



Bioventix Presentation: October 2016

- Blood testing and antibodies
- Bioventix portfolio of antibodies and their advantages
- 2015/16 final results and analysis
- Business continuity
- Shareholders & the Board
- Conclusions & outlook

Blood Testing and Bioventix Customers



Large automated machines



Point of care



Lab kits

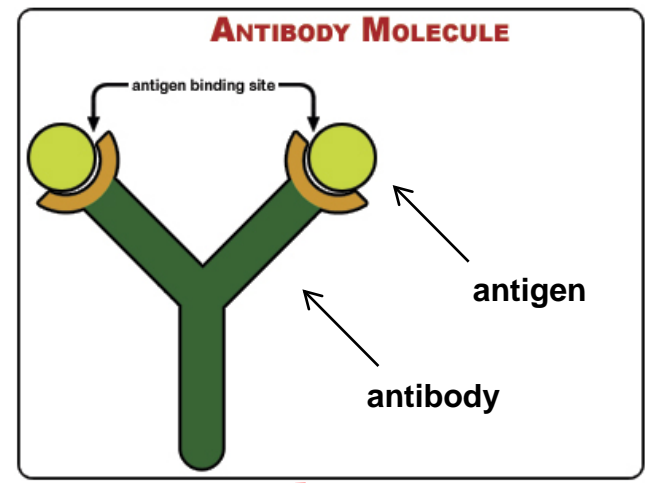
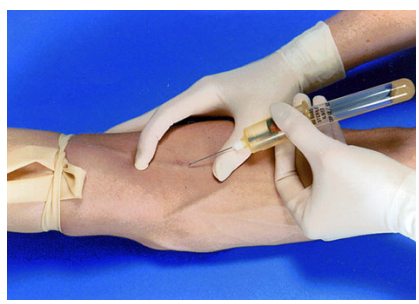


- Bioventix sells antibodies to manufacturers of large automated blood testing machines such as Siemens & Roche
- Some Bioventix revenues are derived from the sale of physical antibody supplies to its customers
- The majority of revenue comes from royalties based on the sales of final tests to hospitals and clinics

Automated Blood Testing



▪ Bioventix creates and manufactures SMAs. Customers incorporate these antibodies in reagent packs for use on automated blood-testing machines



