



designwiseMEDICAL

Help for Children, Hope for Families

Agenda – 11/11/14

Stanford Design School

- DesignWise Medical Introduction
- NICU Projects & Status
- Design & Development Process
- Key Learnings
- DesignWise Medical 2.0
- Questions



“Children deserve access to devices that are safe, effective, and made just for them. Yet today many devices are not made with these considerations in mind, and some necessary devices are not made at all.

Because pediatric disease is generally rare, there is a relatively small market for pediatric devices and there appears little incentive for device manufacturers to make them.”

Invited testimony of Dr. Robert Campbell to the U.S. Senate



11/11/2014

DesignWise Medical

Our Accomplishments

13 Pediatric Device Projects

43 Student Projects @ 10 Universities

“Adopt-A-Project” Program started

Over 350 total volunteers

- 225+ students
- 125+ professional volunteers & mentors
- 10 Member Board of Directors
over 270 years experience
 - Pediatric HealthCare
 - Medical Device Industry
 - Non-profit Sector

Over 40,000 hours donated



11/11/2014



DesignWise Medical



With our Volunteer-based Business Model, we are able to develop pediatric medical devices for a fraction of the cost of the traditional for-profit approach.

DesignWise Medical Process & Partnerships



Our mission is to identify, develop and facilitate delivery of medical product solutions to the unmet and neglected needs of children. Through our unique philanthropic-based product development approach we are able to provide Help for Children and Hope for

Families.
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Featured Product Development – Class II Medical Devices

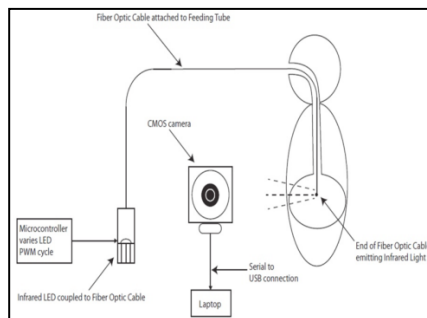
Overnight Pediatric Oxygen Delivery System (Parent Inventor)



Passive Feeding Pump (Patient Inventor, Boston Scientific, Pediatric Home Service)



Smart Feeding Tube - SurTube (Pediatric Nurse Inventor)

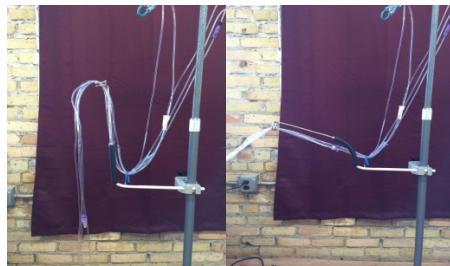


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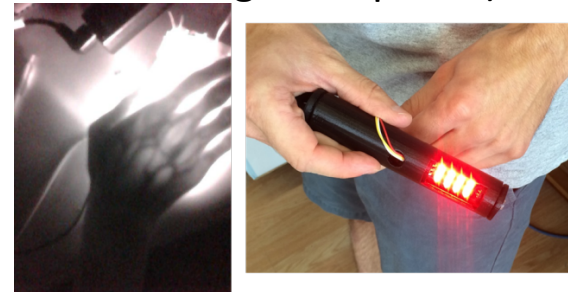
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Featured Product Development – Class I Medical Devices

IV Line Holder (UofM,
Children's of MN,)



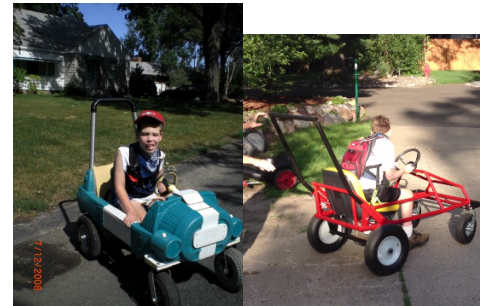
Vein Transilluminator (School of
Nursing, Marquette)



Hip Dysplasia Brace
(Sanford Children's)



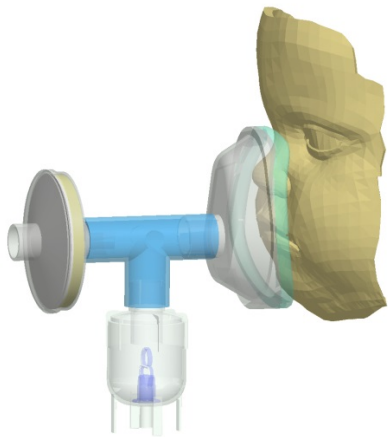
PT Rover (Noah's Family)



