

## [139] THE QUANTIFIED LONGEVITY GUIDE - QLG

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#### **Presentation title: The Quantified Longevity Guide – QLG**

- **Investment Rational**

We are developing practically applicable and at the same time sophisticated expert software (SW) system for indication of physiological age, for early diagnosis of aging-related ill health and personalization of aging-related and healthspan improving treatments – “The Quantified Longevity Guide – QLG”. The system will facilitate early detection and corresponding preventive early treatment of major aging-related diseases (such as cancer, Alzheimer’s disease, heart disease and diabetes), based on an information theoretical assessment of physiological age.

- **Business Strategy**

Provided diagnostic and therapeutic parameters, the system will advise physicians, biomedical researchers and health-conscious individuals on diagnostic and clinical decisions, utilizing online service platforms and/or selling and leasing the SW to health care providers and research institutions.

- **Core Technology**

The main advantage of the proposed system is its methodology, which provides an integrated approach utilizing information theoretical measures (such as entropy and mutual information) that take into consideration the non-linear and cumulative interrelation of multiple parameters – biomarkers and intervention factors, rather than linear and non-cumulative statistical measures.

- **Product Profile/Pipeline**

Basic computational software technologies, algorithms, tools and platforms will be developed that will serve physicians, biomedical researchers and health-conscious consumers.

- **What's Next?**

Pilot diagnostic models were established for the evaluation of physiological age, as well as for several aging-related diseases, including heart disease, type 2 diabetes, COPD, dementia and cancer. More amounts and types of clinical data are needed to develop advanced diagnostic models and SW tools (Blok D and Stambler I, The application of information theory for the research of aging and aging-related diseases, *Progress in Neurobiology*, 2016, <http://dx.doi.org/10.1016/j.pneurobio.2016.03.005>).

