

**Market data**

| | |
|--------------|-------|
| EPIC/TKR | AVCT |
| Price (p) | 89.0 |
| 12m High (p) | 142.5 |
| 12m Low (p) | 83.0 |
| Shares (m) | 68.4 |
| Mkt Cap (£m) | 60.9 |
| EV (£m) | 41.3 |
| Free Float* | 57% |
| Market | AIM |

*As defined by AIM Rule 26

Description

Avacta is a pre-clinical stage biotechnology company developing bio-therapeutics based on its proprietary Affimer protein technology that benefits from near-term revenues from research and diagnostic reagent

Company information

| | |
|----------|------------------|
| CEO | Alastair Smith |
| CFO | Tony Gardiner |
| Chairman | Trevor Nicholls |
| | +44 1904 217 046 |
| | www.avacta.com |

Key shareholders

| | |
|-----------------|-------|
| Directors | 6.6% |
| IP Group | 24.8% |
| Henderson | 11.8% |
| Aviva | 9.8% |
| Baillie Gifford | 7.7% |
| Ruffer LLP | 7.1% |

Next event

| | |
|--------|----------|
| Jan-17 | AGM |
| Apr-17 | Interims |

Analysts

| | | |
|---------------|---------------|----------------------|
| Martin Hall | 020 7148 1433 | mh@hardmanandco.com |
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Avacta**Great strides towards strategic goals**

Avacta is the proprietary owner of Affimer technology for the development of bio-therapeutics, diagnostic tests and research reagents. Affimers represent a revolutionary alternative to the established antibody technology which dominates the drug industry despite its limitations. Avacta has made considerable progress towards its strategic goal to have a first-in-man Affimer therapeutic by the end of 2019. Meanwhile, its reagent business is continuing to deliver on three initial areas of strategic focus. There will be greater recognition of the long-term potential of Affimers in the enterprise value as Avacta signs more licensing/collaboration deals.

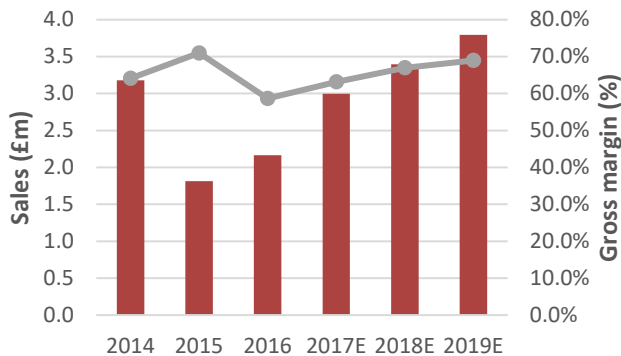
- **Strategy:** To commercialise its Affimer technology through a combination of bespoke research tools, collaborative deals and by identifying and developing its own proprietary therapeutic Affimer lead compounds. With £19.5m on deposit, the company has the resource to deliver on its stated strategy.
- **Therapeutics:** In 12 months, Avacta has identified its first Affimer leads for potential bio-therapeutics in the fast moving field of immune-oncology, completed animal studies showing that the drug is well tolerated and demonstrated efficacy (reduction in tumour growth) in an animal model.
- **Reagents:** Avacta is focusing its activities on three core areas: affinity separation, immunoassays and lateral flow diagnostics, which all represent large potential markets and two collaborative deals – Mologic & Glythera – have been signed. The potential of Affimers was clearly seen with work on the Zika virus.
- **Risks:** Although Affimers have significant advantages over traditional antibody technology, the customer base might take time to realise these advantages and adapt to a new disruptive technology. Avacta is minimising this risk by initially focusing on areas where antibodies are unavailable or perform poorly.
- **Investment summary:** The enterprise value of Avacta does not reflect the value that big pharma is prepared to pay for disruptive technologies and assets. The median up-front paid is US\$17m and US\$40m for pre-clinical and Phase I assets respectively. Licensing deals for both therapeutics and reagent assets will further validate the technology, as will moving an Affimer therapeutic into man.

Financial summary and valuation

| Year end July (£m) | 2014 | 2015 | 2016 | 2017E | 2018E | 2019E |
|--------------------|-------|-------|-------|--------|--------|--------|
| Sales | 3.18 | 1.81 | 2.17 | 3.00 | 3.40 | 3.80 |
| EBITDA | -1.33 | -2.34 | -4.59 | -6.20 | -6.68 | -7.26 |
| Underlying EBIT | -1.86 | -2.91 | -5.39 | -7.50 | -8.03 | -8.66 |
| Reported EBIT | -2.07 | -5.57 | -5.66 | -7.80 | -8.36 | -9.03 |
| Underlying PBT | -1.83 | -2.89 | -5.29 | -7.43 | -7.99 | -8.67 |
| Statutory PBT | -2.04 | -5.54 | -5.57 | -7.72 | -8.32 | -9.04 |
| Underlying EPS (p) | -3.07 | -4.50 | -6.46 | -9.59 | -10.24 | -11.05 |
| Statutory EPS (p) | -3.57 | -9.84 | -6.86 | -10.03 | -10.72 | -11.58 |
| Net (debt)/cash | 11.48 | 7.33 | 19.52 | 11.58 | 2.82 | -6.61 |
| Capital increases | 14.54 | 0.02 | 21.05 | 0.00 | 0.00 | 0.00 |
| P/E (x) | - | - | - | - | - | - |
| EV/sales (x) | - | - | - | - | - | - |