**Products to be commercialization in 2015 – providing
earned income to DesignWise Medical**

Featured Product Development - Completed

Specialized Nebulizer System
(Children's of MN)



*Currently part of Clinical
Study*

Children's Pain Management
Mobile App (Children's of MN,
Ridgeview Medical Center)

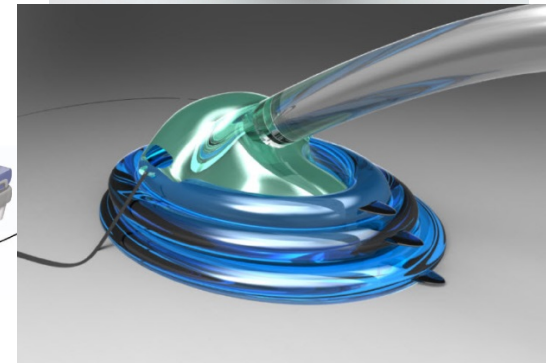
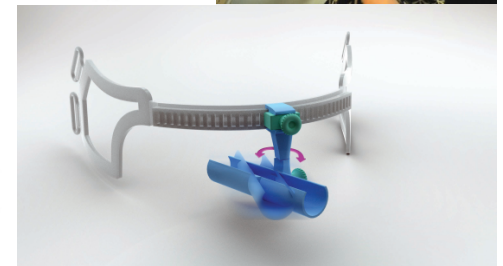
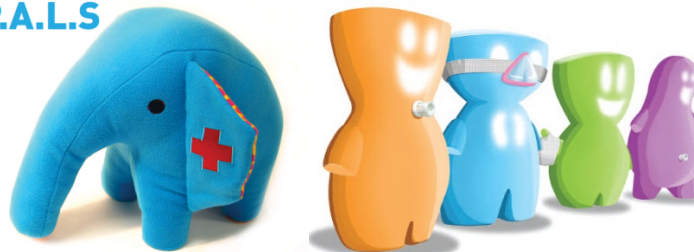


*Available for 15 months on Apple
iTunes – Android version
forthcoming*

Gillette & DWM – PICU Needs Finding Project



tricycle designed for kids with muscular diseases



Gillette & DWM – PICU Needs Finding Project



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Imagine...



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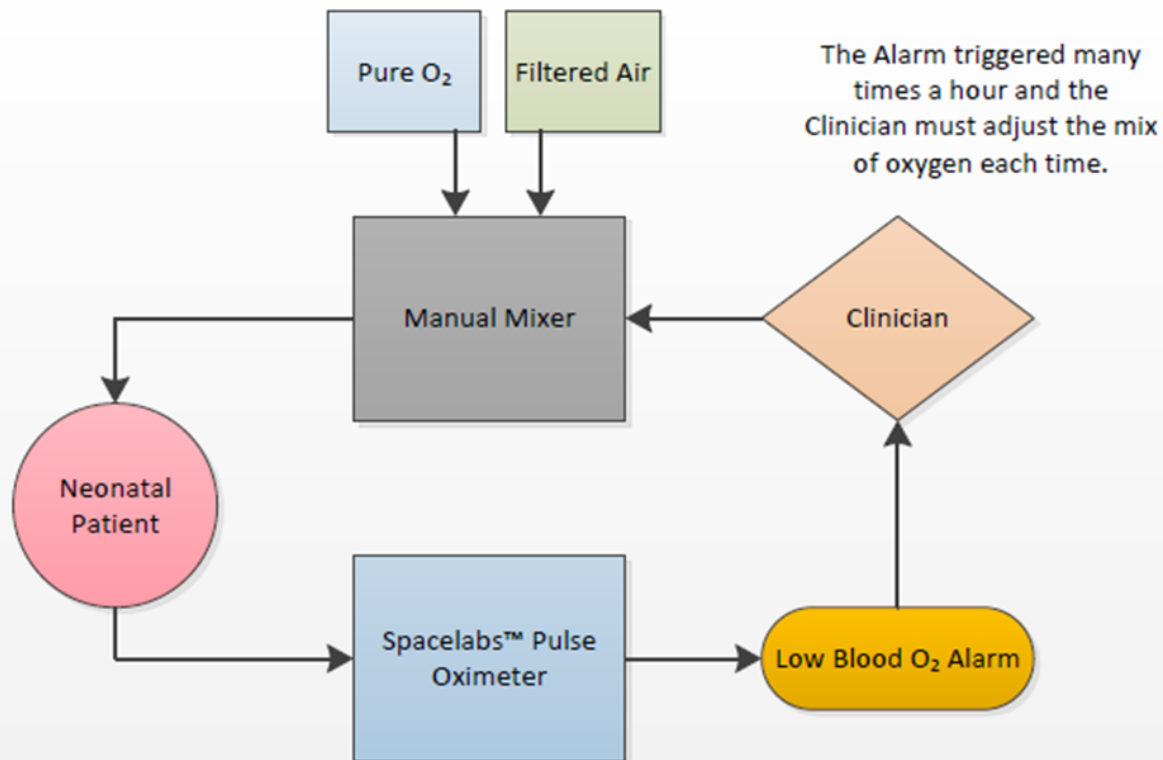


