

## Duke File (IDF) Number

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## Meet the Inventors

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## Department

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Department of Medicine (DOM)(Dept. & CRU)

# Patient-centric mobile data-architecture for electronic health records

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## Value Proposition

Most Electronic Health Records (EHR) solutions available today are centered around the needs of healthcare providers, in that they allow providers to manage records of their patients. Moreover, they rely on centralized data storage. The primary concerns with these models are those of privacy and data security. 47% of respondents a survey conducted among 13,575 U.S. physicians by The Physicians Foundation have indicated that they have significant concerns that EMR poses a risk to patient privacy. The other major issue is that of cross-provider information exchange, i.e. interoperability. Both healthcare providers, as well as EHR vendors, resist interoperability in order to ensure patient loyalty.

## Technology

Inventors at Duke University suggest a novel data architecture for embedding personal healthcare records on mobile phones or other personal electronic devices. The architecture provides separate interfaces for both patients and physicians. It provides back-end reporting tools using a federated data query model. This allows autonomous databases stored on patient owned devices to be queried via the internet or other networks, and accessed only by authorized users such as physicians and pharmacists approved by the patient. The distributed storage model reduces risks related to privacy and data security, and patient ownership of the medical records facilitates cross provider information exchange.

## Advantages

- Distributed data storage provides better privacy and data security for EHR
- Patient ownership and control of data ensures interoperability amongst healthcare providers

