



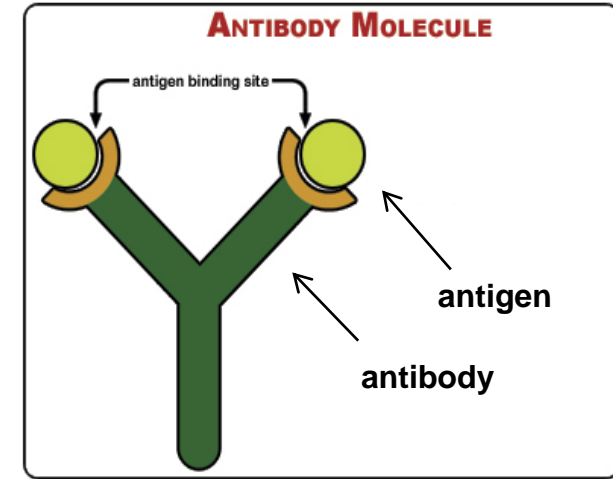
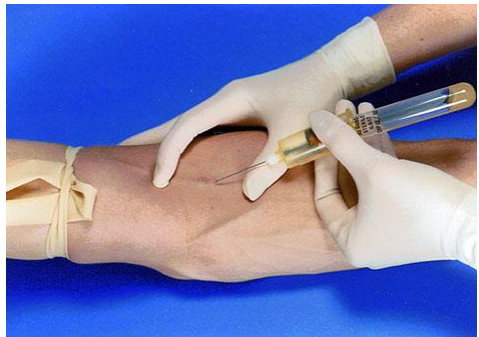
# Bioventix plc

28 Oct 2024

# 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)



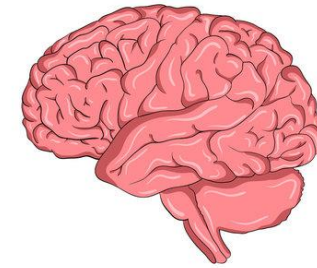
**Thyroid function**  
(thyroxine, T3)



**Fertility**  
(testosterone,  
estradiol,  
progesterone)



**heart attack &  
heart failure**  
(troponin, BNP)



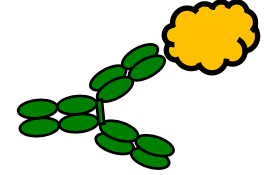
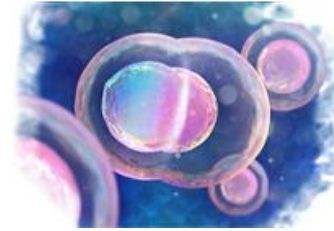
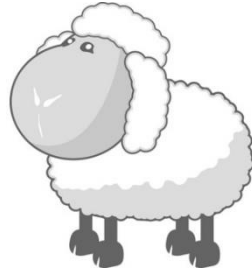
**Neurology**  
(Tau)



**Drug testing**  
(THC)

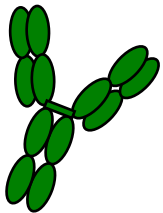
- Bioventix has a portfolio of ~25 antibodies that are sold globally to in vitro diagnostics (IVD) companies
- Most have been created through the use of internal resources and reagents. Some other antibodies (eg **troponin**) have been created through **contract R&D** and are exclusive to the partner companies

# Antibodies and Business Dynamics

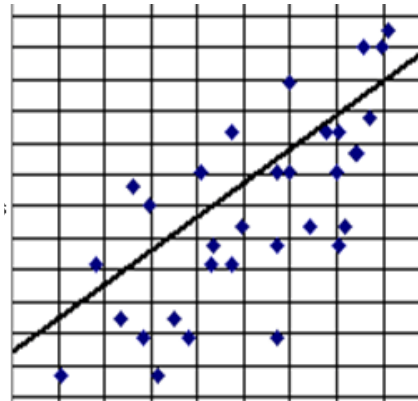


+1 year

- Projects can be internally driven or **sponsored** by customers
- Bioventix takes about 1 year to create new antibodies



Prototype test



Old test



2-4 years  
= 3-5 years total

- Even for established diagnostics, customers take 2-4 years to prototype tests, conduct field trials, submit regulatory data and obtain marketing approval
- Despite ever-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



