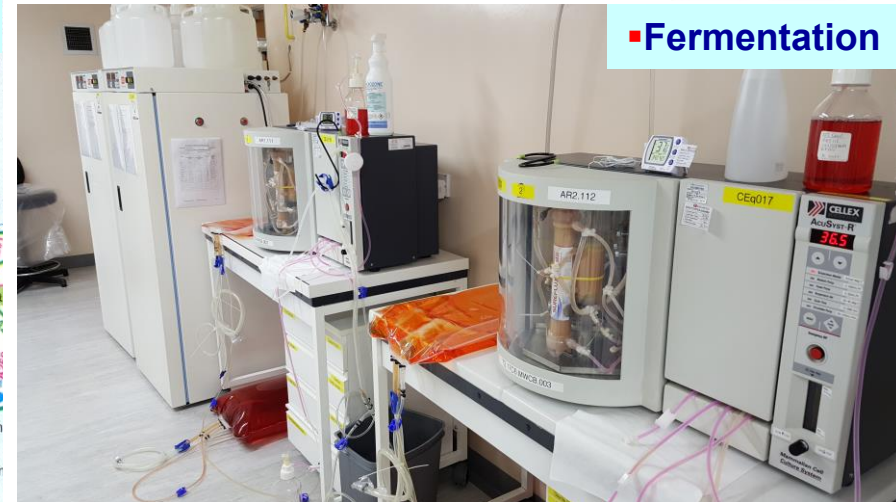
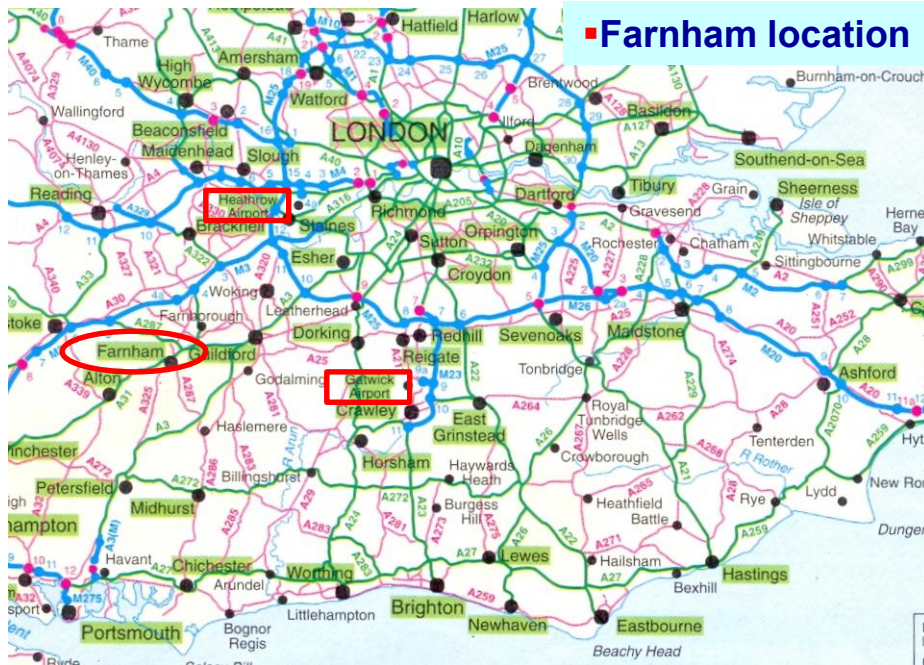




## **Bioventix Presentation: April 2019**

- **Bioventix & antibodies for blood testing**
- **Bioventix portfolio of antibodies and their advantages**
- **2018/19 interim results and comment**
- **Pipeline development**
- **Business continuity**
- **Shareholders & the Board**
- **Conclusions & outlook**

