

29 April, 2016

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 31 March 2016.

#### **ACTIVITIES REPORT – QUARTER ENDED 31 MARCH 2016**

#### HIGHLIGHTS FROM THE MARCH QUARTER

We are pleased to announce significant activities through the last quarter that have provided us with a strong springboard for our group businesses as we progress through 2016.

#### **Highlights are:**

- ✓ Acquisition of DIAsource Immunoassays SA which closed on 11<sup>th</sup> January, 2016
- ✓ DIAsource posted pleasing results for 1<sup>st</sup> Quarter calendar '16
- ✓ High utility Universal Coupling Kit released
- ✓ Key Anteo Battery IP expanded through filing of two additional patents
- ✓ Medical Devices broadened application of nanoglues and surface treatments

## 1. ACQUISITION OF SYNERGISTIC ASSETS - DIAsource Immunoassays SA

## Closed 11th January, 2016

The completion of the acquisition of DIAsource Immunoassays took place in January with the payment of €7,722,341 (\$11,907,468) from the total acquisition price of €15,422,341. The remaining €7,700,000 is payable over 4 years in semi-annual instalments. There is a potential, performance based, Earn Out payment of up to €7,266,000 which would be payable in 2017.

At the time of closing the DIAsource transaction 52.5% of the vendors elected to take equity in Anteo as a prepayment on interest for the outstanding €7,700,000. 9,789,733 shares were issued at \$0.075 per share pursuant to the resolution passed at Anteo's 2015 AGM.

The capital raising program to fund the DIAsource acquisition completed during the quarter with a further \$6.235,135 raised with capital raising costs of \$210,960 paid. In total \$12,468,223 was raised and capital raising costs amounted to \$573,785.

DIAsource now forms the nucleus of our IVD/Life Sciences Division with a strong, vertically integrated, specialty immunoassay business that will be the vanguard and industry benchmark for Anteo Mix&Go technology products. The mission of this division is:

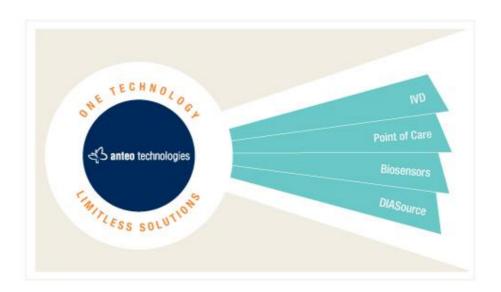
"... to be a commercially successful organisation that contributes to better healthcare through the development, manufacture and sales of innovative kits and solutions."



Anteo nanoglues possess a large range of applications and opportunities. The first three areas of opportunity are Life Sciences and Diagnostics; Medical devices and Energy.







#### **DIAsource**

## **Commercial Results**

DIAsource achieved its best quarter ever in this period with total sales €3.8m, an increase of 9% over the same period last year. The revenue was on target for the quarter and in line with expectations for 2016. Growth was achieved in sales of Vitamin D products (6%) and RIA products (18%). ELISA sales declined by 4%, and sales the lower margin contract manufacturing of ELISA kits and Antibodies increased by 6%.

The company continues to invest in Marketing and Sales, and appointed an additional Vitamin D Sales Manager to support our growth in this important product range through our distributors.

The Expo Med conference in Japan was attended for the first time to find and recruit new distributors in the Asian region. The first DIAsource distributor meeting for South America was organized in Panama to train our local distributors. Vitamin D business growth was supported by presentations at scientific and commercial congresses and events in the Middle East and in the US, as well as holding webinars.

New distributors were engaged in Switzerland and the UAE, and additional OEM arrangements were discussed with local companies in India. The latter will be concluded in the coming months and contribute to growth.

DIAsource became the distributor for other RIA companies in Spain via our local affiliate DIAsource Iberia.

# Supply Chain

The increased sales necessitated a review of safety stock levels and an increase in production volume of approximately 19 % over 2015. The trend was confirmed by increases in all Key Performance Indicators in all units of the Supply Chain.



#### Organisation

Headcount increased to 77 people or 74 FTE. The new hires were in Sales, Supply Chain, Customer Service and Quality departments to support our continued growth.

The whole organisation is focused on increasing efficiency and various measures have been taken to improve gross margin. The impact of continuous improvement initiatives can be seen in an increase in gross margin by approximately 2 percent versus last year.

#### Financial Results

The March quarter concluded with 9% growth in revenue to €3.8m at 49% Gross Profit and with EBITDA remaining at 17.5% of revenue - comparable to the yearly EBITDA percentage realised in 2015

## 1. ANTEO PRODUCTS

## Commercialisation of Life science and Diagnostics products and solutions

Our latest product, the AMG Universal Coupling Kit, was released during the quarter. This product is focused at providing Life Science product developers and researchers with a reliable, easy to use, kit using Anteo's Mix&Go chelation chemistry.

