

Additional file 2. The characteristics of articles on technological advancement

Author, Year of publication	Blockchain platform	Digital assets	Design goals				
			security	privacy	traceability	compatibility	legal compliance
Mamo, N. et al., (2020)	Hyperledger Composer	consent	X	X	X		X
Albanese, G. et al., (2020)	Hyperledger Composer	contract, trial	X	X	X	X	
Haas, M.A. et al., (2021)	-	-	X	X	X	X	
Kim, T.M. et al., (2021)	Hyperledger Fabric	consent, data hash	X	X	X		
Albalwy, F. et al., (2021)	Hyperledger Besu	consent, profile	X	X	X		
Appenzeller, A. et al., (2022)	-	-	X	X		X	X
Huh, K.Y. et al., (2022)	Hyperledger Fabric	consent, data hash	X	X	X		

References

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2. Albanese, G., Calbimonte, J.-P., Schumacher, M., Calvaresi, D.: Dynamic consent management for clinical trials via private blockchain technology. *Journal of ambient intelligence and humanized computing*, 1–18 (2020)
3. Haas, M.A., Teare, H., Pictor, M., Ceregra, G., Vidgen, M.E., Bunker, D., Kaye, J., Boughtwood, T.: ‘ctrl’: an online, dynamic consent and participant engagement platform working towards solving the complexities of consent in genomic research. *European Journal of Human Genetics*, 1–12 (2021)
4. Kim, T.M., Lee, S.-J., Chang, D.-J., Koo, J., Kim, T., Yoon, K.-H., Choi, I.-Y.: Dynamichain: Development of medical blockchain ecosystem based on dynamic consent system. *Applied Sciences* 11(4), 1612 (2021)
5. Albalwy, F., Brass, A., Davies, A., et al.: A blockchain-based dynamic consent architecture to support clinical genomic data sharing (consentchain): Proof-of-concept study. *JMIR medical informatics* 9(11), 27816 (2021)
6. Appenzeller, A., Hornung, M., Kadow, T., Krempel, E., Beyerer, J.: Sovereign digital consent through privacy impact quantification and dynamic consent. *Technologies* 10(1), 35 (2022)
7. Huh, K.Y., Jeong, S.-u., Moon, S.J., Kim, M.-J., Yang, W., Jeong, M., Song, I., Kwak, Y.-G., Lee, S., Kim, M.-G.: Metory: Development of a demand-driven blockchain-based dynamic consent platform tailored for clinical trials. *Insights in Regulatory Science: 2021* (2022)