<table>
<thead>
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<th>PAGE</th>
<th>TEAM NAME</th>
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<td>2</td>
<td>Acoustic Wells</td>
<td>MIT</td>
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<td>Algen Air</td>
<td>University of Maryland</td>
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<td>University of Iowa</td>
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<td>Astek Diagnostics</td>
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<td>Beltech</td>
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<td>BIOMILQ</td>
<td>Duke University</td>
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<td>20</td>
<td>Cardiosense</td>
<td>Northwestern University</td>
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<td>23</td>
<td>Cellens</td>
<td>Tufts University</td>
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<td>26</td>
<td>CelluDot</td>
<td>University of Arkansas, Fayetteville</td>
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<td>Contraire</td>
<td>Oklahoma State University</td>
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<td>Drivemate</td>
<td>Ohio University</td>
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<td>Educational Vision Tech.</td>
<td>University of California, San Diego</td>
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<td>Encapsulate</td>
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<td>Envirobe</td>
<td>George Washington University</td>
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<td>EVA</td>
<td>Rice University</td>
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<td>43</td>
<td>Fractal</td>
<td>Harvard University</td>
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<td>46</td>
<td>Iconic Air</td>
<td>West Virginia University</td>
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<td>49</td>
<td>ImmunoACT</td>
<td>Indian Institute of Technology, Bombay (India)</td>
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<td>52</td>
<td>KnoNap</td>
<td>Georgetown University</td>
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<td>LittleMoochi</td>
<td>Carnegie Mellon University</td>
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<td>55</td>
<td>LorCan Technologies</td>
<td>University of Waterloo (Canada)</td>
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<td>MedLock</td>
<td>University of Virginia</td>
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<td>61</td>
<td>Morfeo</td>
<td>Tecnológico de Monterrey (Mexico)</td>
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<td>64</td>
<td>NanoCare</td>
<td>Texas State University</td>
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<tr>
<td>67</td>
<td>nanopathdx</td>
<td>Dartmouth College</td>
</tr>
<tr>
<td>70</td>
<td>NOMA AI</td>
<td>University of Pittsburgh</td>
</tr>
<tr>
<td>72</td>
<td>NUnode</td>
<td>Northwestern University</td>
</tr>
<tr>
<td>74</td>
<td>Ocean Access</td>
<td>Norwegian University of Science and Technology</td>
</tr>
<tr>
<td>77</td>
<td>Phylomics Diagnostics</td>
<td>Georgetown University</td>
</tr>
<tr>
<td>80</td>
<td>Quantum Lock Technologies</td>
<td>University of Tennessee</td>
</tr>
<tr>
<td>83</td>
<td>QV Bioelectronics</td>
<td>University of Manchester (UK)</td>
</tr>
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<td>86</td>
<td>RefresherBoxx</td>
<td>RWTH Aachen University (Germany)</td>
</tr>
<tr>
<td>89</td>
<td>Relavo</td>
<td>Johns Hopkins University</td>
</tr>
<tr>
<td>92</td>
<td>ReMatter</td>
<td>Stanford University</td>
</tr>
<tr>
<td>95</td>
<td>RIZIN Technologies</td>
<td>University of Louisville</td>
</tr>
<tr>
<td>98</td>
<td>SeebeckCell Technologies</td>
<td>University of Texas at Arlington</td>
</tr>
<tr>
<td>101</td>
<td>SlumberFlow</td>
<td>University of Michigan</td>
</tr>
<tr>
<td>104</td>
<td>Steeroflex</td>
<td>University of California San Diego</td>
</tr>
<tr>
<td>105</td>
<td>TeguTech</td>
<td>Imperial College London</td>
</tr>
<tr>
<td>108</td>
<td>Upright Oats</td>
<td>Yale University</td>
</tr>
<tr>
<td>111</td>
<td>Vigti Pvt. Ltd.</td>
<td>Nanyang Technological University (Singapore)</td>
</tr>
</tbody>
</table>
Acoustic Wells, Inc.

Breakthrough IoT for oil & gas

Our Opportunity

Problem worth solving
The majority of O&G wells in the US are materially underoptimized. By sheer number most produce <15 barrels/day and are primarily run manually and, as a result, most end up becoming neglected, leading to cost overruns and unnecessary pollution.

Our solution
We are developing an affordable, accessible platform for optimization and automation in the oil & gas space. This is enabled by novel technology developed at MIT, combined with plug-n-play hardware, and a flexible SaaS business model.

Target market
- Small & med. indep. 79% ($279M)
- Large independents 10% ($230M)
- Majors & Yield 10% ($880M)

Market size: $1.4B

Competitors | How our solution is better
--- | ---
Incumbents | Superior AI, usability, accuracy
Newer start-ups | Patented technology, flexibility, price

Sales and Marketing

Sales channels
Two pronged: for smaller customers, a combination of direct sales via state databases and conferences with some channel sales via local parts distributors. For larger customers, direct pilot-based sales and sales via PE sponsors.

Marketing activities
We are initially building interest via our website and industry trade and technical conferences (Darcy Partners showcases, CERAWeek). We are looking into event sponsorships as well and partnership with distributors where we fill a unique segment.

Forecast
Revenue streams

Our revenue streams are hardware sales and recurring service fees (SaaS). Ultimately, we do not view hardware as a profit center, our primary revenue source will be our recurring service model that provides access to our platform and processing.

Major costs

Our primary costs are related to R&D today; as we scale, it will become a smaller component of overall costs. Our direct operating costs for recurring revenue are server and telecom costs as well as allocated hardware warranty, currently ~10% of MRR.

