



Universal Biosensors Inc. (UBI)

Initiation – Strong IP, New CEO, New Products, New Opportunities

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Recommendation Accumulate

Risk Rating	High
24-mth Target Price (AUD)	\$1.42
Share Price (AUD)	\$0.68
12-mth Price Range	\$0.19 - \$0.845
Forecast 24-mth Capital Growth	109%
Forecast 24-mth Dividend Yield	0.0%
24-mth Total Shareholder Return	109%
Market cap (\$m)	120.8
Net debt (net cash) (\$m)(Mar 21)	(22.1)
Enterprise Value (\$m)	98.7
Gearing (Net Debt/ Equity)	N/a – Net Cash
Shares on Issue (m)	177.6
Options / Perf rights on Issue (m)	9.0
Sector	Healthcare
Average Daily Value Traded (\$)	\$141,000
ASX 300 Weight	n/a

Financial Forecasts

Years ending Dec \$m	19(A)	20(A)	21(e)	22(e)	23(e)
Sales revenue	6.9	3.2	7.4	14.1	28.2
Sales growth	-72%	-54%	132%	90%	100%
Cash operating costs	-16.6	-13.4	-14.5	-17.3	-23.3
EBITDA	-5.0	-5.9	-4.2	-1.4	6.6
NPAT (reported)	-4.8	-7.6	-6.4	-3.7	4.0
NPAT (adjusted)	-4.8	-8.3	-6.4	-3.7	4.0
EPS (adjusted)	-2.7	-4.7	-3.4	-2.0	2.2
EPS growth	8%	71%	-27%	nm	large
DPS	0.0	0.0	0.0	0.0	0.0
OCF / share	18.7	-4.7	-3.2	-0.5	4.6

Valuation Metrics

P/E	-24.9x	-14.5x	-20.0x	-34.3x	31.6x
P / OCF	3.6x	-14.6x	-21.0x	-149.6x	14.8x
EV / Sales	12.8x	30.7x	14.0x	7.5x	3.5x
EV / Ebitda	-17.6x	-16.6x	-24.5x	-76.9x	15.1x
Cash from Operations	33.2	-8.3	-6.0	-0.8	8.6
Net Cash (Net Debt)	37.2	23.9	16.9	14.5	21.5
Enterprise Value	88.1	98.2	103.9	106.3	99.3

UBI SHARE PRICE PERFORMANCE



Summary

Universal Biosensors Inc. (UBI) is a specialist biosensors company focussed on the development, manufacture and commercialisation of a range of point-of-use devices for measuring different analytes across different industries. UBI's strategy is to build a multi-product stable of revenue generating biosensors in large markets which can be used on UBI's hand-held platform technology including Human health (coagulation, oncology), Animal health (diabetes), Food & Beverages (wine) and Environmental.

Historically UBI has developed products for industry majors on a contract R&D basis plus milestones (e.g. novel blood glucose tests for LifeScan / J&J – 10bn tests sold; Coagulation tests for Siemens – 9m tests sold). With a new CEO, UBI now plans to control its own destiny with exciting new products and break-through technology from new partners.

What has changed?

- In March UBI launched the Sentia Wine Analyser, its first new product in 7 years. This offers winemakers significant time and cost savings for “at-barrel testing” for key chemicals in the wine maturation process compared to traditional external lab testing. We estimate an \$80-100m annual sales opportunity for UBI assuming 20% global market penetration.
- UBI has agreed a new licence from former partner LifeScan to enable UBI to develop a new blood glucose monitoring test for animal diabetes. We estimate a \$27m annual sales opportunity for UBI assuming 10% market penetration.
- UBI has bought out the distribution rights to the Siemens Xprecia Stride coagulation product and is now free to develop new customers and distributors beyond Siemens. We estimate a \$20m annual revenue opportunity assuming 3.5% penetration.
- Blue-sky potential - UBI has partnered with Deakin University's DIFM unit, Swinburne and the University of Wollongong to commercialise the Tn Antigen cancer biosensor developed by those groups over >5 yrs, and utilising a break-through new material called Lubricin which greatly magnifies detection capabilities. We have nothing in our forecasts for this potential.

Recommendation & Opinion

We initiate coverage with a BUY recommendation. We value UBI shares in a range of \$1.00 to \$2.23 and set our 24-month price target at \$1.42 per CDI. We rate an investment in UBI as High Risk as most of UBI's products are in the early launch, or relaunch phase and a wide range of outcomes are possible. However, UBI's technical success with LifeScan / J&J and Siemens provides confidence that UBI will deliver successful products to its targeted global market segments.

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1. Sequoia Forecasts

We have prepared detailed forecasts for 10 years based on our discussions with management, and some distributors. We show below a summary of our forecasts for the next 5 years. We caution investors that most of UBI's products are in launch, or relaunch mode, so there is a high possibility the actual results achieved could be significantly higher, or lower than our assumptions and forecasts. We will fine tune our forecasts as better information and quarterly results become available.

UBI - Sequoia forecasts summary	Reference	2020A	2021e	2022e	2023e	2024e	2025e
1. SENTIA WINE ANALYSER							
Sales - Test strips		0.0	0.5	4.6	11.9	20.1	30.1
Sales - Devices		0.0	0.9	1.3	1.8	2.3	3.1
Sales - Total product		0.0	1.4	5.9	13.8	22.4	33.2
Sales growth				317%	133%	63%	48%
Gross profit			0.8	3.4	8.1	13.2	19.6
Gross profit margin %			54%	58%	59%	59%	59%
2. HUMAN COAGULATION ANALYSER (PT-INR test)							
Sales - Xprecia Stride (old product sold by Siemens)(strips only)		2.6	4.0	2.0	0.0		
Sales - Xprecia Stride (old product sold by UBI)(strips only)		0.0	0.0	4.0	8.0	0.0	
Sales - New product and brand expected 2023 (strips + devices)		0.0	0.0	0.0	1.0	10.0	12.0
Sales - Total product		2.6	4.0	6.0	9.0	10.0	12.0
Sales growth		-48%	56%	50%	50%	11%	20%
Gross profit		0.9	2.4	3.6	5.4	6.0	7.2
Gross profit margin %		33%	60%	60%	60%	60%	60%
3. ANIMAL BLOOD GLUCOSE MONITORING (Diabetes in animals)							
Sales - Test strips					2.4	5.4	9.0
Sales - Devices					0.6	1.2	2.1
Sales - Total product					3.0	6.6	11.1
Sales growth					n/a	118%	68%
Gross profit					1.8	3.8	6.5
Gross profit margin %					58%	58%	58%
4. HRL Canada (Calibration services)							
Sales - Services revenue		0.6	2.0	2.2	2.4	2.7	2.9
Sales growth		-69%	214%	10%	10%	10%	10%
Gross profit		-0.2	0.6	0.8	0.9	1.1	1.3
Gross profit margin %		-36%	30%	35%	39%	42%	46%
UBI TOTAL							
Product revenue (strips & devices)		2.6	5.4	11.9	25.8	39.0	56.3
Services revenue (HRL)		0.6	2.0	2.2	2.4	2.7	2.9
Total revenue		3.2	7.4	14.1	28.2	41.6	59.2
Sales growth		-54%	132%	90%	100%	48%	42%
Cost of product		-2.6	-3.7	-6.3	-12.0	-17.5	-24.6
Gross profit		0.6	3.8	7.8	16.2	24.2	34.6
Gross profit margin %		19%	51%	55%	57%	58%	58%

Source: Sequoia forecasts

2. Introduction – What is a Biosensor?

According to Thomasnet.com, biosensors are devices and/or chemicals that are used to detect biological markers. For example, a biosensor can detect and identify specific diseases to help prevent the spread of that disease and to better treat patients with that disease. Biosensors are, for example, used to measure glucose levels for diabetes patients, to monitor blood pressure for heart disease patients, to measure general nutrition in livestock, or even to find life on Mars.

Thomasnet identified three major categories of commercial suppliers of biosensors:

- The first is chemical detectors, such as assays or a disposable device which changes colour, such as with pregnancy tests.
- The second is electronic devices which identify biomarkers using an electronic method, such as spectroscopy (measuring light) or other electro-chemical reactions.
- The third and last are lab-based products, where one sends a sample to a lab which then performs a proprietary test using various methods similar to the first two categories.

Immunosensors are the most successful format of biosensor devices due to their high specificity and quick recognitions of the target analyte.

3. Company Description

Universal Biosensors Inc. (UBI), founded in 2001, specialises in the design and development of electrochemical cells (single use test strips) used in conjunction with point of use meter devices that are used in various industries such as healthcare (point of care), food and drink and agriculture.

Its first major product was the development on a contract R&D basis of a human blood glucose test with LifeScan Inc. (then a subsidiary of Johnson & Johnson) which received regulatory approval in December 2009 (\$17.7m milestone paid to UBI). UBI designed the biosensor, the single use test strips and the reader device using a combination of LifeScan technology and its own patented technology. Launched in January 2010 in Europe and then globally, the LifeScan OneTouch Verio has sold over 10 billion tests since launch. UBI manufactured the single-use test strips from Jan 2010 to Dec 2013 (4 years) at Rowville until LifeScan took over all manufacturing at its plant in Inverness Scotland. LifeScan bought-back UBI's royalty stream in December 2018 for A\$44.6m (US\$31.5m) concluding the 17-year collaboration and royalty arrangement.

UBI's second major product, was the development of a blood coagulation product (PT-INR test) for Siemens Healthcare Diagnostics Inc. from 2012 which received regulatory approval in December 2014. UBI designed the biosensor, the single use test strips and the reader device, receiving contract R&D fees and \$7.9m of milestone payments. UBI has manufactured the single-use test strips from 2015 to date for Siemens which has sold over 9 million tests since launch.

In September 2019 UBI effectively bought out the Siemens partnership for A\$18.2m (US\$12.5m), with UBI to continue supplying Siemens' customers with the Xprecia Stride test strips for 42 months until March 2023, and UBI free to develop new customers. The patents are owned by UBI and were licenced to Siemens.

Current Operations

UBI operates from 5,000 square metres of office, R&D and manufacturing facilities at Rowville in Melbourne (leased), since 2007. Canadian subsidiary HRL operates from 482 square metres of office and laboratory in Hamilton Ontario. UBI has approximately 60 employees (46 Australia and 14 overseas).

Current and near-term products are as follows:

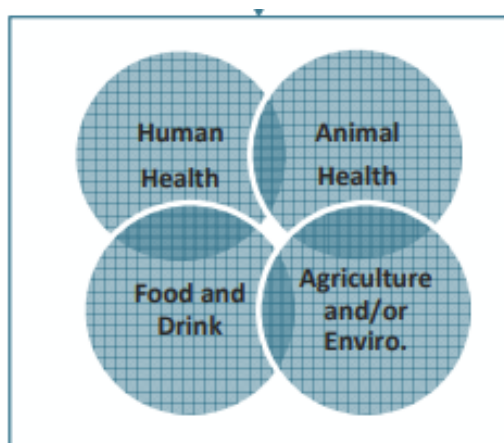
- **Blood coagulation** - Manufacture of Xprecia Stride single-use “PT-INR” test strips for Siemens (agreement expires March 2023) and since September 2019, for other customers and distributors beyond Siemens. UBI also plans to launch a new upgraded product by 2023 when the Siemens partnership concludes.
- **Sentia Wine Analyser** – Launched March 2021, portable hand-held reading device and single-use test strips to test for Free Sulphur Dioxide in barrels of wine during the maturation process.
- Development of additional wine tests for malic acid, glucose & fructose, acetic acid and total acid are planned for launch over the next 18 months to complete the suite.
- Development of Animal blood glucose analyser – UBI has commenced the development of a biosensor strip and meter for the detection and monitoring of diabetes in animals (dogs & cats) using technology licenced from former partner LifeScan (Dec 2020).
- Development of Tn Antigen biosensor for the detection, stage determination and monitoring of human cancers. Collaboration and commercialisation agreement with Deakin University’s Institute for Frontier Materials (DIFM) and Swinburne University of Technology, and utilising a unique proprietary coating licenced from Lubris Biopharma LLC in Florida USA.
- **HRL (Haemostasis Reference Laboratory)** – Acquired Dec 2016, HRL collects blood samples from donors located at hospital clinics and community blood collection sites. These blood samples are used for calibration and testing services for customers including UBI / Siemens. The Xprecia Stride™ strips produced by UBI are required to be calibrated so that all products agree with an international standard.

