RNS Number : 3454W
Angle PLC
17 April 2023

For immediate release **17 April 2023**

ANGLE plc ("the Company")

PARSORTIX POSTER PRESENTED AT AACR ANNUAL MEETING 2023

Study demonstrates the feasibility of combining IF and HER2 FISH analysis with CTCs harvested using the Parsortix system

Capability to measure HER2 protein overexpression on CTCs using ANGLE's Portrait Flex assay opens up substantial pharma and clinical market opportunities

ANGLE plc (AIM:AGL OTCQX:ANPCY), a world-leading liquid biopsy company, is pleased to announce the presentation of a poster at the American Association for Cancer Research (AACR) annual meeting, in Orlando, Florida, United States, between 14-19 April 2023. The poster presents successful development work undertaken by ANGLE since FDA clearance to develop protocols to combine immunofluorescent (IF) staining for epithelial, mesenchymal and epithelial-to-mesenchymal (EMT) phenotype characterisation of circulating tumour cells (CTCs) with HER2 fluorescence in-situ hybridization (FISH) staining for gene amplification assessment on samples from blood processed using the Parsortix® system.

Additionally, the study demonstrated the successful isolation of CTCs from the blood of metastatic breast cancer (MBC) patients using the Parsortix system, followed by subsequent detection of HER2 protein expression alongside the epithelial, mesenchymal and EMT phenotype characterisation using the ANGLE developed Portrait Flex IF assay.

The analytical sensitivity and specificity (using spiked samples from healthy volunteers) of ANGLE's Portrait Flex assay for HER2 protein expression detection were both greater than 90%. The percentage recovery of cancer cells following combined IF and FISH staining was comparable to that achieved with the HER2 FISH assay alone, showing that the two downstream analysis methods can be combined to maximise relevant information on HER2 expression.

In addition, blood samples from 16 MBC patients were processed using the Parsortix system and analysed using the Portrait Flex assay, with the inclusion of the HER2 antibody for protein detection. CTCs were identified in 81% (13/16) of the patients, with 38.5% (5/13) of the CTC-positive patients having ≥ 1 CTC with high levels of HER2 protein expression. Furthermore, of the CTC-positive patients, 77% (10/13) had ≥1 CTC cluster (ranging from 2 to 110 CTCs per cluster, and 1 to 29 clusters per patient). This may be significant as previous research has indicated that CTC clusters are associated with increased metastatic potential. The presence or absence and the level of expression of HER2 for a patient at a given timepoint is key to treatment decision-making in breast cancer.

The research presented at the AACR annual meeting highlights the successful use of the Parsortix system and analysis on HER2 expression using ANGLE's Portrait Flex IF assay combined with a commercially available HER2 FISH assay. Moreover, HER2 protein expression was successfully detected alongside epithelial, mesenchymal and EMT characterisation in CTCs harvested from the blood of MBC patients processed on the Parsortix system.

It is known that breast cancer can be highly heterogeneous and that HER2 status can change over time. In addition, results from a recent study have revealed that patients categorised with HER2-low breast cancer (and defined as immunohistochemistry (IHC) score 1+ and 2+ and HER2-negative by FISH) can in fact benefit from new HER2 targeted antibody-drug conjugates where typical HER2

FISH), can in fact, benefit from new HER2 targeted antibody drug conjugates, where typical HER2 targeted drugs have previously been reserved for HER2-positive (HER2 IHC 3+ and/or HER2 FISH positive) breast cancer patients.

These developments provide a commercial opportunity for a CTC-based HER2 assay, to assess HER2 gene expression and/or protein expression levels by analysing fluorescence intensities. Unlike current standard of care tests developed for use on FFPE tissue, a CTC HER2 assay could be used for longitudinal monitoring of HER2 status throughout disease progression, meeting an unmet medical need and potentially significantly expanding the size of the HER2 diagnostic market.

