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Industry:

Medical Device

Management:

- Executive Leadership
Ming Zhang, M.D., Ph.D.
Founder, President
- Scientific Advisory Board
Peter Heeger, M.D.
Director, Translational
Transplant Research Center
Mount Sinai Medical School
- Kishore Iyer, M.D.*
Director of Intestinal
Transplantation
Mount Sinai Medical School

Number of Employees: 1

Finance:

- Current Investors /
Financing to Date: NIH:
\$275,000
- Amount of Financing
Sought:
\$8.1 million total
 - intestine transplant~\$4MM
 - liver transplant~\$2MM
 - kidney transplant~\$2MM

Legal:

- LLC
- IP: provisional patent

Executive Summary:

Organ preservation is ‘the supply line for transplantation’ and buys ‘time’ to enable cross-matching of donor and recipient. Of all organs transplanted, the intestine is extremely sensitive to ischemia, while a relatively long ischemia preservation period is inevitable. The current standard in organ preservation, University of Wisconsin’s solution (UW), is suboptimal for the intestine. Dr. Zhang’s team has developed a novel intestinal preservation solution, the **ZL solution**, to meet the unique physiological demands of the intestinal graft during preservation. Pilot studies of the **ZL solution** showed promise in its effectiveness in preserving mouse and human intestinal tissues by at least 2.5-fold greater than that of the UW solution. This enhancement in **ZL solution**’s preservation efficacy will permit better graft survival and will extend the length of time available to transport the donor’s intestine (and potentially other organs) to the recipient patient.

Company History:

ZLife Technologies was established in 2015 based on the technology developed in Dr. Zhang’s laboratory at SUNY Downstate Medical Center.

Market Opportunity / Unmet Need:

The gap between organ supply and demand continues to widen. During the past ten years, the total number of deceased donors/year was ~20, 000. From a comparison of the waiting list for organs and the list of deceased donor availability, it is possible that if the organs from all deceased donors were better preserved, the needs for the majority of types of organ transplant would be met (except for kidney). About 300-400 intestinal failure patients, whose situation is immediately dire, are put on the transplantation waiting list each year. Eventually, only ~100 patients/year actually receive transplants. Since **ZL solution** shows >2.5x better preservation of the intestinal graft, it may meet the need of the patients on the waiting list. We believe it could capture 100% of the niche market of intestinal preservation (\$2.5 million), and potentially >\$100 million markets of other organs (\$54 million for liver; \$67 million for kidney).

Products/Services – Launched & Pipeline:

ZL solution is a new generation of organ preservation solution at a pre-clinical test stage.

Commercial / Technical Milestones:

2016 3rd quarter: complete pre-clinical tests; 2016 4th quarter: IDE submission to FDA; 2017-2019: clinical trial of preservation for intestine transplantation; 2019-2020: FDA approval, product to market.

Intellectual Property:

A provisional patent has been filed by SUNY Downstate Medical Center; ZLife Technologies is in the process of negotiating license with SUNY Downstate.

Competition:

There are about 10 players in the organ preservation market, but currently, only one product, the UW solution, serves as a standard preservation solution for intestines, thus being a key competitor. **ZL solution**’s >2.5x superior efficacy to UW solution should enable the **ZL solution** to replace UW solution in the intestinal preservation market, and possibly capture a significant portion of other organ preservation markets as well.

Financial Projections (Unaudited):

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Units sold	0	0	0	0	39	93	325	619	1044	1842	3414	6360	12120
Revenue	\$ -	\$ -	\$ -	\$ -	\$ 234,039	\$ 558,093	\$ 2,169,255	\$ 4,077,429	\$ 6,984,684	\$ 12,403,122	\$ 23,185,974	\$ 43,203,480	\$ 82,086,360
Expenses	\$ 370,050	\$ 990,213	\$ 1,002,672	\$ 1,595,284	\$ 2,410,567	\$ 2,495,117	\$ 1,760,340	\$ 1,697,404	\$ 2,070,846	\$ 2,951,094	\$ 4,590,949	\$ 5,409,373	\$ 6,856,431
Profit	\$(370,050)	\$(990,213)	\$(1,002,672)	\$(1,595,284)	\$(2,176,528)	\$(1,937,024)	\$ 408,915	\$ 2,380,025	\$ 4,913,838	\$ 9,452,028	\$ 18,595,025	\$ 37,794,107	\$ 75,229,929

Please indicate primary purpose of Presentation: Investment