Strategy

UBI is a specialist Biosensors Company focussed on the development, manufacture and commercialisation of a range of point-of-use devices for measuring different analytes across different industries.

The company is continuing to build a multi-product stable of revenue generating biosensors in large markets which can be used on UBI’s hand-held platform technology, including:

1. Human health (including coagulation, women’s health and fertility, oncology / cancer),
2. Animal health (blood glucose / diabetes),
3. Food & Beverages (wine)
4. Environmental testing.



Source: UBI

4. UBI's Core IP

UBI has an extensive portfolio of over 20 patent families and patents pending relating to the design and manufacture of biosensors, immunosensors, test strips, measurement /reader devices, devices with reaction chambers, electrochemical detection chambers, amplifying mechanisms, heating and cooling.

Simplistically the technology consists of an electrochemical system comprising an electrochemical sensor, a test meter and a circuit that can detect voltage ranges.

The core technology of UBI is the opposing electrode configuration within its electrochemical test strips. This differs from first generation electrochemical test strips which were co-planar or had their electrodes side-by-side. The opposing electrode configuration of the test strips allows for: greater information leading to improved accuracy, smaller sample volume requirements and low-cost automated manufacturing.

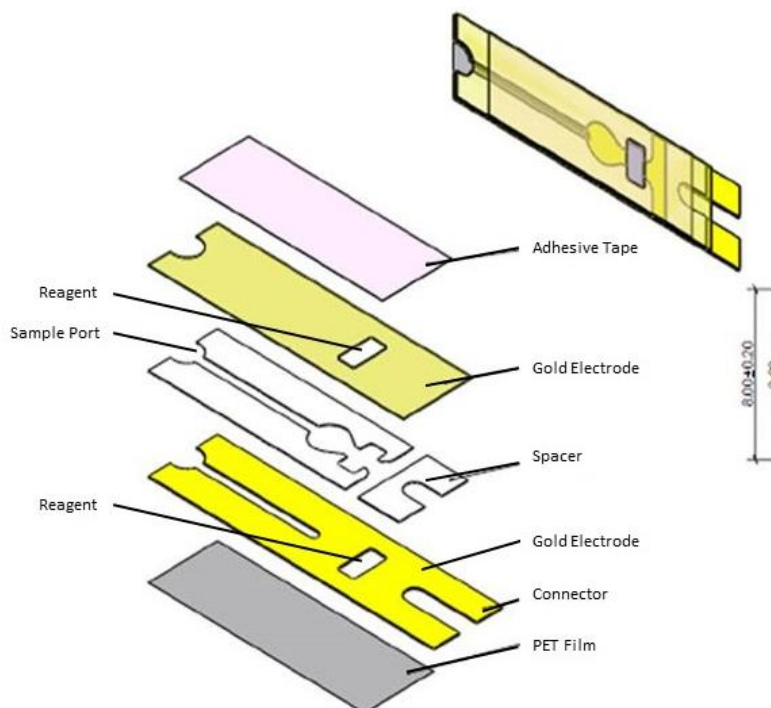
In addition, UBI has access to some patents held by LifeScan that it can use outside human blood glucose monitoring.

The patents for the inventions created for Siemens are in UBI's name, owned by UBI and were licenced to Siemens.



Above: Sentia Wine Analyser electrochemical test strips and portable meter (reader device).

Below: Anatomy of a typical UBI test strip showing the two opposing electrodes (Wine Analyser & Coag strip shown).



Detection capability

UBI is working to increase its detection capability and therefore its technology advantage by licensing or acquiring complementary technologies. In April 2021 it announced an exclusive global licence with Lubris Biopharma LLC of Florida USA to use a proprietary coating called Lubricin for UBI's biosensor products. This coating enhances specificity (specific analyte targeting), sensitivity and detection by one million times, from "micromolar" to "picomolar" by reducing background interference on the sensor strip.

UBI said this was a "generational advancement for UBI's technology" and that this advancement would pave the way for many new biosensor products. "Analyte detection that was once out of reach...was now within our grasp".

5. History

UBI was founded in September 2001 and in April 2002 employed a core scientific and technical team in Australia, which had worked together on biosensors since 1995 and were the inventors of the key patents for the novel electrochemical cell technologies owned by LifeScan (part of Johnson & Johnson), and subsequently licenced to UBI.

LifeScan partnership – 2002 to 2018 (refer Appendix 1 for full details)

- 2002 to 2009 – Developed novel blood glucose biosensor, test strip and meter device for LifeScan (Johnson & Johnson). Nov 2009 received European regulatory approval. A\$17.7m milestone paid to UBI.
- Jan 2010 to Dec 2013 – manufactured single-use test strips at Rowville for LifeScan. (Production progressively moved to LifeScan Inverness Scotland).
- Jun 2018 – Johnson & Johnson sells LifeScan subsidiary to Platinum Equity for US\$2.1bn (completed October). Sep 2018 provides notice to buyout UBI's quarterly service fee (royalty) agreement.
- Feb 2019 UBI receives \$44.6m (US\$31.5m) lump sum which concludes the 17-year collaboration.
- Dec 2020 – New agreement for UBI to exclusively licence LifeScan technology to develop a biosensor, test strip and meter for animal diabetes.

Siemens partnership – 2011 – Current (Refer Appendix 2 for full details)

- Sep 2011 – Agreement with Siemens Diagnostic Healthcare to develop an advanced point-of-care coagulation platform.
- Dec 2014 Siemens receives European regulatory approval and launches Xprecia Stride in Europe.
- 2015 – Siemens applies for US approval (granted Oct 2016). UBI receives 4th milestone (US\$1m), making A\$7.9m to date (for this and other coag products).
- Sep 2019 – Agreement renegotiated. UBI to continue to supply test strips to Siemens until March 2023. Siemens to provide a US\$4.0m prepayment for a minimum order commitment. UBI free to develop new distribution and customer relationships beyond Siemens. UBI to pay Siemens US\$12.5m (A\$18.2m) to effectively buy Siemens out (from March 2023).

Capital History

UBI listed on the ASX on 13/12/06, raising \$18m at \$0.50 per CDI, plus \$4m from a concurrent private placement in the USA. The market capitalisation at the offer price was \$64m, including \$33.6m of cash. Johnson & Johnston Development Corporation was a pre-IPO investor and owned 14.2% immediately post-IPO. The purpose of the raising was to establish commercial scale manufacturing capabilities, to continue development of 3 existing blood test products, and to seek regulatory approval for the blood glucose test.

In December 2007 UBI raised A\$34.2m in a rights issue at \$1.20 per CDI.

In November 2012 UBI raised \$12.0m in a placement at \$0.90 per CDI, plus \$1.16m in a subsequent SPP also at \$0.90.

6. Positive Factors / Reason to Buy

- 1. Creator of proven world standard biosensor technology and expertise, validated by historical partnerships with industry majors - LifeScan** (then part of Johnson & Johnson; developed novel blood glucose test and reusable meter for LifeScan 2002 to successful regulatory approval and sales launch in Jan 2010; manufactured consumable biosensor test strips Jan 2010 to Dec 2013 for LifeScan; > 10 billion test strips sold globally to 2020 using UBI technology) **and Siemens Healthcare Diagnostics** (developed and launched point-of-care blood coagulation product, 9 million test strips sold 2011 to 2020, and continuing). The LifeScan deal has completed (UBI received A\$45m in CY18 to buy-out the agreement) and the Siemens arrangement is winding down by March 2023 (UBI paid Siemens \$11m to buy-back the rights) such that UBI's revenues declined to a 13-year low of just \$3.2m in 2020.

UBI is now applying its world class expertise to new areas including Food & Drink (e.g. Wine-making at-barrel testing); Animal Health (e.g. blood glucose testing), Agriculture and Environment (nothing announced yet) as well as developing a new improved human blood coagulation product to supersede the current UBI/Siemens Xprecia product.
- 2. Sentia Wine Analyser – UBI's first new product in more than 7 years has exciting, global potential.** It uses the same technology and manufacturing process as the blood coagulation testing system, and offers winemakers significant cost, time and convenience benefits compared to existing practise of laboriously sending samples to in-house or external laboratories and receiving results days later. We have forecast UBI revenue of A\$33m and Ebitda of \$19.6m in 2025 (5 years in) and revenue of A\$88m and Ebitda of \$52m in 2031 (10 years in). This is based on UBI achieving a 20% penetration of the estimated 90,000 wineries in the world in 10 years. The first test (for "free sulphur dioxide") was launched in March with 5 more tests in the pipeline. Since December, UBI has announced the appointment of 7 distributors covering Australia, USA (2), South Africa, Chile, Canada and NZ with one ordering \$300k of devices and strips. We think this strong level of early interest by distributors bodes well for the product.
- 3. New PT-INR blood coagulation product to be 100% owned and controlled by UBI** – In 2019 UBI bought back the global distribution rights to the UBI / Siemens blood coagulation business for US\$12.5m (A\$ 14.6m). UBI became free to develop sales relationships with Siemens' existing Xprecia Stride customer base of over 120 hospitals and distributors, installed base of 3,500 devices in 36 countries (mainly Europe), full pricing power and complete control over all development activities. To support the handover, Siemens also committed to minimum test strip purchases for 42 months (until March 2023) and will continue to provide UBI access to a key proprietary reagent.

So UBI is now able to pursue partnership and distribution opportunities beyond Siemens. We expect that UBI will develop a new generation of Stride (and a new brand-name) for launch in 2023 for clinical / hospital segment and including a home test capability. UBI also plans to take the product to new markets including the USA, China and India for the first time.

This \$1.0 billion market (UBI estimate) is currently dominated by Roche with an estimated 80-90% market share compared to UBI/ Siemens' previous estimated 1.5% share. In October 2020, UBI appointed its first new distributor outside of Siemens (Promedius SRO, for the Czech Republic).

This looks a very interesting market opportunity for UBI. The market is flat (or in modest decline) as alternative drugs to the dominant warfarin grow in use. So it is unlikely to attract major drug companies as competitors to Roche. But therein lies the opportunity for a nimble, innovative UBI to provide some competition if it can develop a superior product (as well as the home use test, and new countries). We have forecast a UBI achieving a modest 3.5% market share in this large, but mature market (\$21m revenue, \$12m gross profit by 2031). But could be significantly larger.

