

# Transforming cancer care with the first **FDA cleared** medical device for the capture and harvest of circulating tumor cells

Andrew Newland and Ian Griffiths

**Proactive Investors Event**

**11 January 2024**



# Legal disclaimer



This presentation has been prepared by ANGLE plc (the "Company"). By attending this presentation and/or reviewing the slides you agree to be bound by the following conditions.

The presentation slides which follow this notice and the oral presentation of which it forms part (together, the "Materials") are personal to the recipient and have been prepared and issued by or on behalf of the Company. For the purposes of the remainder of this notice, the term Materials shall include the presentation, the question-and-answer session that follows the presentation, hard or electronic copies of this document and any other materials distributed at, or in connection with, the presentation. The recipient agrees to return all Materials held by it in relation to this presentation upon the Company's request.

The information and opinions contained in this presentation have not been independently verified, are provided as at the date hereof and are subject to amendment, revision and completion without notice. No person is under any obligation to update or keep current the information contained in this presentation. No representation, warranty or undertaking, express or implied, is made by the Company, its advisers or representatives, or their respective officers, employees or agents as to, and no reliance should be placed on, the fairness, accuracy, completeness, correctness or reasonableness of the information or the opinions contained herein. The Company, its advisers or representatives, or their respective officers, employees and agents expressly disclaim any and all liability which may be based on this presentation and any errors therein or omissions therefrom.

This presentation does not constitute or form any part of, and should not be construed as, an offer to sell, or an invitation or solicitation or recommendation to purchase, or subscribe for or underwrite or otherwise acquire any securities in the Company in any jurisdiction and does not constitute or form part of a prospectus. No part of this presentation should form the basis of, or be relied on in connection with, or act as any inducement to enter into, any contract or commitment or investment decision whatsoever. The Company's nominated adviser, Joh. Berenberg, Gossler & Co. KG (London branch) ("Berenberg") has not approved this document for the purposes of section 21 of the Financial Services and Markets Act 2000 ("FSMA") and accordingly it is a communication made only to persons who (a) fall within one or more of the exemptions from section 21 of FSMA contained in articles 19 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (which includes persons who are authorised or exempt persons within the meaning of FSMA, certain other investment professionals, high net worth companies, unincorporated associations or partnerships and the trustees of high value trusts) and persons who are otherwise permitted by law to receive it and (b) are an "eligible counterparty" within the meaning of Article 24(2), (3) and (4) of Directive 2004/39/EC ("MiFID") as implemented into national law of the relevant EEA state (together, the "Relevant Persons"). Any investment or investment activity to which this document relates is only available to the Relevant Persons. Persons of any other description, including those who do not have professional experience in matters relating to investments, should not rely on this document or act on its contents for any purpose whatsoever and should return it to Berenberg immediately.

This presentation should not be considered as the giving of investment advice by the Company or any of its shareholders, directors, officers, agents, employees or advisers. Each party to whom this document is made available must make its own independent assessment of the Company after making such investigations and taking such advice as may be deemed necessary. If you are in any doubt in relation to these matters, you should consult your stockbroker, bank manager, solicitor, accountant, taxation adviser or other independent financial adviser (where applicable, as authorised under FSMA).

This presentation contains certain statements that are neither reported financial results nor other historical information. These statements include information with respect to the Company's financial condition, its results of operations and businesses, strategy, plans and objectives. Words such as "anticipates", "expects", "should", "intends", "plans", "believes", "outlook", "seeks", "estimates", "targets", "may", "will", "continue", "project" and similar expressions, as well as statements in the future tense, identify forward-looking statements. These forward-looking statements are not guarantees of the Company's future performance and are subject to assumptions, risks and uncertainties that could cause actual future results to differ materially from those expressed in or implied by such forward-looking statements. No statement in the Materials is intended to be nor may it be construed as a profit forecast. Many of these assumptions, risks and uncertainties relate to factors that are beyond the Company's ability to control or estimate precisely and include, but are not limited to, the general economic climate and market conditions, as well as specific factors including the success of the Company's and its subsidiaries' (the "Group") research and development and commercialisation strategies, the uncertainties related to regulatory clearance and the acceptance of the Group's products by customers.

For further details regarding these and other assumptions, risks and uncertainties that may affect the Group, please read the Directors' Report section including the "Principal risks and uncertainties" in the most recent Annual Report & Financial Statements of the Company. In addition, new factors emerge from time to time and the Company cannot assess the potential impact of any such factor on its activities or the extent to which any factor, or combination of factors, may cause actual future results to differ materially from those contained in any forward-looking statement. Except as may be required by law or regulation, the Company undertakes no obligation to update any of its forward-looking statements, which speak only as of the date of this document.