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot results</td>
<td>Apr 16, 2020</td>
</tr>
<tr>
<td>TX pilot scale up</td>
<td>Jun 6, 2020</td>
</tr>
<tr>
<td>Start pilot #2 and 2nd patent</td>
<td>Jul 1, 2020</td>
</tr>
<tr>
<td>Begin certification and SPE publication</td>
<td>Jul 1, 2020</td>
</tr>
<tr>
<td>Begin testing closed loop control</td>
<td>Aug 1, 2020</td>
</tr>
</tbody>
</table>

Team and Key Roles

Sebastien Mannai  
CEO
Sebastien studied quantum mechanics in France before earning his MS & PhD in MIT’s aero/astro dept. and has worked with SLB and Siemens.

Nicolas Zhang  
Lead Data Scientist
Nico is a graduate student at MIT pursuing a dual degree. Prior to MIT, Nico earned an MS from Mines ParisTech and worked with Cardabel.

Charles-Henri Clerget  
COO
Charles-Henri received an PhD from Mines ParisTech and is an expert in mathematics & control. He has worked with TOTAL and Equinor.

Louis Creteur  
CTO
Louis holds an MS in computer science from EPSI Arras and has worked on several other successful IoT start ups.

Eric Zhang  
CFO
Eric holds a BBA & MPA from UT Austin and has a background in energy finance having worked as an investment banker and PE associate.
Partners and Resources

MIT $100K
Winner of MIT $100K entrepreneurship competition in 2019.

ASU.io
Winner of the ASU Innovation Open 2020 AVNET IoT grand prize of $100K.

Cleantech Open Northeast
Winner of the Cleantech Open, the world’s largest cleantech accelerator, in the Northeast region.

Forbes 30 Under 30
Founding team members featured in Forbes’ 30 Under 30 list for energy in 2020.

Greentown Labs
Based in Somerville, MA and started by entrepreneurs from MIT, Greentown Labs is the largest clean tech incubator in North America.

Alchemist Accelerator
The Alchemist Accelerator is a venture-backed business incubator focused on enterprise businesses with distinctive technical founders.

Endless Frontier Labs
Endless Frontier Labs is an accelerator program focused on maximizing the potential of massively-scalable, science and deep tech startups.

MIT patent option
Option for exclusive license from MIT for utility patent related to acoustic sensor application. Based on Sébastien’s research work at MIT.
AlgenAir developed the aerium™, the first natural air purifier that uses algae to clean the air we breathe.

**Problem worth solving**

‘Green’ buildings have elevated CO2 which is detrimental to our health and productivity. It causes respiratory problems, headaches, and decreased cognitive function. Traditional air filters cannot remove CO2 and ventilation can be ineffective.

**Our solution**

The aerium™ is the first natural air purifier that uses algae to reduce CO2 and increase oxygen as effectively as 25 house plants. It has an inline filter to remove dust, mold, and bacteria. The subscription box ensures low maintenance for the user.

**Target market**

1. Millennials who purchase plants for IAQ
2. Mothers aged 35-45 who worry about IAQ

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Purifier</td>
<td>Removes carbon dioxide</td>
</tr>
<tr>
<td>Plants</td>
<td>More efficient and removes particulates.</td>
</tr>
<tr>
<td>Clairy</td>
<td>Lower price and removes particulates</td>
</tr>
<tr>
<td>Breth</td>
<td>Lower price and removes particulates</td>
</tr>
</tbody>
</table>

**Sales channels**

The aerium™ and subscription box are sold direct to consumer at algenair.com. Traffic is driven to the website via targeted social media and promotional email. Currently the supply chain (production, assembly) is consolidated at our manufacturer.

**Marketing activities**

1. Instagram: posts and influencers
2. Press Releases: The future of algae
3. Google Ad words
4. Facebook
5. Partnerships with local businesses

**Funding needed**

$500K

Funds will be used to scale production by improving manufacturing techniques and to execute our targeted marketing strategy.
Forecast

Revenue streams

1. aerium $175/unit
2. Annual subscription $125/year
3. Monthly subscription $25/two months

Major costs

1. aerium COGS: $96
2. Subscription COGS: $12/box

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium Algae Options</td>
<td>Mar 5, 2020</td>
</tr>
<tr>
<td>Full Patent Filed</td>
<td>Apr 25, 2020</td>
</tr>
<tr>
<td>Official Product Launch</td>
<td>Jun 2, 2020</td>
</tr>
<tr>
<td>Founders Full-time</td>
<td>Jan 2, 2021</td>
</tr>
<tr>
<td>Version 2</td>
<td>Aug 2, 2021</td>
</tr>
</tbody>
</table>

Team and Key Roles

Kelsey Abernathy
Co-founder
Kelsey is a PhD candidate and Ratcliffe Fellow. She is responsible for business development and finance.
Email:kelseyabernathy@algenair.com

Dan Fucich
Co-founder
Dan is a Phd candidate and Ratcliffe Fellow. He is an algae expert in charge of product design and fulfillment.
Email:danfucich@algenair.com

Partners and Resources
<table>
<thead>
<tr>
<th><strong>American Bully Manufacturing</strong></th>
<th><strong>Arnold Packaging</strong></th>
<th><strong>Provisional Patent on the aerium™</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The aerium is manufactured, assembled, packaged, and shipped from ABM facilities in Laurel, MD.</td>
<td>Arnold Packaging in Baltimore, MD designs custom packaging for the aerium that is sent to ABM facilities.</td>
<td>In May 2019 AlgenAir LLC filed a provisional patent on the aerium. The team will file a full patent in April. All IP is owned by AlgenAir.</td>
</tr>
</tbody>
</table>
Apollo Technologies

Healing Anywhere.

Our Opportunity

Problem worth solving

The growing shortage of healthcare providers in America decreases the quality and access to medical services.

Our solution

A hiring platform that matches healthcare providers with hospitals that require temporary work. This is accomplished by utilizing a proprietary algorithm that ensures quality of fit between both parties based on preferences and personality traits.

