



Bioventix Presentation: October 2018

- **Bioventix & antibodies for blood testing**
- **Bioventix portfolio of antibodies and their advantages**
- **2017/18 results and analysis**
- **Pipeline development**
- **Business continuity**
- **Shareholders & the Board**
- **Conclusions & outlook**

Location and Skills



■ Creation and manufacture of high affinity sheep antibodies (SMAs)



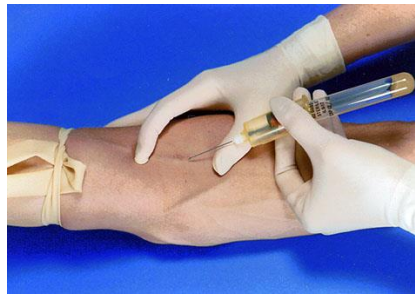
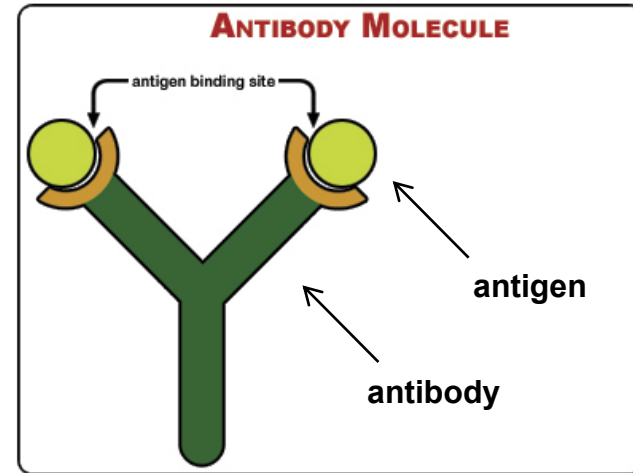
■ 12 staff in a Bioventix-owned property



Automated Blood Testing



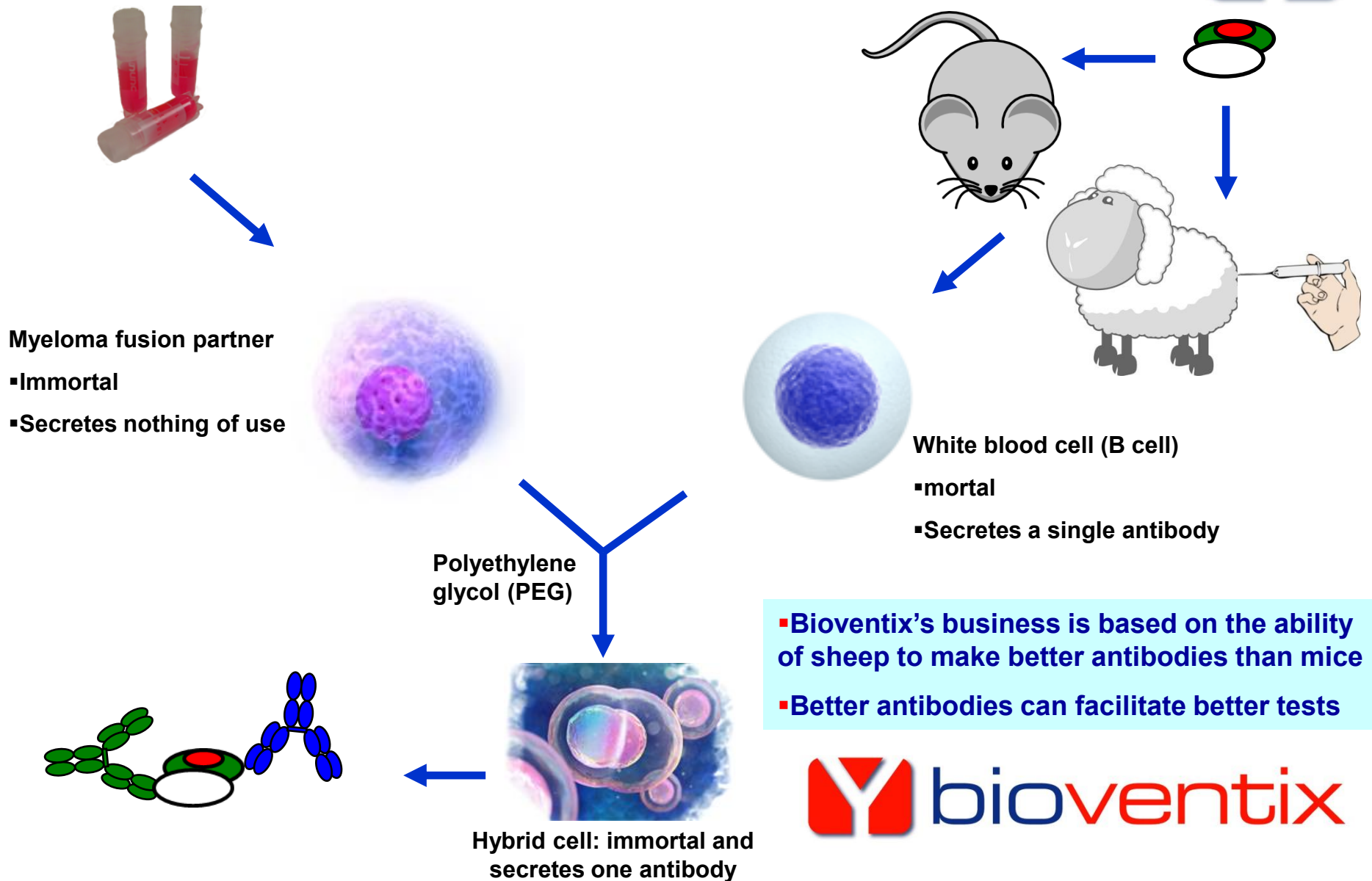
- Bioventix creates and manufactures sheep monoclonal antibodies (SMAs). Customers incorporate these antibodies in reagent packs for use on automated blood-testing machines