# ANGLE – Transforming cancer care

## Our Mission:

Enable personalized cancer care with a simple blood test to guide treatment, improving patient outcomes and reducing healthcare expenditure

## Our Solution:

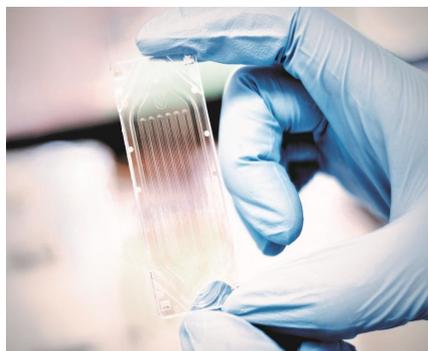
The Parsortix system

- **First FDA cleared product** for harvesting CTCs for subsequent analysis
- ANGLE believes it provides the **best sample** of tumor material from a patient's cancer using a liquid biopsy
- enables **effective, affordable, repeat** testing of intact cells

Parsortix® instrument



Parsortix® cassette



## INTENDED USE

The Parsortix® PCI system is an in vitro diagnostic device intended to enrich circulating tumor cells (CTCs) from peripheral blood collected in K<sub>2</sub>EDTA tubes from patients diagnosed with metastatic breast cancer. The system employs a microfluidic chamber (a Parsortix cell separation cassette) to capture cells of a certain size and deformability from the population of cells present in blood. The cells retained in the cassette are harvested by the Parsortix PCI system for use in subsequent downstream assays.

The end user is responsible for the validation of any downstream assay. The standalone device, as indicated, does not identify, enumerate or characterize CTCs and cannot be used to make any diagnostic/prognostic claims for CTCs, including monitoring indications or as an aid in any disease management and/or treatment decisions.

# Parsortix system could address flaws in standard of care



- **NCCN Guidelines recommend biopsies for all metastatic breast cancer patients (MBC)**
  - tissue biopsies from the primary tumor are out-of-date
  - up-to-date information is needed to select treatment for personalized care
  - only samples a single metastatic site at one time point
- **But half of all MBC patients do not have successful biopsies**
  - too ill for the surgery, tumor inaccessible and insufficient tissue
- There is a **critical need for an alternative approach** to guide care for these patients



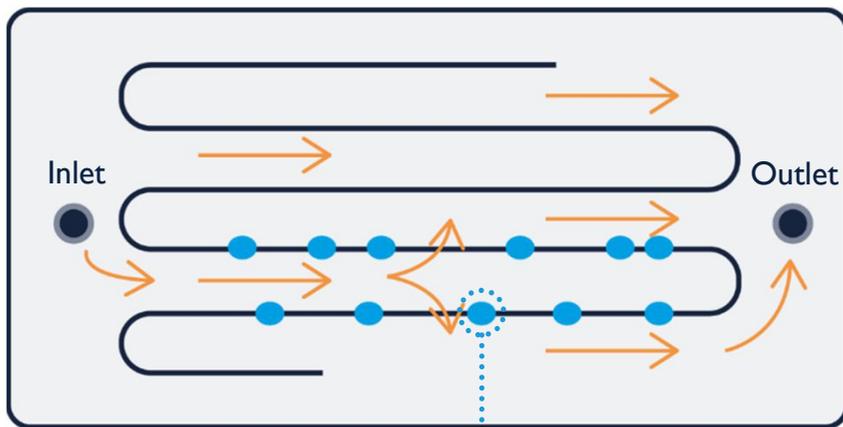
**Dr Julie Lang**  
Cleveland Clinic Cancer Center

“In my team's research, we have demonstrated how **CTCs harvested by this system are a good surrogate for tissue biopsies of the metastatic site.** With this regulatory clearance we can now obtain repeat biopsies periodically to provide **up-to-date information to guide treatment decisions.**”

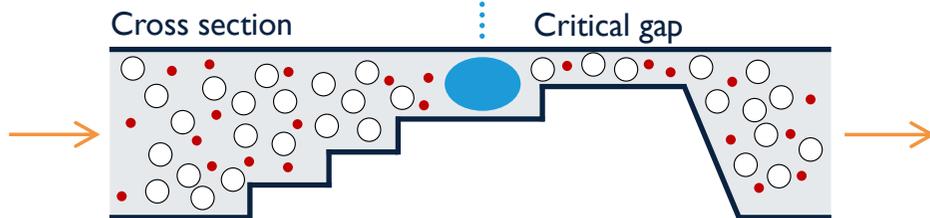
# Parsortix system: capturing and harvesting living cancer cells



Plan view



**Patented multifold  
and separation step**



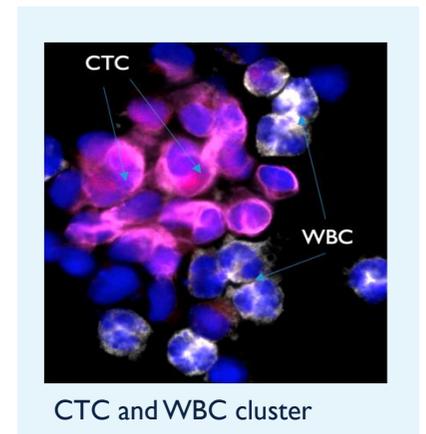
## Platform technology

The Parsortix system harvests **cancer cells from blood** based on their larger size and lack of deformability.