4. **New Vet Diabetes blood glucose monitoring product** – In December 2020, UBI signed a global licence deal with its former partner LifeScan (now owned by Platinum Private Equity) to allow UBI to develop a biosensor, test strip and meter for the detection and monitoring of diabetes in animals (dogs & cats). It will use technology now owned by LifeScan, but originally developed by UBI. UBI will pay LifeScan a small licence fee / royalty on sales, but UBI will own 100% of the new product. The know-how already exists at UBI, but this agreement clears the path legally for UBI to enter this medium-sized market segment. UBI estimate the market size at A\$195m (retail value) and growing at 11.3% pa due to growing pet ownership and increasing obesity in companion animals (same as humans). The market is currently dominated by Zoetis (ZTS, market cap US\$80bn, a spin-out from Pfizer in 2013) and Acon Laboratories (US private coy) with an estimated 60% market share combined. We have forecast a UBI achieving a modest 10% market share (revenue A\$21m in 5 years, gross profit \$12m) in this market, which has lacked innovation due to its size. UBI aims to win “a significant share” of the market. We see this as another exciting opportunity for a nimble, innovative UBI to provide some competition to incumbents if it can develop a superior product.
5. **Other potential areas for organic expansion or acquisition** - UBI has flagged a number of other areas of interest for possible expansion. If successful, these could also add significant value by leveraging UBI's existing electro-chemical expertise and know-how.

UBI: Areas of interest		
Human Health <ul style="list-style-type: none"> ● Diabetes ● Coagulation ○ Oncology ○ Women's Health / fertility 	Veterinary <ul style="list-style-type: none"> ○ Diabetes 	Environment <ul style="list-style-type: none"> ○ Arsenic ○ Mercury ○ Cadmium ○ Lead
Wine <ul style="list-style-type: none"> ● Free sulphur dioxide ○ Fructose ○ Glucose ○ Malic acid (wine "taint") ○ Total acid ○ Acetic acid 	Food & Agriculture <ul style="list-style-type: none"> ○ Nothing announced yet 	M&A - Purchase, licence or partner <ul style="list-style-type: none"> ○ New and complete biosensors ● New technology to increase our detection limit

Source: The Future of UBI, 9/2/21

● means underway

○ means areas planned, or of future interest

6. **Next-level detection** – In April UBI announced an exclusive global supply agreement with Lubris BioPharma LLC of Florida for the supply of a “biologic Teflon” coating called Lubricin, which when combined with UBI's electrochemical biosensor technology, enhances or magnifies the limit of detection from up to one million times (from micromolar to picomolar). UBI said this paves the way for many new biosensor products (including the cancer Tn sensor discussed below) and new analyte detection that was previously out of reach. UBI will pay a small single digit royalty to utilise the technology. According to its website, Lubris has also licenced Novartis to use Lubricin in ophthalmology. UBI is in good company. Refer: <http://www.lubris.net>
7. **Blue sky opportunity** – In April, UBI announced an interesting partnership with Deakin University's Institute for Frontier Materials (DIFM) and Swinburne University of Technology to commercialise the Tn Antigen (Tn) biosensor used for the detection, stage classification, and monitoring of cancer from a finger prick of blood, using a portable hand-held device, and to develop other biosensors using UBI's electrochemical platform technology. DIFM and Swinburne have been working on the next generation of electrochemical biosensors and the Tn cancer biomarker for more than 5 years. DIFM Senior Fellow Dr. Wren Green, and Swinburne's Dr. Saimon Moraes DaSilva will allocate 50% and 80% of their time to the collaboration. Fees payable by UBI collectively should not exceed \$300k pa. This sounds promising and we will monitor further developments with interest.

8. **New CEO a proven value creator** – John Sharman joined UBI as CEO on 8/6/20. He was previously CEO at Medical Developments International Ltd (MVP, market cap \$398m) for 10 years where he and Chairman David Williams were a great partnership and created significant value. (This analyst also researched MVP at a previous firm). The MVP share price increased by 40 times for a compound annual growth rate of 44.9% pa; Market capitalisation increased by 51 times for a CAGR of 48.5%. Revenue progression was less dramatic, increasing by 172% to \$22.5m or 10.5% per annum. However product approval for expansion of Pentrox into China and the USA is expected in the next few years which could significantly increase revenue. John was instrumental in positioning MVP for that. MVP was also a combination medical device company with a generic drug, which expanded from small roots in Australia, into overseas markets very successfully. The performance achieved at MVP augurs well for UBI.

Medical Developments International (MVP)	MVP Share Price	MVP Shares on Issue (m)	MVP Market Cap (\$m)	MVP Revenue (\$m)
John Sharman joins MVP as CEO 8/4/10 Operating Revenue - FY10	\$ 0.19	51.358	9.8	8.3
John Sharman resigns from MVP as CEO 5/6/20 Operating Revenue - FY20	\$ 7.76	65.623	509.2	22.5
10-year CAGR	44.9%	2.5%	48.5%	10.5%
Increase	3984%	28%	5119%	172%

Source: Company reports; Refinitiv

7. Risks / Negative Factors

1. **Dual listed structure / CDIs / US centric reporting** – Because UBI is listed in Australia, and incorporated in Delaware USA, it has to comply with US SEC regulations. It prepares its accounts in US reporting format (e.g. SEC Form 10-k's for quarterly and annual results). Fortunately UBI reports in Australian dollars, but we find the US reporting format to be considerably different and difficult for Australian investors. For example, directors shareholdings and remuneration are not included in the Annual Report, but are provided in the AGM notice several months' later. Balance sheet and P&L have no references to notes to the accounts making navigation time consuming. We presume this structure was chosen originally with global ambitions in mind. We understand it is unlikely to change as there are A\$28m of Australian tax losses & \$0.9m CAD tax losses to protect and possibly recoup.
2. **New product launches / High risk / High reward** - UBI is effectively at the starting blocks again, with LifeScan buying out its interests in the very successful blood glucose monitoring business, and Siemens relinquishing the blood coagulation business having failed to achieve satisfactory market share against Roche. UBI now has control of that coagulation business, but needs to develop an improved version of Xprecia Stride by 2023 to take on Roche successfully. UBI's other major opportunities are all start-ups – Wine Analyser, Animal blood glucose monitoring, and the cancer Tn test. There is a risk that UBI will not be able to create superior products. There is a risk that UBI will not be able to compete successfully against much larger, better funded, more established incumbents like Roche in coagulation, and Zoetis (Pfizer spin-out) in animal health. The portable wine analyser is a new product creating a brand new category to compete against bricks & mortar laboratories. There is a risk that the market may not accept UBI's innovative new products or their pricing.
3. **HRL Canada has a narrow customer base** – UBI's 4th product area, HRL performs mandatory calibration tests for the Siemens (now UBI controlled) coagulation business, Bayer, Abbott and Ionis. It was founded in 2016 and was loss-making when acquired by UBI in 2016 but the addition of the Siemens / UBI work put the business into profit in 2020 and it has since won \$1.3m of initial work for Bayer. UBI has a strategy to grow this business which is complementary to UBI's other products / businesses, and to broaden its customer base. It is not yet a firmly established business in our opinion.
4. **Forecasting risk** – Obviously with 3 of UBI's 4 businesses/ products being new, there is a high risk of the actual revenue and profit results differing materially from our forecasts. We do not have much of a comparable history to guide us. Having multiple products coming on stream aimed at separate market segments does provide some diversification benefit and should in theory reduce risk going forward.
5. **New product risk** is partly mitigated by having 17 years' experience in electrochemical biosensors, and having \$24.7m of net cash (including restricted cash) at end-March to see it through this new product launch and development phase.
6. **Selling & Distribution is new to UBI** – Excluding the small HRL calibration services business in Canada, UBI has historically serviced only two customers – LifeScan (Johnson & Johnson) and Siemens Healthcare Diagnostics. UBI is now required to service the Siemens client base (120 hospitals and distributors, mainly in Europe) and find new distribution partners and clients for all of its other products (i.e. Wine analyser, PT-INR blood coagulation product, Animal blood glucose test). UBI has already signed 7 new distribution deals for the Wine Analyser since early December 2020 and new CEO John Sharman has 10 years' experience managing large, medium and small distributors locally and overseas when he was CEO of Medical Developments (MVP). So this should not be a major problem.

7. **Financing risk** – We expect UBI to become Ebitda and NPAT profitable in CY23. We also expect UBI to become cash flow positive in CY23.
8. **Key person risk** – UBI is a small company with just 60 staff (46 staff in Australia and 14 overseas). Accordingly, there is significant key person risk with such a small organisation. E.g. the CEO, CFO and product and technology heads.

8. UBI CY20 Results Review

UBI - CY20 Results Review Years ended Dec (\$m)	CY18	FY19	FY20	Change %	Our Comments
Revenue from products	1.7	4.9	2.6	-47%	Xprecia Stride testing in hospitals & clinics down due to Covid CY20 HRL calibrations down due to Covid. CY18 was the last year of service fees from LifeScan
Revenue from services	23.1	2.0	0.6	-69%	
Op. Revenue	24.8	6.9	3.2	-54%	
Revenue growth	168.9%	-72.2%	-53.6%		
Cost of goods sold	(1.6)	(2.9)	(1.7)	-40%	Variable costs down roughly in line with the decline in revenue Variable costs up, revenue down
Cost of services	(0.9)	(0.7)	(0.9)	22%	
Cost of Sales	(2.5)	(3.6)	(2.6)	-28%	
Gross profit - products	0.1	2.0	0.9	-57%	HRL back in small loss Gross profit down severely due to low Covid-impacted volumes of tests
Gross profit - services	22.2	1.3	(0.2)	-117%	
Gross Profit - Total	22.3	3.3	0.6	-81%	
Gross margin - products	3.9%	41.1%	33.1%	-7.9%	Gross margin down 3.2% in absolute terms, but still very strong
Gross margin - services	96.1%	65.3%	-35.7%	-101.0%	
Gross Profit Margin	89.9%	48.2%	19.5%	-28.8%	
Other Income	1.1	4.2	4.4	4%	Includes government grants \$2.8m (v \$2.8m pcp) & Jobkeeper \$1.3m Costs down reflecting reduced headcount of 55 (v 84) -35%
Cash Operating Expenses	(18.5)	(13.0)	(10.8)	-17%	
Share based payments (non cash)	(0.3)	0.4	(0.2)	-141%	Ebitda loss due to lack of scale
EBITDA	4.6	(5.0)	(5.9)	19%	
Ebitda Margin	18.4%	-72.6%	-185.2%		
Depreciation & Amortisation	(1.7)	(1.2)	(2.2)	92%	EBIT loss due to lack of scale post LifeScan buyout of blood glucose services contract
EBIT	2.8	(6.2)	(8.2)	32%	
Ebit Margin	11.5%	-89.4%	-254.7%		UBI has \$28m of Australian tax losses available
Interest Expense	(2.991)	0.000	(0.155)		
Pre-tax profit	(0.1)	(6.2)	(8.3)	35%	CY18: LifeScan buy-back; CY20: Insurance recovery \$0.7m
Income Tax Credit (Expense)	(4.35)	1.32	0.00	-100%	
Tax Rate	3021.0%	-21.4%	0.0%		
Abnormal items	42.1	0.0	0.7		CY18: LifeScan buy-back; CY20: Insurance recovery \$0.7m
NPAT (reported)(incl Abs)	37.6	(4.8)	(7.6)	58%	
Add back: Abnormals	-42.1	0.0	-0.7		
NPAT (normalised)	(4.5)	(4.8)	(8.3)	72%	
EPS - Reported (cents)	21.2	(2.7)	(4.3)	58%	EPS loss per share 4.7 cents
EPS - Normalised (cents)	(2.5)	(2.7)	(4.7)	71%	
Share count (Weighted average)	177.2	177.5	177.6	0%	
Share count (Period end)	177.2	177.6	177.6	0%	
Cash Flow items					
Ebitda	4.6	(5.0)	(5.9)	19%	CY18: LifeScan buyout was a receivable; CY19: Cash received Feb 2019
Chge in working capital	(42.7)	47.3	(3.3)		
Interest paid	0.4	0.0	(0.2)		Tax paid because of LifeScan buy out fee
Income tax paid	4.4	(4.4)	0.0	-100%	
Other	35.2	(4.7)	1.1		\$8m cash burn. UBI needs new products to restore revenue levels
Operating cash flow	1.8	33.2	(8.3)	-125%	
Investing cash flow	(0.4)	(10.3)	(0.4)	-96%	CY19 includes payment to restructure Siemens agreement (increase UBI control)
Financing cash flow	(20.9)	0.0	0.0	1184%	
Change in cash	(19.5)	23.0	(8.6)	-138%	
OCF per share (cents)	1.0	18.7	(4.7)	-125%	Negative operating cash-flow per share
Balance Sheet items					
Net Cash (Debt)(incl. restricted cash)	11.8	37.2	23.9	-36%	Strong cash position post LifeScan buyout received and pay-out to Siemens
Debtors	50.2	0.1	0.1	-37%	Inventories up for expected increase in Siemens sales and new Sentia product launch
Inventories	0.7	1.1	1.9	74%	
Creditors	(2.4)	(1.6)	(1.6)	-2%	Debtor days look extremely low Creditor days extremely high
Working Capital	48.6	(0.4)	0.4	-181%	
Debtor days	738	6	8	35%	No goodwill on the Balance Sheet Acquired distribution rights to Siemens Xprecia Stride in Sep 2019
Creditor days	35	86	182	111%	
Goodwill	0.0	0.0	0.0		
Other Intangibles	0.0	15.9	14.3	-10%	
Total Assets	70.0	62.7	56.4	-10%	
Liabilities include:					
Deferred revenue - current	(2.4)	(2.7)	(1.6)	-39%	Siemens paid revenue in advance for coag test strips
Deferred revenue - non-current	(3.5)	(1.4)	0.0	-100%	Siemens paid revenue in advance for coag test strips
Deferred revenue - Total	(5.8)	(4.1)	(1.6)	-60%	Siemens paid revenue in advance for coag test strips
Def rev as % of sales (annualised)	23%	60%	51%		
Total Liabilities	(19.3)	(17.3)	(18.4)	7%	
Total Shareholders Funds	50.7	45.4	38.0	-16%	Minimal net tangible assets
NTA per share	\$ 0.286	\$ 0.166	\$ 0.133	-20%	

