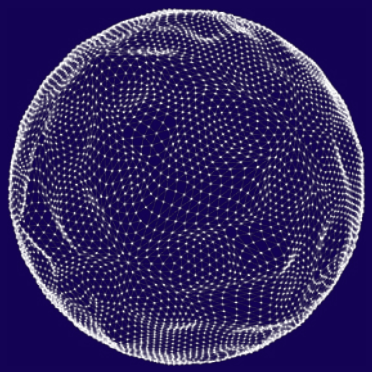


UNICORN Dx

Universal Electrochemical Nanosensors for Next-generation Diagnostics

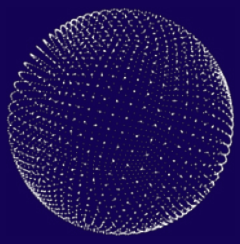
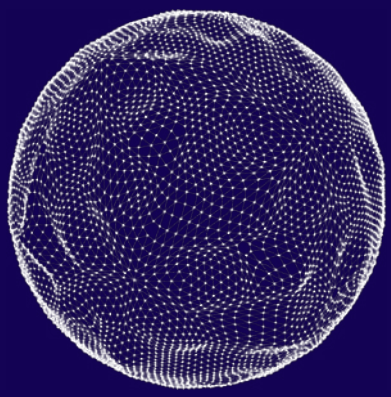
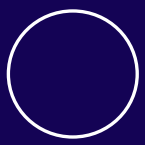
PUBLIC SUMMARY

The COVID-19 pandemic inspired an impressive wave of developments in healthcare-related science and R&D. Besides historical advances in the field of vaccines, many new diagnostic products have been developed. This has bolstered development of diagnostic tools to detect and study not only pathogen infections but also other diseases. Recently, awareness has grown about the importance of (point-of-care) testing as a way of preventing disease and thus making healthcare more efficient.

Based on recent results from three ATTRACT Phase I projects, JKU/CNRS, Interfluidics/UT and ECsens/UT, this consortium will exploit its synergy to develop an innovative, sensing platform based on smart biomarker selection. An innovative multi-modal detection mechanism capable of detecting biomarkers at the single-particle level will be at the basis of a fully integrated system, the UNICORN system, which can be modified to detect a great variety of diseases on a modular basis.

As a proof-of-concept, it will here be first developed targeting acute respiratory infections. The system will be embedded in a communication platform which includes the entire distribution chain; uniquely, the platform will be developed together with a communication network interlinking the supplier, operator, healthcare provider and the end-users. This will be developed separately and parallel to this ATTRACT Project “UNICORN Dx”.

The innovation will result in an unprecedented level of access to high-end diagnostics for EU citizens. This will allow focusing more on prevention rather than treating existing diseases. Ultimately, the main objective of this proposed ATTRACT Phase II project is to play a role in revolutionizing the paradigm of treating patients in the EU: the healthcare system of the near future will be much more efficient than the “sick” care system of today.

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