

# Universal Biosensors

## Annual General Meeting

### 2024

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# Universal Biosensors

## Corporate Strategy

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UBI's Corporate Strategy is broken up into two pillars:

1. Leverage the existing and proven electrochemical biosensor technology platform to drive growth across multiple industries and applications
  - Products in market across the coagulation, wine and veterinary diabetes monitoring markets.
  - New product line in development for monitoring of heavy metals in water.
2. Develop the next generation electrochemical biosensor technology platform to instigate further growth into larger markets
  - Development will improve detection limits of the platform to nanomolar/picomolar and improve the sensitivity and specificity.
  - Will facilitate push into monitoring of oncology biomarkers to track remission, monitoring of fertility hormones to track IVF cycles and a vast array of other human and non-human applications.
  - Aptamer sensing is working on the next generation technology platform with proof of concept shown with Tobramycin (an antibiotic).

# Business Update

4 months to April 2024

Sales are up 35% year on year.

Gross Margin is up 22%.

Expenses are flat year on year as we reallocate resources towards revenue generating assets.

Sales of Xprecia grew 57%.

Sales at HRL grew 111%.

Sentia sales are flat for the first 4 months. We have encountered some issues with our latest software which has caused a “blip” in sales growth. This is being rectified and we expect good sales growth for the rest of the year.

Sales of Petrackr are below expectations but we remain confident this will be a good business for UBI.

Business Unit	4 months to April 23	4 months to April 24	Growth
Xprecia	597,881	940,209	57%
Sentia	789,261	768,331	-3%
HRL	170,277	358,887	111%
Petrackr	-	30,844	N/A
<b>Total - UBI</b>	<b>1,557,419</b>	<b>2,098,271</b>	<b>35%</b>

# Business Update

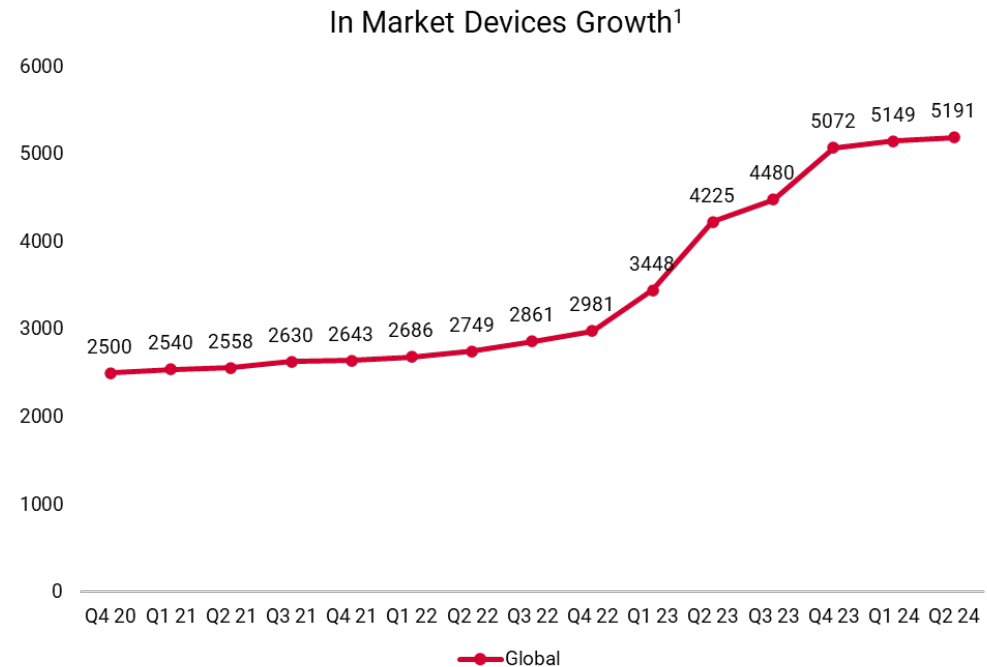
## Xprecia

In March 2024, UBI received approval from FDA for Xprecia Prime to be sold in USA in the Healthcare Professional market 510(k) and PT/INR Clinics (CLIA Waiver).

