anteo diagnostics



31 July, 2015

Company Announcements Office
Australian Stock Exchange
Level 6, 20 Bridge Street
Sydney NSW 2000

Anteo Diagnostics Limited (ASX: ADO) attaches its Appendix 4C for the quarter ended 30 June 2015.

**CEO ACTIVITIES REPORT – QUARTER ENDED 30 JUNE 2015**

Dear Fellow Shareholders,

## HIGHLIGHTS FROM THE JUNE QUARTER

The Company has been extremely busy in the period since our last report.

Before I review our activities since our last report I am pleased to advise that Anteo is the recipient of the 2015 Frost & Sullivan Asia Pacific Technology Innovation Award. Frost & Sullivan Best Practices Awards recognise companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis and extensive secondary research to identify best practices in the industry.

We are pleased to receive this recognition, especially from such a well-known industry analytical group as Frost and Sullivan. Such recognition provides further validation of our technology and its value.

Some of the highlights expanded upon in this report are as follows:

- Important relationships were forged or further developed with industry partners during the quarter. Key announcements were released covering the following:
  - The launch of a new in-vivo research partnership with The University of Queensland,
  - An endorsement of Anteo's AMG™ Activation Kit by Luminex Systems; and
  - Execution of a new agreement with global healthcare company, POC1, which followed an initial 18 month feasibility study in point of care testing.

- Immediately after the reporting period, we also provided an update on the relationship with IMRA America, and the news that Anteo's Mix&Go range will be incorporated into the Sigma Aldrich catalogue.

All these activities with highly respected third parties exemplify the momentum gathering around our technology, the rapid progress made possible by Mix&Go and our ability to forge agreements with global partners. This work also serves to build upon the revenues that are

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developing from take-up of our patented technology. These successes give us confidence that our revenue model (product sales; paid R&D; royalty) is leading us in the right direction.

In line with our IP and product diversification strategy:

- Anteo furthered its intellectual property position by filing a patent application, covering the use of the Company's nanoglue technology in the energy sector. Along with the patent filing, a new subsidiary company, Anteo Energy Pty Ltd, was established and $1m was raised via a private placement. These funds will allow additional scientists to be hired and equipment to be purchased to further our commercial objectives in this project.

- Anteo's new AMG™ Coupling Kit, 200 nm Magnetic Particles was released during May and feedback received to date on the kit has been extremely positive. This product is gaining considerable interest, especially in the Point of Care sector.

**Anteo's Five Strategic Growth Elements**

As discussed previously, we have identified five key strategic growth areas.


This report summarises the progress made across these five areas.

## 1. EXPLOITING OUR IP

Exploiting IP, by our definition, encompasses the work we undertake with targeted companies to:

- License the use of Mix&Go
- Enter into supply agreements
- Establish research and collaboration agreements.

### a) POC1

The program announced this quarter builds upon the earlier work we carried out with the analyser our customer is developing. Through this project, Anteo will look at how we can

holistically address possible solutions working directly on base part surfaces, to deliver optimised outcomes.
Our technical team is working on the target objectives set by our partner and is progressing ahead of schedule.

**b) Product Development Agreement with IMRA America**

Anteo and IMRA America completed a feasibility study, evaluating the combined use of Mix&Go™ Activation Reagent with IMRA's proprietary gold colloids, and a proof of concept product was developed with excellent results.

Following the success of the study, the two parties agreed to take the collaboration to the next stage and enter into a funded Product Development Agreement. The resultant products are expected to deliver improvements to the colloidal stability and functionality of gold particles, leading to cheaper, improved assays and more accurate results.

Anteo and IMRA America will work closely together during the next six months with the objective of delivering products ready for sale in Q1CY16.

IMRA America is a world leader in the research, development, manufacturing and application of ultrafast fibre lasers.