Source: UBI accounts; Sequoia analysis

Key points:

- Revenue \$3.2m (v \$6.9m) down -54%. Both the coag testing volumes (hospitals & clinics) and HRL calibration volumes were severely disrupted by Covid. These are expected to recover in 2021.
- Ebitda loss \$5.9m (v \$5.0m) down -\$0.9m or -19% due to lack of scale in the business currently.
- Cash operating costs were \$10.8m (v \$13.0m) -17% reflecting a significant reduction in headcount.
- R&D costs of \$5.0m (v \$5.5m) -9% are fully expensed to the P&L. Nothing capitalised.
- Net Loss (Reported) -\$7.6m (v -\$4.8m) down \$2.8m or -58% due to Covid impacting testing volumes and a general lack of scale.

Cash Flow Statement

- Cash burn -\$8.3m (v pcip adjusted for LifeScan buy out received and tax paid on that, -\$9.7m).
- Note, this would have been \$2.5m less (i.e. -\$5.8m instead of -\$8.3) if Siemens had not pre-paid US\$4.0m (A\$5.9m) of strip revenue in advance in Nov 2019. Revenue of \$2.5m (US\$1.7m) was recognised as earned from this in CY20.
- Investing cash flow \$0.4m is modest, as all R&D costs are expensed (\$5.0m in CY20).

Balance Sheet

- Net cash \$23.9m at end-Dec 2020. This includes \$4.5m of restricted cash (effectively to support the Siemens prepayment and supply obligation until March 2023).
- Property plant & equipment \$4.4m comprises \$29.3m of PP&E at cost, less accumulated depreciation of \$25.0m. This includes 4 specialised production machines which make the strips.
- Intangibles \$14.3m (\$16.4m gross less \$1.6m amortisation) being the amount paid to Siemens in 2019 to take control of the distribution rights for the coagulation test business.

Tax losses

- UBI had \$28m of accumulated tax losses available at Dec 2020 under Australian tax law (\$17.4m per accounts Note F-30 plus \$11m grossed-up R&D offsets). And a further A\$0.9m at HRL under Canadian tax laws.

9. Valuation & Recommendation

At the current \$117m market cap, UBI is one of the smallest medical device stocks on the ASX.

Part A

Refinitiv Code	Company (in Market Cap order)	Market Cap \$m	Net Cash (Debt)	Price A\$	Revenue				Ebitda				Ebitda Margin			
					\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
					FY0	FY1e	FY2e	FY3e	FY0	FY1e	FY2e	FY3e	FY0	FY1e	FY2e	FY3e
UBI.AX	Universal Biosensors Inc	115	24	0.650	3.2	7.4	14.1	28.2	(5.9)	(4.2)	(1.4)	6.6	-184.2%	-56.8%	-9.9%	23.4%
Medical device comps:																
RMD.AX	Resmed Inc	36,228	-713	25.080	2,957.0	3,112.9	3,371.1	3,655.1	966.0	1,080.3	1,153.2	1,264.4	32.7%	34.7%	34.2%	34.6%
FPH.AX	Fisher & Paykel Healthcare Co	17,916	9	31.110	1,263.7	2,064.9	1,738.0	1,908.4	440.3	809.3	638.1	711.8	34.8%	39.2%	36.7%	37.3%
COH.AX	Cochlear Ltd	14,027	226	213.360	1,320.6	1,506.4	1,721.2	1,886.5	318.5	420.4	493.7	545.6	24.1%	27.9%	28.7%	28.9%
PNV.AX	Polynovo Ltd	1,706	2	2.580	22.2	30.9	62.3	101.8	(3.1)	(2.2)	15.7	43.6	-13.9%	-7.0%	25.3%	42.9%
NAN.AX	Nanosonics Ltd	1,611	89	5.350	100.1	103.2	130.3	158.9	16.2	11.0	25.3	39.8	16.2%	10.7%	19.4%	25.0%
MVP.AX	Medical Developments Interna	377	12	5.290	22.9	26.0	26.1	41.9	3.0	1.1	(2.3)	3.8	13.3%	4.3%	-8.7%	9.1%
CYC.AX	Cyclopharm Ltd	247	-3	2.650	14.7	18.6	NaN	NaN	(4.6)	(5.0)	NaN	NaN	-31.1%	-26.9%	NaN	NaN
IMR.AX	Imricor Medical Systems Inc	225	24	1.950	0.7	6.2	27.0	53.9	(11.4)	(18.9)	(11.7)	3.4	-1627.6%	-306.6%	-43.5%	6.3%
IPD.AX	ImpediMed Ltd	179	19	0.120	5.7	10.1	20.8	32.9	(21.5)	(18.3)	(11.1)	(2.5)	-374.1%	-180.9%	-53.5%	-7.7%
SOM.AX	Somnomed Ltd	172	15	2.080	57.3	65.2	73.2	82.8	2.2	5.7	7.3	9.5	3.8%	8.8%	9.9%	11.5%
MX1.AX	Micro-X Ltd	149	5	0.325	7.6	9.5	24.5	59.9	(7.7)	(5.8)	0.9	9.6	-102.3%	-61.1%	3.7%	16.0%
UBI.AX	Universal Biosensors Inc	115	24	0.650	3.2											
AT1.AX	Atomo Diagnostics Ltd	78	27	0.190	5.4	7.6	23.4	38.6	(2.1)	(5.6)	14.4	13.8	-38.2%	-73.7%	61.5%	35.8%
OVN.AX	Oventus Medical Ltd	20	8	0.125	0.4	3.1	6.7	24.4	(8.7)	(8.5)	(5.7)	7.0	-2077.5%	-271.3%	-85.1%	28.7%
Mean Average ASX medical device Comps													-318.4%	-61.7%	2.4%	22.4%
Median ASX medical device Comps													-13.9%	-7.0%	14.7%	26.9%
International comps:																
BDX	Becton Dickinson and Co	70,273	-15086	241.640	17,117.0	19,462.6	19,332.2	20,194.3	4,764.0	5,799.0	5,879.8	6,372.3	27.8%	29.8%	30.4%	31.6%
IDXX.O	IDEXX Laboratories Inc	43,690	-525	512.310	2,706.7	3,135.6	3,454.5	3,793.1	793.6	1,003.4	1,118.0	1,254.6	29.3%	32.0%	32.4%	33.1%
MASI.O	Masimo Corp	11,821	641	214.930	1,143.7	1,207.0	1,316.1	1,415.6	284.6	338.2	387.5	449.0	24.9%	28.0%	29.4%	31.7%
HRC	Hill-Rom Holdings Inc	7,212	-1582	108.510	2,881.0	2,940.0	3,021.9	3,170.5	601.6	629.6	664.0	742.9	20.9%	21.4%	22.0%	23.4%
ICUI.O	ICU Medical Inc	4,049	408	190.830	1,271.0	1,238.8	1,288.6	NaN	211.2	255.9	288.0	NaN	16.6%	20.7%	22.4%	NaN
NEOG.O	Neogen Corp	4,792	344	89.560	418.2	463.3	503.7	543.6	85.9	95.8	108.0	119.7	20.5%	20.7%	21.4%	22.0%
MMSI.O	Merit Medical Systems Inc	3,309	-294	59.100	963.9	1,007.8	1,069.9	1,118.6	147.7	192.8	215.0	238.5	15.3%	19.1%	20.1%	21.3%
Mean Average US medical device Comps													22.2%	24.5%	25.4%	27.2%
Median US medical device Comps													20.9%	21.4%	22.4%	27.5%

Source: Sequoia estimates for UBI; Refinitiv consensus estimates for all other stocks; FY1 means forecast year 1 (FY21 in most cases); FY2 means forecast year 2 (FY22 mostly). NaN means no available number

