



VISGEN- Transcribing the processes of life: Visual Genetics

The Visual Genetics (VISGEN) consortium brings together eight academic and five commercial scientifically leading teams to address the unique challenge of visualizing nuclear processes in intact brain in real-time. By exchanging knowledge between academic and commercial sectors in Europe, as well as undertaking training secondments at leading Universities in China the team will grow its European and global competitiveness in a world-leading forefront of neuroscience and genetic technology. Visualisation of transcription in living systems has not been witnessed directly, this multidisciplinary and international project will herald a new era where this idea becomes a regular research tool and translates to a clinical and diagnostic technology in the future. The team will use a unique biotagging platform to develop the technology that is required to interrogate transcription. The intersectoral effort requires the amalgamation of knowledge from neuroscientists, synthetic chemists, engineers, physicists, analytical chemists, nanobiologists, behavioural scientists, laser technology and image processing experts. The consortium combines expertise from thirteen organisations from seven countries to build the multidisciplinary team and share the knowledge that addresses and will overcome the task of realising real-time and spatially resolved genetic studies. Once developed, the technology can be utilized for other medical-based research and development projects aimed at early stage disease diagnosis, cancer detection, and toxicity studies. Real-time visual genetics will transform our understanding of the state-of-the-art and herald transformative changes in the field of neuroscience, and in general life science.

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Find out more: <https://cordis.europa.eu/project/id/734862>