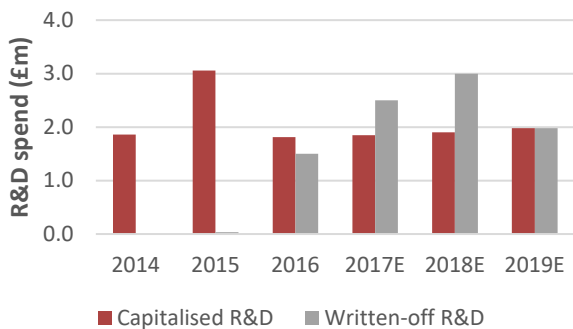
Source: Hardman & Co Life Sciences Research

Sales & gross margin



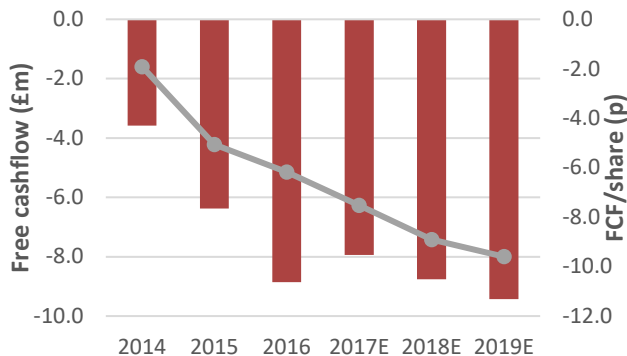
- ▶ Sales are derived from a stable Animal Health business and the growing contribution from Affimers (Life Sciences)
- ▶ Life Sciences sales are forecast to overtake the Animal Health sales in fiscal 2017
- ▶ Figures are based on reported sales without correction for disposal of the analytical business unit in 2015
- ▶ Forecasts do not include any contributions from licensing or milestone income which are lumpy and unpredictable

R&D investment



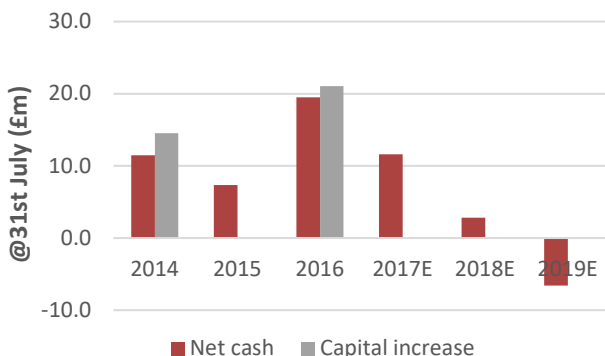
- ▶ Investment in R&D is two-fold: that for reagents/diagnostics is capitalised; whereas the therapeutic work is written-off
- ▶ Increase in investment is directly linked to the Affimer development programme
- ▶ Total R&D spend on Affimer technology to date is estimated to have been around £22.5m
- ▶ Some R&D investment may be recovered through partnership programmes

Free cashflow



- ▶ The forecast cash burn is approximately £0.6-0.7m per month
- ▶ Investment in senior personnel in 2016 has added to the on-going cost structure
- ▶ Avacta invested in 2016 to improve infrastructure in both Wetherby and Cambridge
- ▶ Cap-ex is expected to reduce down to maintenance levels in fiscal 2017

Net cash



- ▶ At 31st July 2016, Avacta had £19.5m net cash on its balance sheet
- ▶ Gross funds of £22.0m were raised in August 2016 to fund the development of its own Affimer-based drug pipeline
- ▶ Avacta is forecast to have sufficient cash resource for its internal development programmes until at least end 2018
- ▶ The net cash position would be positively affected by any announcements of partnerships/licensing deals