Part B

Refinitiv Code	Company (in Market Cap order)	Revenue Growth			3yr Rev g CAGR	3Yr EVS / Growth	EV/ Sales (EVS)				EV/ Ebitda			P/E		
		FY1e	FY2e	FY3e			FY0	FY1e	FY2e	FY3e	FY1e	FY2e	FY3e	FY1e	FY2e	FY3e
UBI.AX	Universal Biosensors Inc	131.1%	90.5%	100.0%	106.5%	0.031x	29.00x	13.30x	7.20x	3.30x	-23.2x	-73.1x	14.3x	-19.1x	-32.8x	30.2x
Medical device comps:																
RMD.AX	Resmed Inc	5.3%	8.3%	8.4%	7.3%	1.065x	12.5x	9.2x	8.5x	7.8x	26.4x	24.7x	22.5x	38.1x	34.5x	30.6x
FPH.AX	Fisher & Paykel Healthcare Co	63.4%	-15.8%	9.8%	14.7%	0.686x	14.2x	9.3x	11.1x	10.1x	23.8x	30.2x	27.1x	35.4x	46.9x	42.4x
COH.AX	Cochlear Ltd	14.1%	14.3%	9.6%	12.6%	0.577x	10.5x	9.1x	8.0x	7.3x	32.7x	27.8x	25.2x	58.1x	45.4x	40.2x
PNV.AX	Polynovo Ltd	39.2%	101.8%	63.3%	66.1%	0.254x	76.8x	55.3x	27.4x	16.8x	NaN	108.5x	39.2x	NaN	141.1x	45.9x
NAN.AX	Nanosonics Ltd	3.2%	26.3%	22.0%	16.7%	0.575x	15.2x	14.8x	11.7x	9.6x	138.4x	60.4x	38.3x	235.7x	92.2x	58.3x
MVP.AX	Medical Developments Interna	13.8%	0.1%	60.7%	22.3%	0.371x	16.0x	13.3x	13.3x	8.3x	313.3x	NaN	90.8x	NaN	NaN	NaN
CYC.AX	Cyclopharm Ltd	27.0%	NaN	NaN	NaN	NaN	17.0x	13.4x	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
IMR.AX	Imricor Medical Systems Inc	780.1%	336.5%	100.0%	325.1%	0.009x	286.5x	24.3x	5.6x	2.8x	NaN	NaN	44.1x	NaN	NaN	153.1x
IPD.AX	ImpediMed Ltd	76.6%	104.8%	58.6%	79.0%	0.062x	27.9x	15.8x	7.7x	4.9x	NaN	NaN	NaN	NaN	NaN	NaN
SOM.AX	Somnomed Ltd	13.8%	12.3%	13.1%	13.0%	0.145x	2.7x	2.4x	2.1x	1.9x	27.3x	21.6x	16.4x	84.9x	53.3x	38.9x
MX1.AX	Micro-X Ltd	25.7%	157.9%	144.5%	99.4%	0.025x	19.1x	15.8x	6.1x	2.5x	NaN	167.1x	15.7x	NaN	NaN	16.3x
UBI.AX	Universal Biosensors Inc						28.7x									
AT1.AX	Atomo Diagnostics Ltd	41.6%	207.9%	65.0%	93.0%	0.015x	9.4x	7.0x	2.3x	1.4x	NaN	3.7x	3.8x	NaN	7.9x	4.8x
OVN.AX	Oventus Medical Ltd	648.9%	113.4%	264.2%	287.5%	0.002x	27.1x	5.0x	2.3x	0.6x	NaN	NaN	2.2x	NaN	NaN	6.6x
Mean Average ASX medical d		134.8%	89.0%	68.3%	86.4%	0.315x	40.3x	15.0x	8.8x	6.2x	93.7x	55.5x	29.6x	90.5x	60.2x	43.7x
Median ASX medical device C		27.0%	64.0%	59.6%	44.2%	0.199x	16.5x	13.3x	7.9x	6.1x	30.0x	29.0x	25.2x	58.1x	46.9x	39.5x
International comps:																
BDX	Becton Dickinson and Co	13.7%	-0.7%	4.5%	5.7%	0.7x	5.0x	4.3x	4.4x	4.2x	14.5x	14.3x	13.2x	18.8x	18.4x	16.8x
IDXX.O	IDEXX Laboratories Inc	15.8%	10.2%	9.8%	11.9%	1.0x	16.3x	14.1x	12.8x	11.7x	44.1x	39.6x	35.3x	64.2x	57.1x	49.7x
MASI.O	Masimo Corp	5.5%	9.0%	7.6%	7.4%	1.1x	9.8x	9.3x	8.6x	8.0x	33.3x	29.1x	25.1x	56.8x	49.5x	43.5x
HRC	Hill-Rom Holdings Inc	2.0%	2.8%	4.9%	3.2%	0.8x	3.1x	3.0x	2.9x	2.7x	13.8x	13.1x	11.7x	17.9x	17.0x	15.3x
ICUI.O	ICU Medical Inc	-2.5%	4.0%	NaN	NaN	NaN	2.9x	2.9x	2.8x	NaN	14.2x	12.6x	NaN	27.5x	24.2x	NaN
NEOG.O	Neogen Corp	10.8%	8.7%	7.9%	9.1%	0.9x	10.6x	9.6x	8.8x	8.2x	46.3x	41.1x	37.1x	76.1x	66.3x	59.2x
MMSI.O	Merit Medical Systems Inc	4.6%	6.2%	4.5%	5.1%	0.6x	3.7x	3.5x	3.3x	3.2x	18.5x	16.6x	15.0x	30.6x	26.3x	22.5x
Mean Average US medical de		7.1%	5.7%	6.5%	7.1%	0.9x	7.3x	6.7x	6.2x	6.3x	26.4x	23.8x	22.9x	41.7x	37.0x	34.5x
Median US medical device Co		5.5%	6.2%	6.2%	6.5%	0.9x	5.0x	4.3x	4.4x	6.1x	18.5x	16.6x	20.0x	30.6x	26.3x	33.0x

Source: Sequoia estimates for UBI; Refinitiv consensus estimates for all other stocks; FY1 means forecast year 1 (FY21 in most cases); FY2 means forecast year 2 (FY22 mostly). NaN means no available number

UBI offers the 3rd best 3-year revenue growth (FY20 to FY23) in our table above, at +106% pa. This trails Imricor (+325%) and Oventus (287%). Each of these growth figures reflect strong expected growth coming off a very low base in FY20.

We also show the 3yr EVS (Enterprise Value to Sales) / 3 yr Revenue growth statistic. Basically this is a 3yr PEG ratio but using EV/ Sales instead of P/E as many

of these companies are still loss making so P/E's are meaningless. On this basis (which might be like splitting hairs), OVN is cheapest followed by IMR, AT1, MX1, UBI (5th) and then IPD.

Comps Valuation

Looking at the comps for both Australia and the US (the latter has much larger, more mature companies) we think a reasonable valuation for UBI would be 6.0x FY23 Sales and 20x FY23 Ebitda.

DCF Valuation

Our discounted cash-flow (DCF) valuation is \$2.23, based on our detailed forecasts for 10 years, a 10% discount rate, 25% tax being paid from FY26 onwards and a terminal growth rate of 3.0% to infinity. We also fully dilute for all in-the-money options.

Composite Valuation

Our blended or composite valuation for UBI is \$1.42 per share, calculated as follows:

UBI: Sequoia Valuation	Comps Median Multiple	We Use	Valuation		
			\$m	Per Share \$	Weighting
DCF valuation (10.1% WACC; 3.0% terminal growth; 25% tax rate FY26 on)			417.0	\$ 2.23	33%
Comparable company's Valuation:					
FY23 EV / Sales multiples	6.1x	6.0x	190.7	\$ 1.02	33%
FY23 EV / Ebitda multiples	25.2x	25.0x	185.8	\$ 1.00	33%
Composite valuation			264.2	\$ 1.42	100%
Shares on issue (Fully diluted)(m)		186.7			

Source: Sequoia estimates; Refinitiv consensus multiples for peers

As UBI is in the early stages of launching its new Wine Analyser product, and also in the early stages of expanding the distribution base for the Xprecia Stride coagulation product, we think investors need to allow at least 2 years for UBI to achieve its growth. Accordingly, **we set a 24-mth price target** (rather than a one year target) **at \$1.42 being the average of the 3 valuation measures above (equally weighted)**. We do not forecast a dividend for UBI for at least the next few years. **Our price target** implies a total shareholder return of around 109%.

Risk Assessment

We rate the risk level of an investment in UBI as High. The company is in the early stage of launching a series of new biosensor products and other tests which are still under development. UBI is expected to be loss making and have negative operating cash flow for the next two years.

However we think it has sufficient cash to see it through to profitability in FY23 without having to raise further capital.

Recommendation

We initiate research coverage with a Buy (High Risk) recommendation and a 24-month price target of \$1.42.

10. Share Price Catalysts

We identify the following possible share price catalysts for UBI:

1. **Progress with Sentia launch into the global wine-making industry** – UBI has announced distribution partners for Australia, Canada, USA, NZ and South Africa. Further distribution deals are expected to be announced over the balance of 2021. Beyond these initial deals, we will look for evidence of on-going traction such as further device sales and accelerating consumables re-orders demonstrating traction with customers. Customer testimonials would be well received.
2. **New products for Sentia platform** – So far, UBI has only launched the “Free Sulphur Dioxide” test. 5 further tests are under development and expected to be launched over the next 18 months. These new tests will use different consumable test strips, but the same reading device. So the value to the winemaker should increase as more tests become available.
3. **New coag distributors** - Progress with expanding the distribution of the Xprecia Stride coagulation product, beyond Siemens’ current customer and distribution base.
4. **Achieving other product development milestones** – Animal blood glucose monitoring; Tn cancer biosensor; Other new products we don’t know about yet.
5. **Possible acquisitions** – With net cash of \$22m currently, UBI could consider further complementary acquisitions. In addition, UBI is looking to partner with other companies with technology or IP which could help accelerate UBI’s range of biosensor products and applications.

11. Sentia – Wine testing platform (device + test strip consumables)



Product Description

Sentia is a hand held, portable testing device which UBI thinks will change the nature of laboratory testing in the wine making industry. The Sentia device, with its first test strip application, was released in March 2021.

Sentia measures the concentration of Free Sulphur Dioxide (Free SO₂) in post-fermentation wine. It is called free SO₂ because winemakers are only measuring the sulphur dioxide that has not bound with other chemicals in the wine (such as aldehydes, pigments, or sugars).

Sulphur dioxide is an additive used during the production of wine. In bottled wine, free SO₂ acts as a preservative but there is a balance to strike: too much free SO₂ can taint the consumer experience; too little could mean the wine spoils in the bottle. For this reason, measuring free SO₂ is important to winemakers.

Further tests for use are currently under development by UBI and are expected to be released in the next 18 months. These will use the same reader device, but require different strips (consumables):

1. Free SO₂ (sulphur dioxide – launched March 2021)
2. Glucose – expected launch Q3 2021
3. Malic acid - expected launch Q4 2021
4. Fructose - expected launch Q1 2022
5. Total Acid - expected launch Q2 2022
6. Acetic Acid - expected launch Q3 2022

Measuring range: 3 to 50 mg per litre for free SO₂ (which UBI says is within 2% of the \$75k leading competitor product (Thermo Gallery which is the current industry gold standard).

Retail pricing for the reader device is approximately A\$2,000 for domestic / US\$2,000 (A\$2,600) for USA and international and A\$3.00 to \$4.00 for each test strip. Different tests are expected to have varied pricing.

Distribution

- Australia – Grapeworks Pty Ltd appointed exclusive distributor; 5-year term (refer ASX release 7/12/20). Refer: www.grapeworks.com.au
- USA – Enartis Inc appointed distributor (non-exclusive) (refer ASX release 27/1/21)(Established 2003, 200+ employees, 300+ products, access to 10,000+ wine producers in 50 countries, spends EUR 2.0m pa on research, operations in Italy, Portugal, Spain, USA (California), Chile, Australia, New Zealand and South Africa). www.enartis.com. Enartis is part of the Essec Group, a family owned industrial chemical group that has been focussed on the manufacture of inorganic chemicals and winemaking products for a century. 1,200 staff in 15 countries. Refer www.essecouk.com.
- USA - Wine & Beer Supply LLC appointed distributor (non-exclusive) (refer ASX release 15/4/21), (established 5 years, based Richmond Virginia USA, 8 staff on LinkedIn). www.wineandbeersupply.com

- Canada – Vines to Vintages Inc. (VTV) appointed distributor (non-exclusive; 3-year term) (refer ASX release 1/4/21). UBI said VTV is well represented in all of Canada's wine regions and has access to 700 wineries.
- Chile – Singularity SpA appointed distributor (non-exclusive; 3-year term) (refer ASX release 14/4/21). UBI said Chile is the 8th largest wine producing country in the world, and Singularity is a leading group with expertise in point-of-use devices and connections across Chile's 200,000 hectares of vineyards.
- South Africa – Vicard SA appointed distributor (non-exclusive; 3-year term) (refer ASX release 26/4/21). Vicard has 20 experience supplying resources to the local wine industry which has around 500 wineries.
- New Zealand – Grapeworks NZ Limited appointed distributor (exclusive 5-year term). (Refer ASX release 29/4/21).
- Additional agreements to be announced for rest of world during 1H CY2021 per UBI.

