**Research Topic:**

Implementation of a Patient Managed Mobile Cloud Application to Achieve Secure Health Data Autonomy in Diabetes Care

**Research Problem:**

The sharing of patient health data without their knowledge or consent raises significant ethical concerns related to patient privacy, security, and autonomy. Current EHR systems and healthcare providers do not adequately support patient engagement and their control over their health data, leading to a lack of transparency and trust in the healthcare system. Therefore, there is a need to shift the balance of power to ensure that patients can not only get their data, but also choose who else to share it with. Also patients’ ability to get their data means they can make appointments, better understand their care, and be aware of their medications. Diabetes patient has been used as the focused group.

**Research Questions:**   
1. What are the ethical implications of data sharing without patient knowledge or consent? 2. How can access rights be verified to enhance transparency, control, and trust in the healthcare system?

3. What technological solutions can be developed to facilitate secure and transparent sharing of patient health data with the patient's consent?

1. Access protocol handover is done once. Changes to records are tracked and seen by patient.
2. Real time sync of medical records digitally

Does it stop research for drug discovery??

Project is focused on the healthcare ecosystem. They can be a third-party entity. Furthermore, an incentive approach for future work can be done.

Elliptic-curve Diffie–Hellman (ECDH) is a key agreement protocol

Dataset from hospital studies  
Formulate data

Result

1. An algorithm for the access right verification
2. Mobile app to