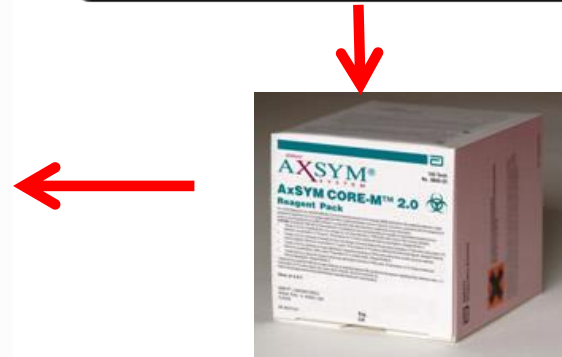
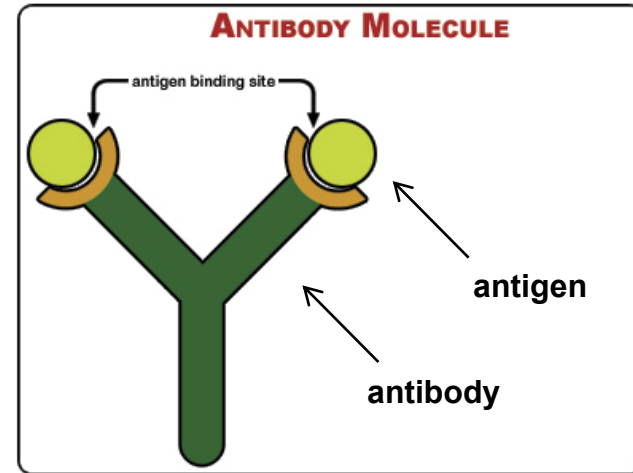
# Bioventix (Farnham)