*"We have had a fruitful first stage of collaboration with encouraging outcomes. We expect to push this relationship further and develop outstanding products contributing to the biomedical and other societies."*

Dr. Makoto Yoshida, Executive Vice President, Research and Development, IMRA America

**c) Partnership with Scienion**

Our partnership with Scienion, a global provider of ultra-low volume, precision liquid handling systems will lead to the co-development of protein microarray consumables for use on Scienion instruments, using Anteo's proprietary Mix&Go™ technology. The first products targeted will be activated glass and polymer slides with the objective of delivering more accurate results and better, longer-lasting and more cost effective diagnostics. The co-development project is at scoping stage and the two parties have identified substrates of interest and are looking forward to working together.

*"As a very customer focused company, we always seek to expand the portfolio of solutions we can propose to help implement the various platform technologies that our customers bring to us. Anteo's new coating technology will enable us to provide an even higher level of customer application support via unprecedented combinations of materials, surfaces and deposition technology. The perfect pairing of the right surface with the right dispensing is key to a successful application where a biological molecule is deposited to become attached to a surface. The expertise of both companies is very complementary, and together we will exploit the resulting synergies."*

Holger Eickhoff, CEO, SCIENION

### d) Collaboration

This quarter has been notable for the recognition from third parties of our capabilities across a broad spectrum of surface platforms, Scienion being a good example. There is an ever increasing recognition that the smaller the surface area we work on the greater is our value proposition. This validates Dr Joe Maeji's early Mix&Go research, where he predicted the smaller the surface, the more valuable Mix&Go's contribution would be.

Recently we entered into an association with Qiagen, who produce a reader that is used by groups developing fluorescent or colourimetric lateral flow tests. In this partnership, Qiagen will purchase Anteo's AMG™ Coupling Kit, 200 nm Magnetic Particles, to bundle with every ESEQuant LR3 Lateral Flow Reader sold.

Collaborative work has also resulted in a supply agreement for use of the AMG coupling kit 200nm in Point of Care (POC) products. In another instance we undertook paid research with another customer who is developing a novel point of care assay. We have managed to successfully solve a problem they had been working on for two years in 3 weeks.

## 2. EXPANDING CORE COMPETENCIES AND IP

### a) In vivo research partnership with The University of Queensland

In early April, we announced the launch of a research partnership with the Australian Institute for Bioengineering and Nanotechnology (AIBN) at The University of Queensland. The study focus is to create dual labelled imaging agents using Mix&Go.

The partnership is important for two reasons: firstly, it is expected to deliver *in vitro* toxicity data as a first step towards utilising Mix&Go for high-value *in vivo* applications. Secondly, it further develops our ongoing relationship with the AIBN, an important step in providing grass-roots researchers with access to our nanoglue technology for novel *in vivo* applications that Anteo would otherwise not be commercially ready to explore.

