

# From Patient Data to Clinical Diagnosis in Neurodegenerative Diseases

<https://www.neurodegenerationresearch.eu/survey/from-patient-data-to-clinical-diagnosis-in-neurodegenerative-diseases/>

## **Principal Investigators**

**Institution**

**Contact information of lead PI**

**Country**

European Commission

## **Title of project or programme**

From Patient Data to Clinical Diagnosis in Neurodegenerative Diseases

## **Source of funding information**

European Commission FP7-Seventh Framework Programme

## **Total sum awarded (Euro)**

€ 3,148,000

## **Start date of award**

01/02/2014

## **Total duration of award in years**

4.0

## **The project/programme is most relevant to:**

Alzheimer's disease & other dementias

## **Keywords**

### **Research Abstract**

Dementia is a growing health problem with enormous costs to society: the costs currently equal 1% of the global gross-domestic product and a three-fold increase to 115 million dementia cases is expected by 2050. Addressing this grave human and economic challenge requires efficient solutions that do not exist yet: tools to detect and diagnose persons at an early phase, and interventions for delaying disease progression.

PredictND provides an objective ICT-based approach for diagnostics of neurodegenerative diseases. It is based on the principles of evidence-based data-driven medicine and builds upon previous successful Virtual Physiological Human (VPH) projects. An existing decision support tool is enhanced to meet the needs of clinical practice and validated in real conditions across

several EU regions. The first goal is to show that modern computer-based models enable earlier and more objective clinical diagnostics. The second goal is to improve cost-efficiency of early diagnostics by developing a low-cost test battery that detects persons at high risk of dementia and forwards these persons to more accurate (and expensive) clinical tests. Everything is implemented as an ICT ecosystem that integrates the clinical decision support tool with services for citizens for assessing the risk of diseases. Thus, PredictND transfers the scientific VPH concepts not only to clinical practice but to an environment suitable for solving the larger challenge of dementia.

PredictND impacts healthcare professionals by providing tools for objective and earlier diagnostics. The tools, combined with interventions that delay disease progression will increase the quality of life for patients and their caregivers. PredictND also reduces costs to society and produces new scientific understanding of this family of diseases. Finally, PredictND combines excellent clinical, industrial and technological forces with innovative VPH technologies, providing impetus for the European industry.

### **Lay Summary**

**Further information available at:**

**Types:**

Investments > €500k

**Member States:**

European Commission

**Diseases:**

Alzheimer's disease & other dementias

**Years:**

2016

**Database Categories:**

N/A

**Database Tags:**

N/A