This approval is the first time FDA have approved a PT/INR product for “CLIA Waiver by Application” and is a landmark achievement for UBI.

In the last 12 months (to April 24), UBI has increased the Xprecia (Prime and Stride) devices in the market by circa **50%**.

In the 4 months to April 24, year on year revenue is **up 57%**.



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**Note 1:** The Xprecia devices in use globally is based on historical Siemens data. UBI has no way to validate the accuracy of any Siemens data. 2,500 devices have been estimated as in the market and being used at the end of Q4 20.

# Business Update

## Xprecia Prime - USA

Whilst our European and ROW business continues to grow, we are focused on establishing Xprecia Prime in the USA. To achieve that goal

- We have appointed a new Head of Sales with 10+ years of experience in PT/INR point of care device sales in the USA and in direct competition to the Roche products.
- We have begun the process to license or partner Xprecia across North America, either exclusively or in combination with multiple interested parties.
- We have open negotiations with 12 parties.
- We continue to chase down 27 others.
- We have 6 term sheets being discussed.

Xprecia Prime's current addressable market with 510(k) and CLIA waiver approval in the USA is

- 141 million tests and \$335m p.a.
- Over 6 million patients in the USA who take warfarin (coumadin).

	<i>Number of tests (m)</i>	<i>Revenue (\$m - USD)</i>
Hospital PT/INR	56.76	<b>135.10</b>
Clinics PT/INR	84.06	<b>200.10</b>
Patient Self-Test PT/INR	15.65	<b>37.20</b>
<b>Total</b>	<b>156.47</b>	<b>372.40</b>

# Business Update

## Xprecia

Xprecia Prime is the best performing point of care device available in the market based on the clinical data submitted to the FDA.

UBI estimates it currently has more than 5,100 Xprecia (Prime and Stride) devices in the market.

Approximately 1,700 devices have been sold to distributors (mainly) and hospitals in the last 12 months. This makes determining the average strip use per device or average revenue per device difficult, since distributors take time to place the units into hospitals and clinics.

Ultimately, UBI expects each device in hospitals and clinics could average 400 - 600 strips per year, at an average price of \$4 per strip.

The table opposite is a summary of how the sale matrices can work, based on numbers of devices in market and average strip use per device.

Laboratory Reference INR Range	Allowable Difference	Percentage within allowable difference	
		UBI: Xprecia Prime (Patient Numbers)	Roche: CoaguChek (Patient Numbers)
0 to 1.9	± 0.4 INR	98.30% (172/175)	97.13% (169/174)
2 to 3.5	± 20% INR	97.70% (128/131)	82.31% (107/130)
3.6 to 4.5	± 20% INR	91.80% (45/49)	85.71% (42/49)
4.6 to 8.0	± 25% INR	95.20% (40/42)	100.00% (43/43)

Installed Base Devices	Market Share <sup>1</sup>	Strips per Device p.a.	Strips Sold	Devices Sold <sup>2</sup>	Strip Rev (A\$) <sup>3</sup>	Device Rev (A\$) <sup>4</sup>	Total Rev (A\$)
5,000	0.73%	400	2,000,000	5,000	\$8.0m	\$2.5m	\$10.5m
	1.10%	600	3,000,000	5,000	\$12.0m	\$2.5m	\$14.5m
	1.46%	800	4,000,000	5,000	\$16.0m	\$2.5m	\$18.5m
	1.83%	1,000	5,000,000	5,000	\$20.0m	\$2.5m	\$22.5m
10,000	1.46%	400	4,000,000	5,000	\$16.0m	\$2.5m	\$18.5m
	2.19%	600	6,000,000	5,000	\$24.0m	\$2.5m	\$26.5m
	2.93%	800	8,000,000	5,000	\$32.0m	\$2.5m	\$34.5m
	3.66%	1,000	10,000,000	5,000	\$40.0m	\$2.5m	\$42.5m
20,000	2.93%	400	8,000,000	10,000	\$32.0m	\$5.0m	\$37.0m
	4.39%	600	12,000,000	10,000	\$48.0m	\$5.0m	\$53.0m
	5.85%	800	16,000,000	10,000	\$64.0m	\$5.0m	\$69.0m
	7.31%	1,000	20,000,000	10,000	\$80.0m	\$5.0m	\$85.0m
30,000	4.39%	400	12,000,000	10,000	\$48.0m	\$5.0m	\$53.0m
	6.58%	600	18,000,000	10,000	\$72.0m	\$5.0m	\$77.0m
	8.78%	800	24,000,000	10,000	\$96.0m	\$5.0m	\$101.0m
	10.97%	1,000	30,000,000	10,000	\$120.0m	\$5.0m	\$125.0m

