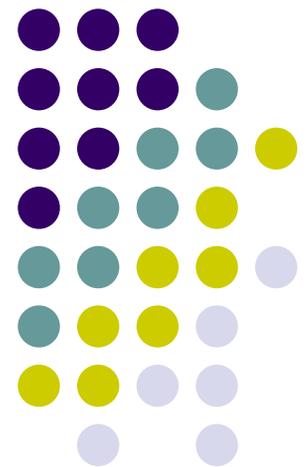


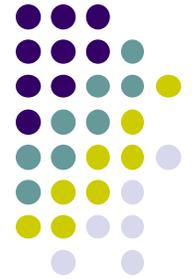
Smart Perfusion, LLC



VasoWave™ Organ Transplantation System

Presenter: George Barr, President





A Medical Crisis



David Gerber, MD
Division Chief,
Organ Transplantation
UNC-Chapel Hill

Over 100,000 people in the U.S. are in end stage organ failure, and 400,000 are in organ failure that has not reached end stage.

“Fewer than 15% of patients actually listed for transplant end up receiving one -- this is because of a lack of innovation and progress.”

Lack of Progress - Organ shortage
attempt to slow deterioration
Kidneys -12-24 hours; Livers 3-12 hours





Current Technology Attempts to Slow Deterioration

Ice coolers are used for transport, ~ 90% of current market

Kidney: Passive transporters (Waters, ORS)

Liver: No Technology Available Until Today!

Heart: Transmedics, not used clinically

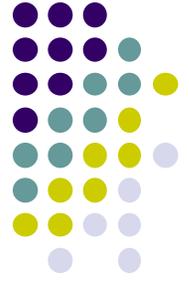
Various fluid based or cell based technologies are years from fruition, and they still won't be able to perfuse the entire organ without VasoWave



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A Medical Solution



VasoWave
at
UNC Chapel Hill

VasoWave™ is Innovation.

It characterizes and conditions the organ to improve function:

kidneys – up to 72 hours

livers – up to 24 hours

Histology shows that organs harvested after cardiac event and perfused on VasoWave are useable. These organs are now generally discarded.

This will create a new and significant potential source of organs.



Smart Perfusion, LLC

Value Creation



Smart Perfusion creates *value*:

- For *each patient* in terms of health and productivity
- For a *growing population* of patients
- For *transplant surgeons*, who realize more income
- For *transplant centers*, with higher revenue and lower cost due to better outcomes
- For *insurance premium payers and taxpayers*, who currently pay for costs of end stage organ failure
- For *Smart Perfusion owners*



Smart Perfusion, LLC



Business Model



- 90% of revenues are per use consumables and services
- Revenue sources are Medicare, Medicaid, Insurance
- Customers are
 - 58 Organ Procurement Organizations (OPOs)
 - 255 transplant centers
 - 35 transplant centers account for half of all transplants
 - *Transplant surgeons are the decision makers*
- Create a \$1.2 B market in the U.S.
- Create a \$5 B market globally



Smart Perfusion, LLC



Milestones Met



- Three generations of VasoWave systems are fully bench tested for animal kidneys and livers. The systems are proven to be robust and easy to use.
- Scientific validation of increase in organ supply from Death by Cardiac Event over a two year period of animal testing has been completed.
- Human medical validation is in progress at UNC Chapel Hill, a regional transplant center.



Smart Perfusion, LLC

Intellectual Property



Exclusive restricted license for transplant devices and processes:

- US patent 7,080,660B2, 7/25/06
- Pat. App 12/184701, 8/1/08
- Pat. App 12/942,497, 11/9/10
- Additional process with apparatus patent filing(s) in development
- PCT counterparts are awarded or pending



**Conceptual
drawing of the
Characterization
Module**



Smart Perfusion, LLC

FDA Approval Process



- **Class I medical device**
- **510K approval likely with a high degree of confidence**
 - **Predicate standard: Ice cooler with fluid flush capability (1976)**
 - ***All 38 previous class entries (devices, solutions) received 510K approval***
- **Filing strategy**
 - **513G filing and meeting**
 - **Presentation of test and manufacturing plan**
 - **Pre-IDE conference**
 - **GMP compliance**
 - **Approval**