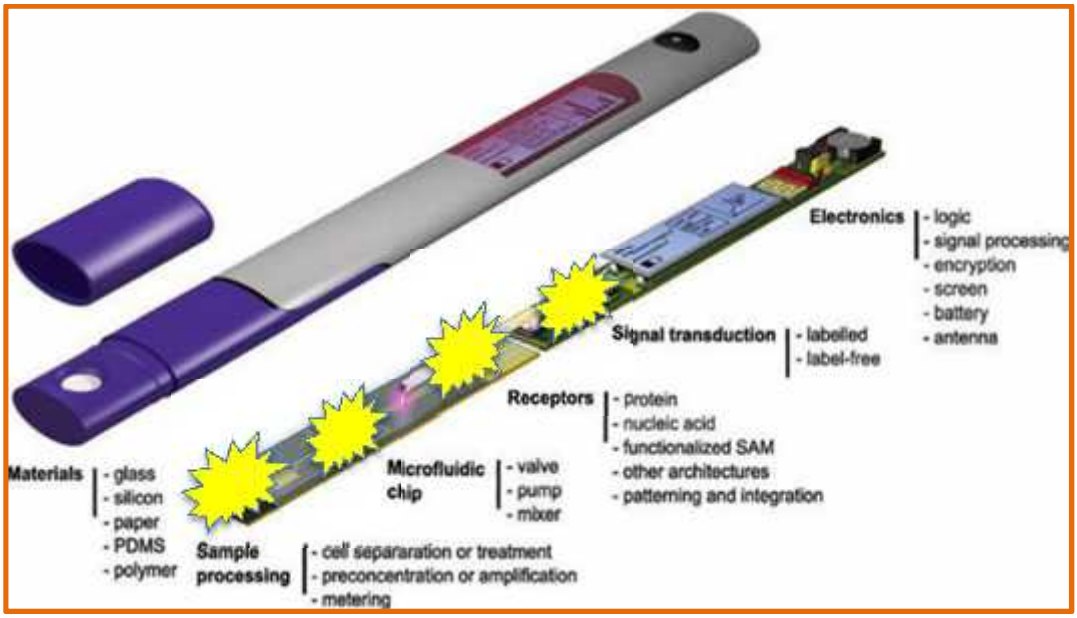
### b) Point of Care Capability

Given the rapidly increasing number of interactions we have on foot in the POC sector it's worth elaborating on the unique capabilities Anteo brings to the market.

The POC sector is one of the fastest growing in the in vitro diagnostics (IVD) market. According to "Global Point-of-Care Diagnostics Market Outlook 2018", the global POC sector is at a very crucial stage with POC testing expanding itself into diverse disease areas, such as cancer and HIV diagnostics. The market size is expected reach USD24 Billion by 2018.

Recent development work at Anteo has confirmed that Mix&Go works well on nanoparticles, 3D membranes and microfluidic material. All of these substrates are key components in POC devices. To illustrate how and why Mix&Go can deliver sound value propositions the diagram below provides a schematic of a typical POC device. Each

yellow highlight is a location where Mix&Go can be utilised to deliver better outcomes individually or in combination.




Looking at the four highlighted areas, the various opportunities are:

- Sample processing - Mix&Go coated filter membranes remove debris, cells, interference or non-specific macromolecules.
- Microfluidic channels/chamber/membrane - Mix&Go activated surfaces or membranes reduce background, improve flow and better binding to proteins.
- Receptors and signal transduction - multi-functional nano-particles or surfaces for various methods of detection (colorimetric, magnetic, fluorescent etc) provide more sensitive and reliable test outcomes.

The breadth and depth of our capabilities now extends across a number of membrane substrates to a large range of particles from 40nm gold nanoparticles through a variety of magnetic particles from 70nm to 300nm to 400nm latex particles.

A good example of the quality of our work is illustrated in the testing we have undertaken in non-optimised lateral flow sample assays. Using Troponin (a marker for heart disorders, including myocardial infarction) as a model system under laboratory conditions, the limit of detection we have achieved is 5pg/ml. This result compares favourably with results delivered by IVD laboratory analysers. Similarly our 200nm kit, applied directly to Hepatitis B in serum, provided results as low as 1ng/ml - comparable with tests available on the market.

These results were generated with the objective of demonstrating the capabilities of our technology. We would expect further enhancement of these results through optimisation work. The results provide a clear demonstration of the capability, flexibility and diversity of our POC group and the technology.

## 3. DEVELOPING OUR PRODUCT PIPELINE

### a) Launch of AMG™ Coupling Kit, 200 nm Magnetic Particles - to market

In early May, we released the Anteo Mix&Go™ (AMG) kit which was specifically developed by Anteo's product development team to expand the AMG™ line of Mix&Go enabled products, to allow users to experience Mix&Go capabilities in the nano environment.

This 200 nm Magnetic Particle kit gives researchers the unique ability to bind a range of biomolecules onto small magnetic particles. The smaller particles provide a number of benefits when used in immunoassay applications, such as lateral flow assays, and when used for biomolecular separations. This product will deliver scientists greater control and accuracy over their tests in less time.