Other cells can be captured:

- **white blood cells** associated with the tumor microenvironment
- **megakaryocytes** (frequency may relate to cancer)
- **fetal cells** from maternal blood

- Captured CTCs
- White blood cells
- Red blood cells
- Blood flow

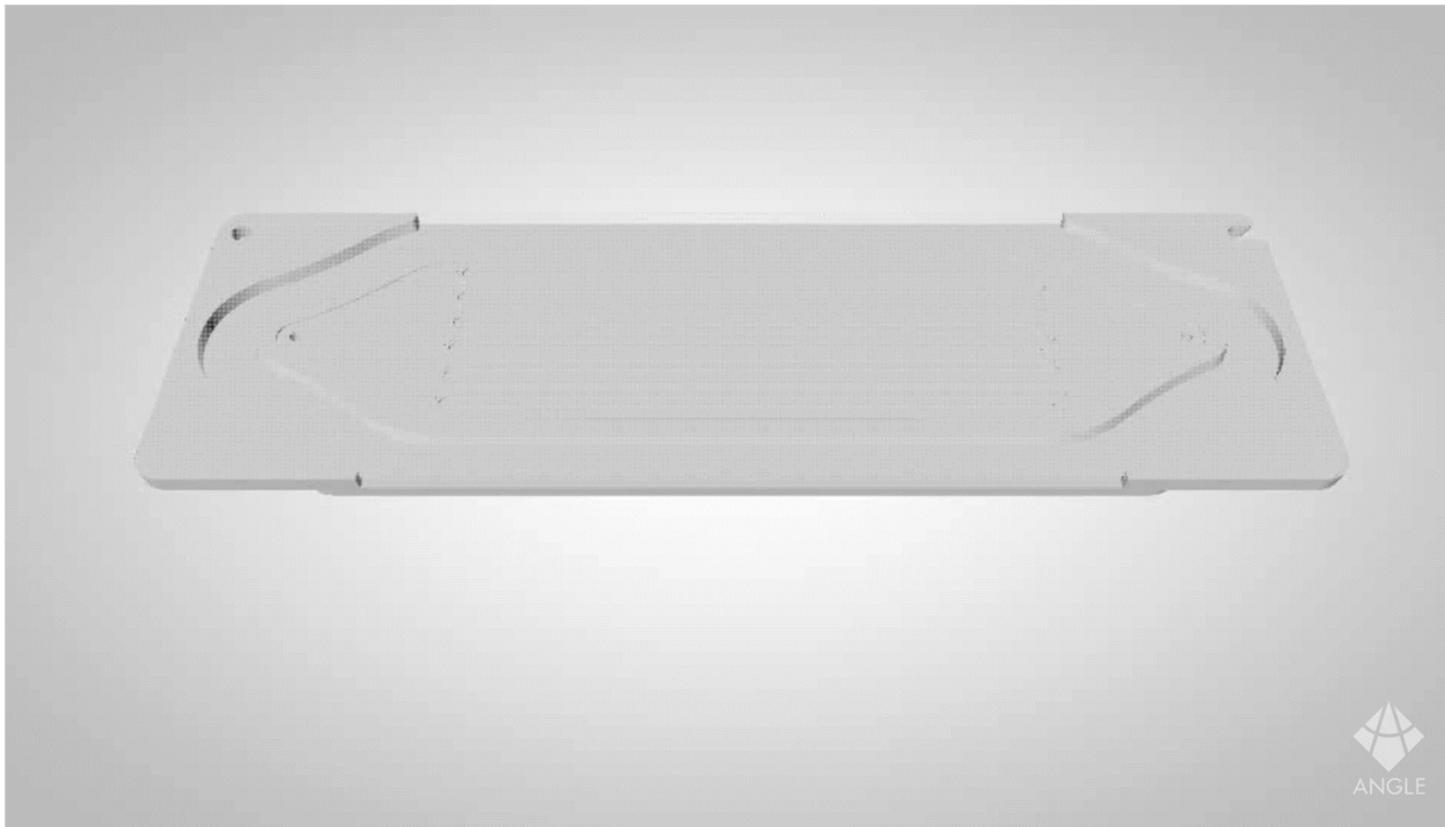


# Parsortix<sup>®</sup> system patent protected worldwide

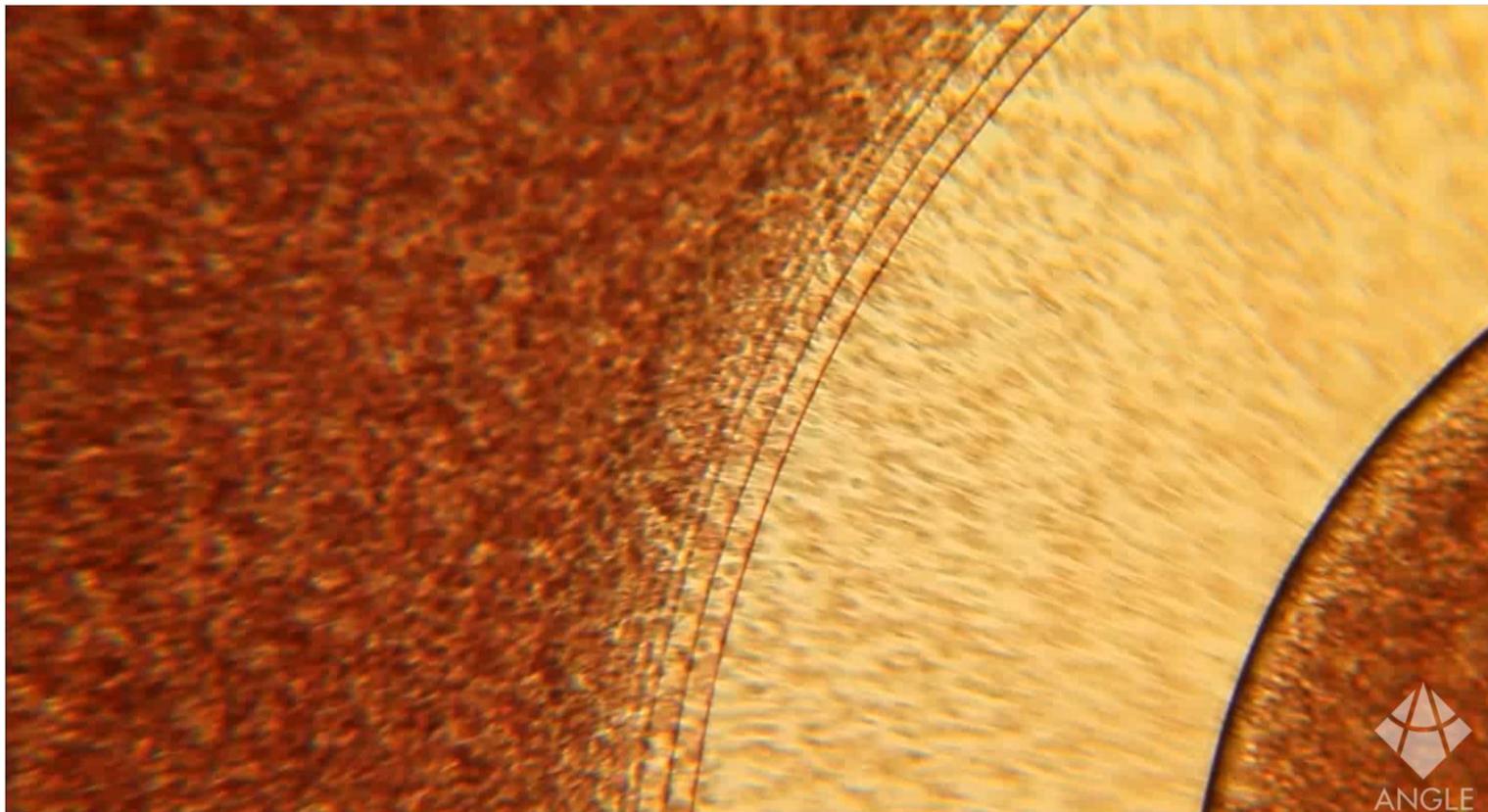


- Stepped, microscale cell separators for fluid flow and cell separation
- Manufactured under ISO 13485:2016 quality control
- **Scalable business with third party manufacture**
- 26 granted patents: United States, Europe, China, Australia, Canada, Japan, Mexico with patent coverage to 2034
- Proprietary technology with copyright on software and designs, technical know-how, manufacturing and operating procedures, methods and processes