- 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,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.

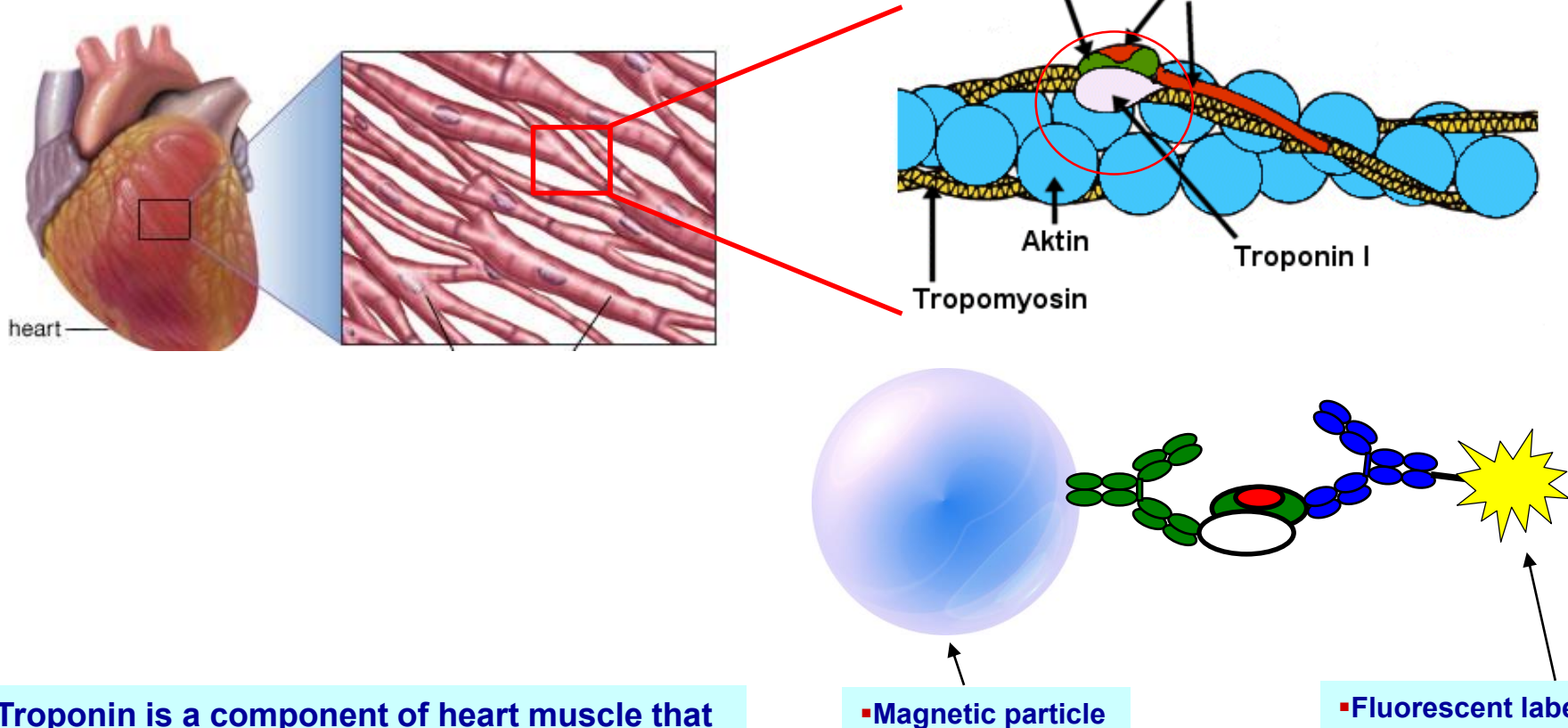
Immunoassays for testosterone produce sometimes incorrectly high results in female samples. The reasons of this phenomenon are not fully understood, but interference by cross-reacting substances and inaccurate calibration can be critical. One known endogenous interfering substance is dehydroepiandrosterone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