This new Coupling Kit effectively increases the surface area per unit mass available for protein binding. This can lead to a number of improvements, including increased assay sensitivity. Normally, the handling complexity increases disproportionately with reducing size. Using Mix&Go, we have overcome the tendency for smaller sized particles to aggregate and fall out of solution. This is a unique feature of Mix&Go.

### b) Anteo Extends Relationship With Sigma-Aldrich

The agreement with Sigma-Aldrich Corporation, a leading supplier to diagnostic, clinical research and life science companies worldwide, to incorporate the Anteo Technologies' Mix&Go™ range into its product portfolio is an important milestone for this company.

Under the agreement, Anteo products will be offered through the Sigma-Aldrich network and online catalogue, providing Sigma-Aldrich's existing global customer base of more than 1.4 million scientists and technologists access to Mix&Go Reagents, Coupling and Activation Kits.

This relationship is important to Anteo because:

- Sigma-Aldrich undertakes thorough testing of the products they distribute; providing further assurance to potential users;
- It provides access to Anteo products to a global, scientific audience;
- It opens direct access to organisations with restricted supplier access, such as US government agencies and IVD users; and
- It builds on our growing relationship with Sigma-Aldrich.

## 4. EXPLORING NON-CORE OPPORTUNITIES

This quarter a number of non-core opportunities were progressed:

**a) Medical Devices**

Entering into a feasibility study with Cook Medical Australia this quarter, to investigate the use of our nanoglue for *in vivo* medical device purposes, is our first definitive step into a non-core activity with a third party. We entered this relationship with confidence after a thorough vetting process by both sides. This was also the first relationship entered into by Cook's ANT team and is consistent with both companies desire to support advanced manufacturing in Australia.

Our relationship with Cook is still in its formative phase. Both companies have built strong lines of communication necessary for a productive relationship and are already scoping work beyond the initial project.

At our end, our scientists are pleased with the initial technical work undertaken and have prototypes ready for assessment.

**b) Energy patent, new Anteo Energy Division and R&D funding**

Following a controlled 12 month research project in the energy field, led by Dr Quansheng Song, Anteo filed a patent application that highlighted what we consider to be a significant commercial opportunity for the application of our nano-coating technologies in the energy sector. This opened another domain for the use of our technology and further increased our intellectual property portfolio.

These novel variants of Anteo's nanoglues may be incorporated, for example, into lithium ion batteries. As a "glue", it is anticipated that it can be easily used as a "drop in" technology to enhance existing and future battery materials. The proof of concept data demonstrated the following features and benefits:

| Feature of Anteo's nanoglue | Benefit to end manufacturers and end users |
|---|---|
| Increase the capacity of batteries | Delivers lighter and smaller batteries |
| Improves the efficiency of charge / discharge | Increased runtime per charge |
| Batteries will charge faster | Shorter waiting time to charge |
| More cycles per battery | Increased battery life |

The quality of the data warranted more in depth research and assessment of this and other related opportunities for our nanoglue technology in the energy sector. As a consequence, Anteo formed a specific subsidiary company, Anteo Energy Pty Ltd to cover a focused set of objectives, funded via the $1million private placement announced on 26 May 2015.

The placement allows us to undertake the following energy sector related activities:

- Further develop Anteo's nanoglue
- Support the ongoing internal development of activities independent of other Anteo projects
- File further patents around any additional inventions,
- Increase the investigations into wider applications of nanoglue within the energy sector,
- Establish and grow relevant commercial networks within the battery industry, and
- Examine different commercial nanoglue alternatives.

This non-core opportunity will be advanced in a measured manner, while the business remains focused on progressing its core, revenue building projects.

## 5. ACQUISITION OF SYNERGISTIC ASSETS

We have continued to work industriously on this element of our strategy in conjunction with Ferghana partners and look forward to providing additional details as the project progresses.

