



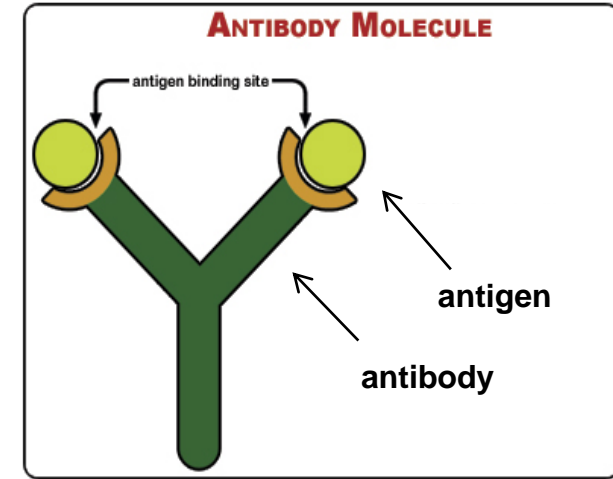
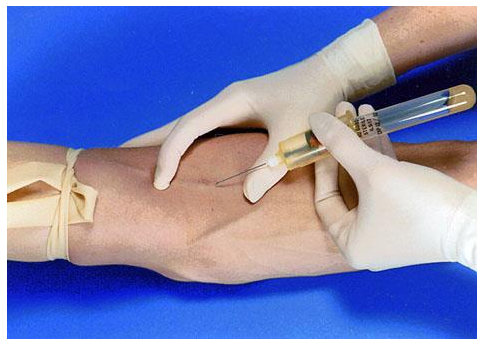
# Bioventix plc

24 October 2022

# Antibodies and Blood Testing

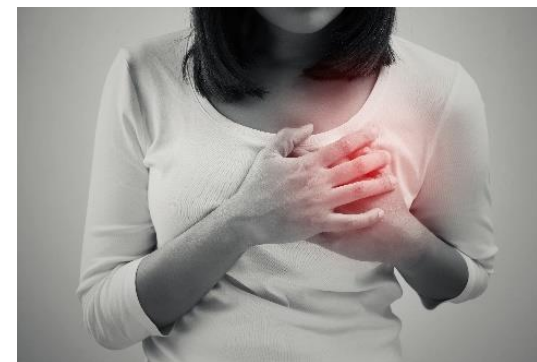


- Bioventix creates and manufactures sheep monoclonal antibodies (SMAs). Customers incorporate these antibodies in reagent packs for use on automated blood-testing machines



- Superior antibodies can facilitate improved tests
- Bioventix sells liquid “physical” SMAs and derives royalties from their downstream use

# Diagnostic Applications for SMAs



**Vitamin D**  
(25-OH vitamin D)

**Thyroid function**  
(thyroxine, T3)

**Fertility**  
(testo, estrogens)

**Chest pain; heart attack**  
(troponin)

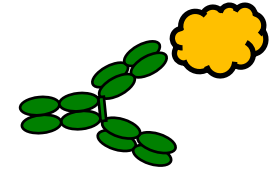
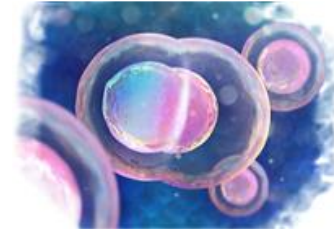
**Drug testing**  
(THC)

- Bioventix has a portfolio of ~20 antibodies that are sold globally to in vitro diagnostics (IVD) companies
- Most have been created through the use of internal resources and reagents. Some other antibodies (eg **troponin**) have been created through **contract R&D** and are exclusive to the partner companies

