

New York Huaqi Bioengineering, LLC  
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**Industry:** Organ Preservation

**Management:**  
 Lili Xu, M.D. & Ph.D  
 (Molecular & cellular in Immunology, Medicine, engineering)

Founder, CEO Seeking funding (seed or angel) stage and core Officers to fill additional roles: CXOs & VP of Finance, VP of Sales.

**Board:** Seeking members

**Scientific Advisory Board:**

**Jiaoti Huang, MD. & Ph.D.**  
 Professor and Chairman, Department of Pathology, Duke University Medical Center

**Shiyong Li, MD. & Ph.D.**  
 Professor at Emory University School of Medicine

**Number of Employees:**  
 1+17

**Finance:**  
 Accounting/Tax: LLP  
 Funding to Date:  
 Founder: \$600,000 (NY, USA)  
 Private: \$3,400,000 (Hefei, China)

Financing Sought: \$2M  
 For: relocation a friction of R&D from China to USA  
 CXOs Cost, IND, IP, Software, Manufacture, Operating Costs, overhead etc.

**How to use:**  
 Core Technology IP protection Global  
 FDA IND certificate  
 Build team  
 Hire U.S. CXOs  
 Verification heart 24h preservation Exp in U.S.

**IP:** Wilson Sonsini (PENDING)

**Legal:** New York Huaqi Bioengineering, LLC

**Business Description / Company Background:**

New York Huaqi Bioengineering, LLC. is a research company established in 2015 and located in the Incubator of SUNY Downstate Medical Center. The founder, Lili Xu, lost her mother due to an organ kidney shortage. The founder and her brother (an entrepreneur in China) together funded the R&D in China with 17 scientists to solve the problems in organ preservation. The team sacrificed over ten thousand rats and nearly one thousand pigs and dogs in organ preservation research during the past eight years and has developed a Non-Reperfusion Injury Organ Preservation Platform (NRIOPP) that kills ischemia which plays a major role in destroying organs during preservation. NRIOPP increases 400% preservative efficiency compared with the current gold standard organ preservation method on organs of hearts, livers, lungs, and kidneys of large and small animals. NRIOPP greatly improves the quality of preserved organs and will soon alleviate the human organ shortage if these technologies are in service. NRIOPP has been integrated with full of basic research to meet the newly found characteristics of cells of organs during low temperatures. It is possible that solid organs will be permanently preserved as cells do nowadays.

**Market Opportunity / Unmet Need:**

Currently, organ transplantation is considered the treatment of choice for people with end-stage organ disease, and patient and graft survival rates exceed 90% per year. Organ shortage has become severer, and patients are dying on the organ waiting list every day. The market is about 60.0B in 2026 globally. The USA is about 1/4 of the global market. The organ shortage is caused by bad preservation methods. Hearts, lungs, and livers are only able to be preserved for about 3 to 5 hours. In the USA, 10045 hearts were procured but unutilized and only 3818 hearts were transplanted in 2022 (70% of donated human hearts are discarded to trash bins in the USA and 85% in China) due to bad preservation methods. The human organ shortage is globally existing and getting worsen. A large criminal black market exists for organs.

**Commercial / Technical Milestones / Intellectual Property:**

Achieved: for NRIOPP, 24-hour preservation was achieved for hearts, livers, and lungs, followed by organ transplantation in vivo (rats, rabbits, pigs, and dogs) in the past eight years. Kidneys 72-96-hour preservation was achieved in dogs in 2022. The verification of 24-hour for heart and liver preservation and transplantation within 6-12 months and additional 18-24 months to reach revenue. A number of patents are in our hands, and our patent strategy will support and maximize market exclusivity.

**Competition / Competitive Advantages / Customer Benefits:**

The annual global market for NRIOPP is around \$60 billion for organ preservation and \$15 billion for the US, with a 10% CAGR. The stakeholders include organ transplantation centers, organ procurement organizations, patients, and health insurance companies.

There are over 100 companies doing organ perfusion for better. But these products are effective for 3-5 hours for organ preservation resulting in the human organ shortage. TransMedics and XVIVO are their leaders. Many essential biology-related technologies are involved in NRIOPP.

**Financial Forecast (Unaudited):**

We are a research company so far. There are several steps to reach revenue. I am looking for 2 million to relocate a fraction of my R&D to do Demo or verification of 24-hour heart and liver preservation following the heart and liver transplantation with results as good as fresh control organs in the USA.

New York Huaqi Bioengineering will scale business in two steps - first to transplantation centers that participated our verification experiments or pre-clinic phase and later to sponsors. The pricing model for our NRIOPP will be perfusion machine and consumables of each organ or per perfusion. The price of TransMedics per perfusion is \$131,500.00 in 2022.

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue (In Million)	91	273	820	2461	4992
Growth Rate		200%	200%	200%	100%
Gross Profit	60	205	656	2117	4492
Gross Margin	66%	75%	80%	85%	90%

Note: The table above shows data only for hearts.

<https://www.youtube.com/watch?v=Qbgebs2v3AM> <https://www.linkedin.com/in/lili-xu-a9a86234/>