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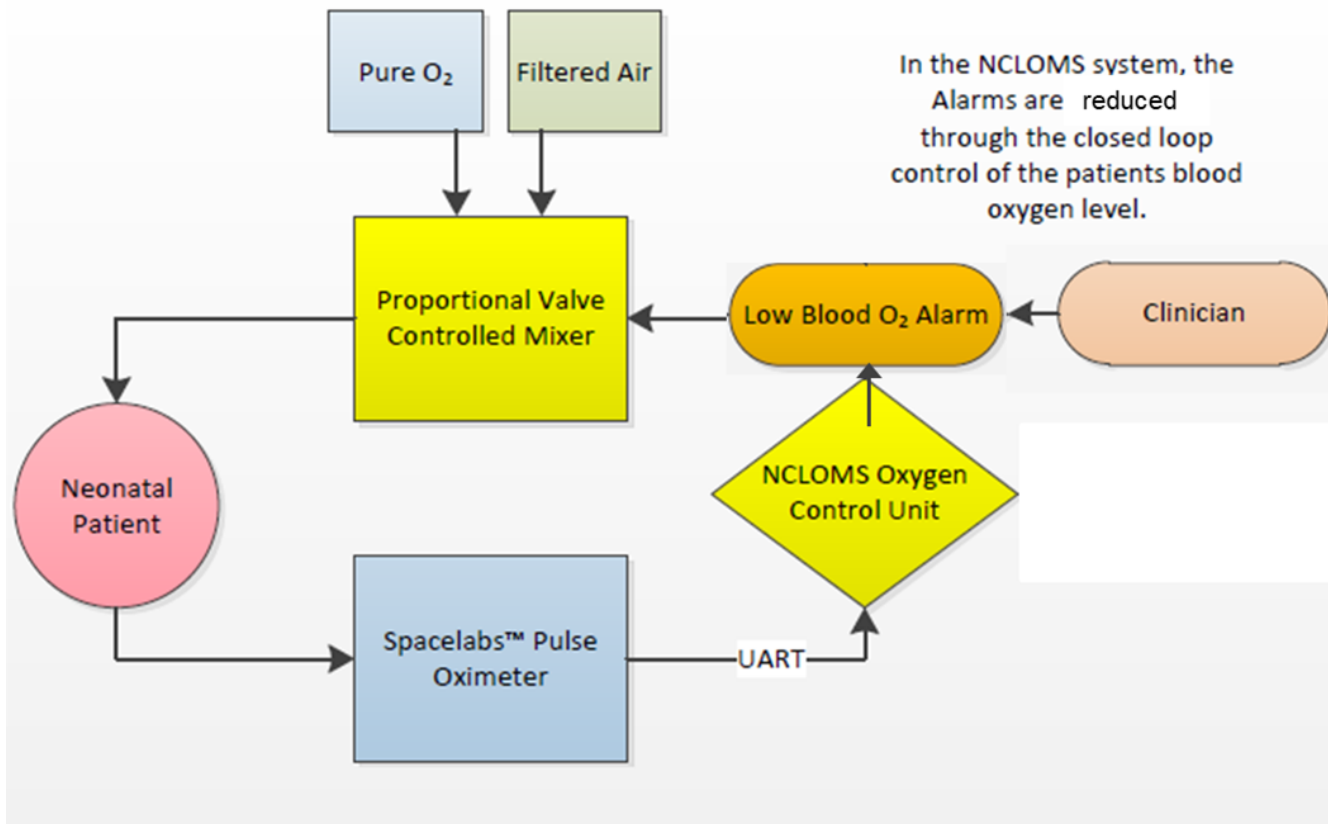
Neonatal Closed-Loop Oxygen Management System