**Assumptions**

UBI has used its own market information and assumptions to estimate potential sales based on share of global market

<sup>1</sup> market size of 273,440,000 test strips

<sup>2</sup> incremental devices sales on prior installed base

<sup>3</sup> strip ASP of \$4.00 per test strip

<sup>4</sup> device ASP of 500.00

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# Business Update

## Sentia

Today, UBI have almost 1,600 wineries using Sentia mainly in the USA and Australia.

The average revenue per device is circa \$3,500.

For wineries that have owned Sentia for more than 12 months the average strips used per device is 445 strips which is up 25% year on year.

Over the next few years, UBI's target is for more than 10,000 wineries to be using Sentia at \$5,000 average revenue per device.

If we achieve a market penetration of 10,000 wineries, each doing 1,000 tests per year then revenues could exceed \$50m per year. This is approximately 6% of the wine testing market.

We do not believe market penetration or sales growth is limited to this target.

Installed Base Devices	Market Share <sup>1</sup>	Strips per Device p.a.	Strips Sold	Devices Sold <sup>2</sup>	Strip Rev (A\$) <sup>3</sup>	Device Rev (A\$) <sup>4</sup>	Total Rev (A\$)
2,500	0.74%	500	1,250,000	2,500	\$6.2m	\$7.5m	\$13.7m
	1.48%	1,000	2,500,000	2,500	\$12.5m	\$7.5m	\$20.0m
	2.97%	2,000	5,000,000	2,500	\$25.0m	\$7.5m	\$32.5m
	7.42%	5,000	12,500,000	2,500	\$62.5m	\$7.5m	\$70.0m
5,000	1.48%	500	2,500,000	2,500	\$12.5m	\$7.5m	\$20.0m
	2.97%	1,000	5,000,000	2,500	\$25.0m	\$7.5m	\$32.5m
	5.93%	2,000	10,000,000	2,500	\$50.0m	\$7.5m	\$57.5m
	14.84%	5,000	25,000,000	2,500	\$125.0m	\$7.5m	\$132.5m
10,000	2.97%	500	5,000,000	5,000	\$25.0m	\$15.0m	\$40.0m
	5.93%	1,000	10,000,000	5,000	\$50.0m	\$15.0m	\$65.0m
	11.87%	2,000	20,000,000	5,000	\$100.0m	\$15.0m	\$115.0m
	29.67%	5,000	50,000,000	5,000	\$250.0m	\$15.0m	\$265.0m
20,000	5.93%	500	10,000,000	10,000	\$50.0m	\$30.0m	\$80.0m
	11.87%	1,000	20,000,000	10,000	\$100.0m	\$30.0m	\$130.0m
	23.74%	2,000	40,000,000	10,000	\$200.0m	\$30.0m	\$230.0m
	59.35%	5,000	100,000,000	10,000	\$500.0m	\$30.0m	\$530.0m

#### Assumptions

UBI has used its own market information and assumptions to estimate potential sales based on share of global market

<sup>1</sup> market size of 168,500,000 test strips

<sup>2</sup> incremental devices sales on prior installed base

<sup>3</sup> strip ASP of \$5.00 per test strip

<sup>4</sup> device ASP of \$3000.00

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# Business Update

## Sentia

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Whilst there are some short-term issues being experienced which are affecting sales, the key drivers to achieve our longer-term ambition are:

- Continue to improve the performance of tests,
- Grow installed based,
- Grow value of customer average spend,
- Continue to grow average revenue per device.