The objective of the kit is to facilitate Anteo's Mix&Go nanoglue metal chelation chemistry to always be considered when contemplating the preferred approach to coupling for specific applications in Diagnostics and Life Science.

The AMG Universal Coupling Kit can be used in a vast array of applications to couple biomolecules to a desired surface including, particle based immunoassays, lateral flow assays, immunoprecipitation and bioseparations. The features include:

- No pre-treatment of proteins is required before using the kit.
- It can be used with the carboxylated particle of the users choice
- It provides increased stability and functionality of antibodies.
- Activated particles can be stored for use at a later time (up to 1 year), which is not possible with EDC coupling chemistry

The table below provides a clear view of the technical advantages of the kit



	AMG UCK	Covalent (e.g EDC)	Passive
Technology	Metal polymer Chelation	NHS-EDC chemical reaction	Hydrophobic interaction
One coupling pH without harsh chemicals	Yes	No	Maybe
Easy to generate multi-functional particles	Yes	No	No
Particle stable for a year after surface activation	Yes	No	n/a
Stable reagents for storage and protein free storage buffer	Yes	Maybe (moisture sensitive)	n/a
Work on various surfaces such as silica, cellulose, dextran, PVA particles	Yes	No	Maybe
Work on antibodies such as IgG, IgM, IgA, SdAb, Fabs	Yes	Maybe (e.g. lgM)	Maybe
Work on proteins such as Protein A, G, SAv, HBsAg, BSA, Biotin-BSA, enzymes (HRP, AP), virus like particles	Yes	Yes/Maybe	Maybe
Work on nucleic acids (oligo DNA)	Yes	Maybe	Maybe
Work on quantum dots (-COOH)	Yes	No/Maybe	No
Kit included all necessary components including blockers and storage buffers	Yes	Maybe	n/a

The kit is a complete package for using Mix&Go chemistry and includes everything required to activate, couple and store protein-coupled particles.

The AMG Universal Coupling Kit has been tested with over 30 different magnetic and non-magnetic, carboxylated particles, ranging in size from 200 nm to 3 µm, and with different base particle materials, such as polystrene, polyacrylic acid, silica, and polyvinyl alcohol. The kit has also been tested for coupling with various proteins, including single and multi-domain, mammalian and bacterial, native and recombinant.

In a recent independent study utilising particles from six different suppliers the kit was found to be easy to use with all beads and comparable, successful, results were achieved in all cases. Feedback from early users included a beta testing site at which non-magnetic particles achieved better than a tenfold improvement when compared with amide coupling for an assay that previously was not viable.

Other news concerning AMG kits is that they are delivering good outcomes for customers. The AMG 200nm kit continues to progress successfully through clinical trials for one of our customers.





## 2. MEDICAL DEVICES

During the quarter Anteo continued its developing relationship with Cook Medical and continued research for applications of nanoglues and surface treatments on medical devices.

The vision of the Medical Device Division is stated as:

Improving the performance and utility of Medical Devices where there are challenges in surface chemistries, to achieve better outcomes for customers.

Anteo has developed a proprietary nano "primer/coating" technology for substrates used in medical devices providing.

- Safer and more user friendly in-vivo devices
- Devices coated with biomolecules
- Drug Delivery mechanisms and other medical device applications

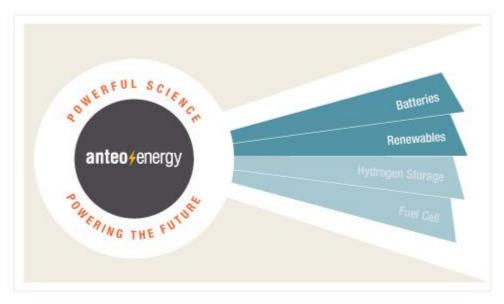
Anteo nanoglue coatings can be used as a primer for almost any substrate to bind all sorts of different polymers. We have demonstrated glass and 5 different plastics having different contact angles can be coated with Anteo nanoglue followed by polyvinyl alcohol to give a stable contact angle expected of polyvinyl alcohol. The table below demonstrates how Anteo nanoglues on a variety of substrates deliver a surface with a constant characteristic providing a controlled surface for the end user.