**Bioventix**

# Key Year End Financials



£ ('000)	year to 30.6.23	year to 30.6.24	Cavendish forecast 2023/24
Sales (3, 4)	12,820	13,610 (+6%)	14,000
P/(L) before tax (2)	10,130	10,600 (+5%)	11,400
P/(L) after tax (1)	8,370	8,100 (-3%)	8,900
Period-end cash	5,720	6,000	5,400
Spring/Autumn dividend	62/90	68/87	173
Year dividend total	152	155	

- See next slide 6 for **notes** on the financial performance
- A second interim dividend of 87/share will be paid on 21 November 2024



# Key Financials: Notes



1. Profit after tax, EPS, cashflow and dividends have all been influenced by the full year effect of corporation tax increasing from 19% to 25% on 1st April 2023
2. Our £183k investment in CardiNor (Oslo) has been written off
3. A customer error in over-reporting and paying royalty revenue for troponin created an overstatement of turnover in 2021/22 and 2022/23 of £132k and £195k respectively. Accordingly, a correction of £327k features in the current year
4. Prudent accounting for accrued Chinese royalty in 2022/23 understated turnover by £235k which has been recognised in 2023/24 turnover

# Impact of customer error, prior year under accrual & impairment charge



## Run rate Turnover EBIT & PAT 2022/3- 2023/4

	Y/E 30 June	
	2023	2024
	£'000s	£'000s
<i>Reported Turnover</i>	12,816	13,607
Run rate Turnover	<u>12,740</u>	<u>13,695</u>
<i>Reported EBIT</i>	10,033	10,584
Run rate EBIT	<u>9,957</u>	<u>10,672</u>
<i>Reported PAT</i>	8,372	8,097
Run rate PAT*	<u>8,315</u>	<u>8,347</u>
Constant Currency Revenue **	<u>12,740</u>	<u>14,127</u>

\*2023/24 PAT reflects full year impact of Corporation Tax rate increase to 25%

Impairment charge of £183k to write off Cardinor investment

**Impact:**

**Reported PAT 2023/4 reduced by £183k**

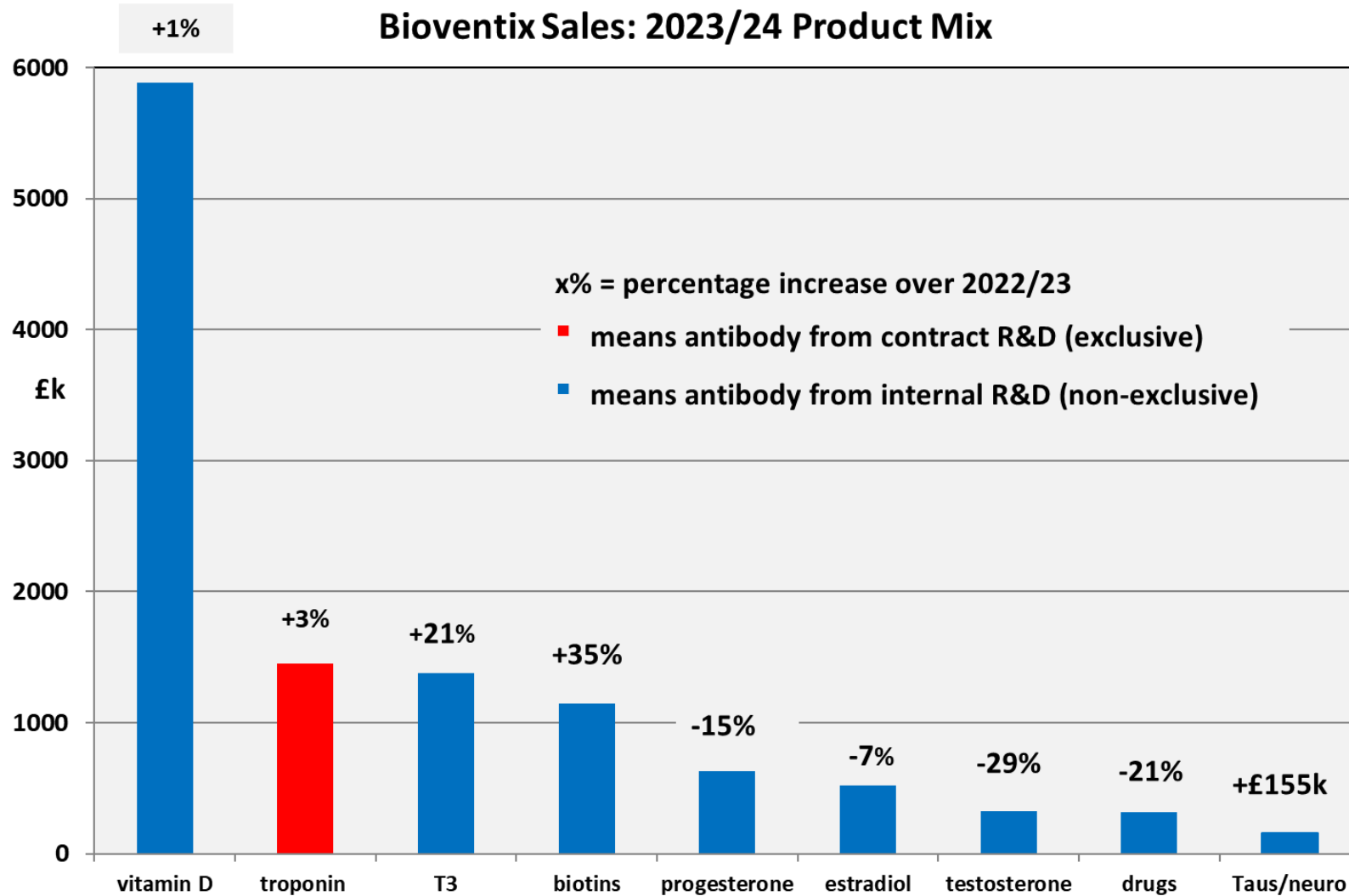
Customer error reporting & paying royalties overstated Troponin revenues by £132k in 2021/2 & £195k in 2022/3.