▪ SMA means sheep monoclonal antibody



Beckman

Diasorin

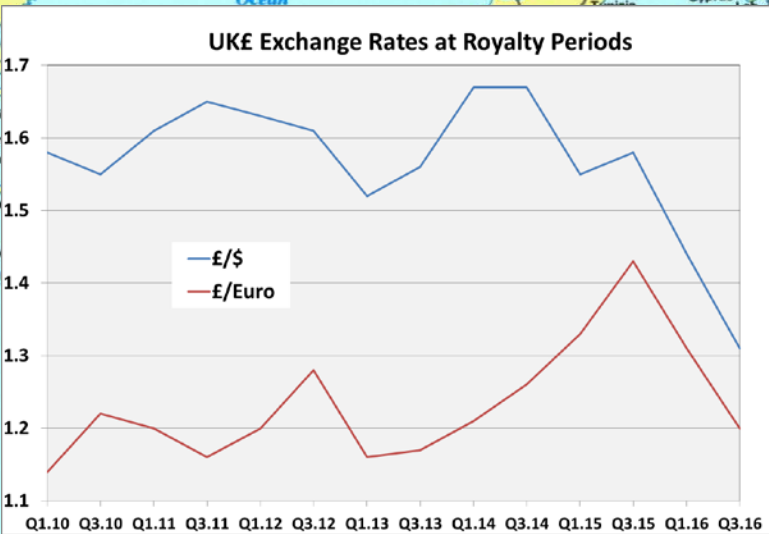
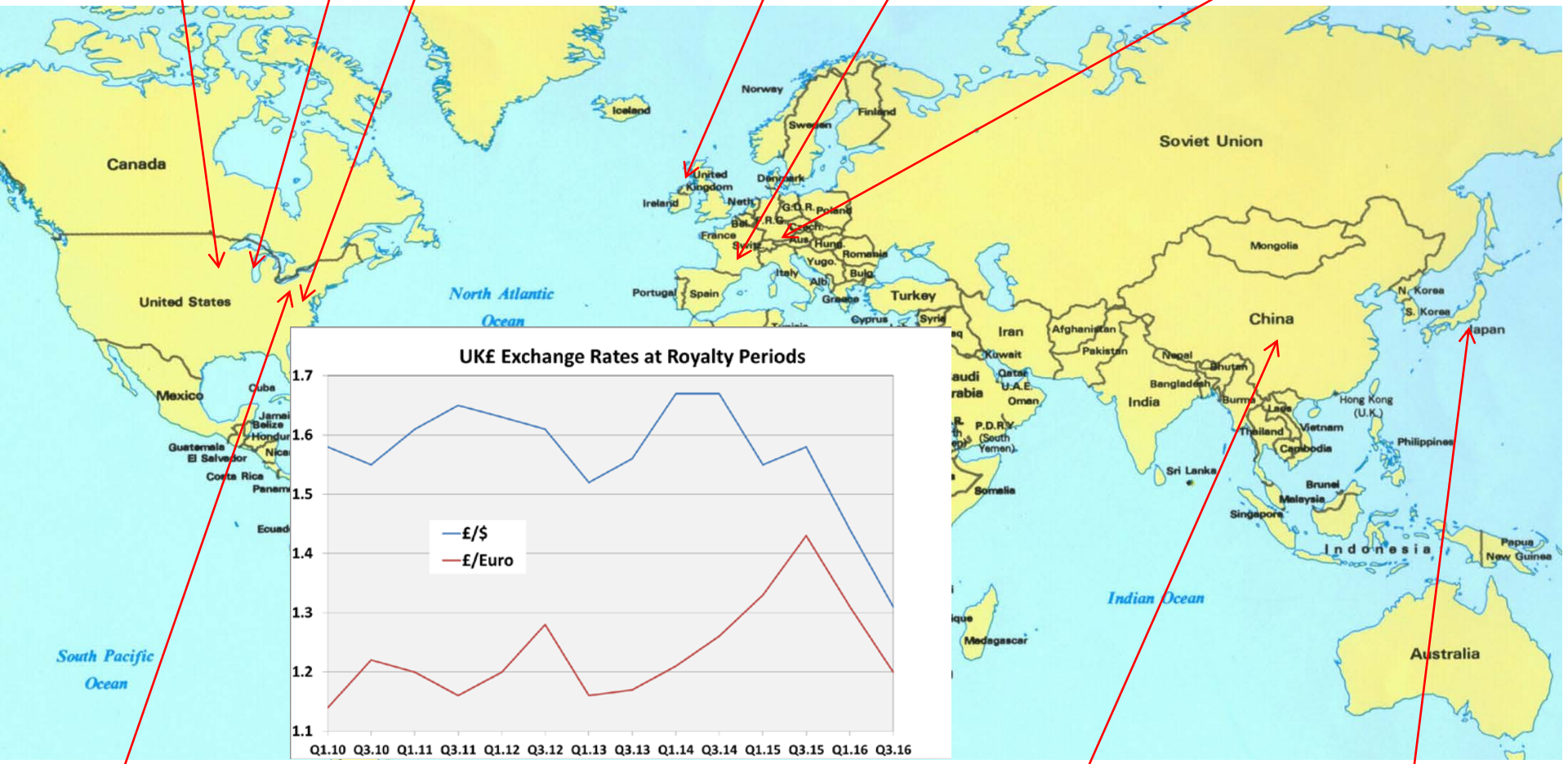
Abbott

Siemens

Randox

BioMerieux

Roche



Ortho (J&J)

- Physical antibody sales are in \$ and €
- Royalties are based on customer's global sales & dominated by \$ and €

Mindray

DiRui

Tosoh

Fujirebio

Location and Skills



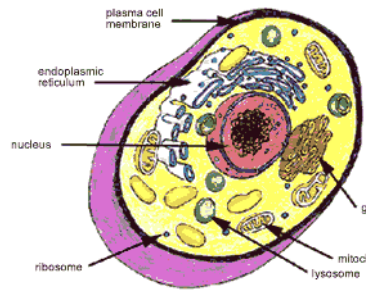
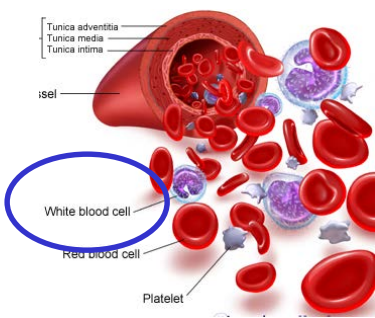
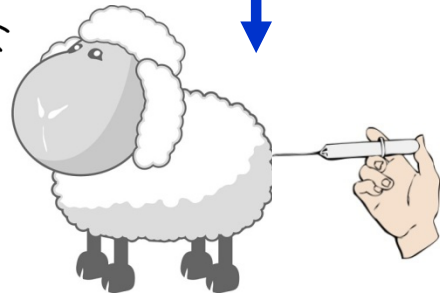
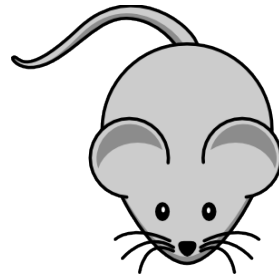
Creation and manufacture of high affinity sheep antibodies (SMAs)