Advantages

- Time – on the spot results within 1 minute (Vs competitors at 10-20 mins, and external lab testing 2+ days).
- Accuracy & repeatability.
- Portability – genuine at the wine barrel testing.
- Efficiency / costs – improved processing efficiency and associated labour cost savings, and no internal or external lab costs.
- Quality – in-built quality control checks for each test.
- Convenience - No messy reagents. Automatically calibrated. Data automatically stored for upload.

Total Addressable Market

UBI has provided the following estimates of its addressable market opportunity for the various planned tests, and the hardware (reader device). The figures below are retail values. (The wholesale value to UBI would be approximately 20-40% less allowing for typical distributors margin).

Wine Analyser - Total Addressable Market (TAM) - UBI forecasts				
Number of Tests conducted	A & NZ	USA	RoW	Total Worldwide
Free Sulphur Dioxide (SO ₂)	1,329,560	4,433,985	15,660,000	21,423,545
Coming:				
Malic Acid	930,692	3,103,789	10,962,000	14,996,481
Glucose & Fructose	2,127,296	7,094,376	25,056,000	34,277,672
Total Acid	664,780	2,216,992	7,830,000	10,711,772
Acetic Acid	1,329,560	4,433,985	15,660,000	21,423,545
Total Tests	6,381,888	21,283,127	75,168,000	102,833,015
Est. No. of Devices	2,311	7,929	50,100	60,340
Wine Analyser - Est Market Value (A\$m)	A & NZ	USA	RoW	Total Worldwide
Free Sulphur Dioxide (SO ₂)	4.653	22.170	78.300	105.123
Coming:				
Malic Acid	7.446	35.472	125.280	168.197
Glucose & Fructose	7.446	35.472	125.280	168.197
Total Acid	3.989	13.302	46.980	64.271
Acetic Acid	10.636	35.472	125.280	171.388
Total Tests	34.170	141.888	501.120	677.177
Total Devices	4.044	25.486	139.564	169.094
Total Revenue	38.214	167.373	640.684	846.272

Source: UBI market estimates

If we assume that UBI can achieve a 20% market share, the wine analyser market could become a ~\$100m per annum opportunity for UBI (see below). The hardware device and the first test (for free sulphur dioxide) have been launched, with 5 further tests to be developed and launched over the next 18 months.

UBI - Oenology - Revenue Scenarios to UBI	Retail Value (A\$m)				Wholesale Value
	A & NZ	USA	RoW	Worldwide	
Assumed 10% market share	3.8	16.7	64.1	84.6	50.8
Assumed 20% market share	7.6	33.5	128.1	169.3	101.6
Assumed 25% market share	9.6	41.8	160.2	211.6	126.9
Assumed 30% market share	11.5	50.2	192.2	253.9	152.3
Assumed 40% market share	15.3	66.9	256.3	338.5	203.1
Assumed 50% market share	19.1	83.7	320.3	423.1	253.9
100% market share (UBI estimated value)	38.2	167.4	640.7	846.3	507.8

Source: Sequoia calculations using UBI retail market value estimates

Our Forecasts

Based on the enthusiasm of the distributors announced so far, and the speed and size of their initial orders, we expect a fairly rapid take-up of this innovative new product by wine-makers, particularly the small to medium firms that probably don't have an in-house testing lab.

We forecast sales of \$13.8m in FY23 (year 3), \$33.2m in FY25 (year 5) and \$88m in FY31 (for a 20% market share by year 10, not shown). We expect a strong gross profit margin in the 50-60% range.

UBI - Sequoia forecasts summary	Reference	2020A	2021e	2022e	2023e	2024e	2025e
1. SENTIA WINE ANALYSER							
Sales - Test strips		0.0	0.5	4.6	11.9	20.1	30.1
Sales - Devices		0.0	0.9	1.3	1.8	2.3	3.1
Sales - Total product		0.0	1.4	5.9	13.8	22.4	33.2
Sales growth				317%	133%	63%	48%
Gross profit			0.8	3.4	8.1	13.2	19.6
Gross profit margin %			54%	58%	59%	59%	59%

12. Coagulation products (Xprecia Stride)



Source: 2015 Siemens white paper - <https://www.siemens-healthineers.com/en-au/coagulation/coagulation/xprecia-stride-analyzer>

The Xprecia Stride Coagulation Analyser is a hand-held device that reports PT / INR levels (blood clotting factors) at the point of care with laboratory accuracy, for patients taking Warfarin (blood thinner).

The Prothrombin Time (PT) and International Normalised Ratio (INR) are assays evaluating blood clotting time. A PT/INR test helps find out if your blood is clotting normally. It also checks to see if a medicine (Warfarin) that prevents blood clots is working the way it should.

Xprecia Stride has been sold by Siemens Healthineers AG (SHLG.DE, market cap EUR 52.9bn) since December 2014. In September 2019, UBI effectively bought back the global distribution rights for US\$12.5m (A\$18m). UBI is now free to develop relationships with new customers and distributors beyond Siemens and its existing hospital customers and distributors. There is an installed base of over 3,500 Xprecia Stride reader devices throughout the world for UBI to continue to service when its supply agreement to Siemens expires in March 2023.

According to the Siemens white paper, there are more than 800 million PT / INR tests done each year (NB. 2005 data). It is a mature market in gradual decline as the number of patients being put on warfarin slowly declines. Existing patients on warfarin are generally considered to be on it for life.

UBI plans to have a new, improved version available to launch by 2023, to better compete with Roche which dominates the sector. A new brand will also be required.

Our Forecasts

We forecast a strong bounce-back in volumes from the Covid impacted CY20. We also expect UBI to gradually add new customers and distributors outside of supplying Siemens and its distributors until contract expiry in March 2023. We assume that UBI will be able to convert all the existing Siemens hospital and clinic customers across to new distribution arrangements with UBI. We expect UBI to launch a new improved product by CY23 to better compete with Roche which dominates the market.

UBI - Sequoia forecasts summary	Reference	2020A	2021e	2022e	2023e	2024e	2025e
2. HUMAN COAGULATION ANALYSER (PT-INR test)							
Sales - Xprecia Stride (old product sold by Siemens)(strips only)		2.6	4.0	2.0	0.0		
Sales - Xprecia Stride (old product sold by UBI)(strips only)		0.0	0.0	4.0	8.0	0.0	
Sales - New product and brand expected 2023 (strips + devices)		0.0	0.0	0.0	1.0	10.0	12.0
Sales - Total product		2.6	4.0	6.0	9.0	10.0	12.0
Sales growth		-48%	56%	50%	50%	11%	20%
Gross profit		0.9	2.4	3.6	5.4	6.0	7.2
Gross profit margin %		33%	60%	60%	60%	60%	60%

13. Animal Diabetes

On 22/12/20 UBI announced a new global exclusive licence from LifeScan Global Corporation to allow UBI to develop a biosensor, test strip and meter to be used in the detection and monitoring of diabetes in animals.

LifeScan is a former partner of UBI. Using UBI developed technology, LifeScan has sold more than 10 billion human diabetes strips globally. LifeScan paid UBI A\$44.6m in December 2018 to buy out UBI's royalty stream.

The new veterinary product is expected to be available for sale in Q2 CY 2022 as most of the technology, know-how and manufacturing capability already exists at UBI. The new product will be owned by UBI and be marketed by UBI appointed distributors. We understand there is a small single-digit sales royalty to LifeScan.

UBI estimates the global Vet Blood Glucose Monitoring market to be worth around A\$195m in 2020 growing by 11.35% per annum to A\$372m in 2026.

Growth Factors

UBI cites the following growth factors and opportunities for the new product:

- Increasing trend of pet ownership across the world.
- Obesity in pets is increasing worldwide (56% of dogs were recorded as obese in the US in 2017).
- The current market is dominated by AlphaTRAK 2 (by Zoetis Inc, NYSE: ZTS, a Pfizer spin-out; 8,230 employees on LinkedIn) and CentriVet GK (owned by Acon Laboratories Inc. based in San Diego, California; Unlisted, 159 employees on LinkedIn). UBI says the current market leaders are not focussed on new product development, and the leading product AlphaTRAK 2 has not been updated for nearly 10 years.

Zoetis Inc product



AlphaTRAK Blood glucose monitoring system

AlphaTRAK Specifications

Species-specific Blood Glucose Monitor

Humans share a lot of things with their pets. Blood glucose meters shouldn't be one of them. Portable blood glucose meters designed for blood glucose monitoring in humans are not validated for veterinary use on pets. AlphaTRAK is specifically calibrated and validated for dogs and cats for accurate readings and is easy to use.

The image shows the AlphaTRAK product packaging, which includes a box, a meter, and test strips. The box is white with purple and green accents and features the AlphaTRAK logo and images of dogs and cats. The meter is purple and white, and the test strips are small and white.

Source: <https://www.zoetis.com.au/diagnostic/alphatrak-blood-glucose-monitoring-system/alphatrak.aspx>

AlphaTRAK can be used in dogs, cats, horses, mice and rats. Simply use the buttons on the meter to select the species code detailed on the vial of the test strips. No species chips are required.

Acon Labs product

CentriVet® GK

Blood Glucose & Ketone Monitoring System for Animals

CentriVet®



About Product Lines ▾

CentriVet® GK

Exceptional clinical accuracy

without compromising cost.

The CentriVet® Blood Glucose & Ketone Monitoring System is a dual glucose and ketone meter made specifically with animals in mind. The species-specific code chip technology provides accurate results for every animal, the way it should be. With fast test timing, 5 and 10 seconds for glucose and ketones, you can have result in the palm of your hand, wherever that is.

- ✓ High Accuracy Blood Glucose and B-Ketone meter for animals
- ✓ Results in the palm of your hand in a matter of seconds
- ✓ Species specific Code Chip technology lets you test multiple species with the same strip

Source: www.aconlabs.com/brands

Our Forecasts

According to the 22/12/20 ASX announcement, once the product has been launched, the term of the contract with LifeScan ends when annual sales of product drops below US\$10 million per annum (after the initial ramp-up). So it appears that LifeScan and UBI expect sales well above US\$10m (A\$13.2m) annually. We forecast \$11m of sales by FY25 (year 3) and \$26m in FY31.

UBI - Sequoia forecasts summary		Reference	2020A	2021e	2022e	2023e	2024e	2025e
3. ANIMAL BLOOD GLUCOSE MONITORING (Diabetes in animals)								
Sales - Test strips						2.4	5.4	9.0
Sales - Devices						0.6	1.2	2.1
Sales - Total product						3.0	6.6	11.1
Sales growth						n/a	118%	68%
Gross profit						1.8	3.8	6.5
Gross profit margin %						58%	58%	58%
Assumed market share						2.0%	4.0%	6.0%

14. Management

UBI has a board of 3 non-executive directors. The CEO John Sharman and CFO Salesh Balak are senior officers but not directors.