Current System



Neonatal Closed-Loop Oxygen Management System

NCLOMS System



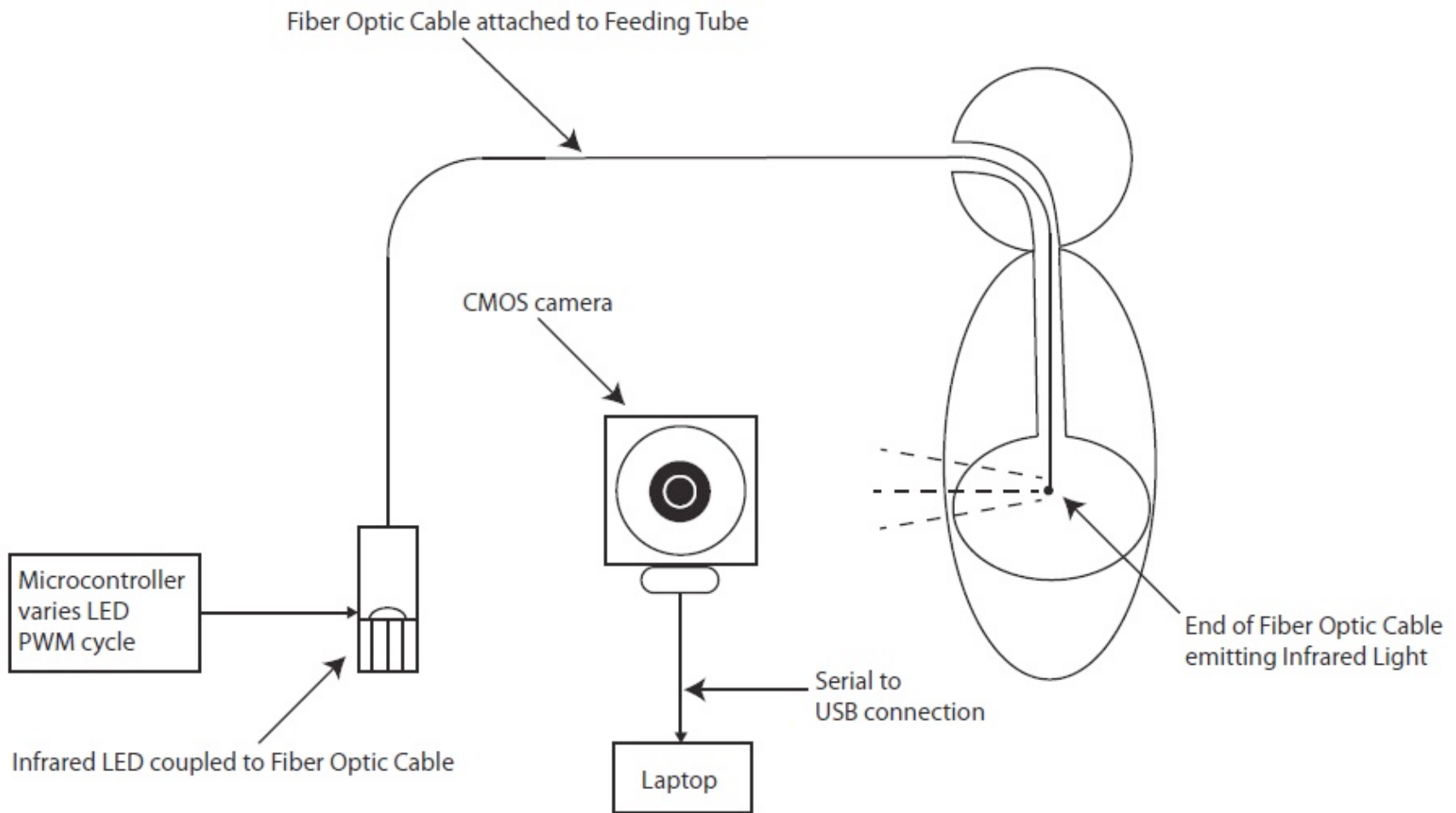
SurTube – Insurance for Pediatric Enteral Care