Target market

- Nurses 68% ($5.5B)
- Physicians 23% ($16.8B)
- Mid Level Providers 9% ($4B)

Market size: $26.3B

1.4M Prospects

Competitors

<table>
<thead>
<tr>
<th></th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staffing Agencies</td>
<td>Quality of providers, no contracts</td>
</tr>
<tr>
<td>Job Boards</td>
<td>Patented matching algorithm, automated</td>
</tr>
<tr>
<td>Nomad Health</td>
<td>Matched Providers; quality of providers</td>
</tr>
</tbody>
</table>

Funding needed

$1.5M

Additional hires: provider recruiter, credentialing specialist, VP of Marketing & Sales; development, marketing

Sales and Marketing

Sales channels

Providers: digital marketing, national conference attendance, national association partnerships.
Hospitals: sales team, national association partnerships

Marketing activities

1. Digital ad campaigns: google, linkedin
2. Trade Show Attendance
3. Sponsoring National Conferences
Financial Projections

Revenue

Expenses & Costs

Profit

Milestones

Launch Nursing Platform MVP
Apr 2, 2020

Complete Physician Beta Testing
May 2, 2020

Market Release of Physician Platform
Jun 2, 2020

Launch Mid-Level Platform MVP
Jul 2, 2020

Team and Key Roles

Jon Lensing
Co-Founder | CEO
www.apollohct.com | 641.780.1114 Medical student who has experienced the devastating effects of physician shortages first hand.

Christian Williams
Co-Founder | COO
Former Director of IT CX at AB-Inbev. Attaining his Master’s in Positive Coaching. Combining his skills to build products providers love.

Matt Grossmann
Co-Founder
Current 4th year medical student who has experienced the devastating effects of physician shortages first hand.

Dr. Clay Walker, M.D.
Head of Product
Physical Medicine and Rehabilitation resident at University of Pennsylvania.

Isaac Ingersoll
CTO

Tom Goedken, MBA
CFO

Dr. Richard Ferguson, PhD
Partners and Resources

- **Higher Learning Technologies**
  - Strategic partnership to acquire lead generation for nurses and dentist.

- **Iowa Medical Society**
  - Partnership with home state medical society for physician lead generation and statewide acceptance.

- **AAMC**
  - Partnership with Association of American Medical Colleges.

- **AMA**
  - Partnership with American Medical Association

- **Iowa Hospital Association**
  - Partnership with IHA to aid with statewide hospital integration.

- **Patent**
  - Predicative analysis on healthcare staffing needs.
Astek Diagnostics

One Hour Infection Confirmation and Antibiotic Susceptibility

Our Opportunity

Problem worth solving

*Rapid detection of bacterial presence in blood as well as antibiotic susceptibility testing is needed when sepsis is suspected*

Our solution

*ASTEK™ is an automated system that determines the existence of bacteria in a blood sample and performs antibiotic susceptibility testing (AST) in less than one hour*

Target market

- **US Pathology Labs**: 100% ($500M)

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Culture</td>
<td>ASTEK is faster</td>
</tr>
<tr>
<td>Genetic Testing</td>
<td>ASTEK is cheaper and faster</td>
</tr>
<tr>
<td>Phenotypic Testing</td>
<td>ASTEK is faster</td>
</tr>
</tbody>
</table>

Funding needed

$700K

*Develop MVP and Get FDA Clearance*

Sales and Marketing

Sales channels

*Direct Sales in 2022, and through a partner after.*

Marketing activities

*We have 10 scientific peer-reviewed journal publications and conference presentations. We plan on developing a strong social and traditional media plan with the help of Ms Peggy Rogers.*

Financial Projections
### Milestones

- **Finalize Beta Prototype**
  - Apr 21, 2020

- **MVP**
  - Apr 9, 2021

- **FDA Clearance**
  - Mar 3, 2022

- **Marketing**
  - Mar 31, 2022

- **Sell First Unit**
  - Apr 5, 2022

### Team and Key Roles

- **Mustafa Al-Adhami**
  - CEO

- **Chanda Lawrance**
  - Scientist

- **Chuck Montague**
  - VP, Business Development

### Partners and Resources

- **Northside Optoelectronics**
- **BRDA Consulting**
- **Potomac Laser Microfluidics**
- **University of Maryland, School of Med.**
Aurign
The Source of Truth for Music

Our Opportunity

Problem worth solving
Music artists and record labels lose $4.5 billion for loss of identity attribution for music publishing agreements.

Our solution
Our patent technology collects data from recording applications while a song is being created in real-time. This data allows us to identify every artist working on a song and automatically file a publishing agreement for them.

Target market
1. Major Record Labels
2. Independent Record Labels
3. Independent Artists

Competitors | How our solution is better
---|---
Publishing Firms | Data Integrity. Accessible to everyone.
Songtrust | Data Integrity. Automated filing docs.
Digital Rights Plat. | We collect and pay artists royalties

Funding needed
$750K
Sales & Marketing - 30%; Key Hires - 25%; Development - 25%; Operational - 20%

Sales and Marketing

Sales channels
Our Sales channel includes our website. We're working with record labels to distribute our product to their artists.

Marketing activities
We market to music artists signed directly to a record label through their label. Aurign reaches independent artists by cross promotion with their favorite websites and universities.

Financial Projections
**Milestones**

- **Beta test with 350 students**
  - Jul 31, 2020

- **Sign our first major artist as brand ambassador**
  - Sep 7, 2020

- **Launch at A3C (Biggest music festival & conference in US)**
  - Oct 30, 2020

- **Close paid pilot with a major record label**
  - Mar 7, 2021

**Team and Key Roles**

- Robert Hatcher
  - CEO

- Jovonni Pharr
  - CTO

- Punardeep Singh Johar

- James Okolo
  - COO

**Partners and Resources**

- Patent for automating publishing
- Comcast NBCUniversal
- A3C Music Festival & Conference
- Brash Music Record Label
Beltech, Inc.

We are revolutionizing energy storage by enabling Li-ion batteries to safely last 2.5x longer and provide more energy per dollar spent.