Directors

Craig Coleman, appointed NED 30/6/16, appointed Chairman 7/8/17; BCom.

Mr. Coleman is an experienced investment and funds management executive. His career of 30 years has spanned banking and finance, corporate advisory and funds management. Craig was appointed as non-executive director in June 2016 and has served as Chair of the Remuneration & Nomination Committee since that date.

Craig is currently the Executive Chairman of Viburnam Funds, an Australian-based specialist investment manager founded in 2007 with investments in private and public equities.

During his executive career, Mr. Coleman has held a number of senior executive positions with ANZ Banking Group Ltd, including Managing Director Banking Products, Managing Director Wealth Management, Non-Executive Director E*TRADE Australia Ltd and Head of Retail Banking New Zealand.

Mr. Coleman currently retains non-executive directorship position with publicly listed entity Bell Financial Group Limited (ASX: BFG) and is Chairman of Pacific Star Network Limited. Craig holds a Bachelor of Commerce from the University of Western Australia.

Judith Smith, appointed NED 12/3/15; BEc. (Hons), MAppFin, F Fin, GAICD

Ms. Smith is a highly experienced investment and funds management executive. During her career, Ms. Smith has worked in a number of investment management roles in the funds management industry, where she has been responsible for evaluating and investing in listed and unlisted companies. Ms. Smith was formerly the Head of Private Equity at IFM Investors, a global fund manager, and Chair of the IFM Risk Committee. Ms. Smith was also a member of the IFM Investments Committee, a role she has retained following her retirement from the firm. Prior to her role at IFM, Ms. Smith held various investment management roles including more than a decade at National Mutual Funds Management Ltd (NMFM). At NMFM, she managed Australian equity research and strategy, as well as Australian equity portfolios.

Ms. Smith was appointed a non-executive director of the Company on March 12, 2015 and has served as a member of the Audit and Compliance Committee since that date. She was appointed as the Chairperson of the Audit and Compliance Committee on August 7, 2017. Ms. Smith was appointed as a member of the Remuneration & Nomination Committee on September 21, 2017.

Ms. Smith holds a Master of Applied Finance from the University of Melbourne and a Bachelor of Economics (honours) from Monash University. She is a Fellow of the Financial Services Institute of Australasia and Graduate member of the Australian Institute of Company Directors. Ms. Smith is a member of the Audit Committee of the Australian Renewable Energy Authority. She also serves as a director and Chairperson of the Audit Committee of Acorn Capital Investment Fund Ltd (ASX:ACQ). She is a trustee director of industry superannuation fund, LUCRF and the Chairperson of the LUCRF Investment Committee. She is a member of the advisory committee for the SA Venture Capital Fund - an SA Government initiative to have a VC fund focused on SA opportunities. She is also a board member of Scale Investors Ltd., a not-for-profit organisation promoting women entrepreneurs and women angel investors in early stage companies. In July 2018, Ms. Smith was appointed to the board of Funds S4.

David Hoey, appointed NED 2/3/16

Mr. Hoey has extensive experience relevant to our Company, with more than 25 years' experience in technology financing and commercialization. Mr. Hoey is a US-based director and his primary expertise is in business development, strategic

planning, market development, corporate partnering and financings for medical technologies, diagnostics and drug development. His skills and experience are invaluable to the ongoing commercialization and launch of the Company's products, especially in the United States.

Mr. Hoey has served as a non-executive director since March 2016 and has been a member of the Audit & Compliance Committee since that date. Mr. Hoey has served as a member of the Remuneration & Nomination Committee between June 21, 2016 and September 21, 2017.

Mr. Hoey is currently Chief Executive Officer and a director of Vaxxas, Inc., a company which has developed and is commercializing a novel vaccine delivery technology - The Nanopatch™. He also serves as an advisor to Healthcare Ventures LLC. During his career Mr. Hoey has worked in management and leadership roles in the preclinical development of small molecule and biologic therapeutics, molecular diagnostic assays and platforms, and analytical instrumentation. Mr. Hoey served as vice president of business development at PathoGenetix, Inc., a company pioneering single molecular detection technologies for biodefence, clinical, and industrial applications.

Senior Management

John Sharman, CEO, appointed 8/6/20; BEcon, CA, MAppFin

John has extensive international business experience as Managing Director and Chief Executive Officer of ASX-listed companies and private equity businesses operating in Australia, the UK, Europe, Asia and the US. His experience covers the pharmaceutical, medical equipment manufacturing and distribution, finance and FMCG businesses.

Before joining Universal Biosensors, Mr. Sharman was the CEO of Medical Developments International (ASX: MVP) for over 10 years. Prior to joining MVP, John was responsible for all facets of the investment cycle during his 10-year service as Managing Director of a private equity firm, CVC Venture Managers. Earlier years in his career were spent in the Finance industry with National Australia Bank, PWC as Director of Finance and KPMG where he was responsible for dozens of capital raising transactions.

John holds a Bachelor of Economics from Monash University and Master of Applied Finance from Macquarie University.

Salesh Balak, CFO, appointed November 2006; B.A., C.A.

Salesh has served as our Chief Financial Officer since November 2006 and as a director of Universal Biosensors Pty Ltd since September 2010 and Hemostasis Reference Laboratory Inc. (HRL) since November 2016. Salesh was appointed as our Company Secretary on 20 December 2018.

Prior to joining Universal Biosensors, he was Chief Financial Officer and Company Secretary of Pearl Healthcare Limited (PHL.AX), an ASX listed entity engaged in the manufacturing and healthcare sector. Salesh joined Pearl Healthcare Limited in April 2003 initially as its Group Accounting Manager and was promoted to Chief Financial Officer in June 2004. While at Pearl Healthcare Limited, Salesh was instrumental in the successful acquisition of four businesses and integration of its existing businesses. Prior to joining Pearl Healthcare Limited, Salesh spent 13 years in the Business Services, Audit and Financial Advisory Services divisions of KPMG in both the Melbourne and Fiji offices.

He holds a Bachelor of Arts in accounting and economics and is a member of the Institute of Chartered Accountants and Certified Practicing Accountants.

Appendix 1 – LifeScan relationship (2002 – 2018)

LifeScan (Johnson & Johnson) licence agreement

A licence agreement with LifeScan, then a subsidiary of Johnson & Johnson in April 2002 granted UBI a worldwide, royalty free exclusive licence to certain electrochemical cell technologies in all fields excluding diabetes and blood glucose management (which were retained by LifeScan). So UBI had rights to an extensive portfolio of patents granted and pending owned by LifeScan (183 patents plus another 227 pending per the prospectus), as well as 14 pending patents owned and lodged by UBI.

Also in April 2002, UBI entered into an R&D agreement with LifeScan to undertake contract R&D in the area of diabetes management and to develop a blood glucose test for diabetes for LifeScan.

Further evidence of a strong relationship between UBI and LifeScan / Johnson & Johnson was that Johnson & Johnston Development Corporation held a stake in UBI prior to the December 2006 IPO (14.2% post IPO).

In November 2009, LifeScan was granted regulatory approval (CE marking) to sell the “One Touch Verio” human blood glucose monitoring system in Europe, developed jointly by UBI and LifeScan. This comprised a novel disposable test strip and reusable meter device offering superior accuracy to rival products on the market at that time, and no requirement for calibration code entry. The simple to use portable test devices require a finger prick of blood and are designed to be used beside the patient at the point of care to provide accurate and quick results to enable new treatment, or for an existing treatment to be immediately reviewed. Historically, most in-vitro diagnostic testing was done at centralised testing sites such as hospital labs and commercial pathology labs.

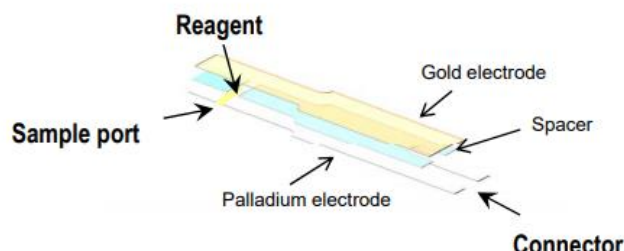


OneTouch® Verio™
Blood glucose monitor for home use
Launched by LifeScan in January 2010. UBI developed the test strips and manufactures them for LifeScan



Point-of-Care System
in development for doctor's offices, clinics and hospitals

Both products employ UBI's multi-layer strip with opposing electrodes



Source: AGM presentation 22/3/10

The first sales were made in the Netherlands in January 2010. UBI received a US\$16m milestone payment from LifeScan in December 2009, and commenced manufacturing test strips for LifeScan in December 2009. LifeScan planned to also manufacture the majority of the strips for its own requirements. LifeScan was responsible for the manufacturing of the meter devices, and the commercialisation and distribution of the

blood glucose product (meters and strips). UBI will receive quarterly service fees based on the number of products sold (irrespective of who manufactures the product) and a fee for blood glucose strips manufactured by UBI for LifeScan.

- Australia followed next in 2010 (refer ASX announcement 9/8/10)
- France (ann. 1/2/11, market size estimated at \$800m in 2015)
- Italy (ann. 1/2/11, Market size \$780m in 2015)
- USA (approval 21/2/11, launch announced 10/1/12)
- Germany, UK, Ireland, Spain, and Portugal (announced 13/4/11). UBI said the European launches so far represented 90% of US\$2.8bn European SMBG market.
- Canada (commencement of marketing announced 8/11/11)

Competitors are multinationals Roche, Abbott and Bayer.

Winding down of relationship

In June 2018 Johnson & Johnson accepted a buyout offer for LifeScan from Platinum Equity, a private equity firm for US\$2.1bn (completed 1/10/18). The completion announcement by Platinum Equity said LifeScan was a global leader in blood glucose monitoring products with 2017 net sales revenue of US\$1.5bn and serving 20 million patients in more than 90 countries. Refer: <https://www.platinumequity.com/news/news-articles/2018/platinum-equity-completes-2-1-billion-acquisition>

In September 2018 LifeScan gave notice to UBI to buy-out the quarterly service fee (QSF) obligation, as provided for under the licence agreement. In December 2018, UBI received an A\$44.6m (US\$31.5m) lump sum service fee from LifeScan to buy out UBI's royalty stream and conclude the agreement.

In March 2019 UBI down-sized its workforce in Melbourne by approximately one-third. \$3.0m annualised savings were expected.

Post-script - Animal Health

In December 2020, UBI announced a new licence from LifeScan to allow UBI to develop a blood glucose monitoring system for the detection and monitoring of diabetes in non-humans (i.e. animals), using LifeScan technology. The new diabetes product for animals will be owned by UBI and is expected to be available for sale within 18-24 months. There is a small single-digit royalty payable to LifeScan. UBI's ambition is to win a significant share of the animal diabetes market.

The new licence is worldwide, exclusive, transferable and sub-licensable. UBI said most, if not all of the technology, know-how and manufacturing already exists at UBI.

Since 2004, UBI has also worked to create other platforms from the electrochemical cell technology for new non-blood glucose tests.

Appendix 2 – History with Siemens (2011 – current; expires Mar 2023)

Siemens Agreement

On 9/9/11 UBI announced a new strategic partnership and collaboration agreement with Siemens Healthcare Diagnostics Inc, for the development and commercialisation of products for the point-of-care Coagulation testing market. UBI to develop a range of test strip and reader products. The first test will be a modified version of UBI's PT / INR test developed since 2006 by UBI, followed by other tests in the coagulation market. UBI will leverage its manufacturing expertise to supply the test strips to Siemens.