# Animation showing operation of Parsortix cassette



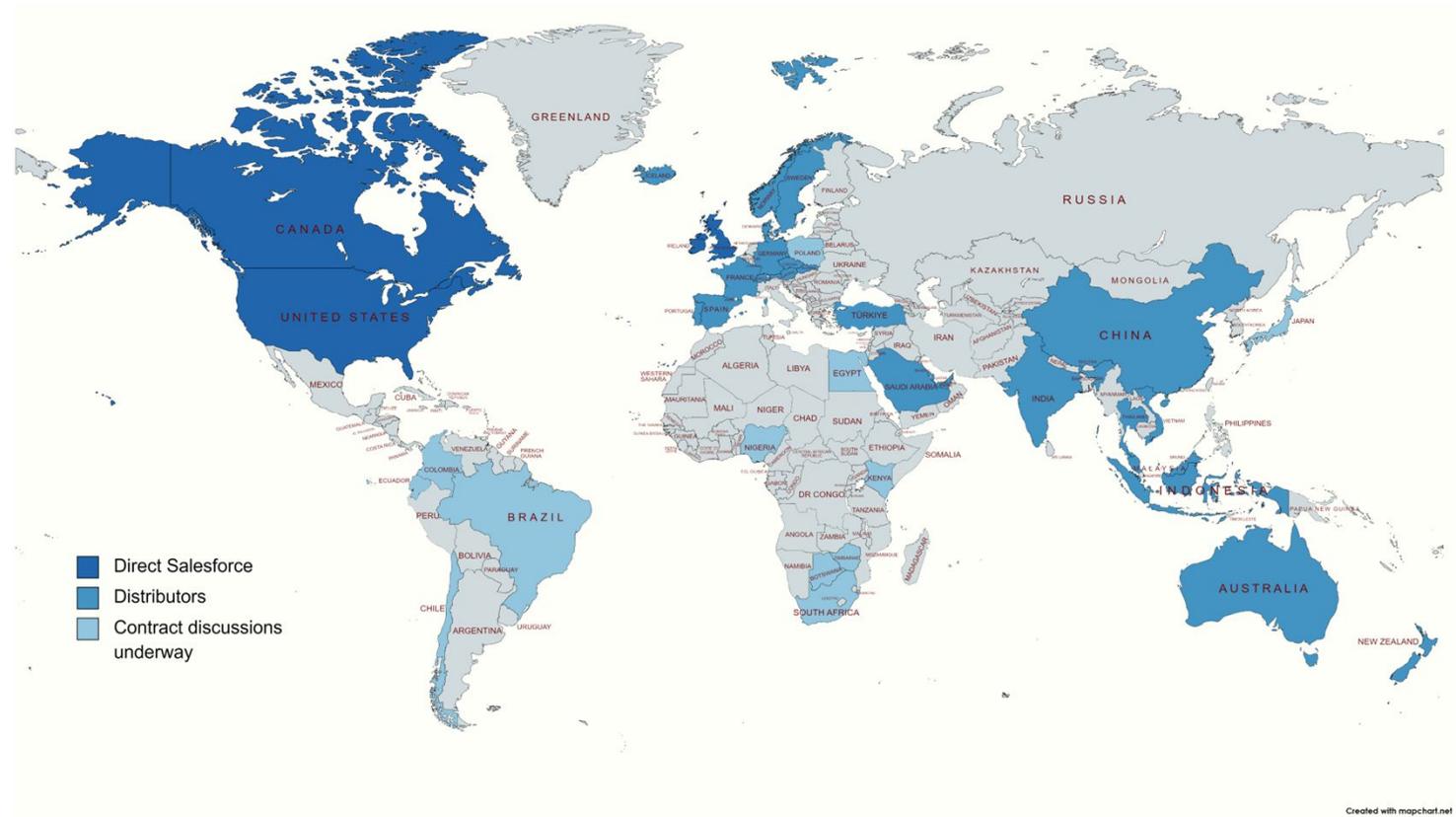
# Patient blood flowing in Parsortix cassette



# Products - sales and distribution network being established for international penetration



- **Direct sales team** being expanded in United States and UK
- **Distribution partners** selected for other key territories based on:
  - local knowledge and language
  - exposure to oncology markets
  - compliance with quality systems
  - technical expertise and service capability
- **New content to drive adoption:**
  - Portrait<sup>+</sup> kits
  - Landscape<sup>+</sup> molecular protocols



# Services - differentiated pharma services offering

- **Customer base established and growing**
  - multiple customers, repeat business
  - new customers in 2024 and growing pipeline
- **Significant revenue and profitability potential**
  - potential for multi-US\$ million contracts with margins >75%
  - each customer can offer numerous repeat contracts
  - only a small number of large-scale pharma customers needed
- **Assay development capability**
  - offers pharma bespoke services not possible otherwise
  - targeting the protein of action of the drug

## Key differentiators

- Repeat testing **before during and after** treatment
- Access to **live cancer cells**
- DNA, RNA, protein, cell morphology and CTC clusters
- CTCs feed into **existing techniques for analysing** tissue biopsy
- **CTC-DNA and ctDNA from the same blood sample**
- Sample stability for shipping
- CTC **centre of excellence**