Royalties from a Chinese customer for 2022/23 accrued in line with previous years, revenue understated by £235k.

**Impact:**

**Reported Turnover & EBIT 2023/4 reduced by £88k, reported PAT by £66k.**

\*\*USD revenue transactions during FY 2023/24 were on average worth 4% less £ than those for FY 2022/23



- Troponin revenues have been adjusted to correct for the impact of the customer reporting error (slide 6)
- Siemens troponin revenues will terminate in June 2032



# Sales Commentary for the Period

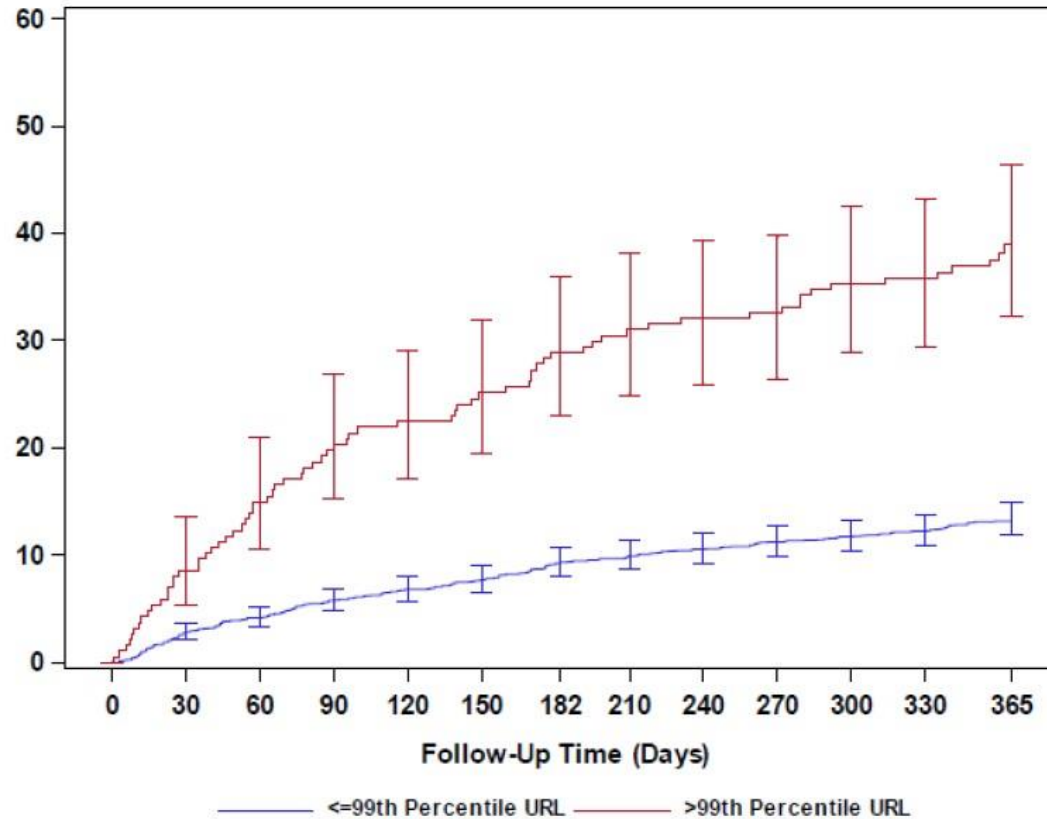


- Vitamin D antibody sales were in line with expectations reflecting the mature nature of vitamin D diagnostics
- Troponin sales of ~£1.5M were flat and below expectations based on previous downstream assumptions. However, in July 2024, Siemens received approval from the FDA for an expanded prognostic risk label claim which is expected to increase usage in “at risk” patients (see later slide)
- Remaining core antibody sales were in line with expectations. Sales of core antibodies to Chinese customers continued to grow
- Sales of Tau antibodies increased from zero to £155k. IVD customers have re-ordered additional supplies after having received free evaluation samples. There have also been modest royalties from a customer operating in the research market

# Troponin: Prognostic Risk Claim



## Serum



**NEW**

Expanded  
Prognostic Risk  
Claim

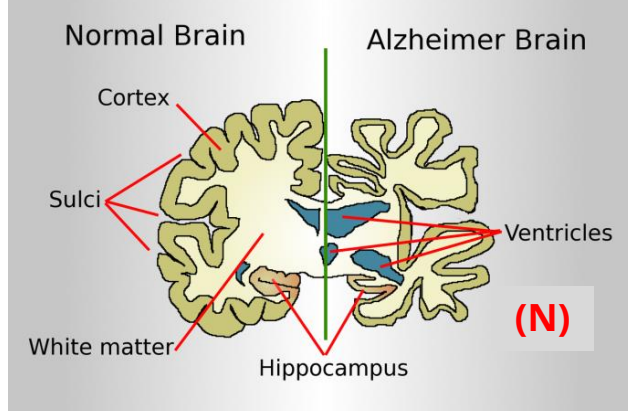
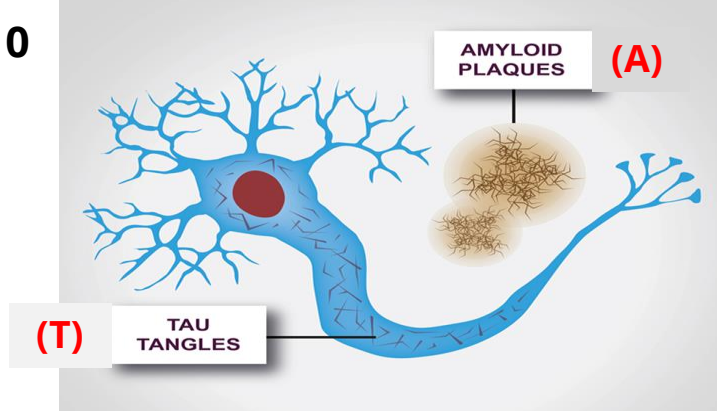
Atellica IM High-Sensitivity  
Troponin I

