

osteolabs publishes first therapeutic monitoring data for osteoporosis patients using OsteoTest

First report on the application of CIM (Calcium isotope marker) technology to enhance osteoporosis therapy management through personalized treatment monitoring via Bone Calcium Balance (BCaB) measurements

Kiel (Germany), June 4, 2025 – osteolabs GmbH, an innovative diagnostic company applying its proprietary CIM (Calcium isotope marker) technology for the early detection of Calcium-related metabolic bone diseases affecting over 1 billion patients worldwide, announced today the publication of first therapeutic monitoring data for OsteoTest related to osteoporosis patients treated with Denosumab.

The publication in the prestigious journal **Bone**, accessible online (DOI: <https://doi.org/10.1016/j.bone.2025.117522>) marks the first report showcasing CIM's potential to enhance osteoporosis management through personalized treatment monitoring compared to Dual-energy X-ray absorptiometry (DXA) and bone turnover markers (BTMs). The data shows that the CIM approach offers an early stage and highly sensitive way to monitor transient changes in Bone Calcium Balance (BCaB), which cannot be achieved by DXA or conventional BTMs, such as P1NP and β -CTX-I. BCaB is a key determinant of underlying bone health. This study was conducted in collaboration with renowned colleagues from GEOMAR (Helmholtz Centre for Ocean Research Kiel, Germany), Orthopaedikum (Kiel, Germany), the University Hospital Schleswig-Holstein (UKSH, Kiel, Germany), and the UCL Great Ormond Street Hospital (London, United Kingdom).

“We are very excited about the results from this collaborative effort demonstrating the usefulness of our CIM for personalized therapy monitoring of osteoporotic patients”, said **Prof. Anton Eisenhauer** who is the **key inventor of the CIM technology and osteolabs' Chief Scientific Officer**. “By tracking CIM values in blood or urine, this might inform clinicians about BCaB, a critical parameter of bone health. The integration of CIM into clinical practice could provide major improvement in osteoporosis management by providing detailed insights into patient-specific and timely responses to therapy.”

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About osteolabs GmbH – www.osteolabs.de

osteolabs GmbH is an innovative diagnostics company and spin-off from GEOMAR Helmholtz Centre for Ocean Research Kiel and the Helmholtz Association Berlin in 2018. The company deploys its proprietary CIM (Calcium isotope marker) technology for the early detection of Calcium-related metabolic bone diseases affecting over 1 billion patients worldwide with an initial focus on early risk determination of osteoporosis. To date, osteolabs has successfully conducted diagnostic testing on close to 6,000 OsteoTest samples.