# Services – example customers and active projects



## Global Japanese pharma company

- Revenues >£4 billion >10,000 employees
- >80 active oncology clinical trials >60,000 participants
- HER2 targeting antibody-drug conjugate (ADC) being co-developed by Eisai and Bliss Biopharmaceutical Co., Ltd as part of a US\$ 2 billion deal
- ANGLE's HER2 assay to detect and assess HER2 low and HER2 + cancers



## Cancer treatments targeting DNA Damage Response (DDR) pathways

- Bespoke assay development of DDR assay to measure DNA damage on CTCs
- Phase I study in advanced solid tumours (Breast, Ovarian, Prostate)



## Immuno-oncology company developing targeted T cell enhancing therapeutics

- Portrait Flex assay to detect and phenotype CTCs and clusters
- Phase I prostate cancer study

# Content – ‘Portrait+’ product kit for distribution

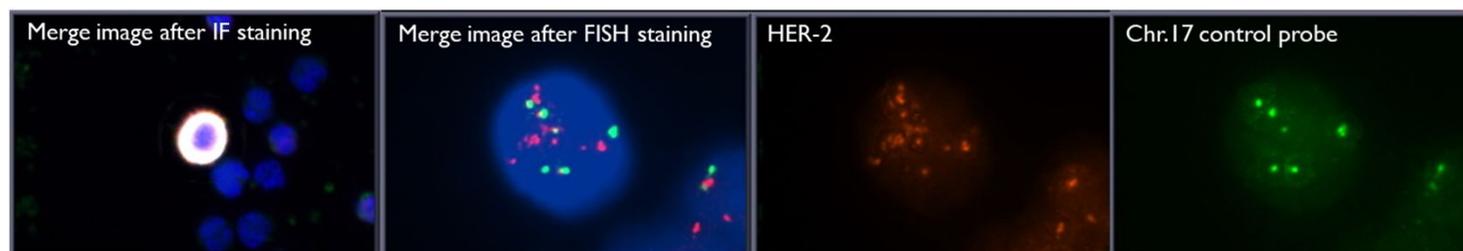
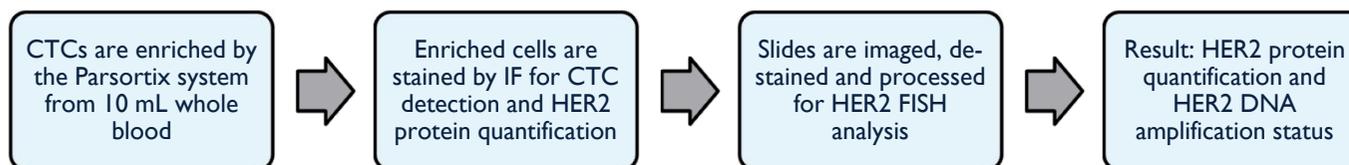
**Antibody kit for robust and consistent imaging by Parsortix customers** includes:

- Antibodies directly conjugated and mixed into a single vial:
  - Epithelial markers
  - Mesenchymal markers
  - Blood lineage markers
- Lyophilised for shipping, storage and improved stability



# Content – HER2 assay kit in collaboration with BioView

- Breast cancer is highly heterogeneous and **HER2 status can change** over time
- **New antibody-drug conjugates** (ADCs) to treat patients with low HER2 status
- **Developing a product solution for a quantitative CTC based HER2 assay** that can monitor HER2 status over time
- 12-month development phase progressing well
- First phase expected to generate **revenues of £1.2 million** for ANGLE.



**80.2%**

Predicted increase in global cases of breast cancer from 2020 to 2040

**55%**

of all breast cancer cases are HER2-low and could therefore be treated with ADCs like Enhertu