13 staff in Bioventix-owned property Increase of 2 from last year



Creating Antibodies

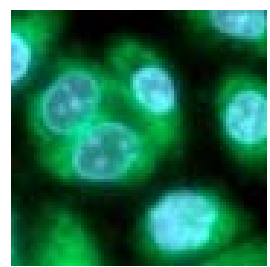
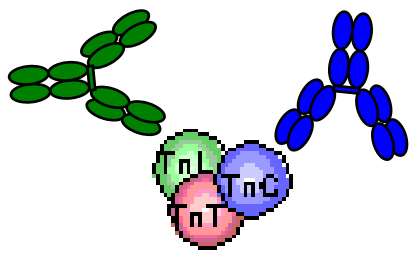


- Myeloma fusion partner**
- Immortal
 - Secretes nothing of use

- White blood cell (B cell)**
- mortal
 - Secretes a single antibody

Polyethylene glycol (PEG)

- Bioventix's business is based on the ability of sheep to make better antibodies than mice
- Better antibodies can facilitate better tests



Antibody Pipeline



Own-risk (non-exclusive)

<u>Analyte</u>	<u>SMAAs created</u>	<u>In Market</u>
➤ T3 (thyroid)	1990	1995
➤ Estradiol	2005	2010
➤ Testosterone	2006	2009
➤ Vitamin D	2009&10	2012
➤ Progesterone	2011	2013
➤ Drugs	2006-2010	2010
➤ Androstenedione	2012	D
➤ T4, TSH	2012	E
➤ Estriol, PTH	2014	E
➤ BNP	2015	-
➤ HIV.p24	2015	E

▪ Siemens reported progress with their new troponin assay at AACC (Aug 2016)

▪ Long term research projects (secretoneurin & amyloid beta) not included in this analysis

Contract R&D (exclusive)

<u>Analyte</u>	<u>SMAAs created</u>	<u>In Market</u>
➤ NT proBNP	2004	2007
➤ Troponin	2006&07	2017 est
➤ Cortisol	2008	2015
➤ Tacrolimus	2010	2013
➤ Aldosterone	2011	2013
➤ Therapeutic drug	2013	T
➤ Infectious disease	2015/16	E
➤ Cancer	2015/16	E
➤ Vitamin	2015/16	E
➤ Thyroid	2016/17	-

Red: Sponsored SMA work – antibodies not available to third parties

E/E: antibodies being evaluated

D/D: antibodies entered development

T/T: work terminated

Why SMAs? (1)



Clinical Chemistry 49, No. 8, 2003

Editorial

Clinical Chemistry 49:8
1381-1395 (2003)

Endocrinology and
Metabolism

Testosterone Measured by 10 Immunoassays and by Isotope-Dilution Gas Chromatography–Mass Spectrometry in Sera from 116 Men, Women, and Children

JOËLLE TAIEB,¹ BRUNO MATHIAN,² FRANÇOISE MILLOT,³ MARIE-CLAUDE PATRICOT,²
ELISABETH MATHIEU,⁴ NICOLE QUEYREL,⁵ ISABELLE LACROIX,⁶ CLAUDE SOMMA-DELPERO,⁷ and
PHILIPPE BOUDOU^{8*}

Immunoassays for Testosterone in Women: Better than a Guess?

Endocrine Abstracts (2008) 16 P631

Development of an Elecsys[®] Testosterone II Immunoassay with an improved performance for measurement of testosterone in women

Judit Oldekamp, Klaus Hirzel, Erich Schneider & Dieter Gassner

Roche Diagnostics GmbH, Penzberg, Germany.

Immunoassays for testosterone produce sometimes incorrectly high results in female samples. The reasons of this phenomenon are not fully understood, but interference by cross-reacting substances and inaccurate calibration can be critical. One known endogenous interfering substance is dehydroepiandrosterone sulphate (DHEA-S). Other substances still have to be identified.

