

BIOCAPTIVA to conduct ex-vivo study to evaluate the potential of the BioCaptis device to capture cell free DNA to improve pleural disease diagnosis

- *Study aims to establish whether BioCaptis technology can be used to isolate cell free DNA (cfDNA) from pleural fluid samples in sufficient quantities for downstream DNA analysis*
- *Goal is to identify tumour specific mutations to aid diagnosis of pleural disease and cancer type without requiring invasive biopsy*
- *Study to be conducted in collaboration with University of the Highlands and Islands (UHI) and NHS Highland*

Edinburgh, UK – 12 October 2023 – BIOCAPTIVA Ltd (“BIOCAPTIVA”), a company developing the BioCaptis – a revolutionary cell-free DNA (cfDNA) capture device designed to transform liquid biopsy testing for cancer management – announces initiation of an ex-vivo study to establish if, using its BioCaptis device, pleural fluid cfDNA can be isolated from exudative pleural fluid samples in sufficient quantities for downstream DNA analysis to improve pleural disease diagnosis. The study will involve a collaboration between BioCaptiva, University of the Highlands and Islands (UHI) and NHS Highland.

Jeremy Wheeler, CEO of BIOCAPTIVA said: “The diagnosis of pleural disease is challenging, and fluid sampling is often inconclusive due to low tumour cell content, with further invasive biopsies often required that are themselves common causes of hospital-based admission and patient morbidity, meaning there is a need for alternative non-invasive procedures. Due to its ability to increase the amount of cell-free DNA (cfDNA) available for liquid biopsy testing, our BioCaptis device has the potential to significantly expedite pleural disease diagnosis times while at the same time reducing overall risks and costs, giving patients the best opportunity for a positive health outcome.”

Pleural disease is an umbrella term defined by the presence of thickening of the lining of the lung or fluid between the chest wall and lung itself. It encompasses multiple conditions including cancer, infection, and auto-immune disease.

The occurrence of cfDNA in exudative pleural fluid samples is well established, but it is often present in insufficient concentrations for sequencing to confirm a cancer diagnosis (versus benign disease). Although many patients presenting with pleural disease will have an underlying malignancy, only 60% of these are diagnosed via routine pleural fluid sampling with the remainder having to undergo invasive biopsy sampling which carries additional risks and can also be inconclusive. This route to diagnosis is particularly challenging for frail elderly patients and therefore improving the diagnostic utility of pleural fluid has both clinical and health economic benefits.

Principal Investigator A/Prof. Antonia Pritchard, Reader in Genetics and Immunology at UHI added: “Patients with cancers affecting the lungs frequently have a large build-up of fluid around the lungs, which is drained as part of standard clinical care. This collaboration between BioCaptiva, UHI and NHS Highlands to investigate the use of the BioCaptis to isolate cell-free DNA from this fluid, has the goal of identifying tumour specific mutations to aid diagnosis of the type of cancer present without requiring invasive biopsy.”

Prof Ian Megson, Head of Health Research and Innovation at UHI commented: “We’re delighted to have been invited by BioCaptiva to help investigate their technology in detecting a specific type of lung cancer that is currently very difficult to diagnose. Collaboration is at our core and this work that



brings together clinicians, UHI researchers and a company with world-leading technology to improve early diagnosis is an excellent example of the strength of this approach”.

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About BIOCAPTIVA

BIOCAPTIVA is developing the BioCaptis, a revolutionary medical device which has the potential to transform liquid biopsy testing for cancer management, by improving early diagnosis and monitoring of disease and enhancing clinical trial data of cancer patients.

The BioCaptis captures up to 100x more cell free DNA (cfDNA) than a venous blood draw, yielding cfDNA in high quality and quantity for testing, addressing the major challenge of liquid biopsy in cancer management. This will potentially allow the testing of a far greater number of cancer types and stages in a much wider range of patients.

BIOCAPTIVA was founded in 2021 when it spun out from the University of Edinburgh. BIOCAPTIVA is based in Edinburgh and backed by Archangels Scottish Enterprise, Cancer Research Horizons, the new innovation engine of Cancer Research UK and Old College Capital, the University of Edinburgh’s in-house venture investment fund.

For more information, please visit www.biocaptiva.com and follow us on [LinkedIn](#)

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About University of the Highlands and Islands (UHI)

UHI is a regional further and higher education partnership, serving the communities of the Highlands and Islands, Moray and Perthshire. It covers the largest geographical area of any campus-based university or college in the UK and has one of the largest student populations in Scotland, with over 36,000 students studying each year.

UHI offers a range of courses, from access level to PhD. Its research and innovation activity is centred on its communities and engages with national and international projects and initiatives.

UHI contributes £560m to the economies of the Highlands and Islands, Moray and Perthshire every year and supports 6,200 jobs.

For more information, please visit <https://www.uhi.ac.uk/> or follow us on [LinkedIn](#), [Instagram](#), [Facebook](#), or [X \(formerly Twitter\)](#).



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