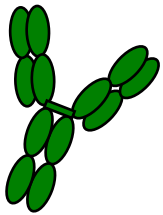
# Antibodies and Business Dynamics



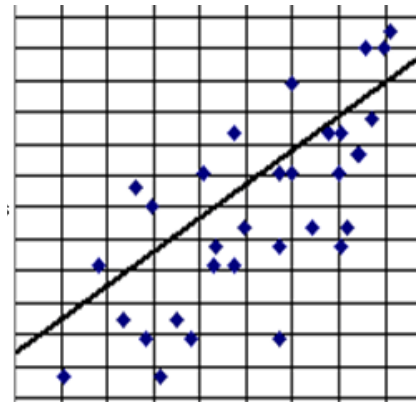
- Projects can be internally driven or **sponsored** by customers



+1 year



Prototype test



Old test



2-4 years  
= 3-5 years total

- Bioventix takes about 1 year to create new antibodies
- Even for established diagnostics, customers take 2-4 years to prototype tests, conduct field trials, submit regulatory data and obtain marketing approval
- Despite increasing competition through continued antibody technology development, changing an antibody in an approved test introduces a barrier (depending on the clinical criticality of the test) that helps deliver revenue continuity

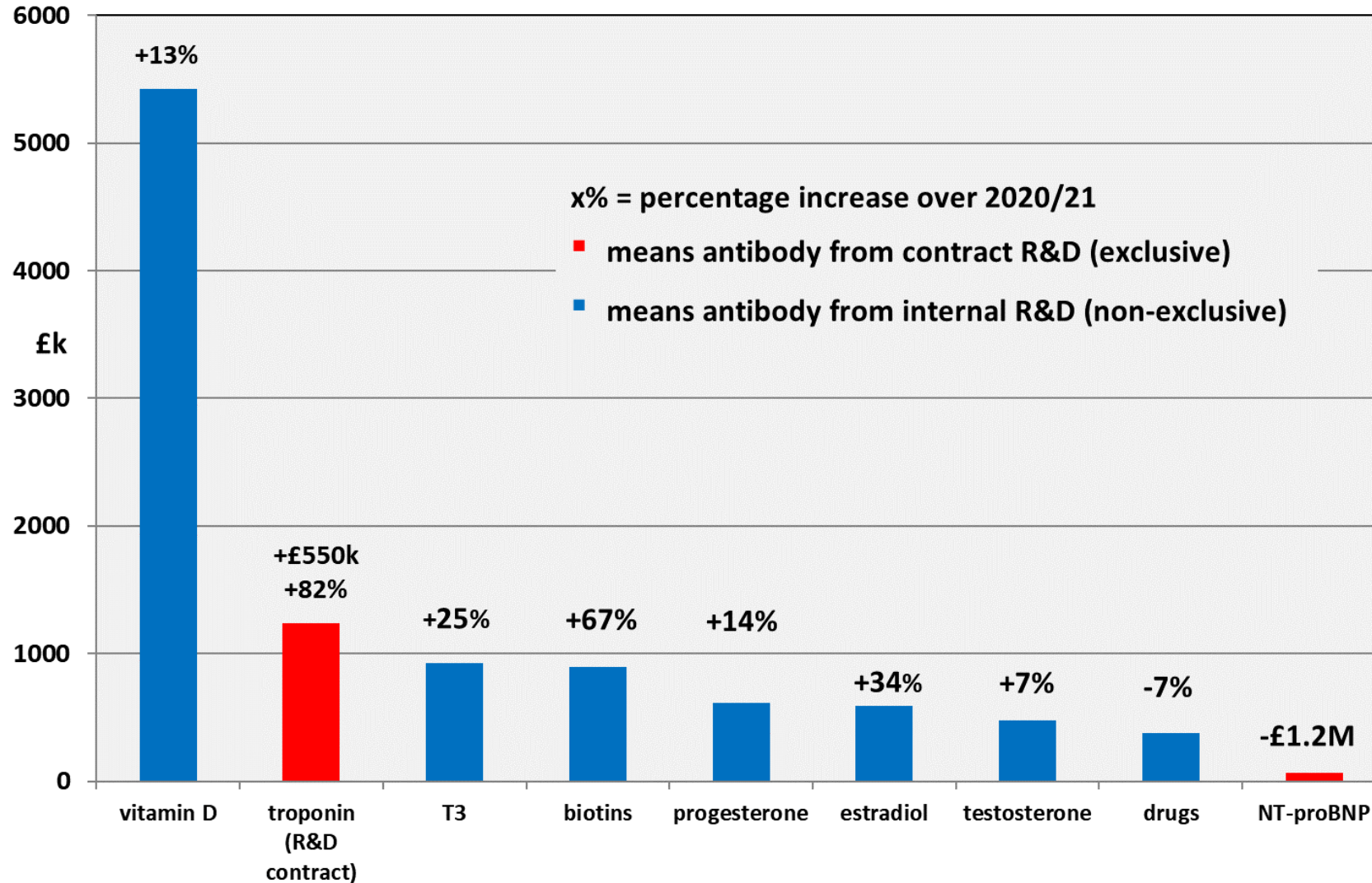
# Key Year End Financials



£ ('000)	year to 30.6.21	Finncap forecast 2021/22	year to 30.6.22
Sales	10,930	10,400	11,720 (+7%)
P/(L) before tax	8,120	8,000 (adjusted)	9,280 (+14%)
P/(L) after tax	6,730	6,700 (adjusted)	7,670 (+14%)
Period-end cash	6,500	5,200	6,130
Total regular dividend per share (p)	105		126
Split between Spring/Autumn	43/62		52/74
Special dividend	38		26
Year dividend total	143		152

▪ A total dividend of 100p/share will be paid on 18 November 2022

## Bioventix Sales: 2021/22 Product Mix



■ The expiry of NT-proBNP revenues has been replaced by growth in troponin and other antibodies

# Additional Sales Commentary



- Many core revenue streams have recovered during 2022
  - The impact of the coronavirus pandemic on routine blood testing in many geographical areas receded during 1H.2022
  - vitamin D sales have also benefitted from this effect
- Troponin sales have increased significantly as the use of high sensitivity tests that feature SMAs has spread to additional hospitals
- We estimate that approximately 50-60% of Bioventix revenues are directly or indirectly linked to US\$ (eg through direct \$ sales or royalties calculated on downstream US\$ assay pricing). US\$ royalty revenues received in August relating to 1H.2022 revenues were converted at a more favourable exchange rate of ~1.2£/\$
- Sales of physical antibodies to China have increased again, however:
  - The increasing competition through continued antibody technology development in China and elsewhere does constitute a longer term threat
  - Geopolitical stability will be important for trade continuity in technology products

# Longer Term Pipeline Development



↑ Increasing potential value	high	Amyloid (Pre-Diagnostics) Secretoneurin (CardiNor)	Tau (Alzheimers, own-risk)	
	medium			Biotin blockers [1]
	Low		Industrial biomonitoring (benzene, isocyanates)	THC (sandwich) [1] Pyrene biomonitoring
			Low	Medium
Increasing probability of success →				

1. Modest “blocker” sales now contribute to other anti-biotin SMA sales



# Pipeline Development Commentary

- **Secretoneurin** (CardiNor/cardiac): data from recent patient sample studies does show a link with heart disease read-outs. The next step for CardiNor will be to define the potential utility of secretoneurin diagnostics in cardiac health
- **Amyloid** (Pre-Diagnostics/Alzheimers): Development of two new assays continues in Oslo. A new area of interest is the diagnosis of ARIA, a side-effect related to new anti-amyloid drugs
- **Tau** (Alzheimer's/own-risk): Our academic collaborator at the University of Gothenburg has generated encouraging data from patient blood samples. The levels of Tau detected using our antibodies are approximately x2 higher in Alzheimer's samples compared to controls, x2 being similar to other research groups. A slightly higher ratio of 4-5 times would result in an improved Alzheimer's diagnostic test that could be valuable in the future. We are encouraged by this and plan to create more antibodies to support further work with our collaborators in 2023. The recent success of the Eisai/Biogen lecanemab clinical trial is likely to increase the need for early diagnostics
- **Pyrene** (industrial biomonitoring): a field trial with at a UK industrial site during Q4.2021 went well. We plan to expand this with work at additional sites in the future. The progress of this project has led to new work on additional industrial pollutants, benzene and isocyanates (benzene is relevant to the petrochemical industry and isocyanates are used in polyurethane plastics and paints)
- **Biotin blockers & THC sandwich**: modest sales have started and feature in "miscellaneous antibody sales"