An Elecsys[®] Testosterone II assay using a new high affinity sheep monoclonal antibody ([Bioventix SMA testo3.6A3](#)) is currently in the development pipeline for the Elecsys and cobas e immunoassay platforms.

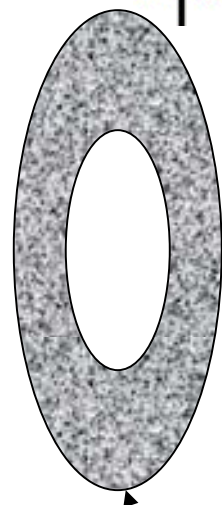
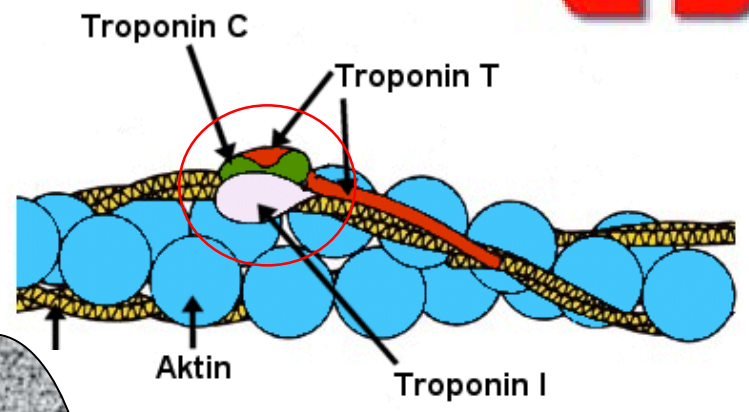
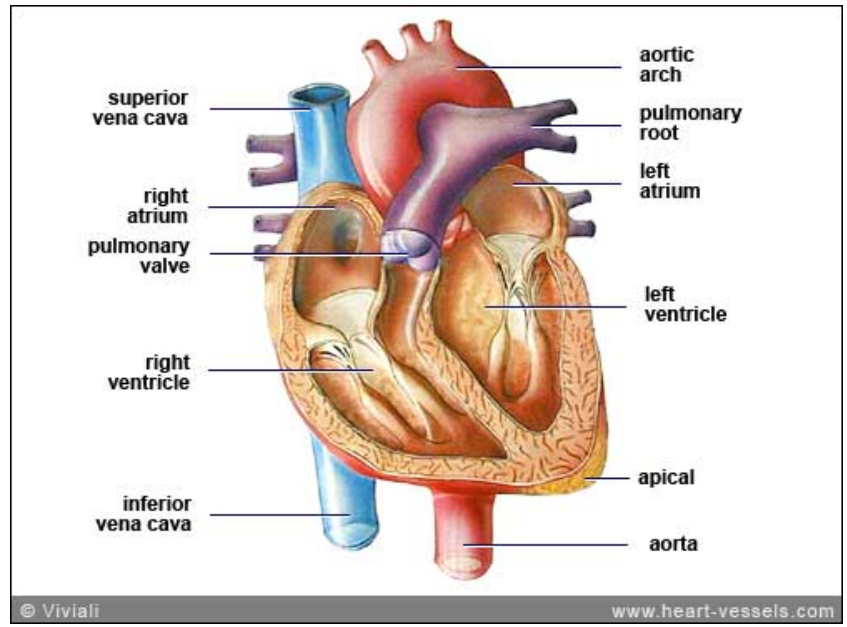
- In 2003, it became clear that testosterone testing for women was inadequate

- Roche published their prototype assay in 2008 and launched this assay in 2009

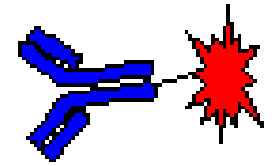
Why SMAs? (2)



