
59.0 million


Proteomics International is a wholly owned subsidiary of Proteomics International Laboratories Limited (ASX: PIQ).

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Forward looking statement

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