

DNA Sequencing and Organ Transplantation

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Campaign For Uyghurs



- We know now from credible sources that entire population of Uighurs, Kazakhs and other Muslims in Uyghur Autonomous Region Of China, had been forcefully health checked and the blood samples were withdrawn since 2016 to date. These procedures were not performed on Han Chinese population of Xinjiang, but only to Muslim population.
- The entire Muslim's population blood was used for DNA sequencing.

What is DNA Sequencing?

DNA sequencing is the process of determining the nucleic acid sequence- the order of nucleotides in DNA. It includes any method or technology that is used to determine the order of the four bases: adenine, guanine, cytosine, and thymine.

Applications for DNA sequencing:

- In many aspects of biological research
- In medical research
- In forensics
- Anthropology

- Now Chinese scientists are using Uyghur ethnic DNAs for developing AI technologies.
- Sketching someone's face based solely on a DNA sample sounds like science fiction. It isn't. The process called DNA phenotyping, scientist use it to analyze genes for traits like skin color, eye color and ancestry. A handful of companies and scientists are trying to perfect the science to create facial images sharp and accurate enough to identify criminals and victims. NY Times Report

- Currently, it often produces facial images that are too smooth or indistinct to look like the face being replicated. DNA cannot indicate other factors that determine how people look, such as age or weight. DNA can reveal gender and ancestry, but the technology can be hit or miss when it comes to generating an image as specific as a face.

- But, the question remains unanswered: what for Chinese government is using tens of million people's DNA sequenced data? It is very expensive procedure to perform DNA sequencing on such large scale. Minimum cost per sample is ~\$1,000. x 10 millions= \$10 billion.
- So, there has to be a very valid pay back outcome to justify billions \$ project.

- The **China** International Transplantation Network Assistance Center posted the following **price** list on its website in 2006:
Kidney: \$62,000; Liver: \$98,000–130,000;
Liver+kidney: \$160,000–180,000;
Kidney+pancreas: \$150,000; Lung: \$150,000–170,000; Heart: \$130,000–160,000; Cornea: \$30,000.

- Several new methods of DNA sequencing were developed in the mid to late 1990s and were implemented in commercial DNA sequencers by 2000. Together these were called the “next generation” or “second generation” sequencing (NGS) methods. They are highly scalable, allowing the entire genome to be sequenced at once.

- NGS technology has tremendously empowered researchers to look at insights into health, anthropologists to investigate human origins, and catalyzing the “Personalized Medicine” movement.
- NGS technology leads to potential benefits to personalized medicine like organ transplantation.

- Since the first organ transplantation conducted in 1953, the overall processes of organ transplantation have been remarkably developed not only in surgical techniques, but also in peri-surgical treatment like appropriate matching donor, immunosuppressive agents, etc.
- Now organ transplantation considered as a routine curative treatment for end stage diseases in kidney, heart, and liver.
- Even though these successful improvements in transplantation progresses, the acute rejection rate is still significant, and it is up to 60% within next two years after transplantation.

- NGS technology can be applied to the patients suffering from organ failure and failed organ transplantation, estimating rejection rates using the specific biomarkers identified by NGS between patient and donors, finding the best matching donor and transplanting it to the patient, and achieve successful donor transplantation.
- The diversity of human genome is as immense as the population of human beings on earth. Those diversities range from population to personal diversities caused from genomic variations like deletions, insertions, translocations, copy number changes, single nucleotide polymorphism (SNP), etc.

- Development of genomic research in organ transplantation can help in enhancing accomplishment of the goal of long-term function of allograft.
- Until recently, genomic approaches are not actively applied in organ transplantation. Finding potential genes and biomarkers related to a certain disease entity and understanding their mechanism are not easy and are time consuming task. Novel high throughput sequencing technology dramatically reduces these times and efforts.

- For successful organ transplantation doctors rely on several important criteria including three main blood tests, cell surface tests and limited DNA tests to determine if a patient and a potential donor are a match.
- Now scientists have come up with a comprehensive DNA scoring system using many genes to predict long-term success of transplantation.

- Current genetic tests detect differences in DNA sequences at just a few specific locations in the genomes of transplant recipients and their organ donor. The fewer differences, the better the chance of long-term acceptance of the new organ. But scientists reasoned that a much larger scale collection of DNA data for a large number of genes would give a better indication.

- There is a huge direct link between DNA sequencing and organ transplantation outcome!
- We know that Chinese government favors forced-organ harvesting from prisoners of conscience and this has been practised for a substantial period of time involving a very large number of victims. It is beyond doubt on the evidence presently received that forced harvesting of organs has happened on a large scale by state-supported or approved organizations and individuals. And State approved DNA sequencing of entire Muslim population of Xinjiang without informed consent is another proof of evidence that the knowledge obtain from genomic data analysis will be used to determine if a patient and a potential donor are a better match for a long-term success of transplantatic

- Uyghurs detained in secretive “political re-education” camps in China’s northwestern Xinjiang region may have their organs harvested for profit by the Chinese Communist Party (CCP), a former medical surgeon who was forced to carry out the procedure in 1995 told The Epoch Times.
- Not surprisingly, China has the second-highest transplant rate in the world, with amazingly short transplant wait times of just two-to-three weeks.
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- <https://youtu.be/naJFMfDv3Tc>