▪ Bioventix is working with Siemens on a new troponin assay



▪ Magnetic particle



▪ Fluorescent label

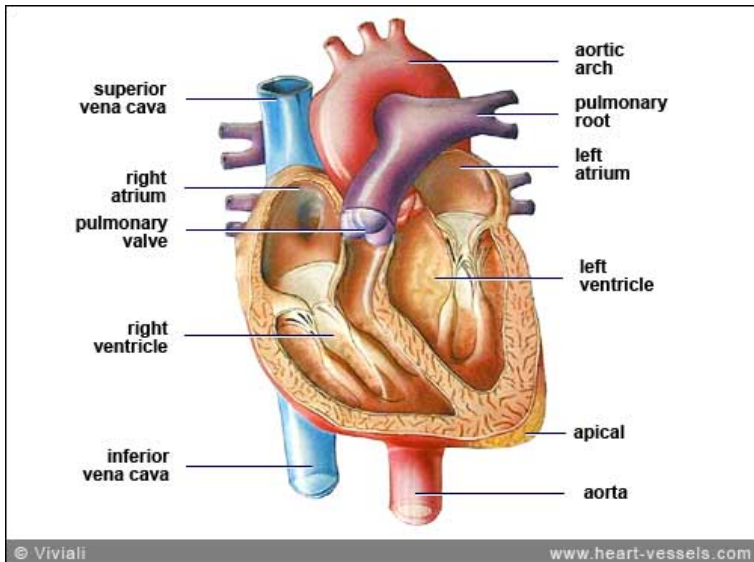
NICE: DG15; October 2014

Cardiac troponins are proteins which are released into the blood when heart muscle has been damaged, for example, during a heart attack. Currently, it can take 10–12 hours after a heart attack for troponin levels to rise, so 2 troponin tests are carried out (10–12 hours apart) to see if there is a change in troponin levels. For many people, this means they have to stay in hospital while the tests are done. The new troponin assays are able to pick up lower levels of troponin in the blood than older troponin assays, and they can be used to help doctors see a change in troponin levels sooner. If there is no change, then a patient may be able to go home.

Research: CardiNor & Pre-diagnostics (Both Oslo!)



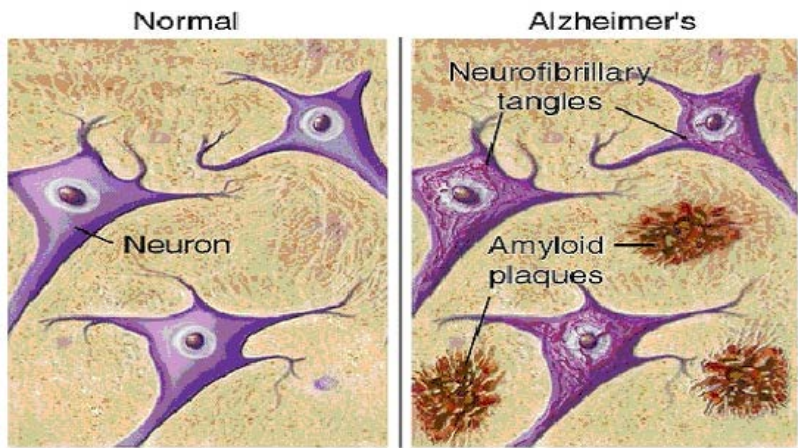
CARDINOR



Troponin: leakage from muscle after heart attack

BNP/NT-proBNP: distress hormone released by failing muscle in heart failure

Secretoneurin: hypothesis - associated with heart rhythm & poor prognosis



PreDiagnostics

Amyloid beta: hypothesis - processing mechanism in the blood mimics build-up process in the brain