Problem worth solving

The use of battery powered devices is on the increase and the need to store clean energy on and off the grid is critical. Current battery technology is still limited in terms of use-time, safety and cost. Beltech’s technologies solves all three issue

Our solution

We have developed a way to improve the components & chemistry within lithium-ion batteries that will enable them to last 2.5x longer between charging, mitigates short-circuits and can provide more energy per dollar spent to produce them (i.e. $/kWh).

Target market

1. Drones & Unmanned Aerial Vehicles (UAV)
2. Consumer Electronics / Bluetooth devices
3. Cordless Power tools & devices
4. Electric Vehicles (EV)
5. Energy Storage (On/Off power grid)

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphite anode</td>
<td>10x more energy capacity</td>
</tr>
<tr>
<td>Silicon anode</td>
<td>More capacity and no swelling concerns</td>
</tr>
<tr>
<td>Lithium Metal anode</td>
<td>Lower cost solution &amp; Improved safety</td>
</tr>
<tr>
<td>All of the above</td>
<td>More energy per unit volume and weight</td>
</tr>
</tbody>
</table>

Funding needed

$2M
(1) Purchase and modify anode equipment to scale our current prototype production (2) Hire engineer, technician, and business staff to grow

Sales and Marketing

Sales channels

We are currently selling prototypes to battery manufacturers, material suppliers and EV manufacturers. We plan to license our technology

Marketing activities

We follow a B2B model and are making direct connections key companies across the lithium-ion battery and energy storage industry, from supplier to
across the supply chain and to third-party manufacturers. We will keep some production for R&D and custom orders. Our technology is unique and our licensing strategy will enable us to gain broader exposure.

**Financial Projections**

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$23K</td>
<td>$200K</td>
<td>$583K</td>
</tr>
<tr>
<td>Expenses &amp; Costs</td>
<td>$47K</td>
<td>$923K</td>
<td>$1.5M</td>
</tr>
<tr>
<td>Profit</td>
<td>($24K)</td>
<td>($723K)</td>
<td>($896K)</td>
</tr>
</tbody>
</table>

**Milestones**

- **Attract Customers Sell Samples**
  - Jan 1, 2021
- **Test with Customers & Selling Rolls**
  - Jun 2, 2021
- **Grow with Customer Licensing**
  - Apr 1, 2022

**Team and Key Roles**

- **Lin Chen Ph.D.**
  - Founder, CEO & CTO

- **Robert Conrandy**
  - Co-Founder, General Mgr.
  - Over 34 years in management and investments. Cargill, Inc., Bank of America and Bank of Montreal (BMO) recently overseeing $2.5 Billion.

- **Ren Yu Kong**
  - Business Development
  - Univ. of Chicago - Undergraduate Candidate (Computer Science). Equity research analyst. Two year logistics experience.

Beltech, Inc.
Company Contact
Beltech, Inc. | 3440 S. Dearborn Street | Chicago, IL 60616
email: contact@beltechsystem.com
website: www.beltechsystem.com
Partners and Resources

Prabhakar Patil, Ph.D.
ADVISOR: Former CEO of LG Chem USA. Was chief engineer at Ford Motor Company.

Michael Wixom, Ph.D.
ADVISOR: Mike has many years of experience research and director of business development at Navitas System and A123 Systems.

Rich Axelbaum Ph.D.
ADVISOR: Founded a nanomaterial company that was acquired by Cabot. Professor at Washington Univ. with over 100 publications.

Andrea Bianco Ph.D.
ADVISOR: Over 10 years of progressive and multi-functional international experience in engineering and energy storage project development.

Wilson Sonsini - Legal Counsel
LEGAL ADVISOR: Represent companies from entrepreneurial start-ups to multibillion-dollar global corporations at every stage of development.

Patents (Pending) - NGE Attorney
We filed for 6 patents on our technology & process including US and PTC patents. They are unique and independent from other institutions.

Univ. of Chicago - Polsky Center
Polsky Center for Entrepreneurship and Innovation bridges the gap between knowledge and practice, idea and action, and research and impact.

ITT Technology Park - Tenant
We have our own lab and office space that we rent at the Illinois Institute of Technology Technical Park. We also have access to other labs.

Created by Lin chen (lin.chen@beltechsystem.com) using LivePlan. All rights reserved.
BIOMILQ

BIOMILQ is harnessing science and nature to produce mother-cultured milk with the nutrition of breastmilk and the practicality of formula.

Our Opportunity

Problems worth solving

1. 84% of babies are fed infant formula <6m
2. Infant formula is nutritionally inferior
3. $238BN attributable cognitive loss to IF
4. 2/3 of moms feel guilt using IF
5. IF uses 10-20% global dairy production

Our solution

We produce nutritionally equivalent breastmilk from cultured human mammary cells. With BIOMILQ, families can achieve the recommended 6 months of exclusive breastfeeding while alleviating the climate impacts of bovine-based infant formula.

Target market

1. 3.8 M new moms each year
2. 3.2 M new moms switching to IF <6mos
3. 700K new moms switching to IF + CollegeG
4. Target Market spends $2.8BN annually

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Market Milk</td>
<td>We are safe and legal.</td>
</tr>
<tr>
<td>Big Formula Producer</td>
<td>Better nutritional profile and custom.</td>
</tr>
</tbody>
</table>

Funding needed

$2M

We are pouring our initial funds into continued R&D, regulatory consultation, patent litigation costs, and business development.

Sales and Marketing

Sales channels

We are starting in a D2C model, offering customized breastmilk shipped to a mother’s door. After two years of building trust through this method, we transition to an omnichannel mass retail launch for more mothers to access our product.

Marketing activities

Multi-pronged marketing approach: Outreach through preferred channels; sponsorship of woman-oriented professional events; engagement with hospitals, pediatricians, and employee benefit programs. Creating influencer Mother-evangelists are the goal!
Revenue streams

*We are looking to launch in 2025, and are happy to share our projections in person!*

Major costs

*Bioreactor builds, media costs, ongoing R&D costs, safety and efficacy testing.*

Milestones

Complete Proof-Of-Concept Testing

*Mar 16, 2020*

Team and Key Roles

Michelle Egger
CEO, Co-Founder

MICHELLE IS DIVERSELY EXPERIENCED FOOD SCIENTIST, DRIVEN TO SOLVE GLOBAL FOOD SECURITY AND MALNUTRITION.

