SERUMS

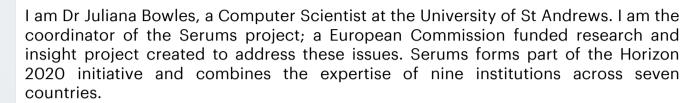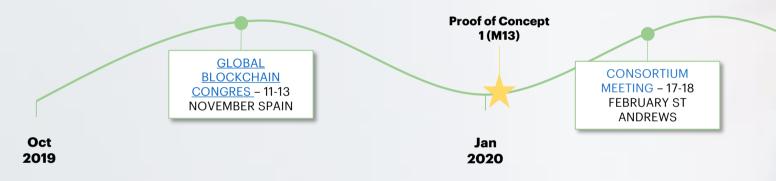## SHARING PATIENT DATA IN A SAFE AND SECURE WAY ACROSS EUROPE

EU Serums: General Information

Healthcare management is an increasingly complex, multi practitioner driven entity, precipitating a pressing need to collect and share highly confidential and personal medical data, obtained from a variety of sources; including personal medical devices. Data sharing may be necessary through a variety of means, including public networks and other systems, whose security cannot be implicitly trusted.

I am Dr Juliana Bowles, a Computer Scientist at the University of St Andrews. I am the coordinator of the Serums project; a European Commission funded research and insight project created to address these issues. Serums forms part of the Horizon 2020 initiative and combines the expertise of nine institutions across seven countries.

The Serums project aims to centre future healthcare provision around patient need, enhancing personal care, and maximizing treatment quality, while ensuring patient trust in the security and privacy of their confidential medical data.

Serums blockchain solution — accenture

One of Accenture's responsibilities in the Serums project is to investigate how healthcare data can be exchanged in a secure way facilitated by blockchain. Today there is no standardized/digital way to share health data within EU. Today most data exchange are done with printed documents or data on physical drives where there is very limited traceability of ownership nor managed access. These methods do not meet the increasing need of data exchange in modern society nor the tight security standards that health data requires.

The blockchain solution developed

- Manages access to patient data cross countries and ensures that only authorized physicians or healthcare providers can access the patient data they request access to.

- Keeps a full immutable audit trail of all the permission request and the access log

Previous & Upcoming Events

- **Oct 2019**
- GLOBAL BLOCKCHAIN CONGRES – 11-13 NOVEMBER SPAIN
- **Proof of Concept 1 (M13)**
- **Jan 2020**
- CONSORTIUM MEETING – 17-18 FEBRUARY ST ANDREWS
- MIE2020 – 28 APRIL GENEVA
- **Apr 2020**
- CONSORTIUM MEETING – JUNE ISRAEL
- **Jun 2020**

News — zuyderland

Zuyderland Medical Centre (ZMC) is one of the parties within the Serums project where a use case has been drawn up to research the process of sharing medical data in relation to privacy and security of that data. In this use case, a 70-year-old patient receives a new hip and is issued a validated motion tracker with an e-coach to monitor his recovery.

The personal health environment (PHE) makes it possible for the patient to obtain all his medical data from ZMC. The patient can choose to share the data from his hip operation and the motion tracker to his physical therapist. The physical therapist can follow the progress of the patient and intervene if necessary. This means that daily monitoring of the patients recovery is done from a distance and hence reduces the need for physical visits, both to the hospital and the physical therapist. Read more >>>

News — FUNDACIÓ CLÍNIC BARCELONA

As one of the partners in the SERUMS project, at the Hospital Clínic de Barcelona (HCB) we have designed the HCB - Smart Platform. Together with the help of the technologies developed during the SERUMS project, we will intent to allow Joana, a 85 year-old patient with various chronic diseases, the easy gathering of vital signs measurements out of the hospital with the help of eHealth devices and the possibility to share them with all the professionals that care for her health.

This platform is intended to integrate healthcare data from the whole ecosystem by combining data generated inside the hospital, Primary Care Centers, and for the first time from outside the walls of the care centers becoming the needed gateway through which the professionals can monitor the patient at all times. Read more >>>

News — Edinburgh Cancer Centre Western General Hospital

The Edinburgh Cancer Centre (ECC) is another party within the Serums project. A Scottish case study to demonstrate the potential of the Serums system has been conceived with Dr Peter Hall, medical oncologist from the Edinburgh Cancer Centre, Western General Hospital.

Edinburgh Cancer Care Personalised Treatment will provide a patient app where cancer patients will be able to add information securely and confidentially on their symptoms (i.e. appetite, nausea) between chemotherapy treatments, and clinical staff (e.g., GP or oncologist), can adapt treatment if required to improve their outcome and toxicity levels. Read more >>>