

Press Release

osteolabs Successfully Demonstrates Broader Application of its Technology for Chronic Kidney Disease and bone Metastasis-related Prostate Cancer

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So far osteolabs has successfully applied its proprietary Calcium Isotope Marker Technology for the early detection and therapy monitoring in the field of osteoporosis with more than 3,500 patient samples analysed from Germany, Switzerland, Austria, Belgium, UK and Denmark (OsteoTest).

Recent clinical feasibility studies have now demonstrated the possibility for the platform to also detect other metabolic bone disorders such as **Chronic Kidney Disease** (CKD) and bone metastatic-related prostate cancer at a very early stage. Both diseases represent a major unmet medical need. CKD affects over 800M people worldwide with 40% of severely affected patients not being aware of having reduced kidney function due to insufficient detection methods. **Prostate Cancer** is the most prevalent cancer for men with around 1.5 million new cases per year and a high burden of concurrent bone metastases only detectable at a quite advanced stage with so far imaging methods.

In a collaboration with the NHS Great Ormond Street Hospital in London (UK), a first bigger validation study with 300 renally impaired children & young adults recently demonstrated full equivalence of osteolabs' technology to eGFR (estimated Glomerular Filtration Rate), the current standard of care (Shroff et al, Kidney intern., 2022). That should path the way for full clinical validation and implementation of an unbiased and universal method with the potential for earlier CKD diagnosis to ensure timely medical treatment. These results will be deployed already this year during early detection of renal associated secondary osteoporotic side effects through the use of the osteolabs' OsteoTest med plus.

With respect to bone metastasis-related prostate cancer a first clinical feasibility study together with the University Medical Centre Kiel and the University Hospital Münster (both Germany) showed osteolabs' technology was capable to successfully detect prostate-cancer related bone metastases in close to 60 patients at a very early stage including the premetastatic bone niche switch from M0 to M1 stage and subsequent final M2 stage (German Congress of Laboratory Medicine: 17th Annual Congress of the DGKL, <https://doi.org/10.1515/labmed-2022-0125>)

The principal investigator Prof. Dr. Brandt, an expert in clinical chemistry at University Medical Centre Kiel, in cooperation with GEOMAR Helmholtz-Centre Kiel and University of Münster commented: "These initial results are very encouraging so far, especially due to the observed statistical discriminatory power between healthy and affected patients. This is due to

osteolabs' highly innovative Calcium Isotope Marker detection technology making it possible to detect the slightest changes in calcium metabolism at a very early disease stage".

osteolabs' Managing Director Dr. Stefan Kloth proceeded: "We are highly intrigued by those recent findings showing the potential for our technology potential to become an universal biomarker platform for a large number of patients with metabolic bone disorders. Further clinical validation work in the near future will be needed to confirm the applicability of our highly sensitive and accurate detection method allowing precise and early detecting for burdening diseases that affect more than one 1 billion patients worldwide."

About osteolabs

osteolabs GmbH is an innovative medical diagnostics company which was spun out from GEOMAR Helmholtz Centre for Ocean Research Kiel and the Helmholtz Association Berlin in 2018 with an initial focus on early detection of osteoporosis through its proprietary detection technology. Today, the OsteoTest is the number 1 osteoporosis self-test in Germany. Since its start the company received a number of prestigious recognitions including "Germany - Land of Ideas" award in 2017 and the EARTO Innovation Awards in 2020. osteolabs has offices in Kiel (Germany) and Marlow near London (UK).

Further information: www.osteolabs.de

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