Cardiac

- BNP
- CKMB (Mass)
- High-Sensitivity Troponin I
- Myoglobin
- NT-proBNPII

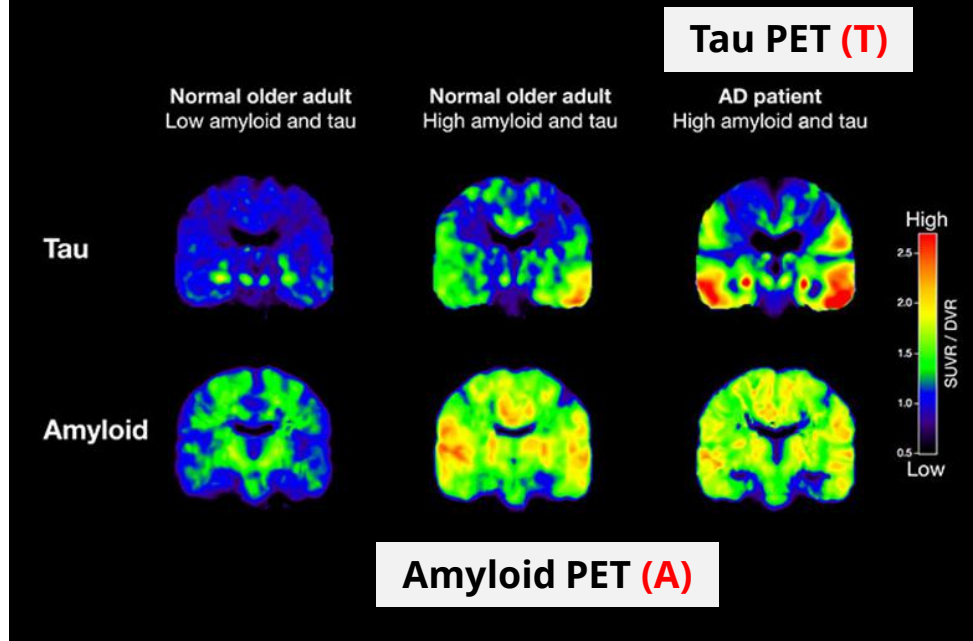
- ADLM July 2024 (Chicago): elevated risk associated with high troponin levels
- Information relating to future risk can allow clinicians to review the merit of additional diagnostics and alternative medical interventions