bioventix

2015/16: Finals Headlines

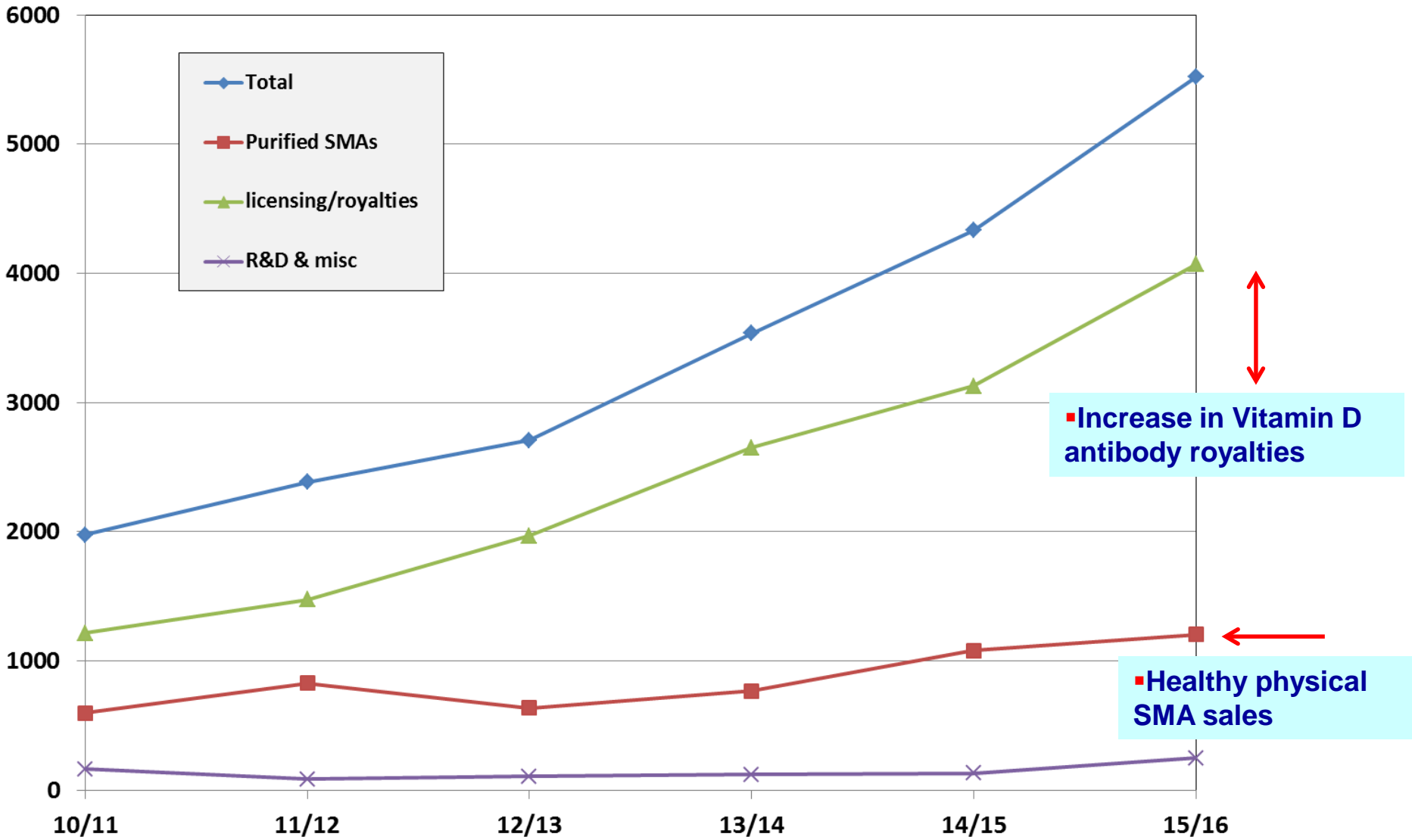


- **Turnover:** £5.5M (2014/15: £4.3M) +27%
- **Profit before tax:** £4.2M (2014/15: £3.1M) +36%
- **Profit after tax:** £3.5M (2014/15: £2.6M) +37%
- **Cash at 30 June:** £5.4M (June 2015: £4.1M) +£1.3M
- **Second interim dividend:** 26p/share (Oct 2015: 21.6p) +20%
- **Special dividend:** 20p/share

- Dividend policy continues to embrace continuity
- Cash beyond strategic requirements has facilitated a special dividend