**US\$12.5 billion**

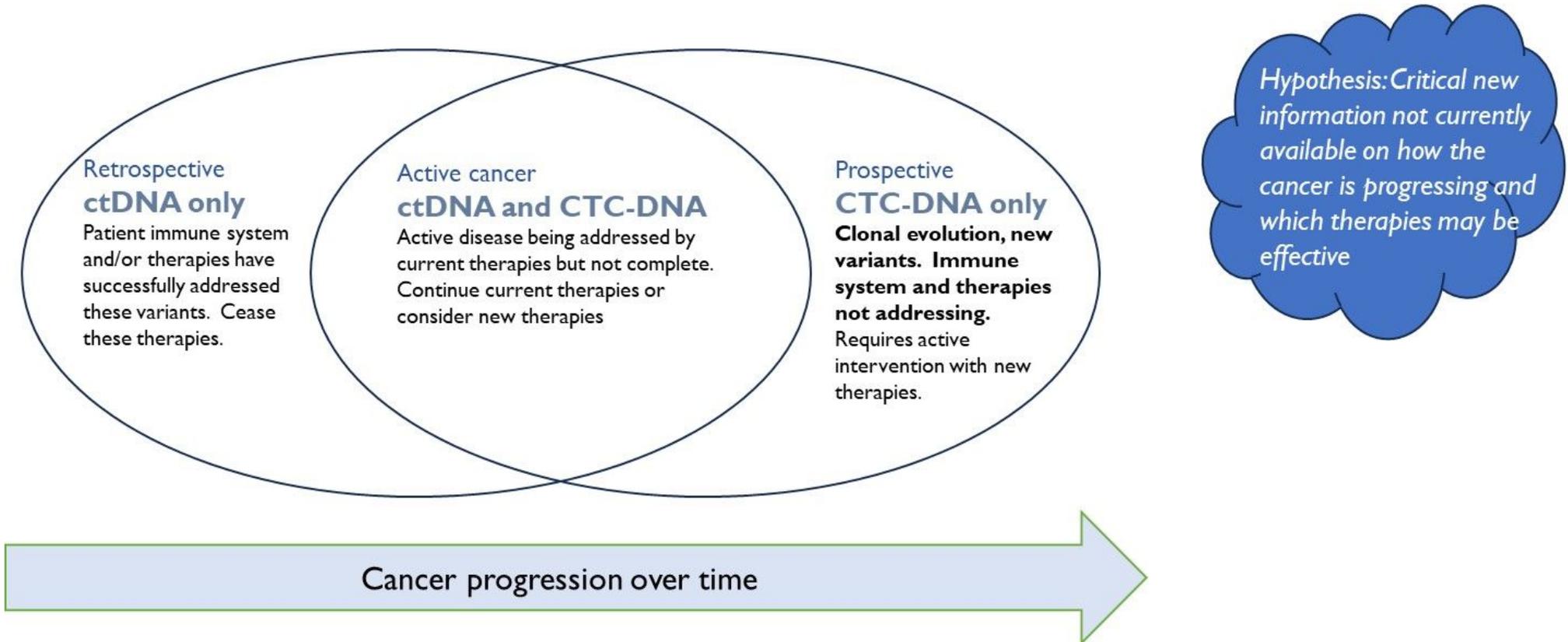
Global sales forecast for HER2 drugs in 2023

**US\$313.4 million**

Global value of HER2 diagnostics market in 2021. This is forecast to reach US\$627.7 million by 2031

# Potential breakthrough clinical application

## DNA sequencing of CTCs (living) and ctDNA (dead)



ctDNA = DNA from circulating tumor fragments of dead cancer cells  
CTC-DNA = DNA from living CTCs, cancer cells actively involved in cancer progression

# Content

## DNA sequencing of CTCs and ctDNA with Illumina



- Results from 47 cancer patients
- **High quality DNA** in all samples
- **Actionable DNA variants** found in CTCs not in ctDNA in 70% of breast and lung patients and 60% of ovarian cancer patients
- **Additional clinical data** obtained from the same blood tube **using Parsortix**



### DNA variants found in CTCs with FDA cleared drugs for the variants in tissue or plasma including

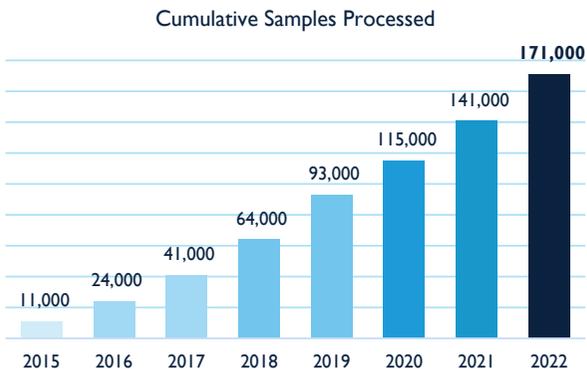
- **PIK3CA** (E545K): Alpelisib (Piqray®) Novartis
- **EGFR** (T790M): Tagrisso (Osimertinib®) AstraZeneca
- **ESR1** (K303R): Elacestrant (Oserdu®) Menarini
- **MTOR** (T1977K): Everolimus (Afinitor®) Novartis
- **ERBB2** (R678Q): Trastuzumab, Pertuzumab, Neratinib, Afatinib marketed respectively by AstraZeneca, Roche Genentech, Puma Biotechnology, and Boehringer Ingelheim

# Growing body of evidence

## Leveraged R&D strategy identifying new applications



- FDA clearance expected to help Parsortix become the CTC **system of choice**
- Installed base of **over 290** Parsortix systems in active use
- **Over 192,000** Parsortix samples processed to 30 June 2023