Kathryn Waitzman RN MEd BSN:*Cnicus LLC*

Brad Slaker MBA BS :*DesignWise Medical*



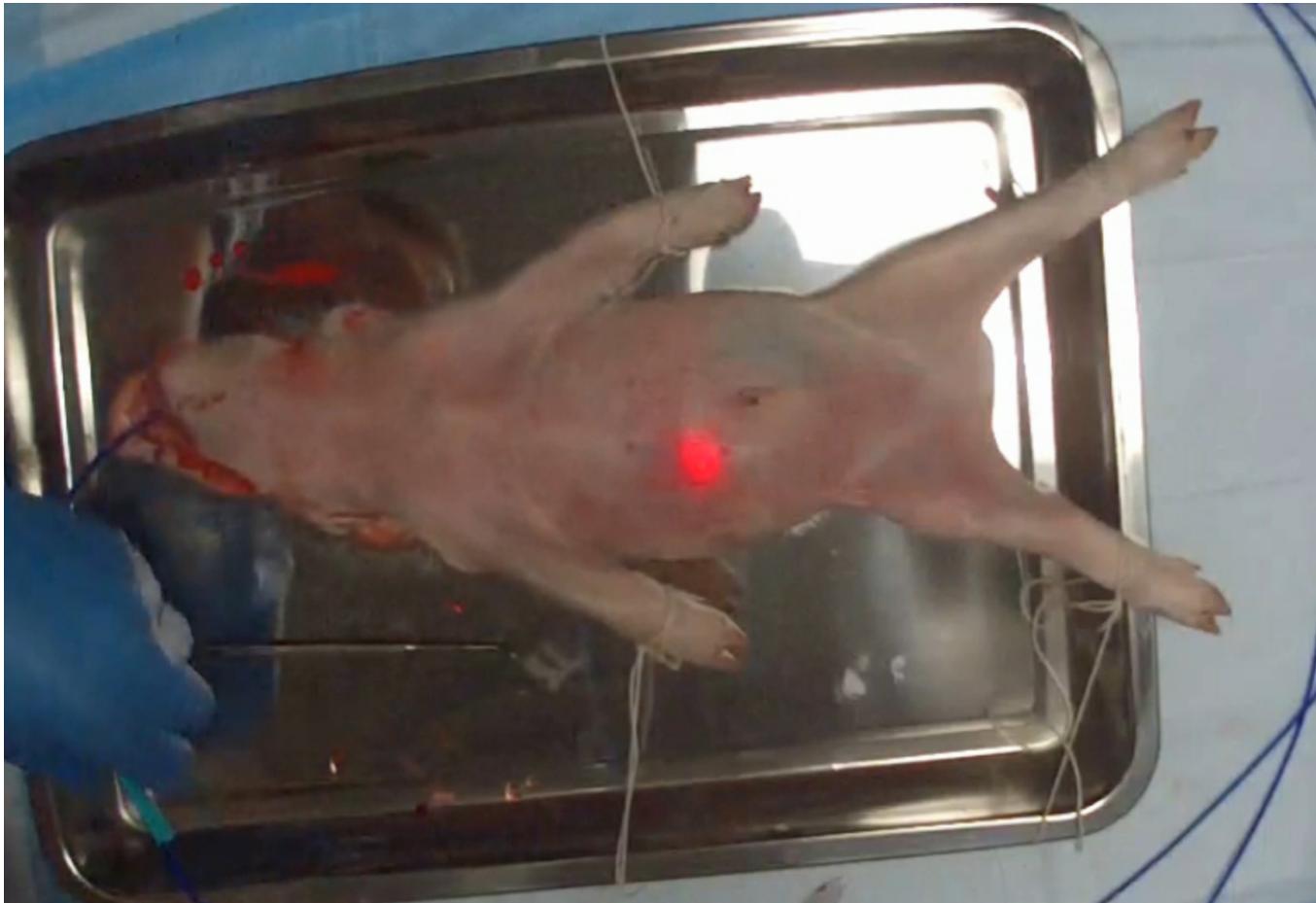
Initial SurTube Prototype Schematic



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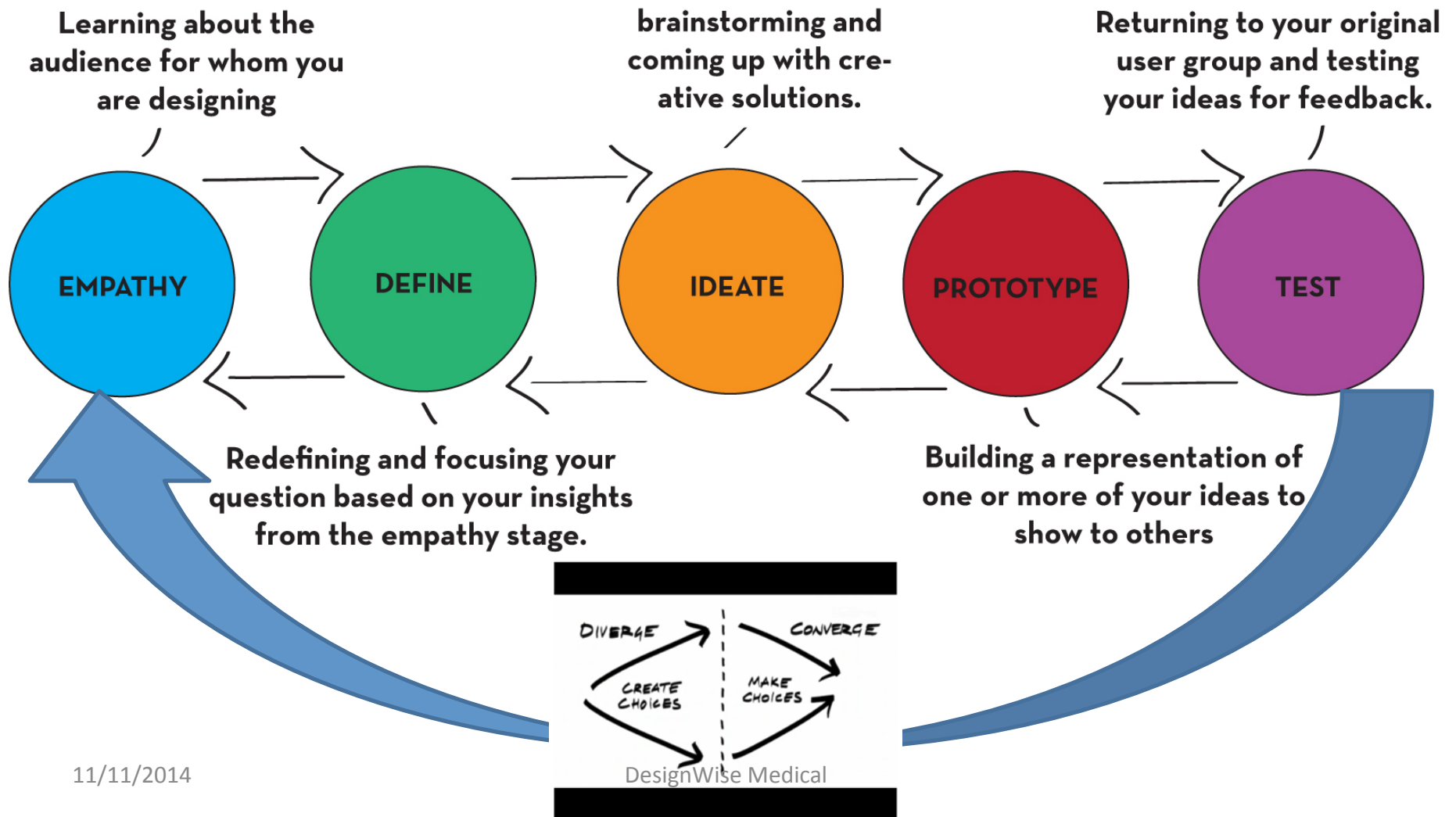
Initial SurTube Prototype



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Design Thinking Empathy to Reality...



Key Learnings

- Iterate Often and Fast
- Clinical Champion
- Focus on Improved Outcomes &/or reduced Costs
- Design Testing & Evaluation Methods
- Seek data when none exists
- IP Landscape
- Regulatory Pathway
 - Clinical trials needed?
 - Minimum Viable Product
- Small Market funding challenges
- Understand buying challenges of customers
 - Capital Equipment threshold
 - Reimbursement landscape

Never give up...children need you!!



