

The blockchain-based scientific study

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The scientific study, as it is currently practiced, is riddled with inherent biases introduced by various stakeholders, including pharmaceutical companies, academics, and journal editors (1). These biases can lead to flawed research and a decline in public trust in science. However, there is a potential solution: blockchain technology. By leveraging the immutable and publicly available nature of blockchain, the scientific community can ensure that research data remains transparent and resistant to manipulation. This approach, known as the blockchain-based scientific study, involves a five-step process: publishing the hypothesis, methods, raw data, results, and conclusions on the blockchain. This not only allows for full public access and verification but also significantly reduces the influence of individual biases, thereby increasing trust in the research process. The decentralized nature of the blockchain further ensures data integrity through a public network of nodes, making it difficult for any single entity to manipulate the data. While implementing a blockchain-based research database may pose technological, financial, and cultural challenges, the potential benefits are substantial. The adoption of blockchain technology in scientific research could lead to more reliable, unbiased, and publicly accessible data, ultimately advancing medical knowledge and improving patient outcomes. As the field of blockchain technology continues to evolve, it is likely that more applications in scientific research will emerge, heralding a new era of trust and transparency in science.

Bibliography

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