



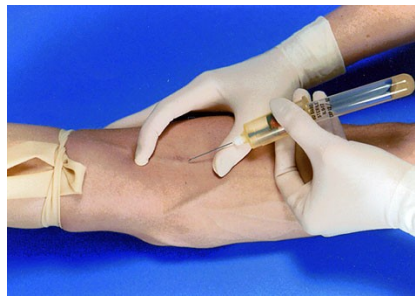
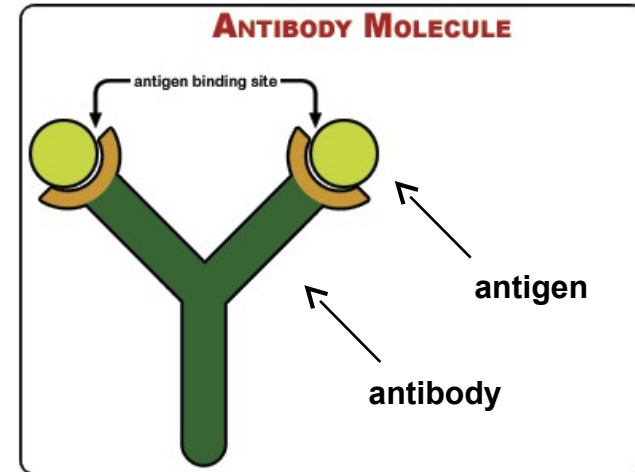
Bioventix Presentation: Islington, January 2017

- **Blood testing and antibodies**
- **Bioventix revenue model and currency effects**
- **Sheep antibodies (SMAs) and niche applications**
- **Recent financials**
- **Business continuity**
- **Conclusions & outlook**

Automated Blood Testing



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



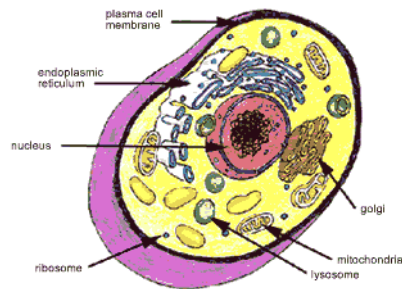
- SMA means sheep monoclonal antibody
- Bioventix revenues are based on sales of physical (liquid) antibody – and royalties on the downstream use of the antibodies



Beckman**Randox****Diasorin****Abbott****Siemens****BioMerieux****Roche****Ortho (J&J)****Mindray****Tosoh****DiRui****Fujirebio**

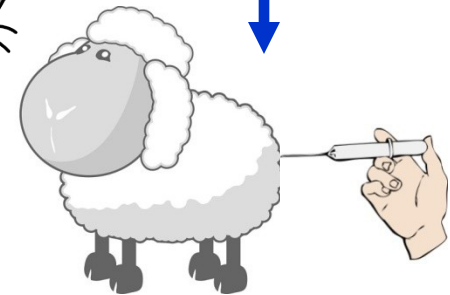
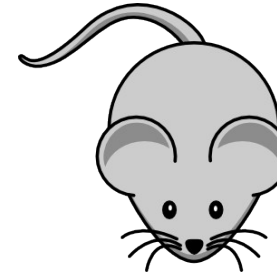
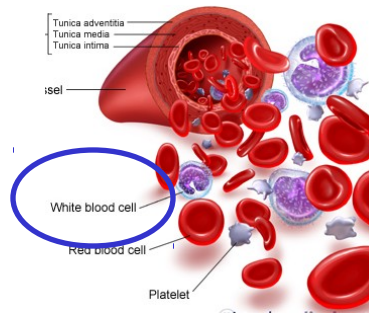
- Physical antibody sales are in \$ and €
- Royalties are based on customers' global sales & dominated by \$ and €
- UK£ FX rates influence Bioventix revenues

Creating Antibodies



Myeloma fusion partner

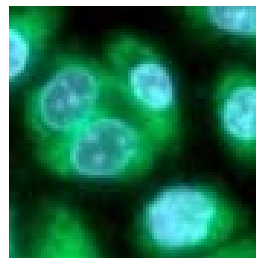
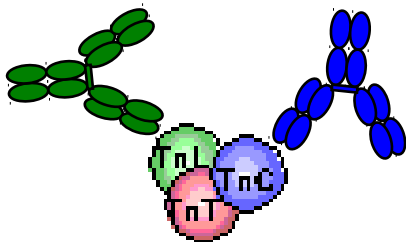
- Immortal
- Secretes nothing of use



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

Why SMAs? (testosterone)



Clinical Chemistry 49, No. 8, 2003

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*}

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

Editorial

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.