Source: Company data; Hardman & Co Life Sciences Research

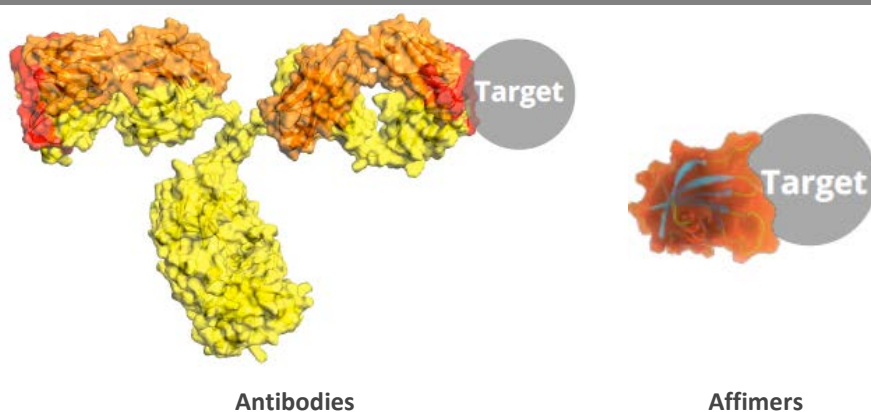
Technology update

Despite known disadvantages and limitations, antibodies have become universally used as reagents, diagnostics and therapeutics, each of which is a multi-billion dollar market. Avacta has developed Affimers, which are engineered scaffold proteins that possess all the positive attributes of antibodies, whilst overcoming many of the disadvantages. Therefore, Affimers represent a significant commercial opportunity that Avacta is exploiting.

Affimers – alternatives to antibodies

An Affimer is a relatively small protein – about 10x smaller than an antibody – with high affinity binding surfaces to which a target molecule – such as a protein, peptide or small molecule – can interact. The type of target molecule dictates the potential use of the Affimer. For example, if the target molecule is captured or simply binds to the Affimer, then it can be used to detect or quantify it in a diagnostic test or research assay. Alternatively, if the target molecule is involved in a disease pathway and the process of binding to an Affimer activates, blocks or alters its normal function, then it has potential use as a therapeutic drug.

Affimers vs Antibodies



Source: Hardman & Co Life Sciences Research

The small size and structure of Affimers confers a number of advantages compared to antibodies. First, they are relatively easy and quick to produce once a specific target is supplied/generated. This, in turn, means that they are easy to manufacture, in large quantities and with little batch-to-batch variation. It is also relatively simple to adapt an Affimer molecule for an alternative application through straight forward biochemistry.

Benefits of Affimers

- ▶ Quick to develop – matter of weeks
- ▶ Wide range of potential targets
- ▶ Easy to produce/manufacture
- ▶ Small and stable
- ▶ High specificity
- ▶ Readily adapted to suit application
- ▶ Ethical compliance – no use of animals
- ▶ Proprietary to Avacta

Source: Avacta; Hardman & Co Life Sciences Research

Uses of Affimers

Although Affimers could be generated against the very same targets as antibodies, the strategy of management is to focus resource on areas that are not adequately covered by antibodies. Using the advantages of Affimers to satisfy what is still a considerable segment of the market unsatisfied by existing technologies would equate to a very large commercial opportunity.

Over the last 12 months, Avacta has made considerable progress in the potential commercialisation of Affimers through both non-therapeutic and therapeutic applications. Avacta is building towards a profitable reagents business by licensing its Affimer technology to experienced counterparties for development into high value added application in diagnostic tests and in research. As part of its long-term growth strategy, Avacta is pursuing the discovery and development of its own Affimer therapeutics against a number of selected targets for in-house development or partnering. Although dominated currently by antibodies, the following data highlight the market potential for Affimers:

- ▶ **Research reagents** – a \$2bn market
- ▶ **Diagnostics** – an \$11bn market
- ▶ **Therapeutics** – The global market for drugs derived from antibodies in 2015 was \$70.4bn

Deals endorse the technology

The distinguishing attributes of Affimers have attracted the interest of pharmaceutical and biotechnology majors. In 2015, Avacta announced a number of deals, but the most significant was a research partnership with Moderna Therapeutics to provide a range of Affimers against a number of selected targets for messenger RNA therapeutics. Moderna initially paid \$0.5m for exclusive access to Affimers against certain targets which was an important endorsement of Avacta's technology.

In July 2016, Avacta and Glythera announced a collaborative agreement for the development of a new potential class of bio-therapeutics: Affimer Drug Conjugates (AffDC). Each party will contribute its proprietary technology – Glythera's PermaLink conjugation chemistry plus Avacta's engineered Affimer protein scaffolds – to the collaboration, with the aim of producing new drugs with improved clinical outcomes.

These deals for both therapeutic and non-therapeutic uses indicate that the commercialisation of Affimer technology is continuing to gain traction.