Jaz Henry
Marketing Lead

Jaz comes from Intl Planned Parenthood Comms and is a maestro at translating difficult and moving stories.

Ben Hoogland
Fundraising Strategy

Ben joins us from Cultivian Sandbox and has an intimate understanding of what it takes for a CPG start-up to make it!

Leila Strickland
CSO, Co-Founder

LEILA HAS A PHD IN CELL BIOLOGY, WITH OVER 10 YEARS OF EXPERIENCE CONDUCTING ORIGINAL RESEARCH ON FUNDAMENTAL CELLULAR PROCESSES.

Partners and Resources

Duke University
Cardiosense

Cardiosense is delivering ICU-level visibility of heart health in a compact, wearable package.

Our Opportunity

Problem worth solving

One in four deaths in America are caused by cardiovascular disease (CVD). Clear physiological changes occur weeks before an acute event, but detecting these currently requires invasive catheters or bulky equipment, limiting visibility.

Our solution

We’re building cardiac monitoring platform that leverages wearables to noninvasively capture hemodynamics such as blood pressure and cardiac output. We analyze hemodynamic trends to prevent acute events in patients with hypertension and heart failure.

Target market

1. Hospitals and large healthcare orgs.
2. Researchers and pharmaceutical companies
3. Established remote monitoring platforms
4. Outpatient physician practices
5. Care management teams

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biobeat</td>
<td>Improved accuracy, more parameters</td>
</tr>
<tr>
<td>Caretaker</td>
<td>Improved accuracy</td>
</tr>
<tr>
<td>Cardiomems</td>
<td>Noninvasive and significantly cheaper</td>
</tr>
<tr>
<td>Nanowear</td>
<td>More prognostic for HF decompensation</td>
</tr>
</tbody>
</table>

Funding needed

$2M

Funds will be used to secure FDA indication for noninvasive blood pressure, extend and enhance our IP, and identify clinical pilots.

Sales and Marketing

Sales channels

Marketing activities
The initial target will be physicians at major research institutions for pilots to establish clinical credibility that can be used to pursue reimbursement. After reimbursement, we will look towards established medtech companies for broad distribution.

We will leverage results from our initial pilots at Northwestern Memorial to present at conferences, publish research publications, and press releases to build clinical interest and establish pilots at other major research institutions.

Forecast

Revenue streams

Our initial beachhead, ABPM, has established reimbursement at $70-$250. Our long-term market - CHF monitoring - currently relies on a $20,000+ implant. Delivering the same value in a wearable patch gives us significant pricing flexibility.

Major costs

Salaries and consulting fees (legal, manufacturing, software development regulatory) will drive the majority of our costs initially. Funding clinical trials, marketing, and sales will contribute more significantly to costs in later rounds.

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>File non-provisional patents on device and signal processing</td>
<td>Jul 2, 2020</td>
</tr>
<tr>
<td>FDA 510(k) submission for blood pressure</td>
<td>Dec 16, 2020</td>
</tr>
<tr>
<td>Commercialization of 24-hour ABPM</td>
<td>Jul 2, 2021</td>
</tr>
<tr>
<td>FDA 510(k) submission for Cardiac Output</td>
<td>Sep 2, 2021</td>
</tr>
<tr>
<td>Longitudinal, outcomes based CHF trial</td>
<td>Jan 2, 2022</td>
</tr>
</tbody>
</table>

Team and Key Roles

Avidor Kazen
Analytics Lead
Work Experience: Epic Systems, worked with healthcare institutions to develop software tools. Education: BS, MS

Andrew Carek
Engineering Lead
Experience: Specializes in medical technology development and signal processing. Education: BS, MS, PhD

Venu Ganti
Research Engineer
Experience: Specializes in hardware and analytical techniques for cardiovascular monitoring. Education: BS, MS, and PhD

Amit Gupta
Business Lead
Work experience: Ishi Systems, led product development for data analytics unit. Education: BSE, MBA
Alex Heller
Hardware Lead
Experience: Etemadi Research Lab, specializes in developing health monitors for clinical application. Education: BS, MS

Mozziyar Etemadi
Technical Advisor
Professor and MD at Northwestern Medicine. Led proof-of-concept study to test Cardiosense device's ability to track hemodynamics.

Omer Inan
Technical Advisor
Professor at Georgia Institute of Technology. Let studies crucial to the development of the CardioSense device.

Partners and Resources

Northwestern Memorial Hospital
Northwestern University
Georgia Tech
MATTER

Created by Amit Gupta (amit.gupta@kellogg.northwestern.edu) using LivePlan. All rights reserved.
Cellens is a high-performing cell surface biomarker analysis technology platform for oncology diagnostics, with beachhead in bladder cancer.

### Our Opportunity

**Problem worth solving**

Bladder cancer has ~50% recurrence. Its surveillance currently involves rigid, insufficiently accurate cystoscopy and cytology, which are expensive, invasive and results in low patient adherence. High-risk patients ask for a keener and reliable test.

**Our solution**

We plan to commercialize a CLIA Lab Developed test. Our test provides superior sensitivity 98%, specificity 82% using just five cells and only takes one hour to process a patient sample. This urine-based test can be complementary to routine cytology.