UBI strategic targets:

- 1,750 – 2,000 devices in use during 2024,
- 2,500 – 3,000 devices in use during 2025.

Over time 10,000 devices generating 1,000 strips per device and \$50+m of revenue.

# Business Update

HRL

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Sales at HRL grew 111% in the 4 months to April 2024.

This was despite long periods of commitment by HRL staff to the Xprecia Prime FDA submission (which was detracting from revenue generating business).

In March 2024, HRL receive its full CLIA Waiver certificate which is a significant milestone, since it allows HRL to participate in blood pathology work from USA trials and patients.

HRL is not cash flow positive but is considered a significant strategic asset given its unique position of calibrating UBI's Xprecia Prime / Stride strip lots.

We expect to continue to grow the sales at HRL over the remainder of 2024.

# Business Update

## Petrackr

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Our Petrackr business is performing well below expectations.

Contributing factors include:

- The amount of stock existing pet owners and vets own of their current product, which delays the purchase decision for Petrackr,
- The global dumping of “discontinued” product of a major competitor into the market, which is delaying the purchase decision of pet owners.

Both factors have meant UBI’s sales expectation have been tempered in the shorter term.

UBI has closed a number of distribution deals in recent months, and we now have 11 distributors selling product in 5 countries. UBI is negotiating a further 20+ deals around the world.

In the longer run Petrackr offers pet owners a superior product to the others in the market and we remain confident it will be a valuable business for UBI.

Importantly, whilst the Petrackr business is not contributing positive cash flow to UBI at the moment, it is not burning material amounts of money.

# Universal Biosensors

## Finance & Capital Raising Summary

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UBI has almost \$15m cash at bank and expects to receive \$3.8m as the R&D rebate in Q3 24.

UBI concluded its capital raising on 9 May 2024 raising \$12.5m (\$10.0m fully underwritten Entitlement Offer and \$2.5m Placement).

The participation rate from Shareholders was very strong, particularly given the current environment.

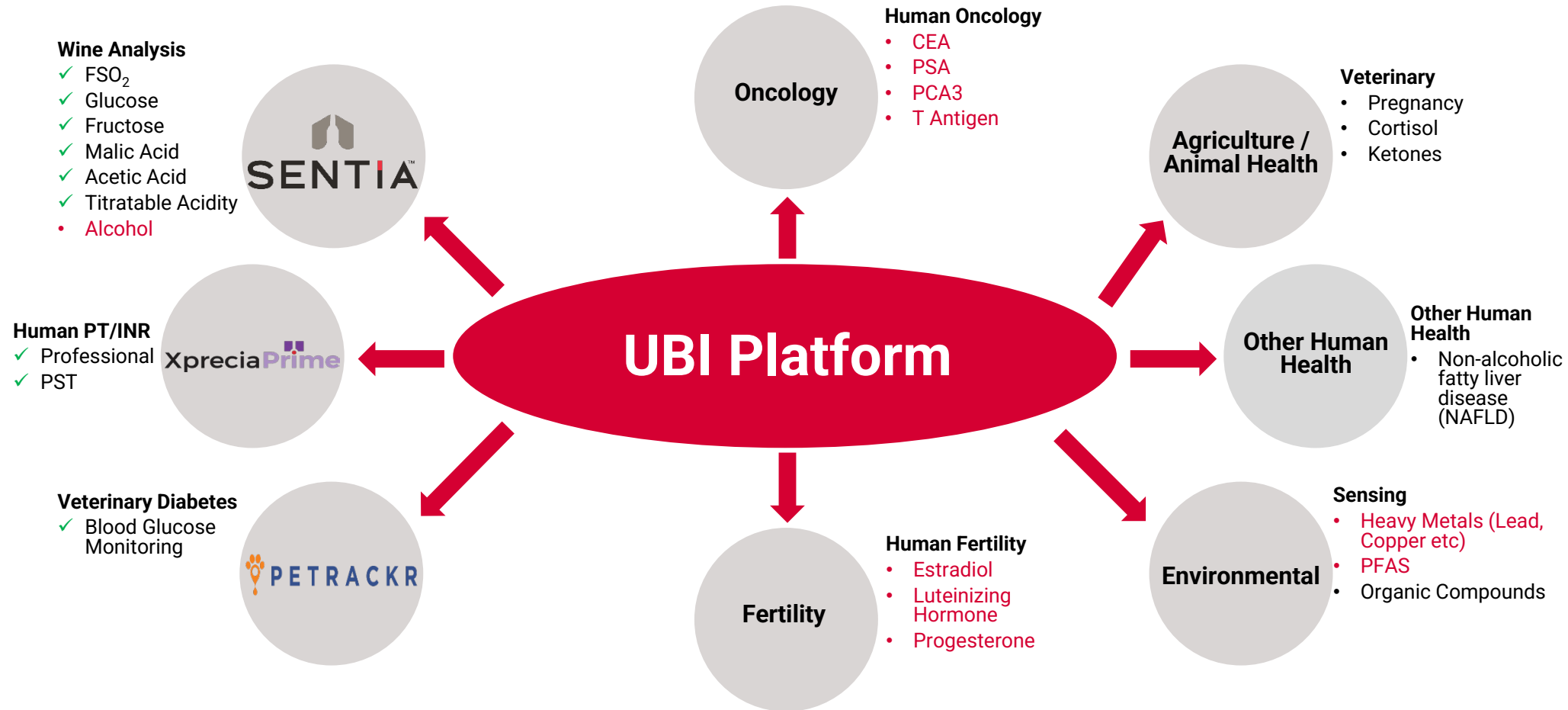
In summary:

- 396 shareholders participated in the capital raising,
- \$7.7m was taken up by shareholders (77% take up) as part of their normal entitlement and 51,086,874 CDIs were issued;
  - 43,946,627 CDIs or \$6.6m were issued as normal entitlement,
  - 7,140,247 CDIs or \$1.1m were issued as Top Up facility.
- Shortfall, taken up by the underwriter was 15,579,793 CDIs or 23% ( \$2.3m).

# Technology Update

# Technology Update

## Current Products & Opportunities



### Legend

- ✓ Product in market
- In Development
- Under Investigation

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# Technology Update

## Heavy Metals (Lead & Copper)

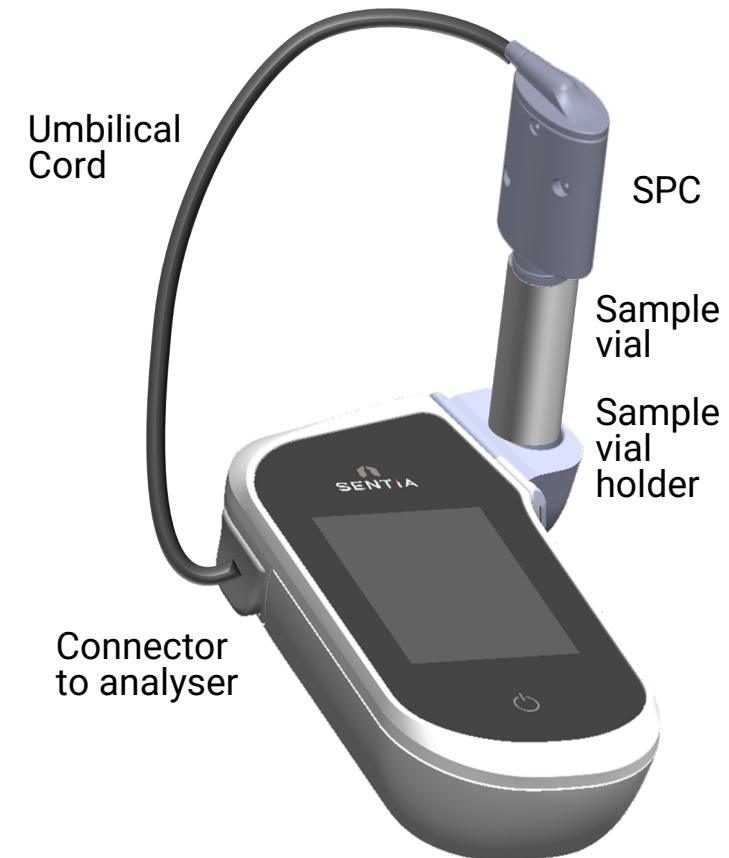
It is estimated there are more than 160m buildings globally that have lead pipes which require identification / monitoring and replacement:

- There is no cost-effective way to identify where these pipes are or their condition,
- The water testing market for Lead is estimated at **\$1.6 billion**,
- The water testing market for Copper is estimated **\$0.1 billion**.

UBI has completed proof of concept for its Lead and Copper sensors and have moved into the development phase which is progressing well. The sensors are leveraging UBI's current technology platform with several improvements and can detect:

- **Low nanomolar concentrations** in untreated water **within minutes**,
- Deliver outcomes comparable to laboratory-based tests.

Other heavy metals sensors, such as Chromium and Cadmium, are being assessed for proof of concept currently.



Schematic of Heavy Metals analyzer based on Sentia platform

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Sources:  
<https://www.marketsandmarkets.com/Market-Reports/heavy-metal-testing-market-10698821.html>  
<https://gqresearch.com/product/global-heavy-metals-testing-market/>  
<https://www.reportsanddata.com/report-detail/heavy-metal-testing-market>

# Technology Update

## Aptamers

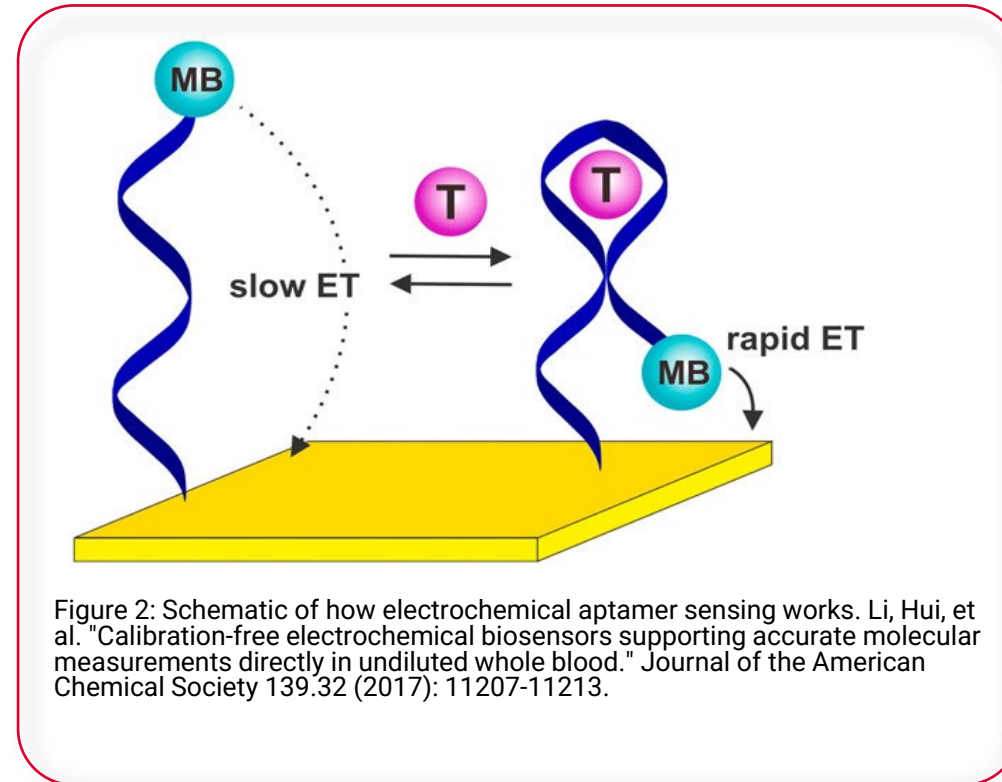
Aptamers are the next generation of global sensing.