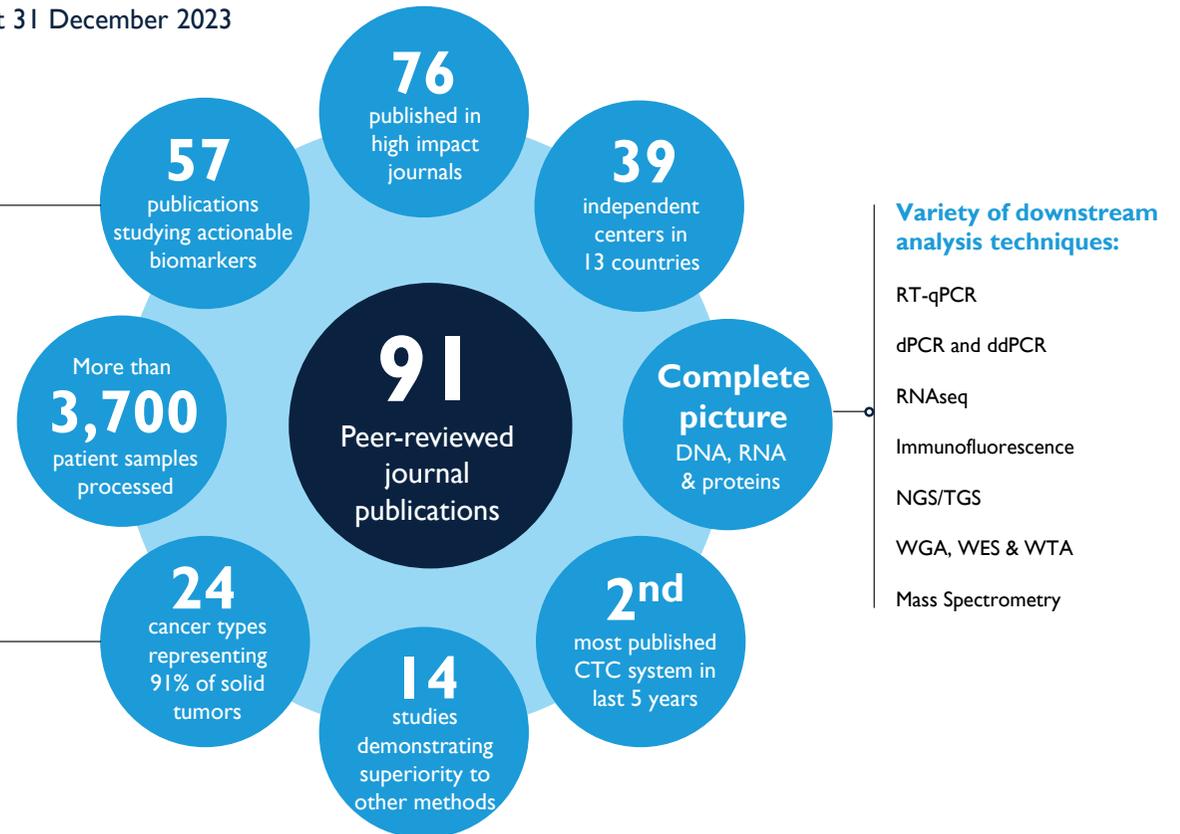
At 31 December 2023

Clinically actionable biomarkers including:

EGFR  
 BRAF  
 KRAS  
 PD-L1  
 HER2  
 TP53  
 AR  
 AR-V7  
 PIK3CA

# of publications by cancer type: top 5

Breast 36  
 Lung 25  
 Prostate 14  
 Melanoma 7  
 Head and neck 7



# Near term commercial milestones

---

- **Building services revenues**

- First large pharma contract secured. Other contract discussions in progress
- Roll out of new assays (PD-L1, DDR, HER2 and DNA molecular) providing content for pharma services

- **Building product revenues**

- Portrait+ product kit launched alongside instruments and cassettes and Illumina DNA molecular protocols
- Distributors coming on line

- Breakthrough molecular results achieved with Illumina platform. **Work progressing on other molecular platforms** with large installed base

- Third-party molecular platforms (DNA and RNA) under investigation for analysis of banked **ovarian and prostate cancer** samples. Timing later in the year dependent on results

- **Clinical assays** (providing information about patient status) to be offered from ANGLE clinical laboratory **by year end**



**ANGLE plc**

ANGLE Europe Ltd  
10 Nugent Road  
Surrey Research Park  
Guildford GU2 7AF  
United Kingdom

[www.angleplc.com](http://www.angleplc.com)

Andrew Newland, CEO

[andrew.newland@angleplc.com](mailto:andrew.newland@angleplc.com)

Ian Griffiths, CFO

[i.griffiths@angleplc.com](mailto:i.griffiths@angleplc.com)