### Target market

1. High-risk patients post-therapy monitor
2. Cytology equivocal cases for low-risk
3. Track neoadjuvant therapy outcome
4. Routine surveillance (reduce cystoscopy)
5. Other liquid-based urologic cancer IVD

### Competitors & How our solution is better

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI, CT, Ultrasound</td>
<td>Higher accuracy even in low grade cancer</td>
</tr>
<tr>
<td>Abbott’s UroVysion</td>
<td>Less expensive, more precise &amp; universal</td>
</tr>
<tr>
<td>NMP22 BladderChek</td>
<td>Not subject to physician interpretation</td>
</tr>
<tr>
<td>Cystoscopy</td>
<td>Non-Invasive, more accurate, lower price</td>
</tr>
<tr>
<td>Cytology</td>
<td>Much higher sensitivity for low-grade</td>
</tr>
</tbody>
</table>

### Funding needed

**$700K**

We plan to implement adoption studies that leading cancer institutes intend to enter with us, and launch a CLIA lab to start sales in 2021.

### Sales and Marketing

#### Sales channels

#### Marketing activities
Cellens generates revenue with our lab-developed tests. Our early adopters are hospital KOLs hosting investigational studies with us, with a client billing model. Distribution channels include integrated healthcare hospitals & urologist-owned network.

**Financial Projections**

### Milestones

1. Validation study with Tufts Medical Center
   - Aug 2, 2020
2. Launch as a CLIA Lab
   - Jul 1, 2021
3. Pre-Submission FDA Review
   - Oct 1, 2021
4. CLIA Certificate of Compliance approved
   - Dec 31, 2021
5. Standalone software launching
   - Mar 2, 2022

**Team and Key Roles**

- **Phuong (Jean) Pham**
  - Business development, PR
  - Worked for 2 years as the Entrepreneur-in-Residence at the Venture Development Center, UMass Boston. Raised $300,000+ from corporate sponsor

- **Xueying (Fiona) Wang**
  - Operations and Marketing
  - Biomedical Engineer and Data analyst. Worked for 2 years in business analytics at Bristol-Myers Squibb and GE. Has Lean Six Sigma Green Belt

- **Dr. Igor Sokolov**
  - PI, Scientific Advisor
  - Professor at Tufts and expert in Atomic Force Microscopy with 30+ year experience with 21 patents, 50+ grants, numerous research awards

- **John D. Seigne, MB, BCH**
  - Medical Advisor, Co-PI
  - Section Chief, Urology, Associate Professor of Surgery, Geisel School of Medicine, Dartmouth
Petros Grivas, M.D., Ph.D.
Medical Advisor, Co-PI

A board-certified medical oncologist with expertise in genitourinary cancers, the Clinical Director of the GU Cancers Program at UWashington

Kevin Oye
Management Advisor

Executive Director, Tufts Gordon Institute; 35 years of experience leading product development, corporate strategy, and M&A teams.

Dr. Anh Hoang
Regulatory Advisor

Anh leverages her 10+ years of biomedical research experience with her strategic vision to co-found Sofregen and advise MedTech companies.

Robert P. Schreiber
Patient Advocate Advisor

National Bladder Cancer Advocacy Network New England Regional Manager and Volunteer

Partners and Resources

Bladder Cancer Advocacy Network
UWashington Medical Center
Dartmouth Medical Center
Dana Farber Cancer Institute
Brigham and Women's Hospital
Tufts Gordon Institute
Tufts Medical Center
Tufts Data Intensive Center

Created by Fiona Xueying Wang (xueying.wang@tufts.edu) using LivePlan. All rights reserved.
CelluDot

CelluDot addresses the growing problem of agrochemical drift with a novel biopolymer technology that reduces vapor drift of herbicides.

Problem worth solving

The EPA estimates that up to 70 million pounds of pesticides are lost due to drift in the U.S. each year. Drift damages crops in neighboring fields, resulting in lawsuits and financial losses for farmers.

Our solution

Our patent-pending nanocellulose based technology reduces crop damage due to vapor drift by 70-80%. It has the potential to significantly reduce the risk of farmers incurring lawsuits and plant board violations.

Target market

1. Soybean, cotton and corn farmers
2. Ag retailers / farmer co-ops

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squall</td>
<td>Compostable and reduces vapor drift</td>
</tr>
<tr>
<td>Helena</td>
<td>Biodegradable and reduces vapor drift</td>
</tr>
<tr>
<td>Winfield Solutions</td>
<td>Non-toxic and reduces vapor drift</td>
</tr>
<tr>
<td>Drexel</td>
<td>Biodegradable and reduces vapor drift</td>
</tr>
</tbody>
</table>

Funding needed

$700K

These funds will be used for our manufacturing partnership, building up the inventory and sales and marketing expenses.

Sales and Marketing

Sales channels

We will make direct sales to early adopters. Once we gain traction, our product will be distributed through ag retailers and wholesalers, such as farmer co-ops.

Marketing activities

We will extensively work with the UofA’s Extension System and the State Plant Board as they hold training programs for farmers on new technologies.
CelluDot will also sell through its own website as well as other online retailers. We will develop relationships with key influencers including crop consultants, applicators and co-ops.

Forecast

Revenue streams
1. SBIR grant revenue in 2020 & 2021 ($1 M)
2. Sales revenue begins in 2022 ($4 M)
3. Increases to $16 M in ’23 & $40 M in ’24

Major costs
1. R&D and Regulatory Costs (~60%)
2. Salaries (~15%)
3. Legal Services and Patent Counsel (~15%)
4. Sales and Marketing (~10%)

Milestones

<table>
<thead>
<tr>
<th>Prototyping and Field Testing - Phase I</th>
<th>Field Testing - Phase II and Certifications/Approvals</th>
<th>Market Entrance and Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 19, 2020</td>
<td>Dec 18, 2021</td>
<td>Dec 21, 2024</td>
</tr>
</tbody>
</table>

Team and Key Roles

Joseph Batta-Mpouma
Chief Executive Officer
Co-Inventor; Certified Business Manager; Experience in Materials Science and Engineering and Nanotechnology Research

Gurshagan Kandhola
Chief R&D Officer
Co-Inventor; Experience in Food and Bioprocess Engineering, Materials Science and Nanotechnology Research and Technology Consulting

Jaymin Patel
Chief Financial Officer
Experience in Financial Data Analysis, Logistics and Business Validation of New Technologies; Executive MBA Student

Partners and Resources

Manufacturing Partner
Early Adoption Partner

Early adopters have been identified through customer discovery. We will leverage UofA Extension's statewide network to reach more farmers.