Year Sales by Sector

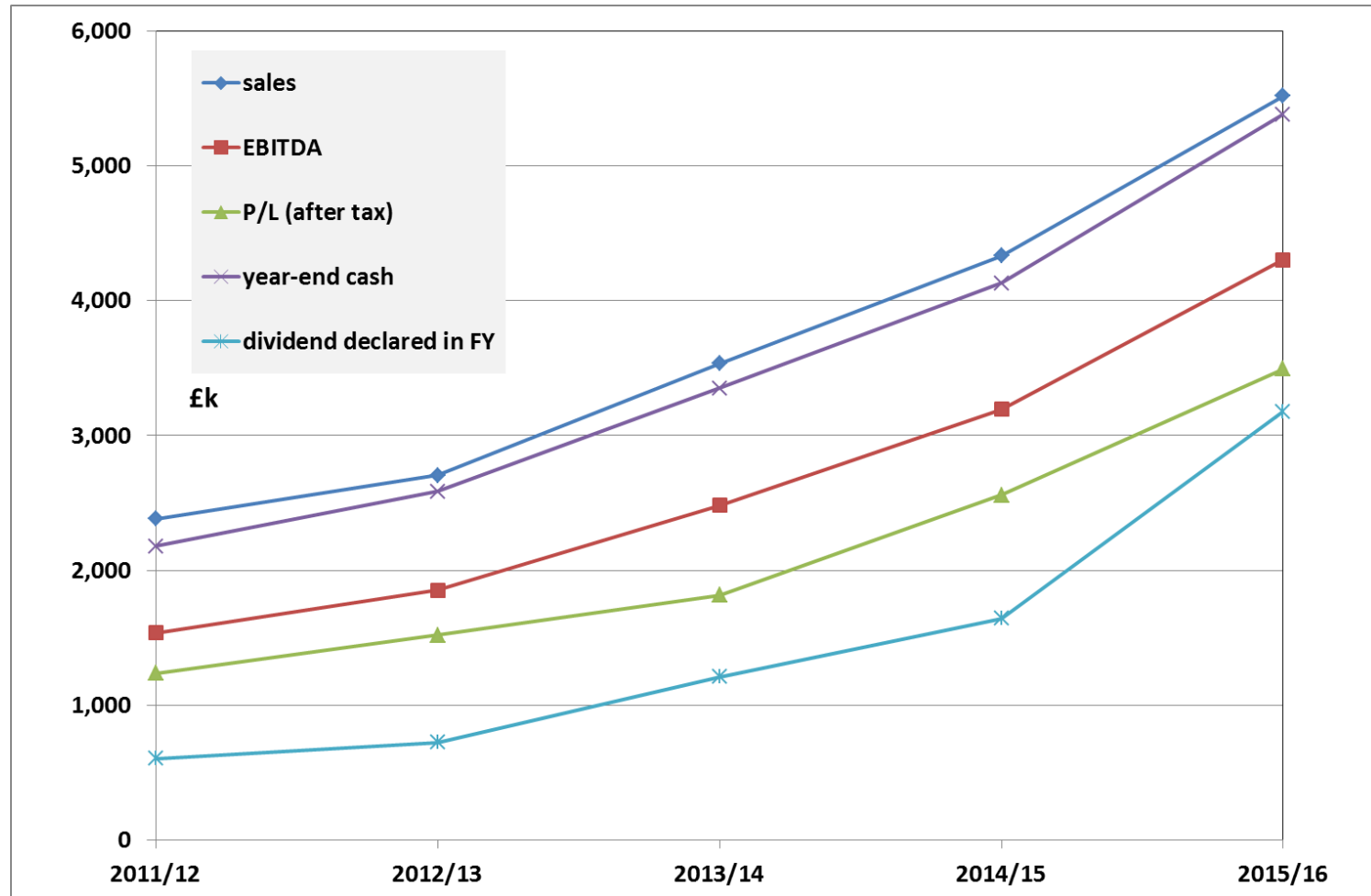


Key Financials



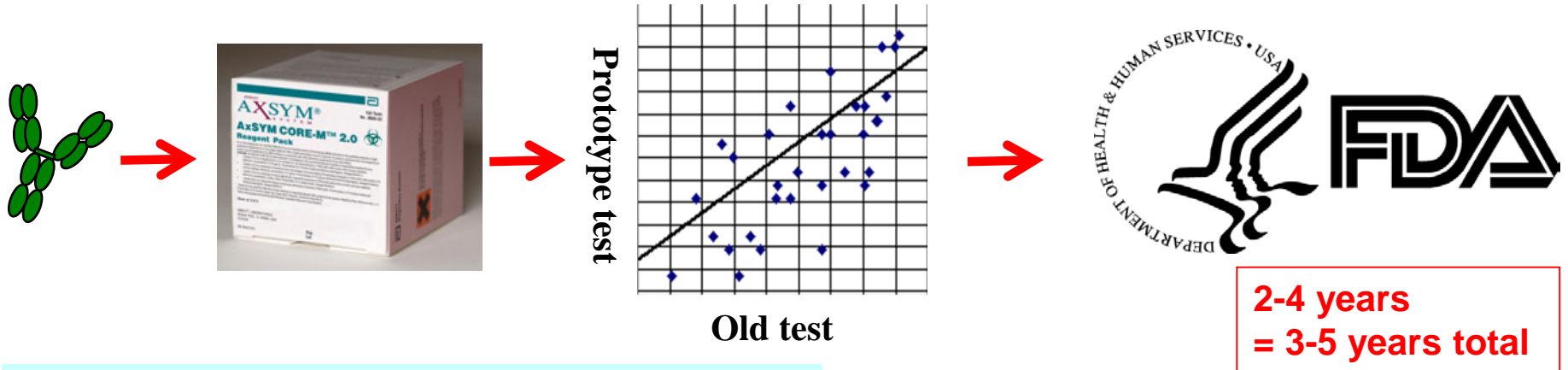
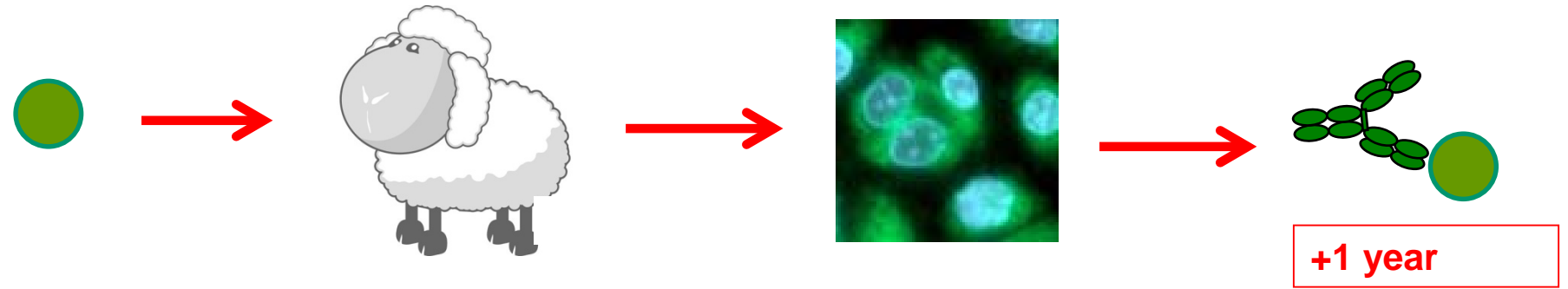
£ ('000)	Year to 30.6.12	Year to 30.6.13	Year to 30.6.14	Year to 30.6.15	Year to 30.6.16
Sales	2,383	2,706	3,535	4,333	5,517
EBITDA	1,536	1,853	2,482	3,196	4,300
P/(L) before tax	1,506	1,821	2,231	3,106	4,219
P/(L) after tax	1,237	1,521	1,815	2,557	3,494
Year-end cash	2,179	2,585	3,351	4,130	5,380
Regular dividend distribution special	605	726	1,200	1,642	2,167 1,020
Dividend declared per share (p) Spring/Autumn (special)	12.1 4.8/7.3	14.5 5.8/8.7	24 9.6/14.4	32.6 11/21.6	42.5 16.5/26 (20)
Q3 share price (p)	220	310	600	11.00	11.00
Dividend yield (total/Q3; %)	5.5	4.7	4.0	3.0	4.0

2014/15: Historical Trends



- Recent growth from vitamin D & vitD3.5H10 SMA
- Order: vitD > NT-proBNP > testo > T3 > E2 > drugs

Business Dynamics



- Bioventix takes about 1 year to make antibodies
- Customers take 2-4 years to: formulate a prototype test; conduct field trials; submit data to regulatory authorities; obtain marketing approval
- This is an impediment to revenue growth – but delivers longer term revenue continuity



Approx Shareholder Base



Institution	Shares (1000s)	%
Miton Group	699	13.8
Peter Harrison	608	12.0
Livingbridge [ISIS Equity Partners]	384	7.6
Wasatch Advisors, Inc	271	5.4