▪ Ref FDA 510k approval K241165



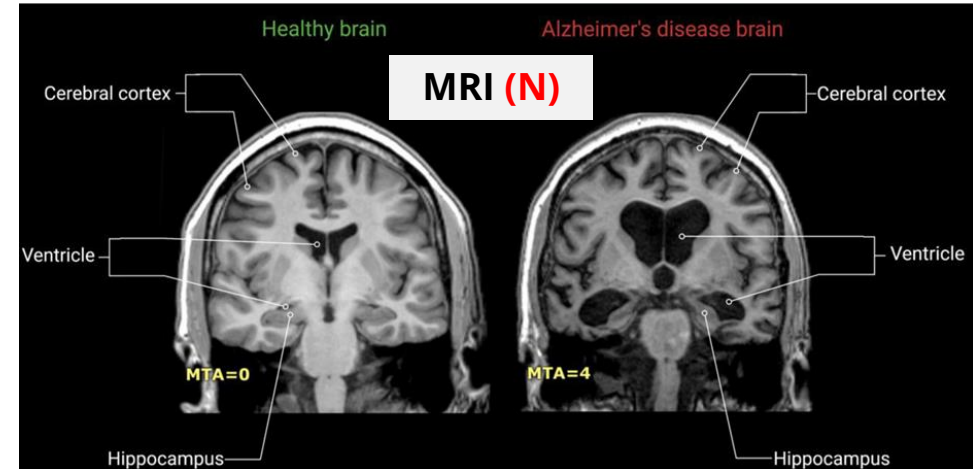
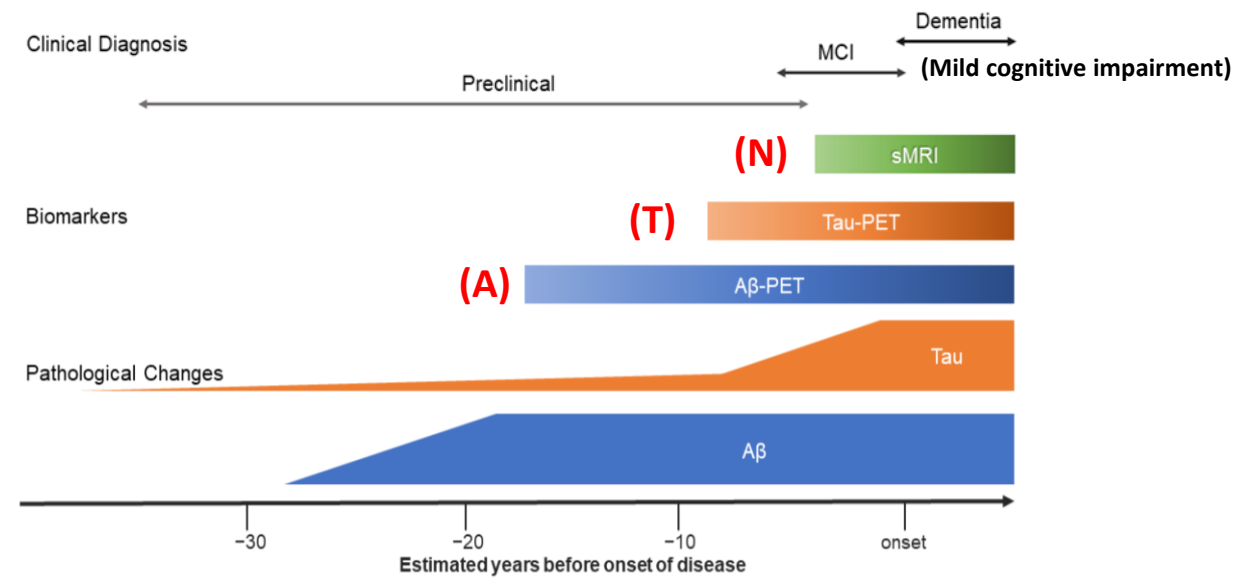
- Alzheimer's is complex and is different amongst individuals
- Changes at a cell level include amyloid plaques outside neurons and tau tangles inside neurons