# Automated Blood Testing



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

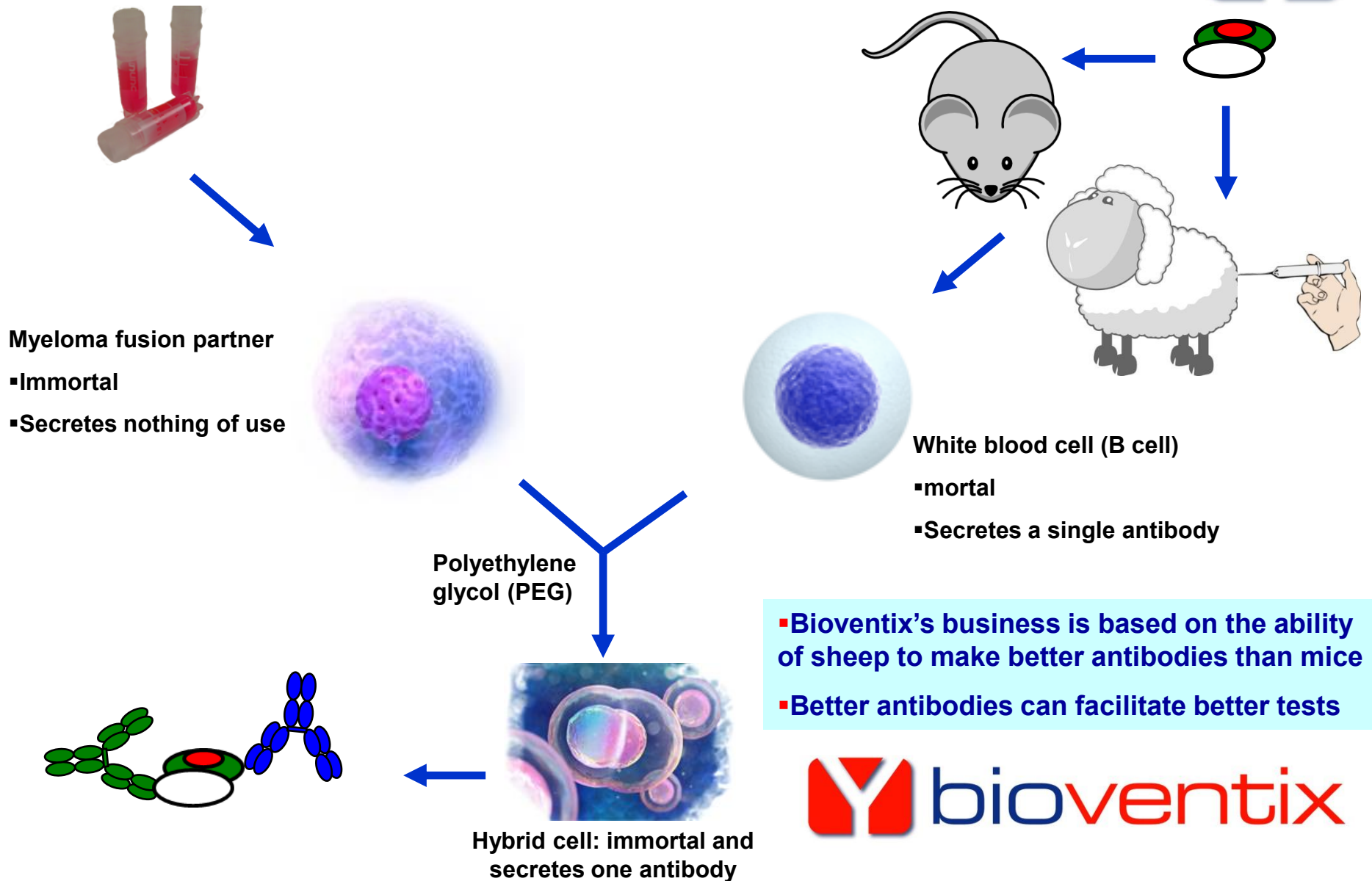


- Bioventix sells liquid “physical” SMAs and derives royalties from their downstream use





# Creating Antibodies



# 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,<sup>1</sup> BRUNO MATHIAN,<sup>2</sup> FRANÇOISE MILLOT,<sup>3</sup> MARIE-CLAUDE PATRICOT,<sup>2</sup>  
ELISABETH MATHIEU,<sup>4</sup> NICOLE QUEYREL,<sup>5</sup> ISABELLE LACROIX,<sup>6</sup> CLAUDE SOMMA-DELPERO,<sup>7</sup> and  
PHILIPPE BOUDOU<sup>8\*</sup>

■ 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.

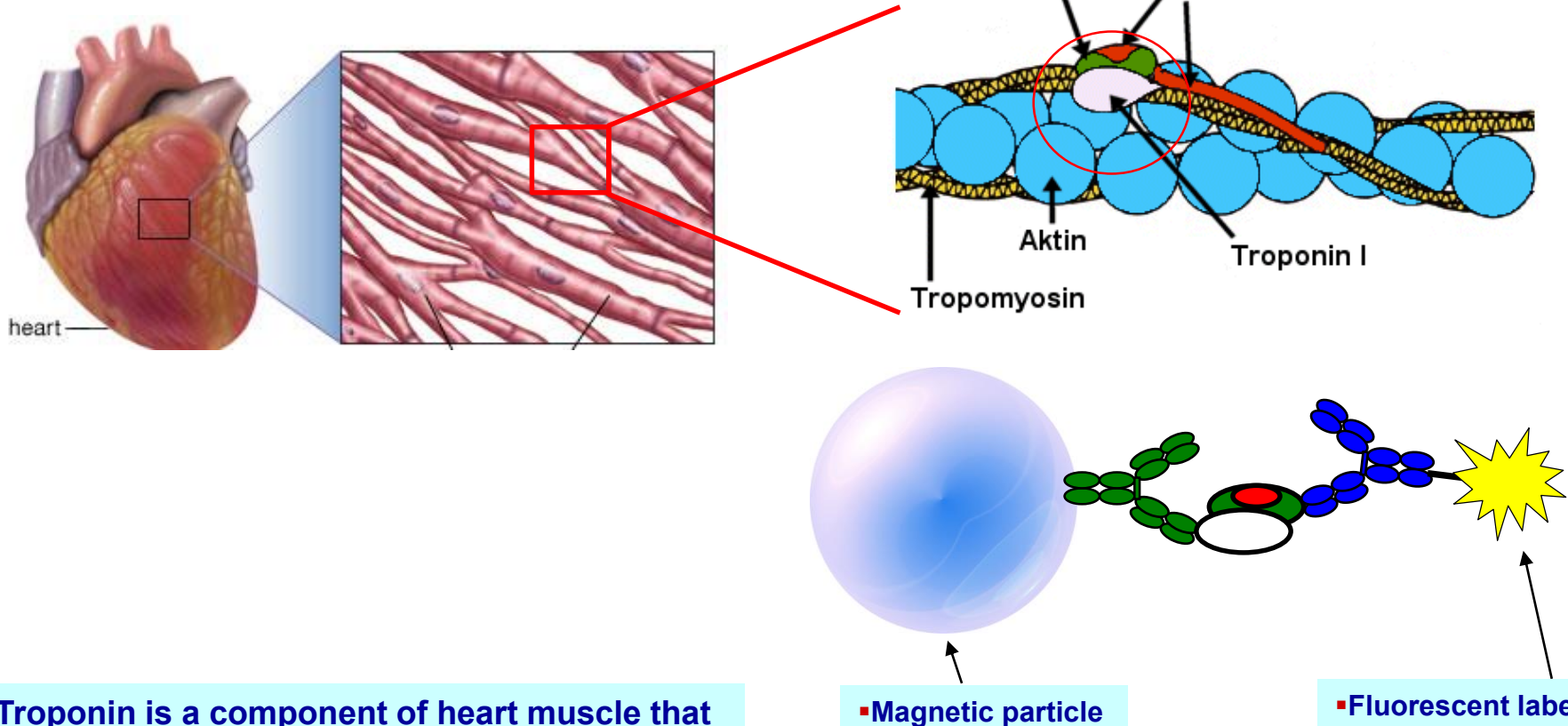
Immunoassays for testosterone produce sometimes incorrectly high results in female samples. The reasons of this phenomenon are not fully understood, but interference by cross-reacting substances and inaccurate calibration can be critical. One known endogenous interfering substance is dehydroepiandrosterone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