# Bioventix Strategy



- Seek novel clinical diagnostic biomarkers that suit our antibody technology and identify partner collaborator labs
- Continue to focus on antibody technology development
  - Identify antibody creation and production technologies that are compatible with existing core SMA technology (eg antibody “sandwiches” for small molecules and enhanced production systems)
- Identify other niches for antibody applications within the in vitro diagnostics industry that fit well with Bioventix skills
  - Industrial biomonitoring for worker exposure to chemicals
- Nurture and build the capability, knowledge and skills of the Bioventix team to deliver the strategy

# Bioventix Lab, Farnham



▪ Purification and assay



▪ Technology development



▪ Cell culture



▪ Bioreactor production

- Supply chain issues continue but have been adequately managed
- Action has been taken to mitigate against possible power interruptions during the winter of 2022/23

# Bioventix Directors



- **Peter Harrison, CEO**
- **>30 years experience of antibody technology at Celltech, KS Biomedix & Bioventix**
- **Peter remains healthy and committed to Bioventix**



- **Ian Nicholson, Chairman**
- **>30 years experience of commercial development within biotechnology including Amersham, Celltech, Chroma, Clinigen, Consort Medical & F2G**



- **Bruce Hiscock, Executive Finance Director**
- **Chartered Accountant with >30 years experience in growing listed, privately owned and VC backed SMEs.**



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



# Environmental, Social and Governance

- Environment and Sustainability:
  - Objective: increase the productivity of antibody manufacturing processes to reduce the quantities of plastic and chemical disposables used at Bioventix
    - **2022: One process converted from plastic flasks to bioreactors in 2022**
    - **2022: productivity increase converting one antibody to a x4 higher production system**
  - Objective: offer sheep monoclonal antibodies that reduce the need for mass immunisation of sheep to make serum products
    - **2022: T4 (thyroxine) SMAs are now being sold and are replacing bulk sheep serum reagents**
- Social:
  - Society & Community: improve the diagnosis of patients at hospitals around the world
    - **2004-2022: diagnostic pathways for heart disease, thyroid function and fertility have been improved through Bioventix antibodies**
    - **2023-2026: our focus on Alzheimer's continues in our attempts to provide a test for early disease**
  - Objective: support new parents and parents returning to work with flexible working arrangements where possible
    - **2022: 4/14 staff are parents who have returned to work part-time**
- Governance:
  - Objective: continue to follow governance guidance from the Quoted Companies Alliance and balance this with candidate availability and the value of director experience and continuity
    - **2022: initiatives to increase the diversity of the board have not yet been fruitful but we continue our efforts in this regard**

# Significant Shareholders



Institution	Shares (1000s)	%
Sanford DeLand	1,040	20.0
Liontrust	583	11.2
Gresham House	465	8.9
Peter Harrison	417	8.0
Hargreaves Lansdown Stockbrokers	343	6.6
Danske Bank	168	3.2
Rathbone Investment Management	126	2.4
Hargreave Lansdown Fund Managers	122	2.3
Edentree Investment Management	110	2.1
Schroder Investment Management	70	1.3

**Total shares = 5,209,333 (Mar 2022)**

▪ **From permissions, other available data and TR-1 forms received as at Sept 2022**

# Conclusions and Outlook



- After a slow start to the year, performance has recovered during the remainder of the financial year
- Easing of the coronavirus pandemic in key territories has increased activity in routine clinical diagnostic pathways
- Troponin revenues have increased significantly
- The strength of the US\$ has translated into an increase in Sterling revenues for 1H.2022
- Research projects have progressed well during the year and provide optimism for future growth