- The disease progresses many years before symptoms appear
- Neurodegeneration in the brain is clear in later disease and post-mortem



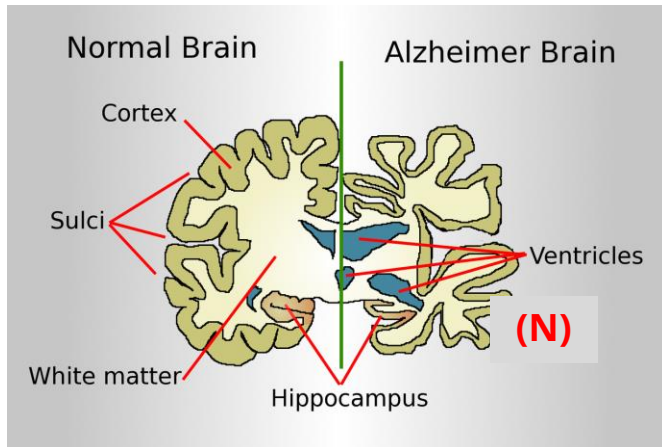
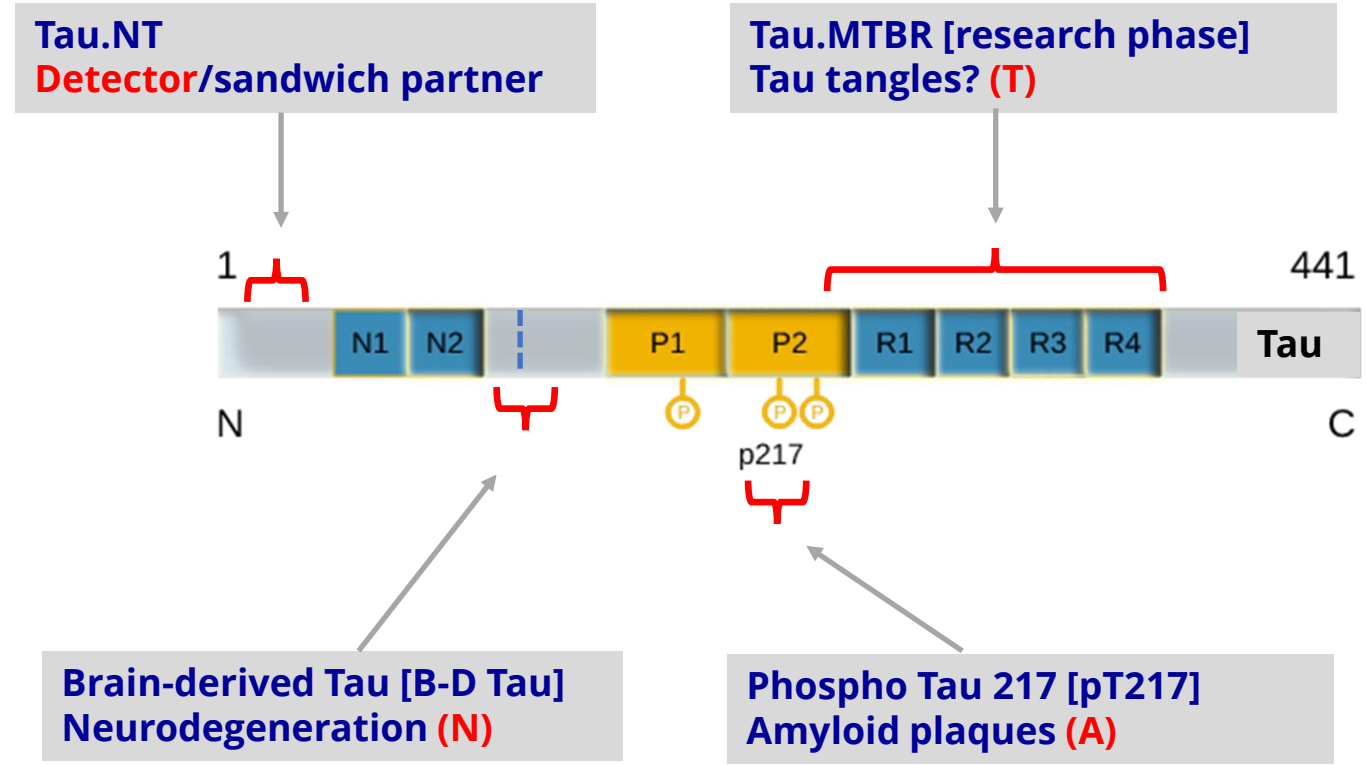
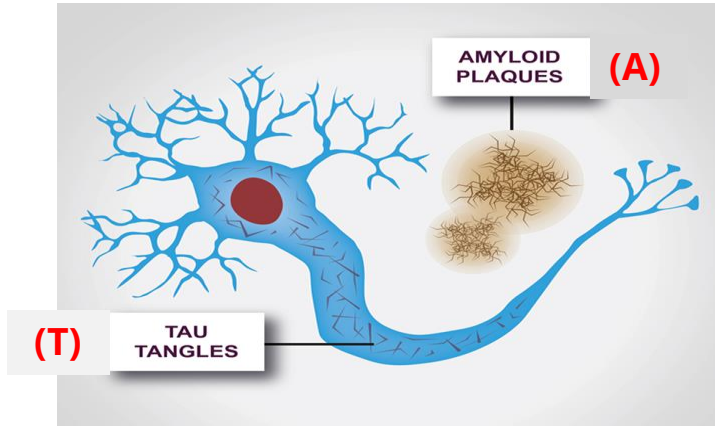
- Amyloid PET scans detect early disease (A)
- Tau PET scans show another disease biology (T)

