

BROADCAST- New blockchain technology allows patients to share personal data for medical benefits

If you don't know what blockchain technology is and you don't care about cryptocurrency, know this – it's the next big thing that's going to transform daily life, including health care. Dr. John Vozenilek who is VP and chief medical officer for OSF Innovation and Digital Health says blockchain (which is used to deliver cryptocurrency) allows for far more secure data transfers because it's an unchangeable but distributed ledger that records transactions. Vozenilek says blockchain technology allows patients to de-identify themselves and opt in specific data they're willing to share for medical research, even if they aren't in a clinical trial.

“In our future state, if patients wanted to be made aware of a broad diversity of studies, they could elect to be available and they could sub-elect which pieces of data they would like to share. So, this allows us to do this type of *confidential* matching that exceeds our ability to do this in a one-to-one scale with a scale that can be highly automated.” (:25)

Dr. Vozenilek provides an analogy.

“The output of the patient experience would be smart contracts that would permit the access. It's sort of the key in the lock and the patient in our future holds the key to how that lock is opened.” (:13)

Sharing sensitive data could provide insights to social determinants of health – such as food, transportation or housing insecurity. And, there could be rewards for contributing to open portals where researchers could be provided access to make specific queries.

“There's a way in our proposed system that patient rewards, reward health and wellness behaviors. Getting to their doctor's appointments more readily; getting to healthier foods more readily – those are the types of rewards that we're considering.” (:16)

Data could be securely shared on the blockchain to help OSF and other partners such as community organizations help patients help themselves.

“When it comes to discreet and sensitive patient data that's being shared for a good, mutually-shared beneficial purpose, and of course ours is the best health care outcomes for every patient who comes to us, where we can partner with patients to allow them to open the locks to help us serve them better; that's where blockchain really excites me.” (:19)

Despite criticism of the energy consumption that could be needed to power supercomputers to make the distributed ledger technology work, ultimately, Dr. Vozenilek believes blockchain can be environmentally sustainable by using platforms that distribute computing using across hubs, rather than using supercomputers.

“We want to partner with the platforms that are out there today that are really looking at environmental impact and ensuring that the energy consumption required is highly sustainable.” (:12)

OSF HealthCare will partner with universities to begin to envision strategy but it is also hosting an open LinkedIn webinar March 24 to gather input from anyone with a passion or interest in blockchain.

“We would also like to embrace the know-how that exists within our community. There are several members within our community and in our region who have thought really hard about how blockchain can change lives. We want to partner with those individuals and bring them into

community here to see how we can use blockchain technology to advance the health care of our community.”(:19)

Anyone interested in learning more or contributing ideas can register for the [OSF LinkedIn Live webinar](#) at the link included in our website story.