Why SMAs? (troponin)



- Troponin is a component of heart muscle that leaks out after a heart attack

- A new improved Siemens assay for troponin (ie to help diagnose chest pain) which uses Bioventix antibodies was released in ex-US markets in May 2017 and in the US in July 2018

2017/2018 Highlights



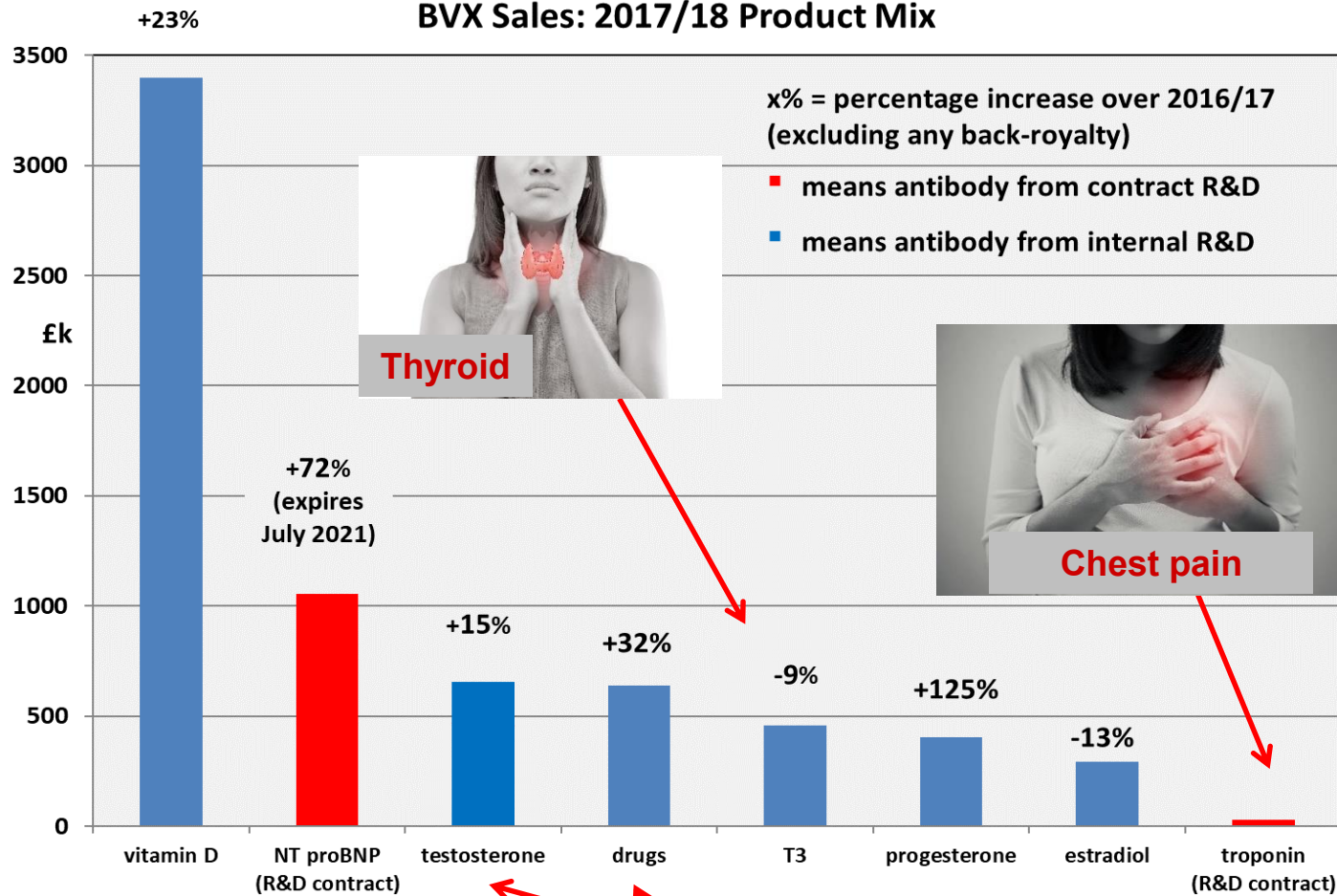
- **Turnover:** £8.75M (£7.25M; +21%)
- **Excluding back-royalty:** £8.00M (£7.25M; +10%)
- **PBT:** £6.87M (£5.77M; +19%)
- **Profit after tax:** £5.66M (£4.92M; +15%)
- **Cash:** £6.99M (£6.12M; +0.81M)