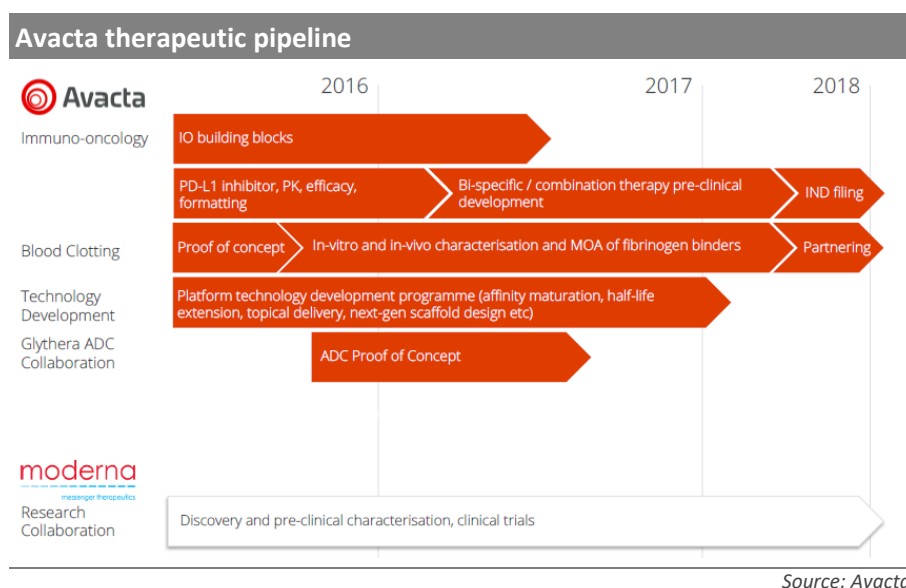
| Affimer deals | |
|------------------------|--|
| Company | Activity |
| Moderna Therapeutics | Messenger RNA therapeutics |
| Glythera | Development of Affimer Drug Conjugates |
| Blueberry Therapeutics | Antibiotic resistance |
| Phoremest | Phenotypic screening |
| D'Liver | CRO focused on liver metabolism |
| Mologic | Development of diagnostic POC tests against multiple targets |

Source: Avacta announcements; Hardman & Co Life Sciences Research

The goal of Avacta is to create a portfolio of therapeutic assets derived from Affimer technology that can be taken into the clinic either alone or with partners depending on the therapeutic target. The successful advancement of an Affimer-based drug into the clinic would represent a significant value inflection point.

Therapeutic Affimer update

At the beginning of fiscal 2016, Avacta raised £21m primarily to fund the discovery of Affimer leads which could be developed as therapeutics, thereby Avacta would create its own drug pipeline. The aim is to generate a putative drug candidate for submission as an Investigational New Drug (IND) within three years which could enter Phase I clinical trials by the end of 2019. During the last 12 months, Avacta has made considerable progress towards achieving this goal.



The opportunity for Avacta is quite significant because there is a wide range of therapeutic targets not adequately addressed by antibody proteins. However, selecting the right targets for in-house therapeutic programmes is critical to maximise the chances of reaching the clinic and the value of licensing deals. To minimise the risk, Avacta appointed Mike Owen, ex-Head of Biopharmaceuticals R&D for GlaxoSmithKline as a non-executive Director late in 2015 and tasked him with setting up a Scientific Advisory Board to advise on the selection process and review development programmes in the future.

Scientific Advisory Board

| Member | Affiliation |
|--------------------------|---|
| Mike Owen – Chairman | Ex-Head of Biopharmaceuticals GSK |
| Professor Terry Rabbitts | University of Oxford |
| Professor Paul Moss | University of Birmingham & Birmingham NHS Trust |
| Professor Adrian Hayday | Kings College London |
| Professor Gerard Evan | University of Cambridge |

Source: Avacta reports; Hardman & Co Life Sciences Research

This SAB has a world-class scientific reputation in the field of immuno-oncology, which, unsurprisingly is therefore one of Avacta's core areas of focus. Immuno-oncology is one of the fastest growing fields in drug R&D. The immune system is very sophisticated and contains a number of checkpoints or 'immunological brakes' to prevent an over-reaction of the immune system against healthy cells¹. Tumour cells often take advantage of these checkpoint proteins to escape detection by the immune system.

¹ Pardoll DM. *Nat Rev Cancer* (2012), 12 (4), 252-264

Two such checkpoints that have been studied as targets for cancer therapy are 'cytotoxic T-lymphocyte-associated protein 4' (CTLA-4) and 'Programmed Death Ligand 1' (PD-L1)². Avacta's first immuno-oncology programme is targeting this latter checkpoint protein.

PD-L1 programme update

Avacta has made good progress, identifying a number of potential Affimer candidate leads that bind with high affinity to this checkpoint protein. Some of these have been selected to undergo pre-clinical trials looking at pharmacokinetics, serum stability, immunogenicity and efficacy.