# Alzheimer's Disease



- MRI scans detect later neurodegeneration when symptoms are more evident (N)

# Prototype Blood-based Assays and Antibodies (in a rapidly evolving field)



- Three SMAs are moving into large scale production for commercial supply
- All assays require a capture and a **detector** antibody

# Other Pipeline Developments

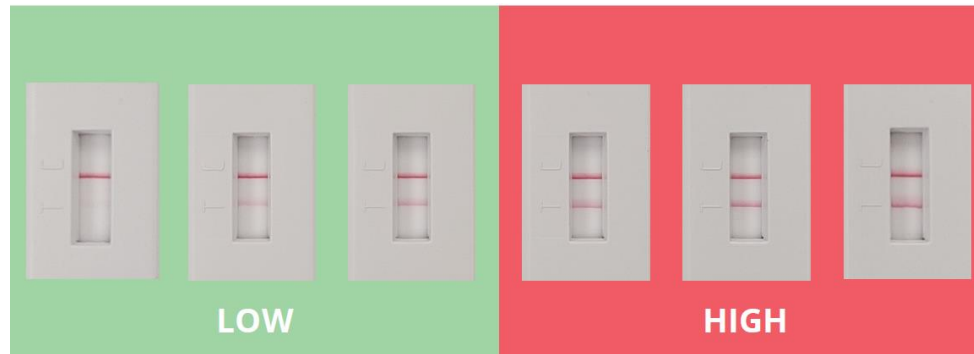
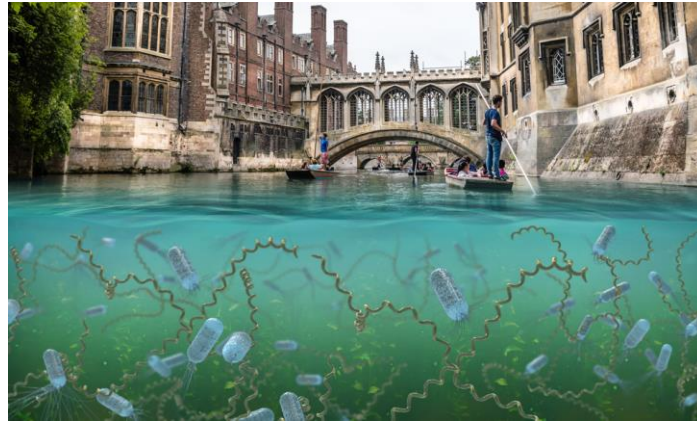
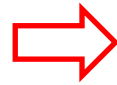