■ ~£900k of lost NT-proBNP sales replaced by ~£1,600k other sales. Highlights were:

- Vitamin D: +£600k
- NT-proBNP: +£450k
- Progesterone: +£220k
- Drug SMAs: +£150k



BVX Sales: 2017/18 Product Mix



Heart failure



Fertility

■ Does not feature the £0.9M loss of NT-proBNP or the £0.8M back-royalty

Key Financials



£ ('000)	Year to 30.6.16	Year to 30.6.17	Year to 30.6.18	FinnCap 2018/19
Sales	5,517	7,245	8,751	9,000
P/(L) before tax (adjusted)	4,219	5,771	6,867	7,100
P/(L) after tax	3,494	4,922	5,663	5,900
Year-end cash	5,380	6,166	6,986	
Total dividend distribution associated with FY	3,200	4,600	6,000	
Total regular dividend per share (p)	42.5	51	61	73
Split between Spring/Autumn	16.5/26	20/31	25/36	30/43
Special dividend	20	40	55	
Q3 share price (p)	11.00	22.00	~31.00	
Dividend yield (total/Q3; %)	4.0	2.3	2.0	
[including special]	5.7	4.1	3.7	

- Dividend policy remains unchanged from previous years
- FinnCap PBT adjusted for share option charges



New Troponin Assays



[View as a webpage](#)

Now Available! High-Sensitivity Troponin I Assay

Accurate results you can trust, allowing fast triage of chest pain patients



Access hsTnI (High Sensitivity Troponin I) Assay

Confidently report accurate results with the first true high-sensitivity troponin I assay cleared by the FDA

- Siemens launched ex-US in Q3.2017. US launch in Q3.2018 expected to stimulate roll-out and use at Siemens customers during FY 2018/19
- Additional applications envisaged (beyond chest pain) in the period 2020-2030
- Beckman Coulter assay also uses an SMA created by a sub-licensee