Material	Original Contact Angle (°)	Contact Angle after Mix&Go plus PVA	%CV
Glass	25	47±7	15%
Polystyrene (PS)	91	53±7	9%
Cyclic Olefin (COC)	96	50±5	11%
Nylon	95	55±6	10%
Polycarbonate (PC)	82	58±5	8%
Polyethylene terephthalate-glycol (PETG)	72	54±2	8%

Another area of work examined the different release rates of different biomolecules bound to a surface using Anteo nanoglues that could be used in different drug delivery applications.

The different bodies of work are allowing our team to clearly identify commercial opportunities where Mix&Go can address demonstrable challenges in the Medical Device Coating market segment; establish a market presence for Anteo in the Medical Device space to establish commercial relationships to demonstrate commercial proof of concept using Mix&Go; and establish and implement a business model to monetise in limited applications.



## 3. ANTEO ENERGY

This quarter was a very active period for the Anteo Energy division with the filing of two new patent applications and the progress of the original filing to PCT, undertake a successful business development trip to Battery Japan conference in March, and commissioning the new battery manufacturing capability at Anteo.



This is a good time to restate the basis of the Anteo Energy program.

<u>Objective</u>: The battery industry has a need to provide low cost, high capacity, fast charging batteries with long cycle lives for automotive, consumer and industrial applications.

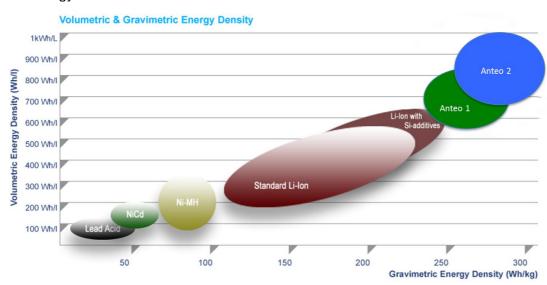
<u>Problem</u>: New active high energy anode and cathode battery materials can deliver high capacity BUT are currently limited by their stability. Examples include swelling/shrinking problem of silicon, tin, germanium based anodes and sulphur based cathodes; and partial solubility of new cathode materials in electrolyte.

<u>Solution</u>: Active anode and cathode battery materials coated with Anteo nano-coatings to deliver higher mass loading providing much higher capacities, improved particle dispersion enabling faster charging, and a protective flexible coating with strong adhesion enabling improved battery cycle life.

The extent and quality of work undertaken at Anteo is building an ever increasing data set addressing different parameters of batteries including capacity; charge/discharge efficiency and rate; cycling stability, anode composition characteristics, integrity and connection.

The data generated from this work demonstrates the desired objectives are commercially achievable. Using benchmark Panasonic 18650 batteries as a reference point the Anteo approach can both improve energy levels of batteries and the life expectancy of a battery. The significant improvements seen in anode performance at Anteo when incorporated into a whole battery result in overall performance improvements that are then constrained by other battery elements, such as cathode performance. Utilising Anteo nano-coating on the anode alone delivers approximately a 30% increase. A simple analogy using an electric car demonstrates the potential benefits. The range of current electric cars is typically around 430km, incorporating Anteo anode improvements may potentially extend the range to 550km. If Anteo cathode improvements are then incorporated the range may be extended beyond 700km.

The diagram below gives a pictorial of the evolution of energy density incorporating Anteo technology in lithium ion batteries.





The next steps for the Energy division include engaging with battery material suppliers and manufacturers to more fully validate customer needs and identify commercial opportunities.

## **MANAGEMENT CHANGES**

The Company would like to thank Dr Geoff Cumming for the seven years he dedicated to the Company and growing the company to a more mature organisation. We look forward to Dr Jef Vangenechten taking on the Global CEO role in June this year.

#### **In Summary**

This quarter has moved the company forward strategically and laid the foundations for a strong future for the group.

Our consolidated cash position at the end of the quarter was approximately \$5.3M.

For further information, see our website (<u>www.anteodx.com</u>) or contact the persons outlined below.

#### **About Anteo Diagnostics Limited**

Anteo Diagnostics Limited (ASX: ADO) is a global technology company, developing and commercialising products for sale into the life sciences, in-vitro diagnostics, point of care, medical devices bioseparations and energy markets.

The Anteo group owns a patented nanoglue technology, which is used by healthcare customers for incorporation into their existing tests and tests under development, to consistently enable laboratory test results that can either be delivered faster, cheaper, or with greater specificity or sensitivity than incumbent tests.

This nanoglue technology, called Mix&Go for healthcare markets, is starting to gain traction with the Company's target markets, due to its ability to revolutionise the way scientists work.

While Anteo is largely focused on the healthcare markets, the nanoglue technology also has potential for use in other areas, such as batteries. Early stage research is being progressed into the viability of this battery product.

For more information, please visit www.anteodx.com