ANGLE Founder and Chief Executive, Andrew Newland, commented:
"We are pleased to announce ANGLE's attendance and contribution at the AACR annual meeting this year. The poster presented showcases the utility of the Parsortix system for the harvest of CTCs and analysis using a combined IF and FISH approach. We also demonstrate successful characterisation and detection of HER2 protein overexpression using an ANGLE developed assay in CTCs isolated from MBC patients, showing the potential for use of this assay in improving patient stratification. Given the changing dynamics of the HER2 market in response to the introduction of new drugs targeting low HER2 expression, we believe the proof of concept achieved with this assay has significant commercial relevance. Development of the Portrait Flex IF assay is part of ANGLE's programme to develop 'content' for Parsortix in the form of downstream applications using the Parsortix harvested cancer cells."

The research is available online at https://angleplc.com/library/publications/.

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For Frequently Used Terms, please see the Company's website on https://angleplc.com/investor-relations/glossary/

Notes for editors

About ANGLE plc www.angleplc.com

ANGLE is a world leading liquid biopsy company with sample-to-answer solutions. ANGLE's proven patent protected circulating tumor cell (CTC) harvesting technology is known as the Parsortix® system.

ANGLE's Parsortix® system is FDA cleared for its intended use in metastatic breast cancer and is currently the first and only FDA cleared medical device to harvest intact circulating cancer cells from blood.

Intended use

The Parsortix® PC1 system is an in vitro diagnostic device intended to enrich circulating tumor cells (CTCs) from peripheral blood collected in K_2EDTA 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 PC1 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.

The Parsortix system enables a liquid biopsy (a simple blood test) to be used to provide the circulating metastatic breast cancer cells to the user in a format suitable for multiple types of downstream analyses. The system is based on a microfluidic device that captures cells based on a combination of their size and compressibility. The system is epitope independent and can capture all phenotypes of CTCs (epithelial, mesenchymal and EMTing CTCs) as well as CTC clusters in a viable form (alive). CTCs harvested from the system enable a complete picture of a cancer to be seen; as being an intact cell they allow DNA, RNA and protein analysis as well as cytological and morphological examination and may provide comparable analysis to a tissue biopsy in metastatic breast cancer. Because CTC analysis is a non-invasive process, unlike tissue biopsy, it can be repeated as often as needed. This is important because cancer develops and changes over time and there is a clear medical need for up-to-date information on the status of a patient's tumor. In addition, the live CTCs harvested by the Parsortix system can be cultured, which offers the potential for testing tumor response to drugs outside the patient.

The Parsortix technology is the subject of 26 granted patents in Europe, the United States, China, Australia, Canada, India, Japan and Mexico with three extensive families of patents are being progressed worldwide.

In the United States, the Parsortix® PC1 system has received a Class II Classification from FDA for use with metastatic breast cancer patients. FDA clearance is seen as the global gold standard. ANGLE's Parsortix system is the first ever FDA cleared system for harvesting CTCs for subsequent analysis. ANGLE has applied the IVD CE Mark to the same system for the same intended use in Europe.

ANGLE has also completed three separate 200 subject clinical studies under a programme designed to develop an ovarian cancer pelvic mass triage test, with the results showing best in class accuracy (AUC-ROC) of 95.4% with sensitivity of 90% and specificity of 93%. This excellent clinical result demonstrates the utility of cells harvested by the Parsortix system, which the Company believes is the "best sample" for liquid biopsy analysis as it recovers intact, living cancer cells that are involved in the progression of the disease providing prospective information.

ANGLE has established formal collaborations with world-class cancer centres and major corporates such as Abbott, Philips and QIAGEN, and works closely with leading CTC translational research customers. These Key Opinion Leaders (KOLs) are working to identify applications with medical utility (clear benefit to patients), and to secure clinical data that demonstrates that utility in patient studies. The body of evidence as to the benefits of the Parsortix system is growing rapidly from our own clinical studies in metastatic breast cancer and ovarian cancer and also from KOLs with 77 peer-reviewed publications and numerous publicly available posters from 33 independent cancer centres, available on our website.

ANGLE has established clinical services laboratories in the UK and the United States to accelerate commercialisation of the Parsortix system and act as demonstrators to support product development. The laboratories offer services globally to pharmaceutical and biotech customers for use of Parsortix in cancer drug trials and, once the laboratories are accredited and tests validated, will provide Laboratory Developed Tests (LDTs) for patient management.

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