

## Blockchain genomics marketplace



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Dr. Axel Schumacher, who has worked in the field of genetics for more than 20 years, says humanity is witnessing the beginning of a greatly exciting era of [precision medicine](#). Of note, he expects the cost of genome sequencing a person to continue its downward trend – with costs recently falling below the \$1,000 dollar mark and soon hitting the \$100 level. Moreover, there are many ongoing initiatives across the globe aiming to facilitate the sharing of genomic data, which will support the growth of precision medicine.

Continued progress in personalised medicine means an increasing number of the world's population is being afforded the opportunity to receive health treatment and lifestyle advice relevant to their genetic profile, and also to share their genomic data for the betterment of humanity.

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For the promise of precision medicine to be fulfilled, Dr. Schumacher points out, data must be easily sharable and interoperable across technological, geographic, jurisdictional, and professional boundaries. However, at present, only a few large businesses hold the monopoly on the vast majority of genomic data, and make vast profits from selling it to third parties, usually without sharing the earnings with the data donor.

Things need to change, the doctor says, and this is where the importance of blockchain technology comes in. For him, a [blockchain-powered](#) genetic data marketplace is needed and this can usher in a new wave of genomics research to transform precision medicine.

"I believe the world needs a **centralised health data hub** – an open marketplace where health and genomic data can be shared, borrowed, or sold. Of course this platform would have to be secure. But by utilising blockchain technology and next-generation cryptography, trust could easily be built around the ecosystem, alleviating consumer hesitations about leaving personal data online or in the hands of corporations," explains Dr. Schumacher, the founder and chief scientific officer of blockchain-enabled genomic data-hub startup Shivom.

Healthcare providers, genomic counsellors, pharmaceuticals, research organisations, governments, patient-support groups and insurance companies that joined such an ecosystem would no longer have to compete with each other to gather data, according to the doctor. "It would be there for them all to use – for example, to boost clinical trials or facilitate drug research and development," he adds.

Importantly, when implementing this **DNA data marketplace**, there should be incentives for people beyond donating their data for the betterment of mankind. Individuals must be empowered to share their **data** however they liked, whether donating, loaning or selling it, according to Dr. Schumacher. In addition, people should be able to benefit from access to applications that leverage their data and enhance their wellbeing and health – for example, nutritional and fitness advice, treatment plans, genealogy, pharmacogenomics, and lifestyle management.

"This is an exciting time in healthcare, all the technologies are in place to transform the health of humanity. Like the world was changed forever by the invention of the internet, the healthcare ecosystem is ripe to be revolutionised through giving data ownership back to the people, ushering in a new form of global healthcare. The destiny of world civilisation may depend upon providing decent healthcare for all humanity; that is what civilisation is all about," Dr. Schumacher says.

Source: [Dataconomy](#)

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