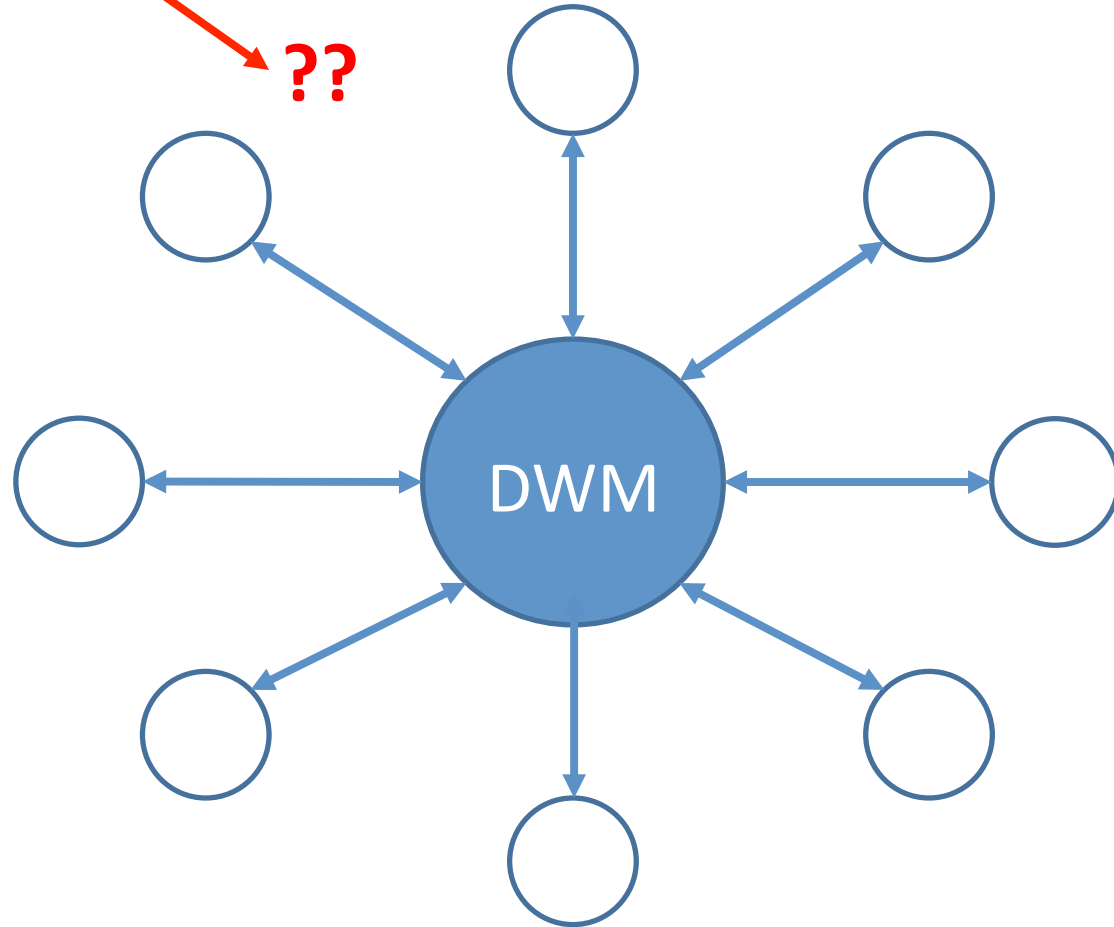
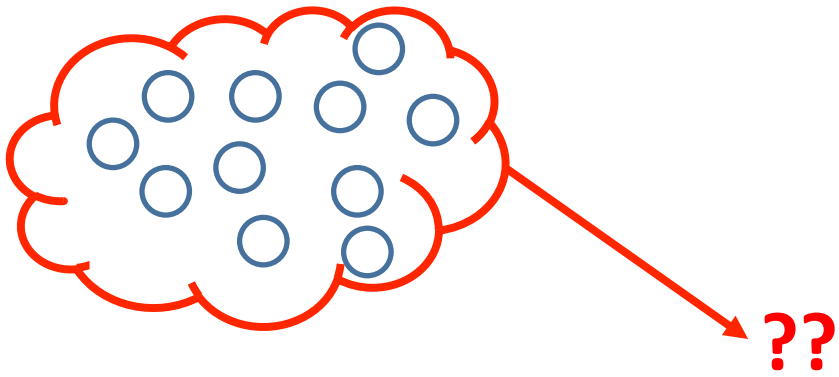
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DesignWise Medical

DesignWise Medical 2.0

“One thing I am realizing is that It takes a village to develop a pediatric medical device.”