Commercial scale production will be outsourced to a third-party contract manufacturer.

Marketing & Distribution Partner

Our product will be marketed through NCFC's nationwide network of farmer co-ops and distributed through ag retailers.
Contraire deploys a predictive analysis control system to optimize the aeration process within municipal wastewater treatment plants.

**Our Opportunity**

**Problem worth solving**
Treating wastewater consumes nearly 2% of the electricity in the U.S. Aeration is required to sufficiently degrade wastewater contaminants. Further, a lengthy 5-day biological test results in plant operators knowingly and unnecessarily over aerating.

**Our solution**
Deployed sensors record live key water quality parameters and process the readings through our core algorithm, which is used to control the aeration rates. The 5-day test is now nearly instant, creating savings of a net $252,000 annually on average.

**Target market**
1. 7,737-Variable Frequency Drive Blowers
2. 10,316-Activated Sludge Aeration Method
3. 12,136-Municipality Population 10k-100k
4. 16,400-Total Wastewater Treatment Plants
5. # represents plants fitting into niche

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siemens</td>
<td>No up front capital costs</td>
</tr>
<tr>
<td>Endress + Hauser</td>
<td>Predictive biological measurements</td>
</tr>
<tr>
<td>Both companies</td>
<td>Retrofitable technology</td>
</tr>
</tbody>
</table>

**Funding needed**
$400K

The initial pre-seed round will be leveraged to commercialize the technology. The focus will be to secure an initial portfolio of customers.

**Sales and Marketing**

**Sales channels**
Due to customization, a technical in-person sales representative will meet directly with the Plant Operator. The Operator will then be leveraged as an

**Marketing activities**
Awareness will created through a telemarketing campaign targeting Plant Operators. After initial interest is displayed, a sales rep will meet with the
influencer to the economic buyer, the City Manager, with the goal of signing a multi-year contract.

Operator. Developing a portfolio of customer testimonials is critical to build industry wide trust.

Forecast

Revenue streams
Contraire will charge a recurring monthly fee. A fixed fee will be added to a variable fee based on the particular wastewater treatment plant's average flow rate, resulting in an average monthly price of $4,000. This structure ensures fair pricing.

Major costs
Deployed equipment and installation labor will cost $29,500. The equipment will remain Contraire's property, which will have a payback of 8 months. This pricing structure allows the cash strapped municipal customer to realize month 1 cash savings.

Team and Key Roles

Rabecca Wiseman
Technical Lead
Rabecca has served as the lead lab assistant for over 2 years. Pursuing a Master's in Environmental Engineering. rabecca.wiseman@okstate.edu

Brooks Robison
Business Lead
Brooks acts as the GA for the class Venture Capital and is pursuing a MBA. brooks.robison@okstate.edu

Partners and Resources

Stillwater Wastewater Treatment Plant
Verbal and written consent from the Plant Operator agreeing to implement Beta testing.

Technology Development Center
Working relationship with the TDC. Executed an Exclusive Option to License.

Cowboy Technology Angels
Secured a letter of investment interest from the accredited angel group.
We developed an Integrated ADAS technology based on two patent-pending motion control algorithms. Our control algorithms overcome a challenge in wheeled ground vehicle motion control, namely trajectory tracking. Drivemate's motion controller is based on the laws of physics and rigorous mathematics, thus it is not only fully analytical and certifiable but also scalable and adaptable to different sizes and types of vehicles, as have been successfully demonstrated on our 2015 Kia Soul EV that is retrofit with our latest system.
Educational Vision Technologies Inc.

EVT uses AI to generate online courses which enable efficient learning & 100x cost savings, annually charges $12K/room & has paying customers.

Our Opportunity

Problems worth solving
1. Online courses cost over $100k to create
2. Universities lose $13M/y due to dropout
3. Disability accommodations are inadequate

Our solutions
1. AI Generates Online Courses 100x Cheaper
2. EVT’s Platform Improves Academic Success
3. Auto Generates Notes for Accommodations

Target market
1. $1.5B, US Higher Education Market
2. $55B, US Continued Education Market
3. $130B, US Corporate Education Market

Competitors | How our solution is better
--- | ---
Panopto/Lecture Cap | Auto Curate Content, Efficient Learning
Smartboards | Works in Large Rooms, No Infrastructure
Production Studios | Over 100x Cheaper for Online Courses

Funding needed
$1M

Build our sales team, bring on key hires, and scale product to grow beyond our pilot customers to hit a million runrate in 2020.

Sales and Marketing

Sales channels
We have highly satisfied paying pilot customers we obtained by direct sales to university departments which have one decision maker and a short sales cycle. Once we have our core sales team we will leverage resellers and distributors.

Marketing activities
We have administrator level interest from 35 universities which represents $60M/year in revenue if saturated. We are meeting potential customers through referrals from current customers, edu leadership groups, and conferences.
Financial Projections

Revenue

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$898K</td>
<td>$4.8M</td>
<td>$19.6M</td>
</tr>
</tbody>
</table>

Expenses & Costs

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenses &amp; Costs</td>
<td>$723K</td>
<td>$3.4M</td>
<td>$6.5M</td>
</tr>
</tbody>
</table>

Profit

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit</td>
<td>$175K</td>
<td>$1.3M</td>
<td>$13.1M</td>
</tr>
</tbody>
</table>

Milestones

Expand Pilot Customers to $60k ARR (On Track, 40k ARR Feb)

- Apr 1, 2020

$170k Annual Reoccurring Revenue

- Jul 1, 2020

Close Seed Round

- Jul 1, 2020

Official Product Launch in July 2020

- Jul 2, 2020

$500k Annual Reoccurring Revenue

- Oct 1, 2020

Team and Key Roles

Monal Parmar
CEO, CTO, & Founder
UCSD MS ECE Machine Learning, 2020

Joyce He
Learning Design & Web Dev
MA Stanford, Educational Technology

Jingpei Lu
Machine Learning Lead
UCSD MS ECE Machine Learning, 2020

Lyn Scott
Web Development Lead
SDSU BS Mechanical Engineering, 2020

Otto Jursch
Embedded Software Lead

Shelly Bae
UI/UX Design and Web Dev.