UBI have proven that we can implement two aptamers on UBI's handheld platform:

- N-protein (COVID-19),
- Tobramycin (antibiotic).

Current work is focused on assessing a new Tobramycin aptamer which is capable of sensing in low nanomolar concentrations in whole blood.

From there, UBI believes we can then progress with other analytes of commercial interest such as fertility hormones and drugs of abuse.





# Technology Update

## Oncology (CEA)

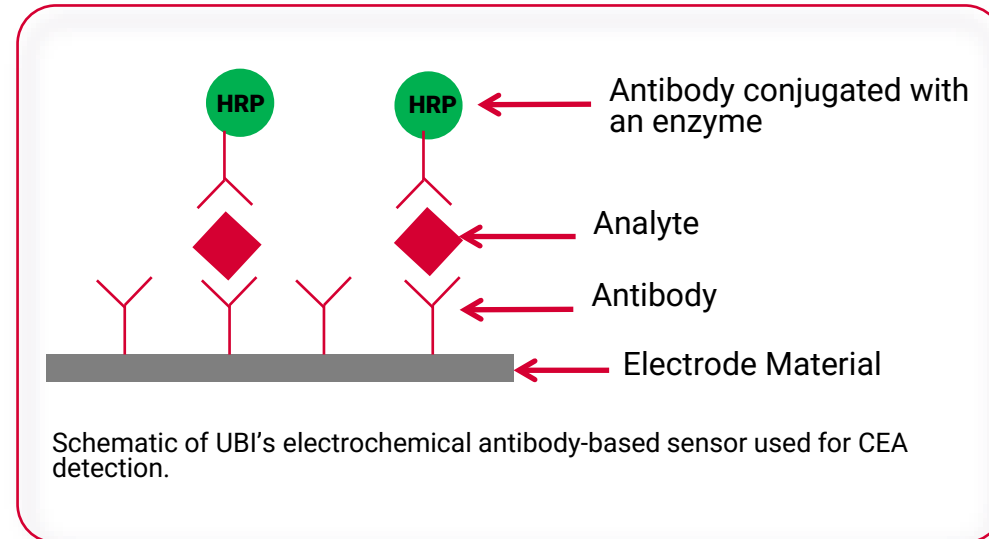
UBI's oncology detection technology has improved (increased limits of detection) to the extent that UBI is now looking at other recognised oncology biomarkers as potential products.

UBI is focused on PSA (prostate cancer), PCA3 (prostate cancer) and CEA (colorectal cancer) with the work on CEA being the most advanced.

These blood tests are currently the most commonly used and the existing spend globally is more than \$10 billion pa.

UBI has shown that we can detect low picomolar concentrations of CEA in buffer on our test strips. Work is currently underway to test this sensor in blood samples and reduce the test time to under 10 minutes.

The CEA sensor utilises an antibody as the sensing mechanism which opens the door to a vast number of opportunities in other industries for which UBI could use antibodies to develop a sensor.



# Technology Update

## Nonalcoholic Fatty Liver Disease & Oncology (Fructose)

Nonalcoholic fatty liver disease (NAFLD) is a leading cause of liver disease worldwide. NAFLD can ultimately lead to Liver Cancer.

Previous studies have shown that fructose is a promising indicator for NAFLD and could be used to prognosticate NAFLD disease progression, assess risk of liver cancer and predict NAFLD therapeutic efficacy.

UBI was approached by a leading American University to develop a blood fructose biosensor. There is no commercially available blood fructose sensor for biomedical applications.

Initial testing at UBI has proven that its existing fructose biosensor performs well in whole blood and delivers the required performance across the entire measuring range of fructose in blood.

UBI is organizing a study with the American University to test the strips in a larger cohort of patients to assess initial performance.

If successful UBI will look to move this sensor platform into the product development phase.

This is a great example of the multiplicity of UBI's technology platform and our ability to adjust its technology to alternative industries/applications rapidly.

Sources:  
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# End



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