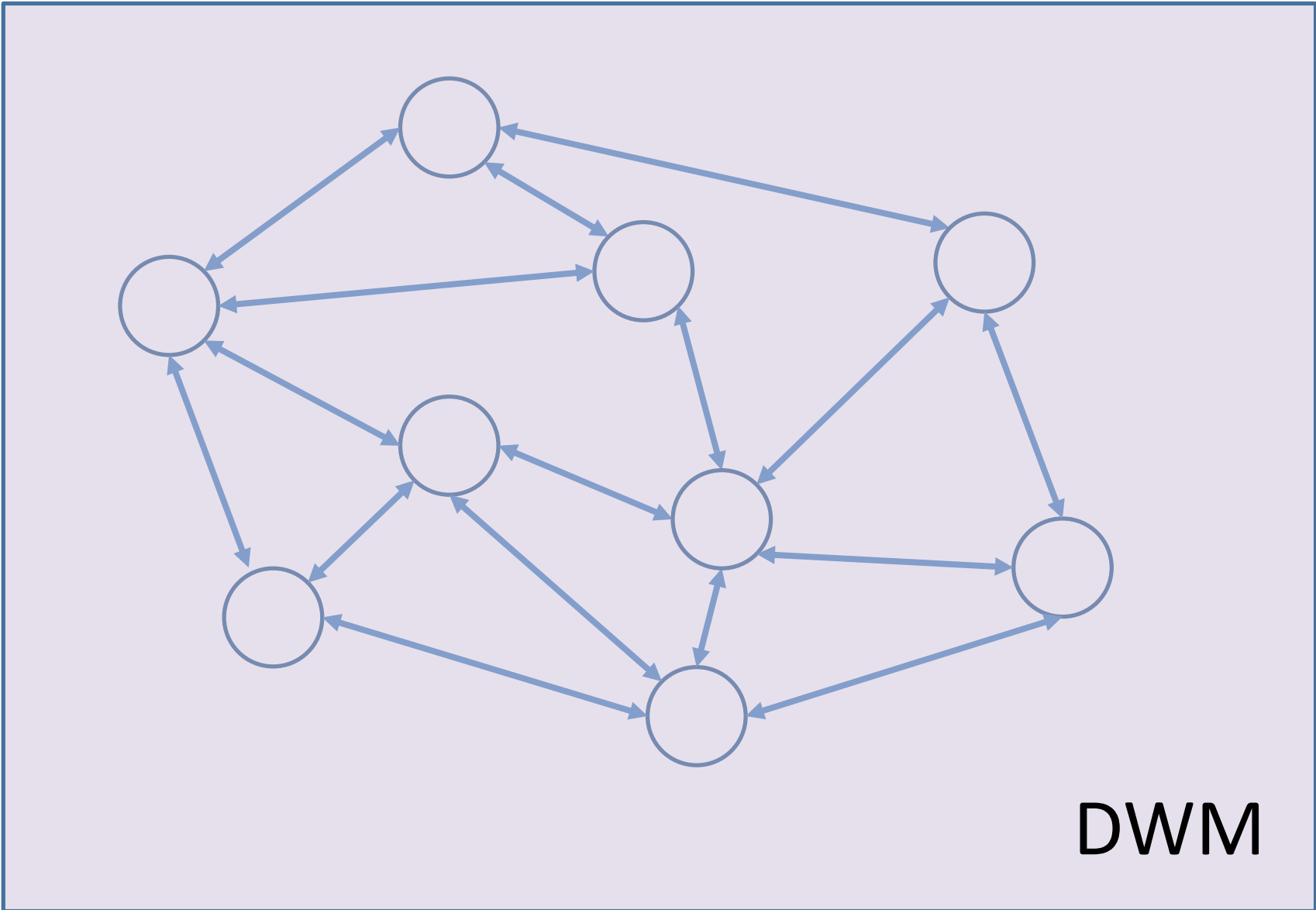
Katie Waitzman, RN, Inventor of SurTube™ feeding tube system



An iceberg floating in the ocean. The visible tip above the water is labeled '2008-2014'. The much larger, submerged part below the water is labeled '2015+'. The sky is blue with light clouds, and the water is a deep blue.

2008-2014

2015 +



Crowd-based Development

- ✓ Local Motors – 30,000+



- ✓ Wikipedia – 73,000+
- ✓ Linux Software – 1,276+/version
- ✓ Oxford English Dictionary – 10's of thousands

Questions?



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Thank You!