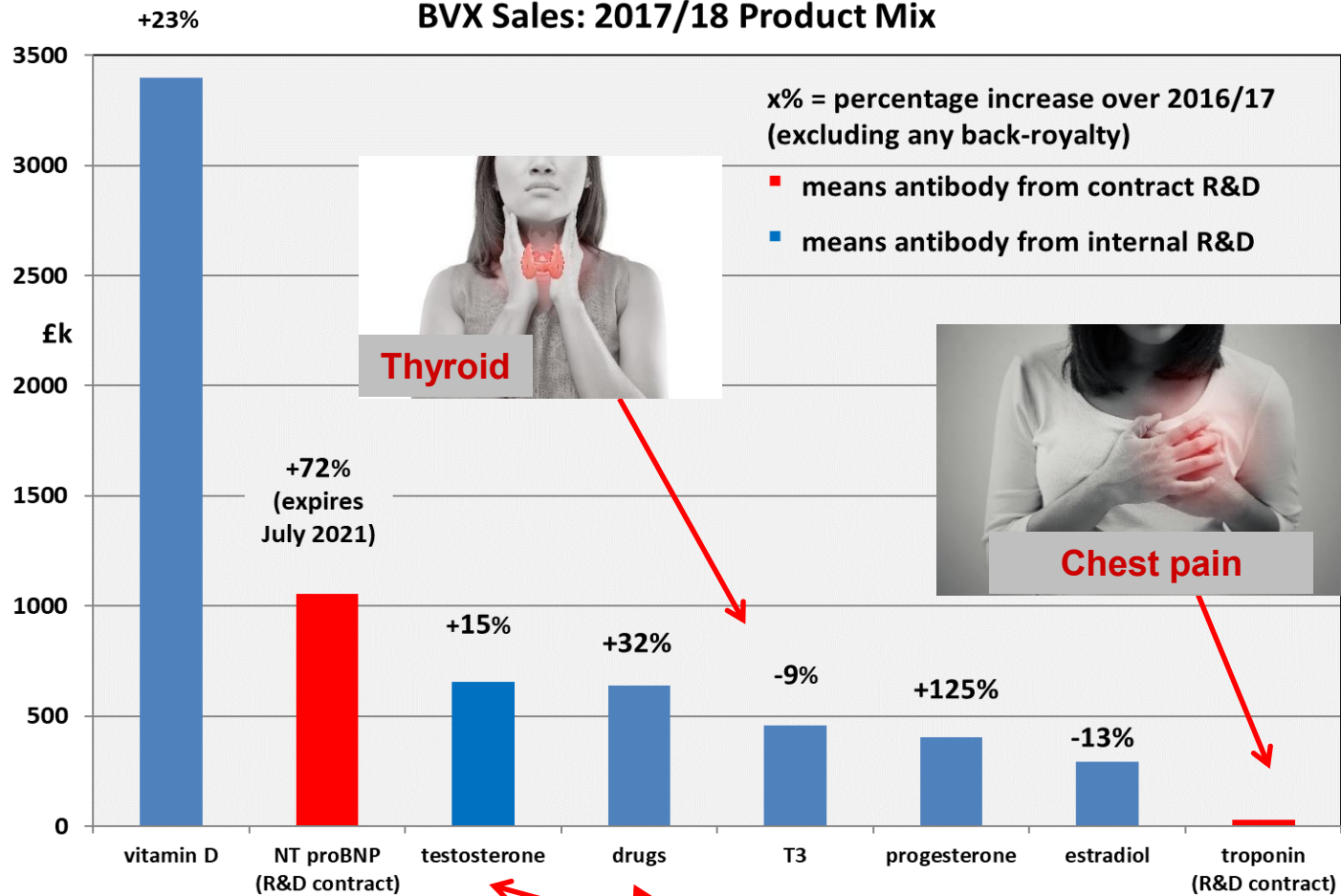
■ Roche published their prototype assay in 2008 and launched this assay in 2009