- ▶ Multiple Affimer inhibitors of human and mouse PD-L1 identified
- ▶ Available in Fc fusion, dimer and multimer formats with excellent yields
- ▶ Pharmacokinetic studies performed in mice
- ▶ Tumour growth reduction in mouse anti-tumour efficacy study
- ▶ Generation of pre-clinical data packages underway – for completion in 2017-18

Blood clotting disorder programme

The second in-house Affimer development programme involves blood clotting disorders. Management has established a strong collaboration with a leading clinician – Dr Ajjan – at Leeds General Infirmary to gain access to pre-clinical and clinical models of blood clot modulation. Apart from the long-term commercial attraction of this field, it also provides, potentially, a fast route to the clinic.

Moderna

The original research partnership with Moderna was signed in May 2015 in order to secure exclusivity for a number of targets for messenger RNA therapeutics that were of interest to Moderna. Should Moderna wish to extend the exclusivity period or increase the number of targets, further payments would be made. It is interesting to note also that, separately, Moderna has a number of out-licensing deals with major pharmaceutical companies.

Avacta-Moderna partnership

- ▶ Up-front payment of \$0.5m to secure exclusivity for a number of targets
- ▶ Revenue generating research services to aid achievement of pre-clinical milestones
- ▶ Milestones for each lead Affimer that could reach tens of \$m
- ▶ Royalties on future sales
- ▶ Exclusivity could be extended by further payments

Source: Avacta; Hardman & Co Life Sciences Research

We believe that further progress has been made in this collaborative relationship with Moderna over the past year, as evidenced by the large increase in fee-for-services recorded in the 2016 accounts.

Glythera

The collaboration with Glythera on Affimer Drug Conjugates is for an initial period of nine months. Early progress has been achieved already, but we would expect to hear more from this programme during the coming year.

² Sharma P, Wagner K, Wolchok JD, Allison JP, *Nat Rev Cancer* (2011), **11** (11), 805-812

Reagents update

Although much of the attention has been on the progress and developments regarding therapeutic Affimers during the last year, Avacta has also made substantial progress in its reagents and diagnostics business, with the aim of broadening the reach of Affimer technology through licensing to third party research tools and diagnostic test developers.

The advantageous characteristics of Affimers make this technology an excellent fit with a number of biochemical assays and applications. This means that Affimers can be applied extensively to identify agents with high binding affinity and specificity against a host of targets. Avacta has been concentrating its resources onto three high value applications

Reagent development programme



| | | | |
|---------------------------|-------|-------|---------|
| Technical demonstration | ✓ | ✓ | ✓ |
| Development partner | | | Mologic |
| Evaluations underway | ✓ | ✓ | ✓ |
| Commercial discussions | ✓ | ✓ | ✓ |
| License deals anticipated | FY17- | FY17- | FY17- |
| Products anticipated | FY18- | FY18- | FY18- |

Source: Avacta

Each of these areas represents a high value market where the leading players are quite willing to licence in new technologies that improve performance or address unmet needs. In each of its focus areas, over the last 12 months, Avacta has demonstrated the technical aspects of using Affimers, commenced evaluations, and started commercial negotiations with potential partners. Management believes that progress towards commercialisation, in the form of licensing deals, will be made in the coming 12-18 months.

Affimer reagent strategy

| | Affinity separation | Immunoassays | Lateral flow |
|--------------------|---|---|--|
| Users | Labs/bio-processing | Labs & diagnostics | Point-of-care diagnostics |
| Market size | \$500m (Growth +10%) | \$500m for ELISA \$3bn+ for diagnostics | \$5bn (Growth +7%) |
| Potential partners | GE Healthcare, Pall Corp, Thermo Fisher | R&D Systems, Biorad, Luminex, Abbott, Roche | Alere, BBI, Roche, Siemens |
| Affimer fit | Specificity, Stability, size, speed | Specificity, pairs, batch consistency | Specificity, pairs, batch consistency, difficult targets |

Source: Avacta; Hardman & Co Life Sciences Research

Mologic

In June, Avacta signed a product development collaboration with Mologic, a specialist diagnostic development company, to develop diagnostic point-of-care (POC) tests against multiple targets using Affimer technology.

Having validated the basic functionality of Affimer binders in a lateral flow diagnostic (LFD) format, Avacta sought collaborators to establish detailed methodologies for performing such POC tests. The collaboration with Mologic is on a non-exclusive basis and aims to optimise the manufacturing process and performance of such POC tests, with the goal of out-licensing them for commercialisation.