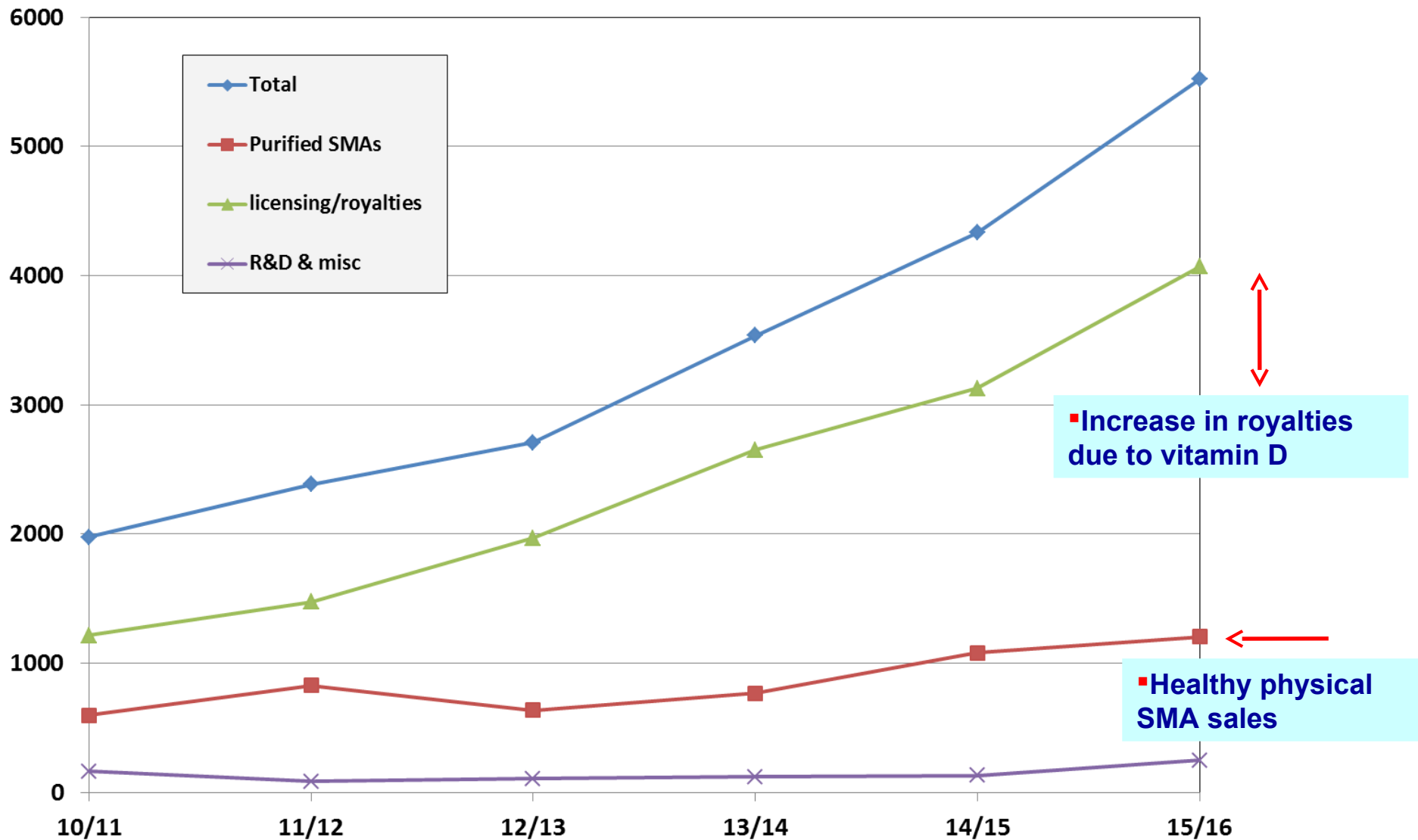
Immunoassays for testosterone produce sometimes incorrectly high results in female samples. The reasons of this phenomenon are not fully understood, but interference by cross-reacting substances and inaccurate calibration can be critical. One known endogenous interfering substance is dehydroepiandrosterone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