■ It is the Bioventix antibody that made this possible

# Why SMAs? (troponin)



# BVX Sales: 2017/18 Product Mix



Heart failure



Fertility

# Key Financials



£ ('000)	Year to 30.6.18	½ year to 31.12.17	½ year to 31.12.18	FinnCap guide 2018/19
Sales (excluding back-royalty)	8,751	4,295 3,522	4,364	9,000
P/(L) before tax (finnCap numbers are adjusted) (excluding back-royalty)	6,867	3,400 2,628	3,246	7,100
P/(L) after tax	5,663	2,822	2,746	5,900
Period-end cash	6,986	5,588	5,456	
Total regular dividend per share (p)	61			73
Split between Spring/Autumn	25/36	25	30	30/43
Special dividend	55			
Year dividend total	116			

- £770k back-royalty in 2H.2017 excluded from analysis
- Significant vitamin D sales increase over 2017 period. Total vitamin D market now flatter but some Bioventix customers doing well (Diazyme, Boditech)
- Other antibodies (T3, NT-proBNP & prog) also performed well





# New Troponin Assays



[View as a webpage](#)

**Now Available! High-Sensitivity Troponin I Assay**



Access hsTnI (High Sensitivity Troponin I) Assay

<b>(ClinChem, March 2019)</b>	<b>% sites using high sensitivity troponin assays</b>
USA	0
UK	72
Germany	50
France	57
Italy	67
Japan	49
China	34

- Troponin sales were modest
- Sales are nevertheless increasing and the March 2019 ClinChem article provides further encouragement
- Some high sensitivity testing likely to be under trial/evaluation use with free samples



