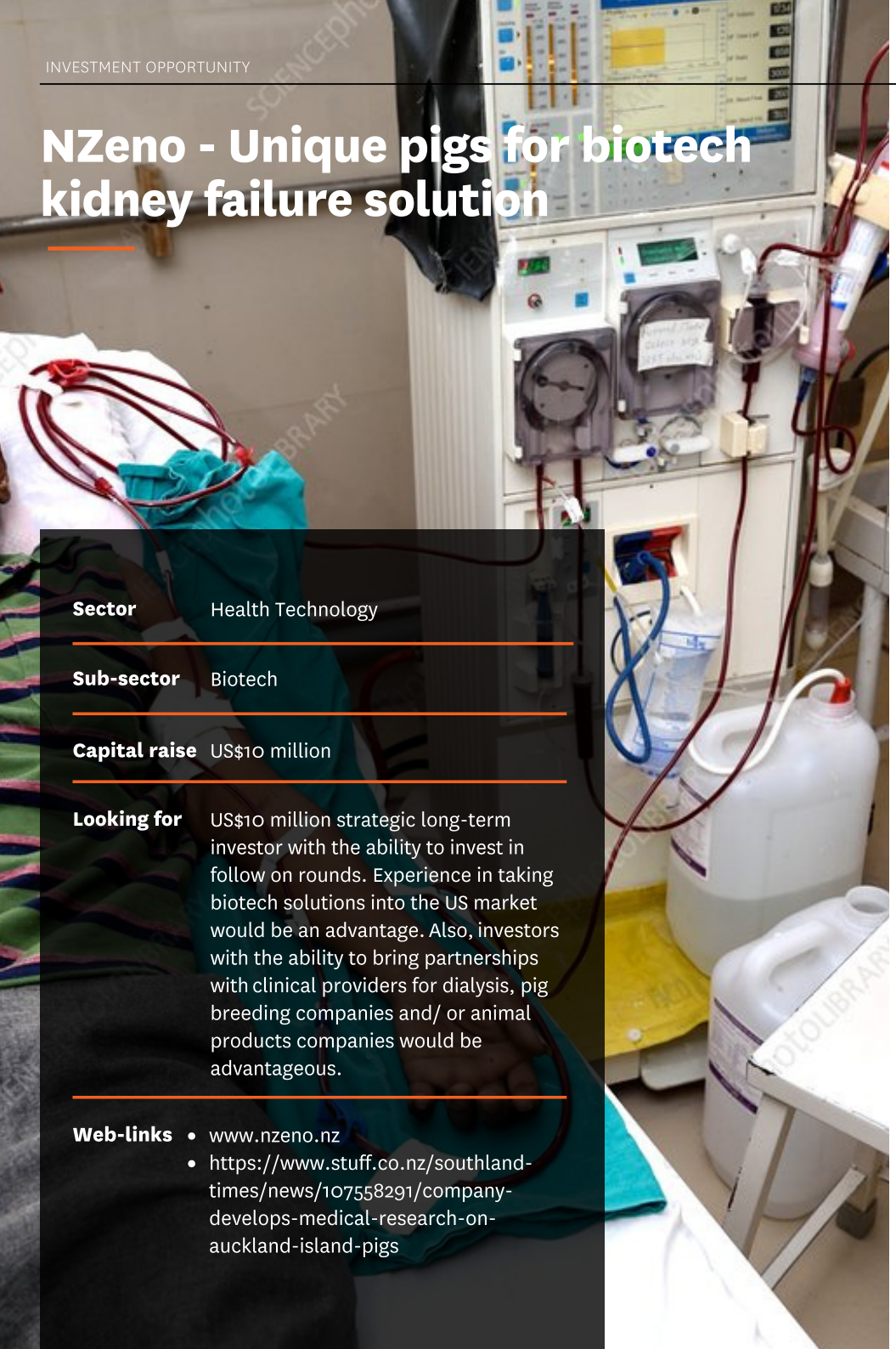
NZeno - Unique pigs for biotech kidney failure solution



Sector	Health Technology
Sub-sector	Biotech
Capital raise	US$10 million
Looking for	US$10 million strategic long-term investor with the ability to invest in follow on rounds. Experience in taking biotech solutions into the US market would be an advantage. Also, investors with the ability to bring partnerships with clinical providers for dialysis, pig breeding companies and/ or animal products companies would be advantageous.
Web-links	• www.nzeno.nz • https://www.stuff.co.nz/southland-times/news/107558291/company-develops-medical-research-on-auckland-island-pigs

NZeno is a New Zealand company that aims to supply gene edited pig kidneys for human transplantation to meet the high global demand for replacement kidneys.