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Investment Steps



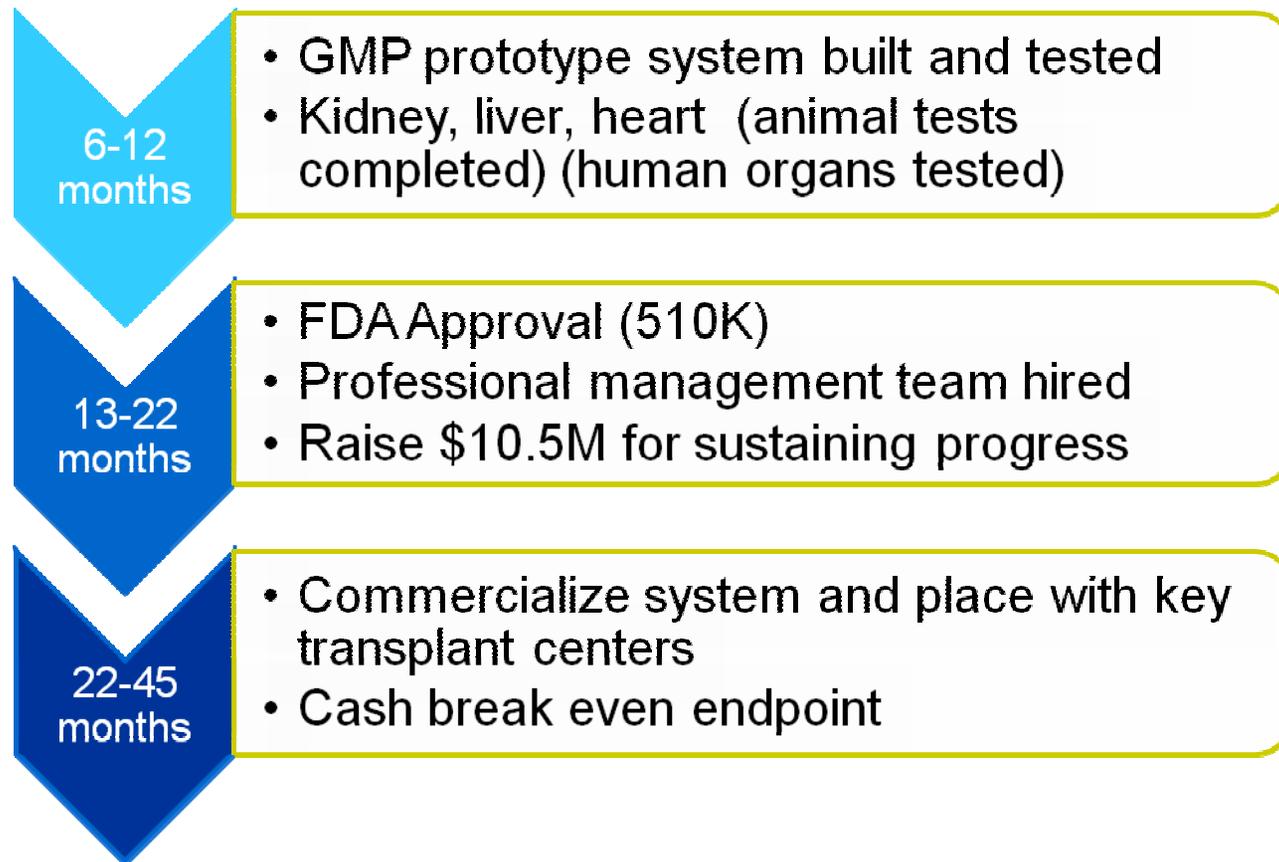
- ▶ **Founders: \$750k over six years**
- ▶ **First Round: currently raising \$1.5M at a \$5M valuation. Raised \$100k, in part from an MD**
- ▶ **Second Round: \$10.5M at a \$30M valuation (18 – 22 months from completion of First Round)**
- ▶ **Exit: \$150M- \$300M at 48 to 60 months**



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Milestones After \$1.5 million in Funding

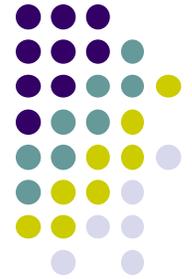


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Financial Projections



<i>(Dollars in 000's)</i>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Total Revenues	\$0	\$4576	\$25852	\$73868	\$142471
Cost of Goods Sold	\$0	\$1440	\$6433	\$17546	\$32877
<hr/>					
Gross Profit	\$0	\$3136	\$19419	\$56322	\$109394
<i>Gross Margin %</i>	<i>nm</i>	68.5%	75.1%	76.2%	76.9%
<i>Operating Expense</i>	\$4278	\$6551	\$10873	\$20482	\$35038
<i>Margin</i>	<i>nm</i>	<i>nm</i>	42.1%	27.7%	24.6%
<hr/>					
Pre-tax Operating Income	(\$4278)	(\$3,415)	\$8546	\$35840	\$74356
<i>Pre-tax Op Inc Margin</i>	<i>nm</i>	<i>nm</i>	33.1%	48.5%	52.3%



Exit Strategies

**Sell, License, Joint Venture, M&A,
Build to Positive Cash Flow**

**Potential targets include
Organ Recovery Systems, Waters, Transmedics,
Johnson and Johnson
European and Asian Partners**

IPO

**Potential liquidity at milestones between 18
and 48 months**



Smart Perfusion, LLC

The Smart Perfusion Team



George Barr, MBA,
Founder, CEO, 29 years
commercializing
technology in medical
and industrial markets



Don Faulkner,
Engineer, Founder, CTO, a
creator of IP, expert on
fluids, pumping systems
and materials science



David Gerber, MD
Chief Medical Officer
Division Chief, Organ
Transplantation at
UNC-Chapel Hill



John Robertson, VMD, PhD,
CSO, a creator of IP, conducting
translational animal research and
testing, FDA expert



George Blonar, Ph.D. Former VP,
Carilion Biomedical Institute, Carilion
Health System, over 20 years of
entrepreneurial and business
consulting experience to engineering
and biomedical companies



Summary



Smart Perfusion LLC	Increase organ supply for transplant
Team	Medical, scientific, engineering, business professionals
Opportunity	Federally funded market (Medicare line item)
Product	Patented/pending technology and procedures in a transplant organ support system
Business Model	90% of Revenues are Per Use Consumable and Service Fees
Competition	<i>VasoWave</i> surpasses all current technologies
Financials	Long-term growth, mid-term liquidity
Seed Funding	Clearly identified milestones and exit at Year 4 or 5 with a 10X return for \$1.5 M investment



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VasoWave™

Organ Transplantation System

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