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

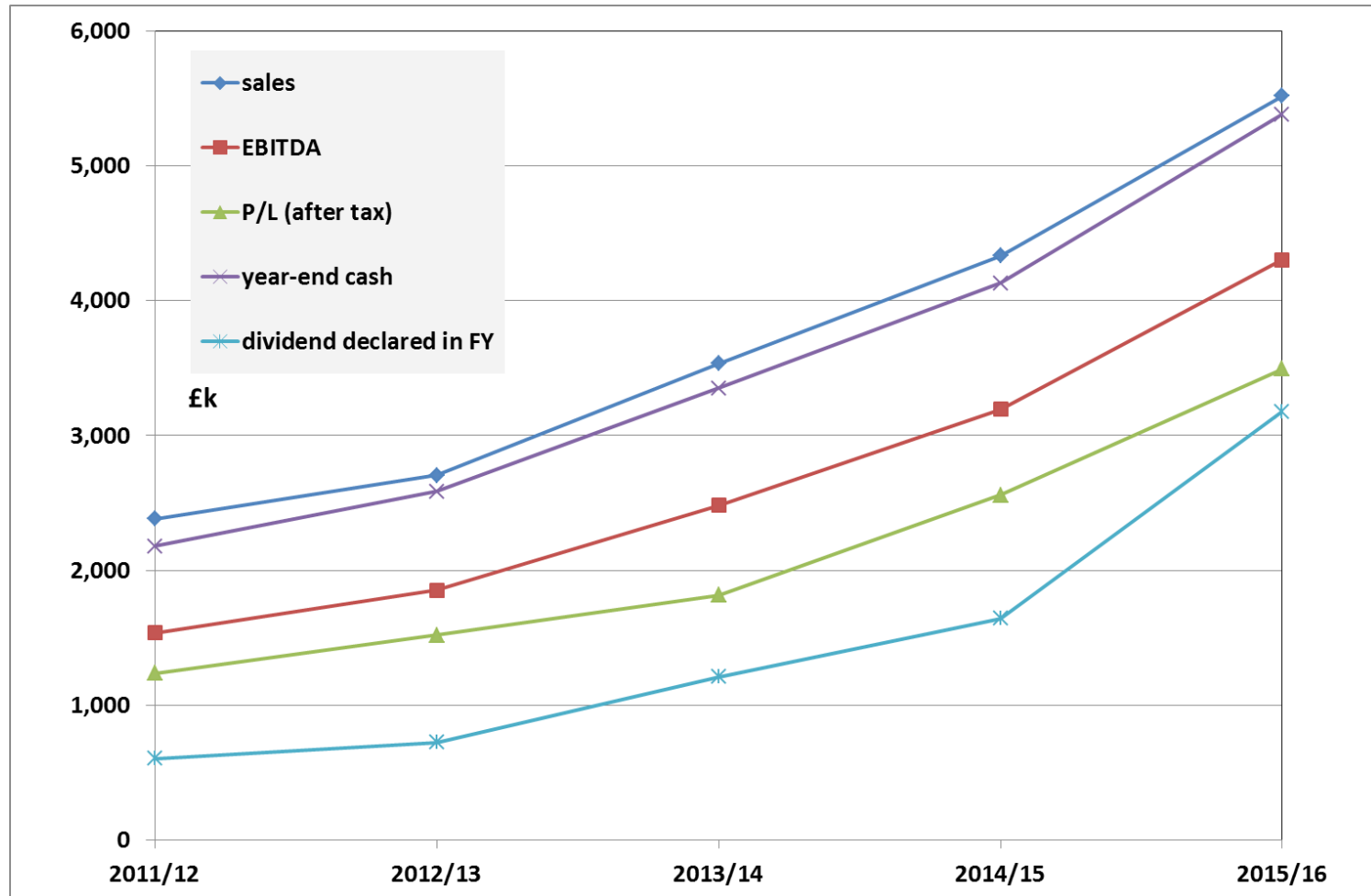
■ It is the Buioventix antibody that made this possible

