Embleema Launches the First Health Records Blockchain To Give Patients Complete Control Over Their Health Data and Be at the Center of Clinical Research

Embleema comes out of stealth to connect patients, life sciences, and regulators through its Blockchain, setting a new standard for safety, transparency and quality in Real World Evidence, disrupting the $140 billion drug development market

New York, NY — July 17, 2018 – Embleema, today emerged from stealth, to launch the public beta release of its patient-driven, HIPAA-compliant, personal health records blockchain. Built on Ethereum, the leading smart-contract platform, and available today after one year of R&D, Embleema aims to solve the challenges associated with collection and safe sharing of Real World Evidence (RWE). Embleema restores precision and transparency in the healthcare and clinical trials industry by allowing patients to consolidate, own and directly share their data with healthcare stakeholders while receiving payment via cryptocurrency tokens for their participation. Embleema's leadership team holds more than 100 years of industry experience in life sciences, healthcare data, wearable, digital health and blockchain technology across the US, Europe and Asia-Pacific.

"We focus on real data from real patients in the real world, and our mission is to turn the bottle upside down and put patients first in the healthcare system" said Robert Chu, CEO and Founder of Embleema." Blockchain technology removes the need for third parties to broker the sharing of patient data - a multi-billion dollar industry - while providing the most accurate data possible for precision medicine to succeed. All the while allowing patients to maintain sovereignty and control over their most personal data. " Chu left his role as Senior Vice President, Global Technology Solutions at IMS Health, a global leader in healthcare data, to found Embleema in June 2017.

Today, pharmaceuticals are primarily developed with data collected in controlled research environments, which fails to capture the efficacy of treatments in real-life setting. 32 percent of drugs approved by the FDA are affected by a postmarket safety event, prompting regulators to demand direct access to post-market raw data from life sciences. Current methods of gathering data on adverse effects and efficacy are slow, and lack precision due to the absence

of active patient involvement. This has worsened public health crises, generating a vicious circle of distrust between between patients, life sciences, and regulators, and is delaying the availability of new drugs to patients.

Today, RWE studies suffer from three major deficiencies that lead to poor findings:
1. Reliance on low-resolution aggregated data sets sold by third party data brokers, rather than high-resolution individual patient data
2. Inability to monitor the same patient over extended periods of time, which allows for much better research and drug development
3. Loose individual patient consent collection,

Giving patients complete control over their healthcare data:
Embleema's blockchain and decentralized app (DApp), PatientTruth, enables patients to assemble the full picture of their health from multiple sources in a truly secure environment. It rewards them with crypto-tokens for storing medical records generated by their multiple healthcare providers by uploading of HL7 Continuity of Care Documents (CCDs) as well as data from connected health devices, beginning with Fitbit. Patients can consent to real-time data sharing with pharmaceutical companies and healthcare authorities, which will improve real-time detection of safety issues and assessment of efficacy down to the patient level - benefitting the entire healthcare system.

"The decentralized and immutable public ledger that Blockchain infrastructure allows, provides three major benefits; a ledger of where a patient's records are to be found, smart contracts to determine who can access those records under which conditions, and security keys to ensure only authorized parties access patient data, under their terms. Blockchain isn't here to replace Electronic Medical Records (EMRs), but to create more balance within the healthcare system by giving patients complete control over their treatment and how their data is used," said Dr. John D. Halamka, International Healthcare Innovation Professor at Harvard Medical School, Chief Information Officer at Beth Israel Deaconess Medical Center, and Embleema advisory board member.

CysticFibrosis.com, **Embleema Pilot Customer:**
"A major concern of patients with Cystic Fibrosis is that their health data could be sold without their knowledge or consent. Clinical trial participants don't know where their data is going and it contains a huge amount of personal information beyond just their health records. Blockchain allows patients to share their data to aid in research - but on their terms and with full respect to their privacy. Our patient surveys have shown that 53% would agree to it if they had a proper way to give their consent to accelerating research. The Cystic Fibrosis community is a perfect model to pilot the Embleema technology." says Jeanne Barnett, Founder of CysticFibrosis.com and patient advocate for the Cystic Fibrosis community.

Features of PatientTruth V1 DApp:
- Visualization of Medical Histories and Fitbit activity data shared by patients

- Upload Continuity of Care Documents (CCD) medical records into blockchain, with further support of other HL7 and FHIR interfaces in the future
- Upload of Fitbit information into blockchain, with further integration of other connected devices in the future
- Medical history stored securely on blockchain
- Authorization management for the sharing of the medical history
- Audit-trail of personal medical records accesses
- Compensation in tokens for uploading CCDs and Fitbit information, as well as referrals of new patients and providers

Patients and healthcare professionals can be the first to use the Embleema health blockchain and PatientTruth by joining the community at www.embleema.com. These users can be be a pioneer for the new era of patient data stewardship.

Healthcare organizations can also pilot the Embleema health blockchain network as part of our Consortium at www.embleema.com/#consortium.

About Embleema:
Embleema is the patient-driven healthcare blockchain network for secure sharing of personal health records. Hosted on a private Ethereum blockchain, Embleema's consolidated, highly-secure repository provides the healthcare ecosystem with an undisputed and holistic view of patients' medical history, Embleema is creating a decentralized healthcare data economy by connecting the key stakeholders in the healthcare industry, directly with patients while maintaining the patient's data sovereignty.

CEO Robert Chu left his role as Senior Vice President, Global Technology Solutions at IMS Health to found Embleema in June 2017 and is supported by a team of healthcare and technology executives from Harvard Medical School, T-Systems, the Pharmaceuticals Division of Pierre Fabre and iBionext.

For more information, visit www.embleema.com and follow Embleema on Twitter @Embleema, Telegram, LinkedIn, and Facebook.

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