## OTHER UPDATES

### Anteo presents at AACC

Earlier this week Josh Soldo, our VP of Scientific Affairs, presented at the AACC conference in Atlanta, Georgia. His talk on sample pre-treatment to a full house was well received and resulted in a good exchange of focused questions and interviews afterwards. Josh was later approached to deliver this presentation to a second audience. Further, a key opinion leader in the field confirmed the urgent commercial need for a product that eliminates interference in clinical samples and offered his assistance to pursue the opportunity with Anteo.

Anteo's booth at the conference has seen a constant stream of visitors with people queuing to book time with the team. We are pleased with both the quality and quantity of visitors including high level staff from major corporations. Many meetings with our existing customers have enabled us to further build our relationships and map out the next steps towards commercial agreements.

### In summary

This quarter has been one of increased partner activity that demonstrates a strong future for Mix&Go and our nanoglue technology platform. We have the ability to add value on a multitude of formats at scale. Our technology is applicable across all facets of immunodiagnostics, which is where we have the most experience and data.

Diagnostics will not go away any time in the future but reimbursements by government regulators will reduce over time, so our technology will be more sought after as the cost effectiveness of production is going to need to improve.

The *in vivo* medical device and energy applications have barriers to entry that we must address, however the rewards for doing so are proportionately greater. The diversification value of these and new non-core opportunities as they develop cannot be underestimated.

Anteo's technology has real cross-industry value and we look forward to reporting on further progress in what is becoming a transformational year for Anteo.

Our cash position at the end of the quarter was approximately $5.2M.

**Dr Geoff Cumming**
**CEO**
**Anteo Diagnostics Limited**

For further information, see our website (www.anteotech.com) or contact the persons outlined below.

| **Company** | **Media and Investor Relations** |
|---|---|
| Dr Geoff Cumming, Chief Executive Officer<br>T: + 61 7 3219 0085 | Jane Lowe, IR Department<br>E: jane.lowe@irdepartemnt.com.au<br>T: + 61 411 117 774 |

**About Anteo Diagnostics Limited**
Anteo Diagnostics (ASX: ADO) uses its patented technology to develop, manufacture and commercialise proprietary surface coatings for use in healthcare, life sciences and beyond. Its patented technology is applied in the Mix&Go product range, which delivers solutions to the challenges of establishing highly functional interfaces between fragile biomolecules, and synthetic, and often incompatible materials.

*Rule 4.7B*

# Appendix 4C

## Quarterly report for entities admitted on the basis of commitments

| Name of entity | |
|---|---|
| **Anteo Diagnostics Limited** | |
| ACN or ARBN | Quarter ended ("current quarter") |
| **75-070-028-625** | **30-Jun-15** |

### Consolidated statement of cash flows

| | **Cash flows related to operating activities** | Current quarter $A'000 | Year to date (12 months) $A'000 |
|---|---|---|---|
| 1.1 | Receipts from customers and government grants | 200 | 2,235 |
| 1.2 | Payments for | | |
| | (a) staff costs | (783) | (2,548) |
| | (b) advertising and marketing | (186) | (824) |
| | (c) research and development (excluding staff costs relating to R&D) | (156) | (632) |
| | (e) other working capital | (522) | (1,806) |
| 1.3 | Dividends received | - | - |
| 1.4 | Interest and other items of a similar nature received | 21 | 142 |
| 1.5 | Interest and other costs of finance paid | - | - |
| 1.6 | Income taxes paid | - | - |
| | **Net operating cash flows** | **(1,426)** | **(3,433)** |