Siemens is one of the world's largest suppliers to the healthcare industry with 48,000 employees worldwide and a leader in the haemostasis market. Siemens will register, market and sell the developed products globally. The point-of-care coagulation testing market is estimated to be \$750m annually, with PT/INR testing the largest single segment (at \$400m), and is expected to grow significantly over the next 10 years.

UBI will receive an initial technology access fee of US\$3.0m, plus up to 6 milestone payments upon achievement of certain milestones relating to feasibility, regulatory submissions, and launch of the products to be developed. UBI will also generate revenues on each strip manufactured on pre-agreed terms (which vary based on volume).

The partnership does not cover patient self-testing in the coagulation market, which is a further opportunity for UBI to exploit its technology in PT/ INR.

- 8/6/12 – First milestone achieved – Proof of technical feasibility. UBI will receive US\$1.5m.
- 27/7/12 – 2nd milestone achieved – Proof of technical feasibility of a third test strip. UBI will receive US\$1.5m.
- 22/5/13 – Siemens unveils Xprecia Stride Coagulation Analyser at Euromed Lab conference in Italy. 9/12/14 receives CE mark approval allowing it to be sold in 31 countries in Europe. 17/12/14 Siemens announces European launch. This is UBI's PT/ INR analyser developed in collaboration with Siemens over more than 3 years. This triggers a milestone payment to UBI of US\$1.0m.
- 29/7/15 – 4th milestone achieved. Siemens lodges 510(k) submission with the US FDA. US\$1.0m milestone due to UBI.

Universal Biosensors Inc (UBI) \$ 0.680

Profit & Loss

Year end June \$m	FY19	FY20	FY21e	FY22e	FY23e
Op. Revenue	6.9	3.2	7.4	14.1	28.2
Revenue growth %	-72.2%	-53.6%	131.5%	90.2%	100.0%
Cost of Goods Sold	(3.6)	(2.6)	(3.7)	(6.3)	(12.0)
Gross Profit	3.3	0.6	3.8	7.8	16.2
Gross Profit Margin	48.2%	19.5%	50.7%	55.1%	57.3%
Other Income	4.2	4.4	2.9	2.0	2.0
Cash Operating Expenses	(13.0)	(10.8)	(10.8)	(11.0)	(11.3)
Share-based payments	0.4	(0.2)	(0.1)	(0.2)	(0.3)
EBITDA	-5.0	-5.9	-4.2	-1.4	6.6
Ebitda Margin	-72.6%	-185.2%	-57.2%	-9.8%	23.3%
Depreciation & Amort	(1.2)	(2.2)	(2.1)	(2.3)	(2.6)
EBIT	-6.2	-8.2	-6.4	-3.7	4.0
Ebit Margin	-89.4%	-254.7%	-85.7%	-26.3%	14.2%
Interest Income (Expense)	0.0	(0.2)	0.0	0.0	0.0
Share of Assoc NPAT	0.0	0.0	0.0	0.0	0.0
Pre-tax profit	(6.2)	(8.3)	(6.4)	(3.7)	4.0
Income Tax Credit (Expense)	1.3	0.0	0.0	0.0	0.0
Tax Rate	-21.4%	0.0%	0.0%	0.0%	0.0%
Minorities (share of loss)	0.0	0.0	0.0	0.0	0.0
Abnormals	0.0	0.7	0.0	0.0	0.0
NPAT (reported)	-4.8	-7.6	-6.4	-3.7	4.0
Adjustments (Abnormals)	0.0	-0.7	0.0	0.0	0.0
NPAT (normalised)	-4.8	-8.3	-6.4	-3.7	4.0

Balance Sheet

Cash	37.2	28.1	21.1	18.8	25.7
Receivables	0.1	0.1	0.6	1.1	0.2
Inventories	1.1	1.9	2.0	2.7	5.4
Other	3.6	3.7	4.8	4.8	4.8
Total current assets	42.0	33.7	28.4	27.4	36.1
PP&E	4.8	8.4	9.0	10.2	11.5
Invests (Restricted cash)	0.0	0.0	0.0	0.0	0.0
Intangibles	15.9	14.3	14.3	15.1	15.9
Deferred tax assets	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
Total non-current assets	20.7	22.7	23.3	25.3	27.4
Total Assets	62.7	56.4	51.7	52.6	63.5
Payables	-1.6	-1.6	-2.0	-3.8	-7.6
Interest bearing liabs -current	0.0	-0.5	-0.6	-0.6	-0.6
Deferred revenue - current	-2.7	-1.6	0.0	0.0	0.0
Provisions	-0.8	-0.6	-0.6	-0.6	-0.6
Other	-5.1	-4.6	-5.6	-1.4	-1.4
Total Current Liabilities	-10.2	-9.0	-8.9	-6.4	-10.2
Interest-bearing liabs (Non-cu)	0.0	-3.6	-3.6	-3.6	-3.6
Deferred revenue (non-current)	-1.4	0.0	0.0	0.0	0.0
Provisions	-2.6	-2.8	-2.8	-2.8	-2.8
Other	-3.1	-3.1	-4.0	-11.1	-14.2
Total Non-current Liabilities	-7.1	-9.4	-10.4	-17.5	-20.6
Total Liabilities	-17.3	-18.4	-19.3	-23.9	-30.8
Total Shareholders' Equity	45.4	38.0	32.4	28.7	32.7

Interims

Year end June	1H20	2H20	1H21e	2H21e	FY21e
Sales	1.1	2.1	3.4	4.0	7.4
Sales Growth (%)	-73%	-27%	220%	88%	132%
EBITDA profit (loss)	-3.4	-2.5	-2.3	-1.9	-4.2
EBITDA Margin	-318.3%	-119.0%	-67.7%	-48.3%	-57.2%
EBIT	-4.5	-3.6	-3.3	-3.1	-6.4
Equity Share of Assocs NPAT	0.0	0.0	0.0	0.0	0.0
NPAT (Reported)	-4.5	-3.1	-3.3	-3.1	-6.4
NPAT (Adjusted)	-4.6	-3.7	-3.3	-3.1	-6.4
EPS (adjusted)(cents)	-2.6	-2.1	-1.8	-1.6	-3.4
EPS Growth	104.7%	42.7%	-31.7%	-21.8%	-27.3%
DPS (cents)	0.0	0.0	0.0	0.0	0.0

Source: Sequoia estimates

Per share & Ratio data

Year end June	FY19	FY20	FY21e	FY22e	FY23e
Shares on Issue - Wavge (f/c)	177.5	177.6	186.7	186.7	186.7
Shares on Issue - at y/end	177.6	177.6	177.6	177.6	177.6
EPS - Reported (cents)	(2.7)	(4.3)	(3.4)	(2.0)	2.2
Growth	-112.9%	57.5%	-20.9%	-41.7%	-208.5%
P/E ratio (x)	-24.9x	-15.8x	-20.0x	-34.3x	31.6x
EPS (normalised)(cents)	(2.7)	(4.7)	(3.4)	(2.0)	2.2
Growth	7.6%	71.4%	-27.3%	-41.7%	-208.5%
P/E ratio (x)	-24.9x	-14.5x	-20.0x	-34.3x	31.6x
DPS (cents)	0.0	0.0	0.0	0.0	0.0
Yield	0.0%	0.0%	0.0%	0.0%	0.0%
OCF per share (cents)	18.7	-4.7	-3.2	-0.5	4.6
Price/OCF (x)	3.6x	-14.6x	-21.0x	-149.6x	14.8x
Enterprise Value \$m	88.1	98.2	103.9	106.3	99.3
EV/ Sales	12.8x	30.7x	14.0x	7.5x	3.5x
EV/EBITDA	-17.6x	-16.6x	-24.5x	-76.9x	15.1x
EV/EBIT	-14.3x	-12.0x	-16.4x	-28.7x	24.7x
Liquidity & Leverage					
Net Cash (Debt) \$m	37.2	23.9	16.9	14.5	21.5
Net Debt / Equity %	n/a	n/a	n/a	n/a	n/a
Net Debt / EBITDA	n/a	n/a	4.0x	10.5x	n/a
ROA (EBIT / T.Assets) %	-9.8%	-14.5%	-12.3%	-7.0%	6.3%
ROE (NPAT / T.Equity) %	-10.7%	-21.9%	-19.6%	-12.9%	12.3%

Cash Flow

EBITDA	-5.0	-5.9	-4.2	-1.4	6.6
Chge in Working Capital	47.3	-3.3	-1.8	0.5	2.0
Interest Received (Paid)	0.0	-0.2	0.0	0.0	0.0
Income taxes paid	-4.4	0.0	0.0	0.0	0.0
Other	-4.7	1.1	0.0	0.0	0.0
Operating cash flows	33.2	-8.3	-6.0	-0.8	8.6
Capex	-0.1	-0.4	-0.9	-1.5	-1.6
Acquisitions	0.0	0.0	0.0	0.0	0.0
Investments	0.0	0.0	0.0	0.0	0.0
Other (Capitalised R&D)	-10.1	0.0	0.0	0.0	0.0
Net investing cash flows	-10.3	-0.4	-0.9	-1.5	-1.6
Equity raised (bought back)	0.0	0.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Change in Debt	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
Financing cash flow	0.0	0.0	0.0	0.0	0.0
Change in Cash	23.0	-8.6	-6.9	-2.3	7.0

Revenue by Product

Blood Glucose(sold Dec18)	0.2	0.0			
Blood Coag (PT-INR tests)	4.9	2.6	4.0	6.0	9.0
Sentia WAVE Analyser	0.0	0.0	1.4	5.9	13.8
Animal blood glucose	0.0	0.0	0.0	0.0	3.0
Services - HRL Canada	1.1	0.6	2.0	2.2	2.4
Services - Contract R&D / I	0.8	0.0	0.0	0.0	0.0
Total Revenue	6.9	3.2	7.4	14.1	28.2

Directors Shareholdings

	Shares (m)	% of coy	Options (m)
Craig Coleman, Chairman (app NED 30/6/16, Cha	27.466	15.5%	0.0
Judith Smith, NED (appointed: 12/3/15)	0.300	0.2%	0.0
David Hoey, NED, overseas-based (appointed 2/3/	0.566	0.3%	0.0
Senior Management:			
John Sharman, CEO (commenced 8/6/20)	0.000	0.0%	7.1
Salesh Balak, CFO (commenced Nov 2006)	0.267	0.2%	1.5

Major Shareholders

	Shares (m)	% of coy
Viburnum Funds	27.250	15.3%
JM Financial Group Ltd	21.968	12.4%
Jencay Capital Pty Ltd	20.790	11.7%
Richmond Hill Capital Pty Ltd	12.560	7.1%
KFT Investments Pty Ltd	7.430	4.2%

Source: ASX announcements, Refinitiv

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- Corporate advisory and capital markets expertise
- Retail, wholesale and institutional trading platforms
- Market data and financial news services.

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Recommendation Criteria

Investment View

The Sequoia Wealth Management (SWM) Investment View is based on an absolute 1-year total return equal to capital appreciation plus yield.

Buy	Accumulate	Hold	Reduce	Sell
>20%	10% – 20%	0% – 10%	0% to -10%	>-10%

A Speculative recommendation is when a company has limited experience from which to derive a fundamental investment view.

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