Year Sales by Sector



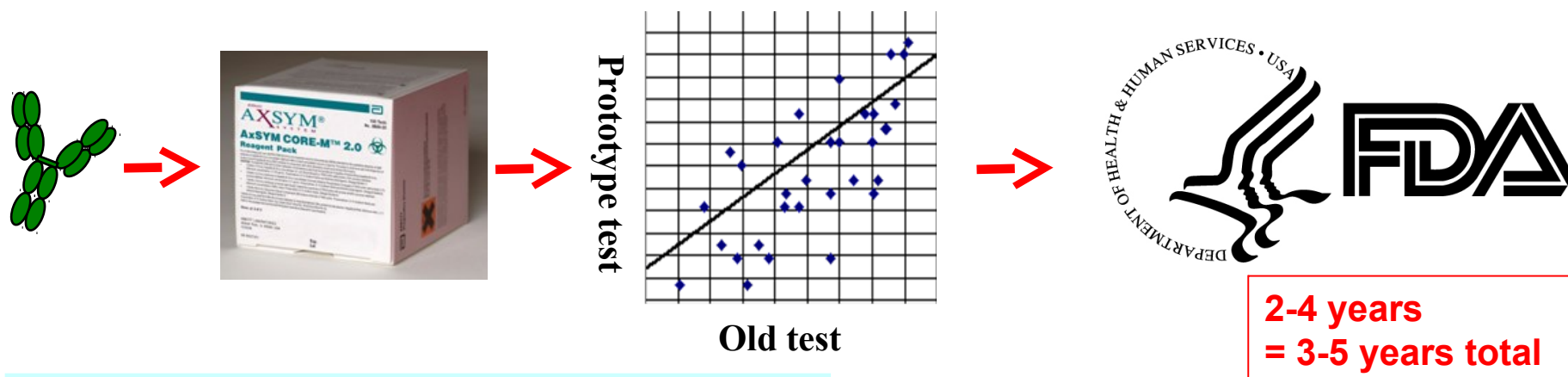
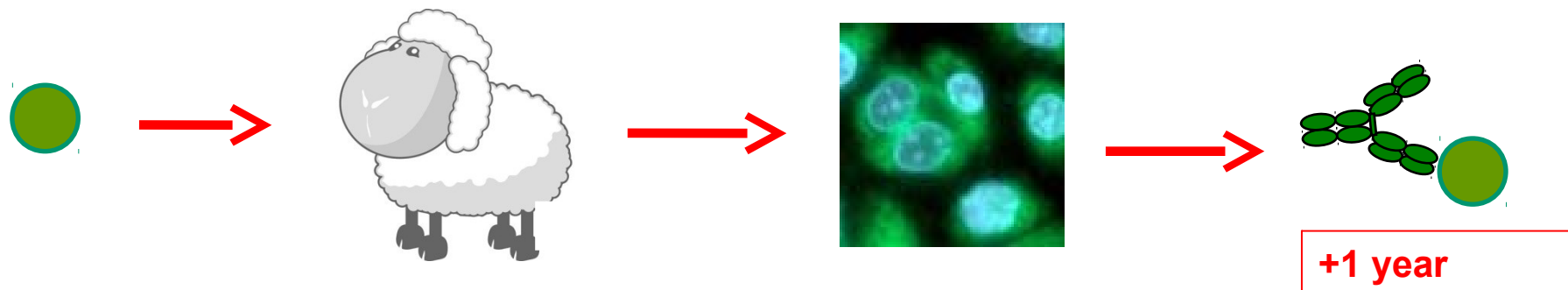
■ Key antibodies : vitamin D > NT-proBNP (heart failure) > testosterone > T3 > estradiol > various drugs

Historical Trends



▪ Dividend yield has been 3-5% (excluding special dividend November 2016)

Revenue Continuity



- 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



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 and currency effect (2H.2016 v 2H.2015)
- 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 (for chest pain & heart attack diagnosis)
- 2020-2030: growth linked to new products emerging from the company's R&D pipeline and collaborative work with new biomarkers (Oslo)

▪ Many recent investors have been income-orientated and view modest growth as an added bonus