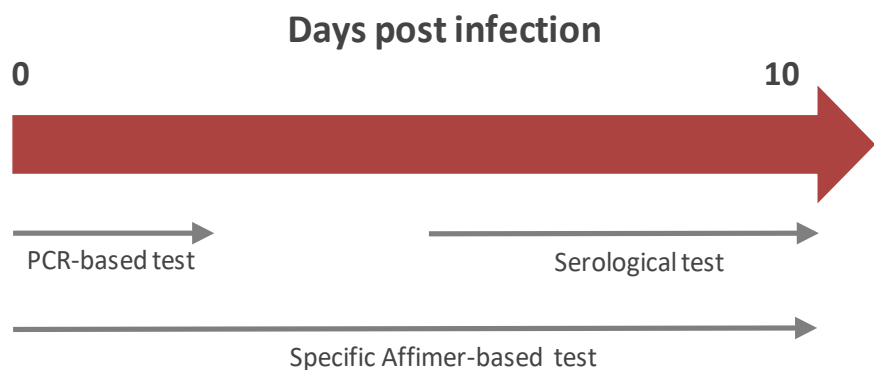
Zika virus test

Concomitantly, and as part of Avacta's core strategy to use Affimers in lateral flow diagnostics, the company announced (22nd June) that it had identified three Affimer proteins capable of binding to a specific recombinant form of a secreted Zika virus protein – Non-Structural protein 1 (NS1) – which is indicative of an active infection from the earliest stages.

Currently, there are two diagnostic options:

- ▶ **PCR-based molecular test** – only good in early stage of infection
- ▶ **Serological test** – only good in late stage of infection after seroconversion

Current and future diagnostic Zika tests



Source: Hardman & Co Life Sciences Research

Avacta is looking to use its Affimer binders in a new rapid, point-of-care, diagnostic for the Zika virus that could be used from the earliest stages of infection right through to symptoms.

Avacta has shown that its Affimer binders are specific against NS1 derived from Zika and non-selective against NS1 secreted by the other viruses, therefore there would be no cross-reactivity with the likes of Dengue fever, West Nile, or Yellow fever NS1 proteins. This would be the first time that such distinction could be made, as such, a diagnostic test based on this technology test would be very specific for Zika virus.

Financial update

Profit & Loss

- ▶ **Sales** – Animal Health sales grew 6.5% to £1.46m; revenues from Affimers were in-line at £0.7m, with £0.49m being licensing income. Our sales forecasts for the next three years remain unchanged
- ▶ **R&D** – Until fiscal 2016, investment in R&D was to identify and develop Affimer targets that could be used commercially, where there is a reasonable probability of generating commercial products. Therefore, R&D was capitalised
- ▶ **Therapeutic R&D** – The strategy to develop a pipeline of therapeutic Affimers carries much greater risk that a commercial product might not be achieved. Therefore, Avacta is writing off therapeutic R&D each year.
- ▶ **Corporate overhead** – SG&A was £0.5m lower than forecast at £5.2m. Given the increase in senior management and their full year impact, we are forecasting 30% increase in SG&A for the current year

| Profit & Loss account | | | | | | |
|----------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|
| Year end July (£m) | 2014 | 2015 | 2016 | 2017E | 2018E | 2019E |
| Avacta Life Sciences | 0.03 | 0.44 | 0.70 | 1.46 | 1.83 | 2.21 |
| Avacta Animal Health | 1.59 | 1.37 | 1.46 | 1.53 | 1.56 | 1.58 |
| Sales | 3.18 | 1.81 | 2.17 | 3.00 | 3.40 | 3.80 |
| COGS | -1.14 | -0.53 | -0.90 | -1.10 | -1.12 | -1.18 |
| Gross profit | 2.04 | 1.29 | 1.27 | 1.89 | 2.27 | 2.62 |
| Gross margin | 64% | 71% | 59% | 63% | 67% | 69% |
| SG&A | -3.90 | -4.17 | -5.16 | -6.90 | -7.30 | -7.78 |
| R&D | 0.00 | -0.03 | -1.50 | -2.50 | -3.00 | -1.98 |
| EBITDA | -1.33 | -2.34 | -4.59 | -6.20 | -6.68 | -7.26 |
| Depreciation & Amortis. | -0.53 | -0.58 | -0.80 | -1.30 | -1.35 | -1.40 |
| Licensing/Royalties | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Underlying EBIT | -1.86 | -2.91 | -5.39 | -7.50 | -8.03 | -8.66 |
| Share based costs | -0.21 | -0.25 | -0.27 | -0.30 | -0.33 | -0.36 |
| Exceptional items | 0.00 | -2.41 | 0.00 | 0.00 | 0.00 | 0.00 |
| Statutory EBIT | -2.07 | -5.57 | -5.66 | -7.80 | -8.36 | -9.03 |
| Net financials | 0.02 | 0.03 | 0.10 | 0.08 | 0.04 | -0.01 |
| U/L Pre-tax profit | -1.83 | -2.89 | -5.29 | -7.43 | -7.99 | -8.67 |
| Reported pre-tax | -2.04 | -5.54 | -5.57 | -7.72 | -8.32 | -9.04 |
| Tax payable/credit | 0.55 | 0.65 | 0.92 | 0.87 | 0.98 | 1.10 |
| Tax rate | -27% | -12% | -16% | -11% | -12% | -12% |
| Underlying net income | -1.28 | -2.24 | -4.38 | -6.56 | -7.01 | -7.58 |
| Statutory net income | -1.49 | -4.89 | -4.65 | -6.86 | -7.34 | -7.94 |
| Ordinary shares: | | | | | | |
| Period-end (m) | 49.68 | 49.80 | 68.38 | 68.48 | 68.58 | 68.68 |
| Weighted average (m) | 41.82 | 49.73 | 67.71 | 68.38 | 68.48 | 68.58 |
| Fully diluted (m) | 39.95 | 42.85 | 51.91 | 70.39 | 71.05 | 71.15 |
| Underlying Basic EPS (p) | -3.07 | -4.50 | -6.46 | -9.59 | -10.24 | -11.05 |
| Statutory Basic EPS (p) | -3.57 | -9.84 | -6.86 | -10.03 | -10.72 | -11.58 |
| U/I Fully-diluted EPS (p) | -2.99 | -4.31 | -6.22 | -9.23 | -9.85 | -10.63 |
| Stat. Fully-diluted EPS (p) | -3.48 | -9.43 | -6.60 | -9.65 | -10.32 | -11.14 |