NOTES:

| | | Current quarter $A'000 | Year to date (12 months) $A'000 |
|---|---|---|---|
| 1.8 | Net operating cash flows (carried forward) | (1,426) | (3,433) |
| | **Cash flows related to investing activities** | | |
| 1.9 | **Payment for acquisition of:** | | |
| | (a) Businesses | - | - |
| | (b) equity investments | - | - |
| | (c) intellectual property | - | - |
| | (d) physical non-current assets | (27) | (350) |
| | (e) other non-current assets | - | - |
| | **Proceeds from disposal of:** | | |
| 1.10 | (a) Businesses | - | - |
| | (b) equity investments | - | - |
| | (c) intellectual property | - | - |
| | (d) physical non-current assets | - | - |
| | (e) other non-current assets | - | - |
| 1.11 | Loans to other entities | - | - |
| 1.12 | Loans repaid by other entities | - | - |
| 1.13 | Adjustment for cash remaining in subsidiary entity at disposal | - | - |
| | **Net investing cash flows** | **(27)** | **(350)** |
| **1.14** | **Total operating and investing cash flows** | **(1,453)** | **(3,783)** |
| | **Cash flows related to financing activities** | | |
| 1.15 | Proceeds from issues of shares, options, etc. | 1,000 | 1,919 |
| 1.16 | Proceeds from sale of forfeited shares | - | - |
| 1.17 | Proceeds from borrowings | - | - |
| 1.18 | Repayment of borrowings | - | - |
| 1.19 | Dividends paid | - | - |
| 1.20 | Other: | | |
| | Conversion of converting notes | - | - |
| | Interest paid on converting notes | - | - |
| | Capital raising costs | - | - |
| | **Net financing cash flows** | 1,000 | 1,919 |
| | **Net increase (decrease) in cash held** | **(453)** | **(1,864)** |
| 1.21 | Cash at beginning of quarter/year to date | 5,660 | 7,071 |
| 1.22 | Exchange rate adjustments to item 1.20 | - | - |
| 1.23 | **Cash at end of quarter** | **5,207** | **5,207** |

NOTES:

1.20

## Payments to directors of the entity and associates of the directors
## Payments to related entities of the entity and associates of the related entities

| | | Current quarter $A'000 |
|---|---|---|
| 1.24 | Aggregate amount of payments to the parties included in item 1.2 | **252** |
| 1.25 | Aggregate amount of loans to the parties included in item 1.11 | **NIL** |

1.26 Explanation necessary for an understanding of the transactions

## Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

**NIL**

2.2 Details of outlays made by other entities to establish or increase their share in businesses in which the reporting entity has an interest

**NIL**

## Financing facilities available

*Add notes as necessary for an understanding of the position. (See AASB 1026 paragraph 12.2).*

| | | Amount available $A'000 | Amount used $A'000 |
|---|---|---|---|
| 3.1 | Loan facilities | **NIL** | **NIL** |
| 3.2 | Credit standby arrangements | **NIL** | **NIL** |

## Reconciliation of cash

| Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows. | | Current quarter $A'000 | Previous quarter $A'000 |
|---|---|---|---|
| 4.1 | Cash on hand and at bank | 5,089 | 5,542 |
| 4.2 | Deposits at call | 118 | 118 |
| 4.3 | Bank overdraft | | - |
| 4.4 | Other - Funds held in trust re. Open Prospectus Offer | | - |
| | **Total: cash at end of quarter** (item 1.23) | **5,207** | **5,660** |

## Acquisitions and disposals of business entities

| | | Acquisitions *(Item 1.9(a))* | Disposals *(Item 1.10(a))* |
|---|---|---|---|
| 5.1 | Acquisition/disposal of subsidiary | | |
| 5.2 | Place of incorporation or registration | | |
| 5.3 | Consideration for acquisition or disposal | | |
| 5.4 | Total net assets at date of acquisition/disposal | | |
| 5.5 | Nature of business | | |

## Compliance statement

1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act 2001 (except to the extent that information is not required because of note 2) or other standards acceptable to ASX.

2 This statement **does** give a true and fair view of the matters disclosed.

Sign here:

Date: 31 July 2015

(Director)

Print name: **Richard Martin**