

# Value Through Innovation: Blockchain Technology in Clinical Trials



Uli Broedl

# Disclosures

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- I am employee of Boehringer Ingelheim Canada Ltd
- The views expressed are my own and do not necessarily represent the views of Boehringer Ingelheim Canada Ltd

# Blockchain Technology in Clinical Trials

## GLOBAL CLINICAL TRIAL MARKET SIZE



Global Clinical Trial Market Size 2016:  
USD 40 Billion



Global Clinical Trial Market Size 2025:  
USD 65 Billion

# Blockchain Technology in Clinical Trials

## SPECTRUM OF CLINICAL TRIALS



**Classical Clinical Trial**  
Bring the Patient to the Trial



**Remote, Digital Clinical Trial**  
Bring the Trial to the Patient

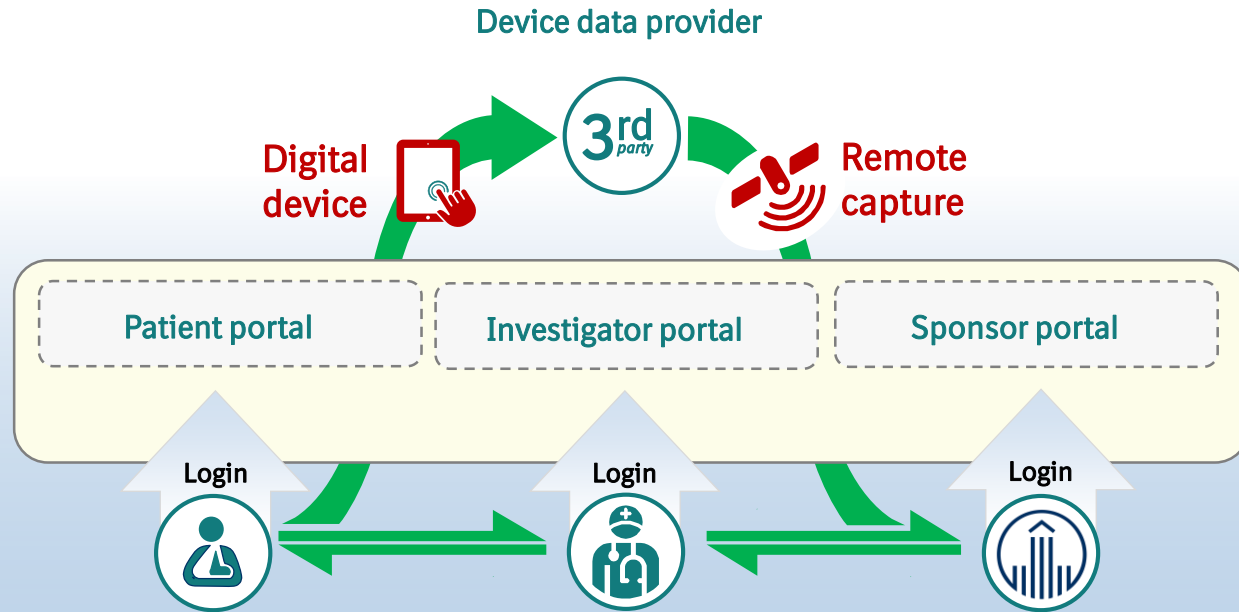


**Virtual Clinical Trial**  
EHR-based eClinical Trial



# Blockchain Technology in Clinical Trials

## REMOTE CLINICAL TRIAL



# Blockchain Technology in Clinical Trials

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# Blockchain Technology in Clinical Trials