Source: Hardman & Co Life Sciences Research

Balance sheet

- ▶ **Net cash** – Avacta had £19.5m of cash and deposits on its balance sheet at 31st July 2016, and no debt. Although this was about £0.7m lower than forecast, it was entirely due to higher capital expenditure associated with the opening of new facilities in both Wetherby and Cambridge
- ▶ **Tax credit** – The tax credit in relation to R&D spend on the balance sheet at the end of July was £1.42m. Given the rise in R&D spend (capitalised and therapeutic) in coming years, we would expect tax credits to rise, although timing of receipt is difficult to predict
- ▶ **Cash balance** – Based on current forecasts, and in the absence of any up-fronts associated with licensing deals, our forecasts suggest that Avacta has sufficient cash until at least the end of fiscal 2018

| Balance sheet | | | | | | |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| @31 st July (£m) | 2014 | 2015 | 2016 | 2017E | 2018E | 2019E |
| Shareholders' funds | 28.84 | 19.13 | 35.86 | 29.00 | 21.66 | 13.72 |
| Cumulated goodwill | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total equity | 28.84 | 19.13 | 35.86 | 29.00 | 21.66 | 13.72 |
| Share capital | 5.05 | 5.06 | 6.92 | 6.92 | 6.92 | 6.92 |
| Reserves | 23.79 | 14.08 | 28.94 | 22.09 | 14.75 | 6.81 |
| Provisions/liabilities | 0.82 | 0.86 | 0.34 | 0.34 | 0.34 | 0.34 |
| Deferred tax | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Long-term loans | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Short-term loans | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| less: Cash | 11.48 | 7.33 | 9.52 | 1.58 | 2.82 | -6.61 |
| less: Deposits | 0.00 | 0.00 | 10.00 | 10.00 | 0.00 | 0.00 |
| Invested capital | 18.18 | 12.67 | 16.68 | 17.76 | 19.18 | 20.67 |
| Fixed assets | 1.40 | 1.55 | 3.74 | 3.68 | 3.44 | 3.31 |
| Intangible assets | 16.29 | 10.36 | 11.48 | 13.33 | 15.23 | 17.21 |
| Inventories | 0.47 | 0.33 | 0.27 | 0.37 | 0.42 | 0.47 |
| Trade debtors | 0.47 | 0.21 | 0.16 | 0.16 | 0.16 | 0.16 |
| Other debtors | 0.51 | 0.55 | 0.97 | 1.34 | 1.52 | 1.70 |
| Tax liability/credit | 0.43 | 1.07 | 1.42 | 0.87 | 0.98 | 1.10 |
| Trade creditors | -0.98 | -0.66 | -0.40 | -0.40 | -0.40 | -0.40 |
| Other creditors | -0.42 | -0.74 | -0.95 | -1.59 | -2.17 | -2.87 |
| Debtors less creditors | 0.02 | 0.43 | 1.19 | 0.37 | 0.09 | -0.32 |
| Invested capital | 18.18 | 12.67 | 16.68 | 17.76 | 19.18 | 20.67 |
| Net cash/(debt) | 11.48 | 7.33 | 19.52 | 11.58 | 2.82 | -6.61 |