Hargreave Hale	259	5.1
Henderson Global Investors	274	4.9
Sub-total		48.8

Total shares = 5,098,656

July 2016

▪ Shares admitted to AIM 29 April 2014



Bioventix Directors



- Peter Harrison, CEO
- >30 years experience of antibody technology at Celltech, KS Biomedix & Bioventix



- Ian Nicholson, Chairman
- >30 years experience of commercial development within biotechnology including Amersham, Celltech, Chroma, Clinigen & Consort Medical



- Treena Turner, Finance Director
- Partner at Wise & Co accountants in Farnham. >10 years experience of Bioventix and accounts preparation



- Nich McCooke, Non-executive Director
- >30 years experience of biotech industry (including diagnostics R&D) at Celltech, Solexa & Pronota

Conclusions and Outlook



- 2015/16: Excellent performance for the financial year as robust core business supported by increased vitamin D antibody sales
- 2016/17: modest additional growth expected from our vitamin D antibody
- 2017/18: high sensitivity troponin project expected to generate royalties and anticipated to balance revenues lost through termination of NT-proBNP revenues of £700-800k
- 2018-2020: growth linked to success of Siemens & their high sensitivity troponin project
- 2020-2030: growth linked to new products emerging from the company's R&D pipeline and collaborative work with new biomarkers (eg secretoneurin/CardiNor)