- **Secretoneurin** (CardiNor/cardiac): CardiNor have struggled to define the potential utility of secretoneurin diagnostics in cardiac health and are currently restructuring. We have accordingly taken the decision to write off our investment in CardiNor
- **Amyloid** (Pre-Diagnostics/Alzheimer's): ARIA is an important side-effect of new anti-amyloid drugs for Alzheimer's. Pre-Diagnostics assays relate to amyloid metabolism and could help screen for ARIA vulnerable patients, before or during treatment
- **Industrial biomonitoring:**
  - **Pyrene:** More field trials are planned for 2025. Firefighter exposure to combustion products is a potential application
  - **Benzene:** lateral flow assay development has now started. There is increasing interest in the exposure of petro/chemical workers to benzene – a known carcinogen
  - **Isocyanates:** we are in the final stages of selecting antibodies for lateral flow assays for use in the polyurethane plastics and paints industry
- **Water quality:** we have embarked on a new project focussing on the detection of drugs in river water. Caffeine and paracetamol are human derived and have been used as surrogate markers of sewage contamination. Following the industrial biomonitoring project, we plan to use similar antibody technology, lateral flow assay systems and smartphone connectivity of results to facilitate intensive analysis of waterways





# Caffeine, Paracetamol & Sewage



- The results of lateral flow tests for caffeine and paracetamol should link to DEFRA & WHO standards for healthy bathing water (200 e.coli per 100mL water)
- QR code and smartphone technology could stimulate citizen testing

# Bioventix Strategy



- Seek novel clinical diagnostic biomarkers that suit our antibody technology and identify partner collaborator labs (eg Tau & University of Gothenburg)
- Continue to focus on antibody technology development
  - Identify antibody technologies that are compatible with existing core SMA technology (eg antibody “sandwiches” for small molecules)
  - Identify applications that utilise the technologies developed (eg the industrial biomonitoring and water quality projects which use the sandwich technology)
- 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

▪ Staff continuity has remained high with no recent departures or retirements



# 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.



- **Jo Pisani, Non-executive Director**

- Chartered Engineer with a distinguished background in the Pharmaceutical, Life Sciences and Biotech sectors (GSK, UK Dementia Research Institute)



- **Nick McCooke, Non-executive Director**

- Nick has decided not to stand for re-election at the Bioventix AGM in December

# Significant Shareholders



Institution	Shares (1000s)	%
Gresham House	578	11.1
Liontrust	571	11.0
Sanford DeLand	558	10.7
Hargreaves Lansdown Stockbrokers	363	7.0
Peter Harrison	297	5.7
Schroder Investment Management	285	5.5
Investec Wealth	269	5.2
Charles Stanley	242	4.6
Rathbone Investment	187	3.6
Danske Bank	155	2.9
Edentree Investment Management	110	2.1

**Total shares = 5,219,656 (Mar 2024)**

▪ From permissions, other available data and TR-1 forms received as at Oct 2024

# Conclusions and Outlook



- Sales of our vitamin D antibody and other core SMAs have been in line with expectations
- Troponin revenues have been disappointing. A new prognostic application for “at risk” heart patients should be additive
- Manufacture and commercialisation of Tau antibodies made previously is now in progress. Research work continues on additional Tau targets through our collaboration with the University of Gothenburg