Pipeline Development 2018

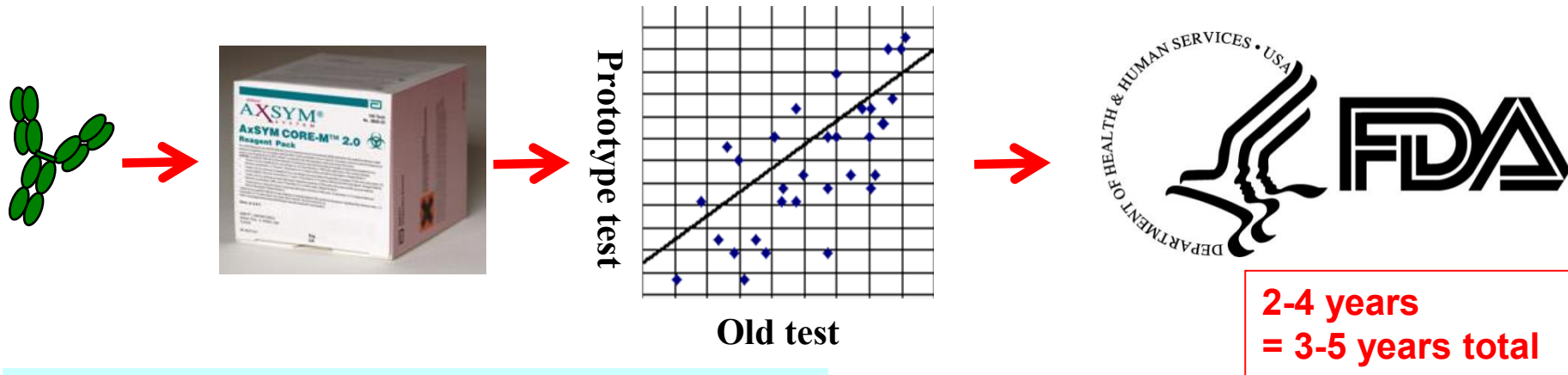
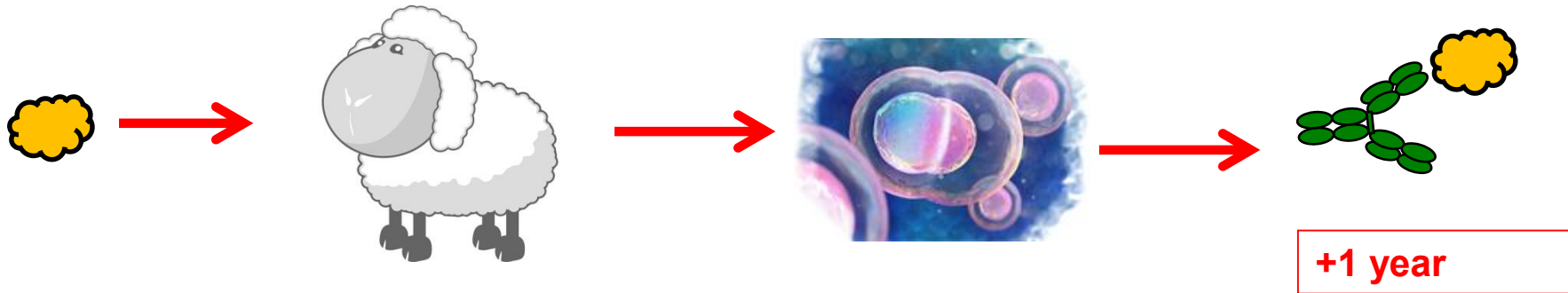


↑ Increasing potential value	high	Secretoneurin (CardiNor) Amyloid (Pre-Diagnostics) Cardiac MyC (King's)	Biotin (blocking Abs)	
	medium		virus (contract) T4 (thyroxine)	
	Low		thyroglobulin (contract) Vitamin (contract)	Cancer (contract)
		Low	Medium	high
Increasing probability of success →				

- 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)	%
Sandford DeLand (Castlefield)	575	11.2
Miton Group	508	9.9
Peter Harrison	428	8.3
Livingbridge	384	7.5
Canaccord (Hargreave Hale)	329	6.4
Jupiter Asset Management	200	3.9
Wasatch Advisors, Inc	151	3.0
Schroder Investment Management	118	2.3
Edentree Investment Management	62	1.2

Total shares = 5,140,674

▪ From available data and TR-1 forms
received as at August 2018



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



- 2017/18: Increased sales more than replaced loss of £0.9M NT-proBNP. Siemens/troponin roll-out slower than expected
- 2018-2020: growth linked to roll-out of Siemens & their high sensitivity troponin project
- 2020-2030: growth linked to additional troponin applications and new products emerging from the company's R&D pipeline