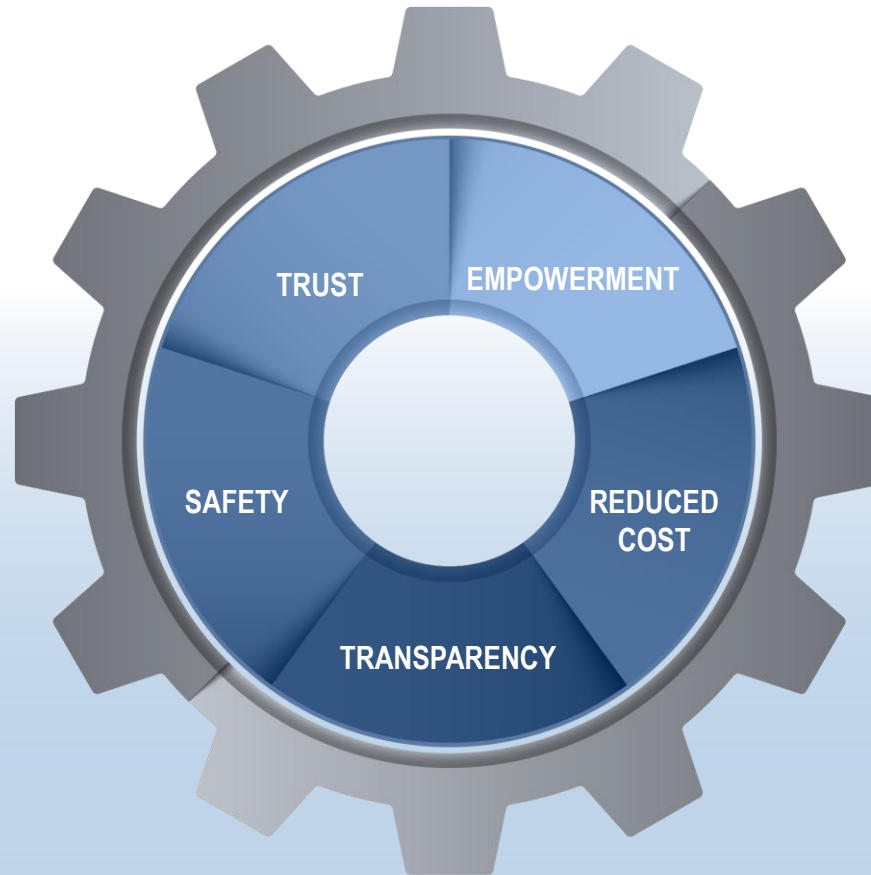
## BLOCKCHAIN-BASED CLINICAL TRIAL



- One trusted, immutable and shared source of consent and (trial) status
- Process automation in a trusted environment
- Permissioned access to data specified by role in near real-time

# Blockchain Technology in Clinical Trials

TEAM SPORT TO CREATE  
WIN-WIN SITUATIONS





# Blockchain Technology in Clinical Trials



## **Boehringer Ingelheim (Canada) Ltd. and IBM Canada Announce First of its Kind Collaboration to Integrate Blockchain Technology into Clinical Trials**

*Blockchain technology has the potential to improve trust, transparency,  
patient safety and patient empowerment in clinical trials*

**Burlington and Markham, ON, February 12, 2019** - Boehringer Ingelheim (Canada) Ltd. and IBM Canada announced today at the Healthcare Information and Management Systems Society (HIMSS) conference in Orlando, Florida, their plans to explore the use of blockchain technology in clinical trials.

# Blockchain Technology in Clinical Trials



[https://www.imi.europa.eu/sites/default/files/uploads/documents/apply-for-funding/future-topics/IndicativeText\\_BlockchainHealthcare.pdf](https://www.imi.europa.eu/sites/default/files/uploads/documents/apply-for-funding/future-topics/IndicativeText_BlockchainHealthcare.pdf)

<https://www.phuse.eu/documents/working-groups/deliverables/phuse-blockchain-white-paper-final-version-1-18843.pdf>

# Blockchain Technology in Clinical Trials

## SUMMARY

- The clinical trial ecosystem is highly complex with multiple stakeholders, resulting in limited trust and transparency, process inefficiencies and non-compliances, without true patient empowerment.
- Blockchain Technology in clinical trials has the potential to improve trust, transparency, empowerment, and via automation of processes, patient safety at reduced costs.

\*Blockchain Technology is a software solution that creates trust amongst untrusted parties in near real-time via consensus and encryption algorithms without the need of trusted intermediaries

## For More Information

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