

Company profile:**Life Science**

Date founded 01/10/2013

www.glycoselect.com**Contact Information:**

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Financial Information:

Company Stage: Series A

Funding sought**€ 835,000****Management:**

Robert Dunne CEO

Neil Brown CFO

Advisors

Dr Ian Evetts -Atebion BDS

Komsec – Company Secretarial

Purdy Lucey – Patent agents

Investors:

Enterprise Ireland

KBI BioPharma Inc. (US)

Biosonata Consulting (US)

Robert Dunne

Scientific Advisory BoardProf Richard O'Kennedy *DCU*Prof Pauline Rudd *NIBRT & UCD*Dr Paul Clarke *Univ of Edinburgh*Dr Roisin Thompson *CPI Darlington*Dr Prathima Acharya *Biosonata Consult*Dr Krista Witte *Unchained Labs*Dr Safwan Akram *Teesside Univ*Dr Sigma Mostafa *KBI Biopharma***INTRODUCTION**

GlycoSeLect (GSL) develops technologies to reduce the cost and development time of pharmaceutical products including cancer immunotherapy and vaccines. To commercialize our technology, we establish business to business partnerships with companies who supply product analytical and manufacturing separation platform solutions to the pharmaceutical industry. We license the use of our technology on their analytical and manufacturing equipment platforms and manufacture our products for supply to their customers.

THE OPPORTUNITY

The reduction of the cost and time of pharmaceutical product development is a critical issue for all pharmaceutical industry stakeholders. The cost of some cancer treatments is > \$100,000 per annum. The time to develop new vaccines has not speeded up until recently with COVID 19. Currently, it requires years to make a vaccine readily available for patients.

The costs and development time of pharmaceuticals are reduced by simplifying manufacturing processes and improving analytical throughput.

Pharmaceutical products are increasingly made by biological means. They are usually glycoprotein molecules, proteins with sugar structures attached. GlycoSeLect RPL products improve glycoprotein analysis and purification because of their sugar structure specificity. This simplifies analysis and manufacturing processes, creating both cost and time savings. Our technology has generated considerable interest from the pharmaceutical industry.

TARGET MARKETS

These are lucrative markets, with the addressable analytical laboratory market segment for RPL technology estimated to be worth \$115 million in 2019 and the manufacturing separation segment, \$8.6 billion by 2023.

CUSTOMERS

Our target B2B customers are large pharmaceutical industry supply companies with divisions which service both the laboratory and manufacturing needs of pharmaceutical companies.

There are 5 major players in the industry: Merck, ThermoFisher Scientific, Sartorius Stedim, Danaher and Waters.

SALES

Channels Our main sales channel is through partnerships with these companies. This is the best way of offering our technology to users, as our potential partners have large established customer bases. A 2nd channel is our direct engagement with contract development and manufacturing companies (CDMOs) who ultimately will purchase equipment from our B2B partners, to provide solutions for their pharmaceutical company clients.

Our customer engagement to date: -

Analytical use – forteBio (Sartorius Stedim US). Presentations of applications to users' conferences in US, UK and Nordic areas. Equipment loan value in excess of €100k for technology evaluation in UK grant funded project with Allergan Biologics and CPI UK with presentation of results to industry conferences in 2019.

Product manufacture - Joint development project (JDP) with JSR Life Sciences (JPN & US) – RPL separation resin for use in biopharmaceutical manufacturing. KBI BioPharma (US) have presented an application in HIV vaccine manufacture at an NIH (US) meeting, April 2017. GSL presented an update in April 2019.

Product Sales - Analytical Research Use – Diagnostic Co. (Ireland), CROs (UK)(Den) Cosmetic company (Fr), several forteBio end users incl Swiss pharma co., lectin array manufacturers (Fr & Ger), column resin developers (Jpn & NL). Laboratory scale application development (Irl, Swe, Swit & SI).

INDIRECT COMPETITORS

Current product analysis and separation methods are a source of indirect competition. However, RPLs improve the methods' performance and efficiency, thereby turning this competition into an opportunity.

DIRECT COMPETITORS

There is competition for the supply of lectins from plant derived or other recombinant lectin manufacturers.

Vector Labs are the developers of lectins extracted from plant material. These lectins have variable glycan (sugar) specificity & are expensive to produce compared with our RPLs.

Wako Chemical Co. of Japan sells recombinantly produced lectins developed for their diagnostic division and not for general product analytical applications.

Our RPLs can be sold at a lower price than their catalogue prices.

GlycoSeLect confidently competes with its better lectin performance products customer service and lower cost.

FINANCIAL MODEL

Revenues Our business model is to obtain license agreements with upfront or staged payments of typically \$100,000 to \$500,000, annual royalties and/or product supply contracts. We sell products directly to research focused customers through our distributors; GlycoDiag (Fr), AMSBio (US & Eur) and SeeBio (Chn) US Biological.

In the first 2 years, technology license fees will account for more than 85% of company revenue. In later years, product supplied to our licensees will account for a higher proportion of revenue.

Costs – We have a very high gross margin >90%, with the prospect of lowering the cost of manufacture as product sales volumes increase.

Capital equipment cost of €215,000 is relatively low as requirements are met by industry standard equipment.

Potential Returns

A likely exit for an investor is a trade sale to one of our partner companies. Company values of between 7- & 10-times EBITDA are estimated in IMAP Global M&A 2016 report on the pharma/biotech industry.

Our management team are driven to achieve maximum shareholder value for a trade sale or through an alternative exit.

FINANCIAL DETAILS (*Estimated*)

P&L Summary	2020	2021	2022	2023	2024
	€'000	€'000	€'000	€'000	€'000
Revenues	323	615	1,029	2,577	4,918
Expenditures	661	770	845	1,172	1,272
EBITDA (-)	(338)	(155)	184	1,405	3,646

Use of funds: Extension of validated analytical applications to manufacturing separation and purification applications - Build on JDP with JSR Life Sciences. Further product analytical applications development with extension of RPL technology into vaccine and Cell & Gene therapy, using Adeno Associated Virus (AAV), product purification and analysis.

More business development activity will increase the number of licenses and communicate RPLs' advantages for the glycoprotein analytical and manufacturing markets more widely.

Future Capital expenditure: In late 2019 we moved into a larger facility to enable further development of RPL manufacturing separation products. Our laboratory equipment will need upscaling as we move to develop these biopharmaceutical manufacturing applications.

MANAGEMENT

CEO - *Robert Dunne* is a seasoned pharmaceutical industry executive with experience in multinational and SME companies. He has broad experience across many technical functions and has run successful project teams. While General Manager for Ireland, he set up a manufacturing plant and integrated an acquired R&D company into the corporate structure.

CFO – *Neil Brown* is an accountant with over 20 years' experience in Banking, State Agencies, Manufacturing, Distribution and the Services sector. Neil spent over 10 years in private practice, Corporate Finance, Mergers & Acquisitions, Insolvency & Restructuring.

Independent Director - *Ian Evetts* has over 20 years of experience in the Pharmaceutical Industry, gained through senior positions in Business Development & Licensing, Sales & Marketing, in Multi-National Companies and Biotech. Ian is a former Evaluations Director for Astra Zeneca.