

## Big Data for Health

### DESCRIPTION OF THE TECHNOLOGY

There are three main reasons for an immediate innovation action to apply big data technologies in Healthcare. Firstly, a Healthy nation is a Wealthy nation! An improvement in health leads to economic growth through long-term gains in human and physical capital, which ultimately raises productivity and per capita GDP. Secondly, Healthcare is one of the most expensive sectors, which accounts for 10% of the EU's GDP continuously becoming more expensive. Thirdly, as healthcare is traditionally very conservative with adopting ICT, while big healthcare data is becoming available, the expected impact of applying big data technologies in Healthcare is enormous.

INCLIVA research line led by Professor Josep Redón aims at breaking down barriers of conventional health system through collaborative innovation and smart use of clinical data. Our research is also aimed at ensuring security and privacy of personal data according to European regulation.

### MARKET APPLICATION SECTORS

Pharmaceutical, biotechnological and ITC industry in the field of cardiovascular disease.

### CONTACT

INCLIVA Innovation Unit  
[uai@incliva.es](mailto:uai@incliva.es)

Possible applications of our knowledge to these industrial sectors include:

- Delivery of scalable insights from real-world evidence and insights driving drug development and personalised medicine through advanced analytics
- Exchange of 3D data between health sector and consumer goods sector.
- Practices related to big data technologies, new business models and European and national healthcare data policies and regulations

### GROUP RESOURCES

The Bioinformatics unit of INCLIVA relies on a high performance computational cluster (HPC) that consists on 9 servers and 200 nodes and 2 TB of RAM. It is a flexible and robust equipment. Moreover, this HPC has 200TB of ROM and it is located in a 35m<sup>2</sup> isolated and secure room. The HPC is backed up by the University Clinic Hospital of Valencia generator set.

### COLABORATION SOUGHT

Contract research, collaborations for international grants with other academic partners and companies.