Source: Hardman & Co Life Sciences Research

Cashflow

- ▶ **2016 cashflow** – Operating cashflow was largely as forecast
- ▶ **Cap-ex** – Investment in the two new facilities at Wetherby and Cambridge was higher than forecast by approximately £1m at -£2.9m. Cap-ex is expected to revert to maintenance levels of less than £1m in each of the next three years
- ▶ **Tax received** – Tax receivable was higher than expected. In addition, further tax rebates currently held on the balance sheet are likely to be received in 2017
- ▶ **Cash balance** – The closing cash balance was £0.7m lower than forecast due to the later than expected arrival of a £0.7m tax rebate – was paid in August 2016 and will benefit cashflows in the current year. Forecasts suggest that Avacta has sufficient cash until at least the end of fiscal 2018 excluding any up-fronts from licensing deals

| Cashflow | | | | | | |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Year end July (£m) | 2014 | 2015 | 2016 | 2017E | 2018E | 2019E |
| Trading profit | -1.86 | -2.91 | -5.39 | -7.50 | -8.03 | -8.66 |
| Depreciation | 0.36 | 0.52 | 0.60 | 1.00 | 1.00 | 1.00 |
| Amortisation | 0.17 | 0.06 | 0.20 | 0.30 | 0.35 | 0.40 |
| Inventories | -0.09 | -0.21 | 0.07 | -0.10 | -0.05 | -0.05 |
| Working capital | 0.14 | 0.25 | -0.39 | -0.33 | -0.28 | -0.24 |
| Other | 0.04 | -0.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| Company op cashflow | -1.24 | -2.55 | -4.85 | -6.64 | -7.01 | -7.55 |
| Net interest | 0.02 | 0.03 | 0.10 | 0.08 | 0.04 | -0.01 |
| Tax paid/received | 0.42 | 0.01 | 0.57 | 1.42 | 0.87 | 0.98 |
| Operational cashflow | -0.80 | -2.52 | -4.18 | -5.14 | -6.10 | -6.58 |
| Capital expenditure | -0.92 | -0.81 | -2.86 | -0.94 | -0.76 | -0.87 |
| Capitalised R&D | -1.86 | -3.06 | -1.81 | -1.85 | -1.90 | -1.98 |
| Sale of fixed assets | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Free cashflow | -3.58 | -6.38 | -8.86 | -7.94 | -8.76 | -9.43 |
| Dividends | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Acquisitions | -0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Disposals | 0.00 | 2.21 | 0.00 | 0.00 | 0.00 | 0.00 |
| Cashflow after invest. | -3.64 | -4.17 | -8.86 | -7.94 | -8.76 | -9.43 |
| Share repurchases | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Share issues | 14.54 | 0.02 | 21.05 | 0.00 | 0.00 | 0.00 |
| Borrowings acquired | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Change in net debt | 10.90 | -4.15 | 12.19 | -7.94 | -8.76 | -9.43 |
| Hardman FCF/share (p) | -1.9 | -5.1 | -6.2 | -7.5 | -8.9 | -9.6 |
| Opening net cash | 0.58 | 11.48 | 7.33 | 19.52 | 11.58 | 2.82 |
| Closing net cash | 11.48 | 7.33 | 19.52 | 11.58 | 2.82 | -6.61 |

Source: Hardman & Co Life Sciences Research

Company matters

Registration

Incorporated in the UK with company registration number: 04748597

Registered Office

Unit 20, Ash Way
Thorp Arch Estate
Wetherby
LS23 7FA

Cambridge R&D facility

Unit B, Lion Works
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+44 1904 217 046

www.avacta.com

Board of Directors

| Board of Directors | | | |
|-------------------------|-----------------|--------------|-------|
| Position | Name | Remuneration | Audit |
| Chairman | Trevor Nicholls | C | M |
| Chief Executive Officer | Alastair Smith | | |
| Chief Financial Officer | Tony Gardiner | | |
| Chief Operating Officer | Craig Slater | | |
| Non-executive director | Michael Albin | M | M |
| Non-executive director | Alan Aubrey | M | C |
| Non-executive director | Mike Owen | M | |

M = member; C = chair

Source: Company reports

The Nominations committee is convened on an 'as required' basis and chaired by the Chairman.

Senior management

| Senior management | |
|-------------------|--------------------------------------|
| Name | Role |
| Amrik Basran | Chief Scientific Officer (Cambridge) |
| Philip Cotrel | Chief Commercial Officer |
| Matt Johnson | Chief Technology Officer |

Source: Avacta reports; Hardman & Co Life Sciences Research

Share capital

At 17th October 2016, the company had 68,382,517 Ordinary shares of 10p in issue

According to the 2016 Annual report, there were 2,672,831 options outstanding at the end of July 2016, of which 1,715,502 were exercisable

Glossary

| | |
|------------|--|
| AffDC | Affimer-drug conjugates |
| Fc fusions | Fragment crystallisable region of an antibody fusions are a well-established approach to artificially extend the <i>in vivo</i> serum half-life of small therapeutic protein scaffolds |
| IND | Investigational new drug |
| LFD | Lateral flow diagnostics |
| NS1 | Non-structural protein 1 |
| PD-L1 | Programmed Death Ligand 1 is part of the 'immune checkpoint' family |
| POC | Point-of-care |

Notes

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(Disclaimer Version 2 – Effective from August 2015)

Hardman Team

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