Summary

At least 3 million people worldwide currently depend on a dialysis machine to remain alive as a result of end-stage renal disease or kidney failure. Global kidney failure rates are rising at a rate of 400,000 new cases each year and the market demand for kidneys is underserviced by the lack of human kidney donors. In the US market, $US50 billion per annum is available in reimbursement codes for kidney failure solutions. Headquartered in Auckland, with a breeding facility in Southland, the NZeno solution is unique to New Zealand, presenting an opportunity to develop xenotransplantation of gene edited kidneys.

The founders of NZeno have previous experience in developing pig cells for the treatment of Type 1 diabetes and Parkinson's disease in human clinical studies.

The Problem…

Increasing numbers of people with kidney failure

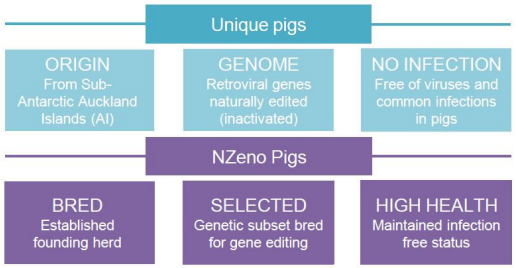
- When kidneys fail, life is sustained by dialysis but the preferred treatment is a kidney transplant
- More than 3 million with kidney failure in the world
- 500,000 patients on dialysis in the USA
- 300,000 on dialysis in China, dialysis market growth is 3x faster than rest of world
- Kidney transplant is more economical and offers a better quality of life.
- Worldwide shortage of human kidney donors

Economist, April 2019 "Kidney donors are wanted dead or alive. There are not enough of either kind".

The Solution

Medical Grade Pig Kidneys

- Pig kidneys function like human kidneys



Large Established Market for Kidney Transplantation

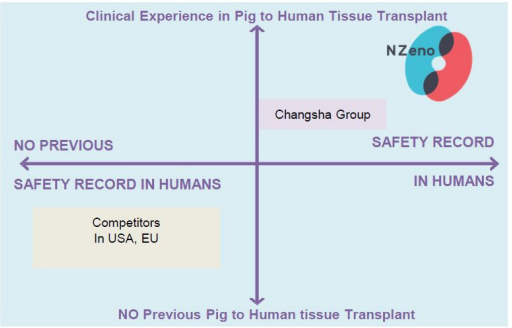
MARKET OPPORTUNITY

US$50 Billion

TOTAL US ANNUAL MEDICAL REIMBURSEMENT FOR KIDNEY FAILURE

- GLOBAL
  At least 400,000 new cases every year
- USA is the largest market
  100,000 on wait list for transplant
  21,000 kidney transplants per year
  120,000 new cases per year
- CHINA is fastest growing
  Same kidney failure incidence as USA
  9,000 kidney transplants per year

COMPETITION



Background

End Stage Renal Disease (ESRD) occurs when the function of the kidneys can no longer keep a person alive. ESRD must be treated by dialysis (a kidney machine) or a better and less costly kidney transplant. However, the medical need for kidney organs exceeds supply because of the shortage of human kidney donors.(1)

Pig kidneys are similar to human kidneys but are rejected by the human immune system if transplanted into humans. By applying new gene editing technology to inactivate pig genes that are responsible for the immune rejection of transplanted organs, NZeno would produce pigs with kidneys that can be transplanted into patients to restore kidney function and health.

The high quality health status of New Zealand's Auckland Island pigs has made it possible for this country to be a leader in the development of pig tissues for treating human disease.(2)

The founders of NZeno have experience in developing pig cells for diabetes and Parkinson's disease. The New Zealand health authority (Medsafe) has approved the transplantation of pig cells for human clinical studies.

New Zealand is thus an ideal place for a company developing kidney organ grafts. NZeno's business would include the genetic modification of pig cells, testing gene edited cells, cloning and breeding of gene edited pigs, and testing and selecting pigs for compatibility with humans.

1 The Economist. (April 13, 2019).Kidney Transplants. The Gift of Life

2 Reichart, B., Guethoff, S., Mayr, T., Thormann, M., Elliot, R.B.,Tan, P., & Michael-Abicht, J. (2014). Discordant cardiac xenotransplantation:broadening the horizons. European Journal of Cardio-Thoracic Surgery, 45, 1-5.doi:10.1093/ejcts/ezt483

NZeno would conduct human clinical studies in New Zealand and expects rapid transition to a clinical service in New Zealand following successful surgical studies. The company would then transition the technology to a worldwide market through an IPO to expand its activities or by licensing its technology.

Looking for

Capital raise US$10 million

US$ 10 million strategic long-term investor with the ability to invest in follow on rounds. Experience in taking biotech solutions into the US market would be an advantage. Also, investors with the ability to bring partnerships with clinical providers for dialysis, pig breeding companies and/ or animal products companies would be dvantageous.

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