# Pipeline Development 2018

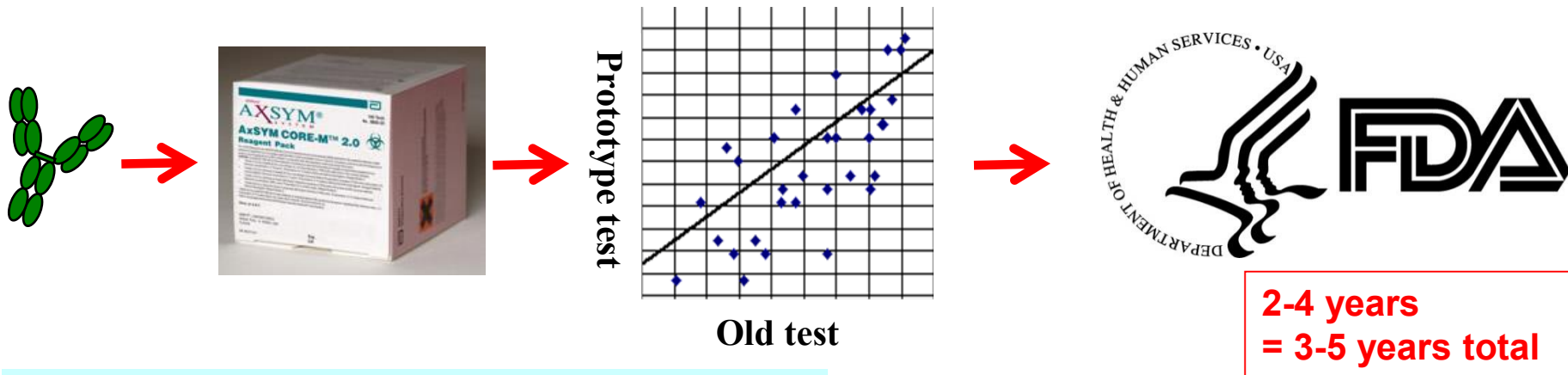
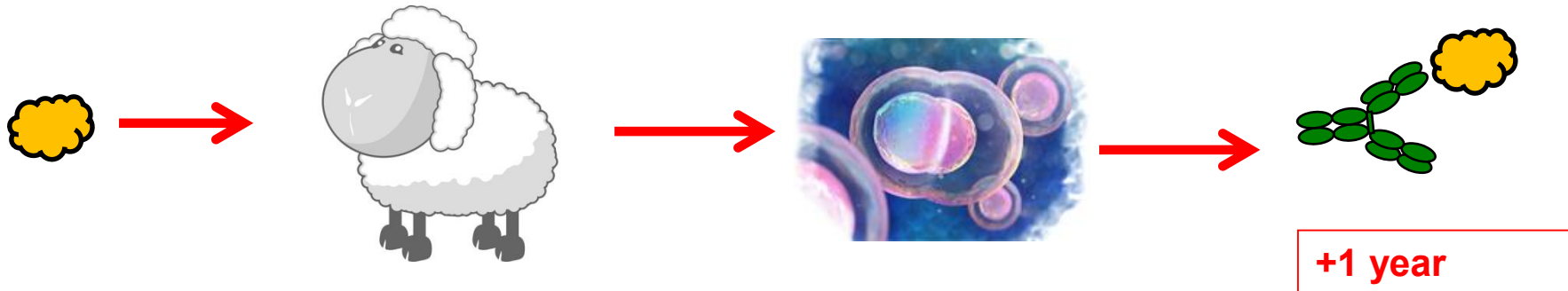


↑ Increasing potential value	high	Secretoneurin (CardiNor) Amyloid (Pre-Diagnostics) Cardiac MyC (King's)	Biotin (blocking Abs)	
	medium		virus (contract) T4 (thyroxine)	
	Low		thyroglobulin (contract) Vitamin (contract)	Cancer (contract)
		Low	Medium	high
Increasing probability of success →				

- Biotin “health” supplements can interfere with the “chemical Velcro” used in some blood tests
- MyC testing, particularly at point-of-care could have advantages over troponin for MI rule-out



# 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



# Selected Shareholder Base



Institution	Shares (1000s)	%
Sanford DeLand (Castlefield)	790	15.4
Miton Group	508	9.9
Peter Harrison	428	8.3
Gresham House (Livingbridge)	403	7.8
Canaccord (Hargreave Hale)	329	6.4
Jupiter Asset Management	200	3.9
Wasatch Advisors, Inc (Salt Lake City)	151	3.0
Liontrust	131	2.6
Schroder Investment Management	118	2.3
Edentree Investment Management	62	1.2
Sub-total		60.8

**Total shares = 5,141,674**

▪ From permissions, other available data and TR-1 forms received as at March 2019





# 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



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

# Conclusions and Outlook



- July-Dec 2018: strong start to the year
- 2019-2020: growth linked to continued roll-out of high sensitivity troponin products globally
- 2020-2030: growth linked to additional troponin applications and new products emerging from the company's R&D pipeline