Rohit Ghosh
Embedded Software and Web

Ryan Young
Web Developer
Partners and Resources

EVT Board Platform
EVT Slides Platform
EVT Device
Web: evt.ai

Email: Parmar@evt.ai
Phone: 408-472-2107

Created by Monal Parmar (parmar@evt.ai) using LivePlan. All rights reserved.
Encapsulate

Automated tumor-on-a-chip systems that grow patients cancer cells and test the efficacy of chemotherapeutics to advocate the best treatment

Our Opportunity

Problems worth solving

1. Cancer treatments are not effective
2. Predicting the best drug is not possible
3. Treatment process is lengthy and costly
4. Tumors resistivity increases by chemo
5. Decision-makings are not personalized

Our solution

Encapsulate produces automated tumor-on-a-chip systems that are capable of growing patient-derived microtumors, to screen them against any chemotherapeutic drug. We provide test results for oncologists to help them choose the most effective treatment

Target market

- Clinics: Lung Cancer 30% ($1.2B)
- Clinics: Colon Cancer 29% ($540M)
- Pharma R&D Automat. 21% ($594M)
- Device SaaS 15% ($15M)
- Research laboratory 5% ($61.7M)

Competitors | How our solution is better
---|---
Genetic Testing | Experimental approach, Combinatory tests
2D test lab services | Body resemblance, Precision, Automation

Funding needed $2.1M

We are starting our seed round and with this $2.1M, we will start our CLIA cleared laboratory in 24 months for lung cancer in New England.

Sales and Marketing

Sales channels

We have a B2B service. In the short-term, we already established a partnership with multiple regional hospitals. In the longer-term, we will have a direct-sale

Marketing activities

We will seek partnerships through direct sales representatives. Also, our marketing activities also include participating in clinical conferences, partnering
representative and will receive tissue samples nationwide to give the test results.

with major distributors (e.g., Fisher, Quest Diag.), and major healthcare system networks.

---

### Financial Projections

#### Revenue

- **2020**: $2.1M
- **2021**: $11.9M
- **2022**: $27.8M
- **2023**: $72.7M
- **2024**: $134.7M

#### Expenses & Costs

- **2020**: $3.3M
- **2021**: $10.5M
- **2022**: $22.7M
- **2023**: $49.9M
- **2024**: $85M

#### Profit

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>($1.2M)</td>
</tr>
<tr>
<td>2021</td>
<td>$1.4M</td>
</tr>
<tr>
<td>2022</td>
<td>$5M</td>
</tr>
<tr>
<td>2023</td>
<td>$22.8M</td>
</tr>
<tr>
<td>2024</td>
<td>$49.7M</td>
</tr>
</tbody>
</table>

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### Milestones

- **Automation Refinement**: Oct 1, 2020
- **130 Patients Longitudinal Clinical Studies**: Jan 1, 2021
- **CLIA Regulatory**: Apr 1, 2021

---

### Team and Key Roles

- **Armin Rad, Ph.D.**
  - CEO, Co-founder
- **Reza Amin, Ph.D.**
  - CTO, Co-founder
- **Leila Daneshmandi, Ph.D. Candidate**
  - COO, Co-founder
- **Bret Schipper, M.D.**
  - CMO
- **Omar Ibrahim, M.D.**
- **David Noble, Ph.D., J.D.**
- **Mu-Ping Nieh, Ph.D.**
Partners and Resources

Hartford Healthcare
We are running a 130+ stage III colon cancer patient trials with Hartford Healthcare. HHC is our strategic partner.

UConn Health
UConn Health is our partner in our lung clinical trials.

International Space Station National Lab
We were awarded by ISS for the "Technology in space prize" for $653,000.

Space Tango
Space Tango is our implementation partner in the space studies.

NASA
In a collaboration with NASA, we are currently running a clinical test on stage III colon cancer patients to evaluate the gravity effects.

Boeing
We received a grant from Boeing Space for our clinical tests.

Connecticut Innovation
We have been awarded by CT Innovations (a state government VC) for our product.

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Envirobe, Inc.

We are a cleantech startup that builds microbial technologies to close the loop on plastics production and remediate environmental pollution.

Our Opportunity

Problem worth solving

Existing plastic recycling technologies are inefficient and not truly infinite in waste reuse. Moreover, they do nothing to remediate already existing plastics and microplastics ravaging our oceans and finding their way into our food.

Our solution

We engineer plastic-eating microbes for use at the processor level. Our microbes convert presently unutilized feedstocks of waste and ocean PET (e.g. water bottles) into its precursors (TA/EG) in mere hours for sale to virgin PET manufacturers.

Target market

1. Plastic/PET Processors
2. Virgin PET Manufacturers
3. Chemical Manufacturers
4. Municipal Recycling Facilities

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other biobased Firms</td>
<td>Lower cost with in situ deployment</td>
</tr>
<tr>
<td>TA/EG producers</td>
<td>No use of oil for precursor generation</td>
</tr>
<tr>
<td>Plastic-to-oil Firms</td>
<td>Far less energy intensive</td>
</tr>
<tr>
<td>Chemical Processor</td>
<td>Able to process ocean plastic</td>
</tr>
<tr>
<td>Mechanical Processor</td>
<td>Less volatile market for end product</td>
</tr>
</tbody>
</table>

Funding needed

$250K

$170k for completion of microbial development and $80k for small-scale Envirobe application pilots prior to industrialization phase.

Sales and Marketing

Sales channels

Marketing activities
We plan on integrating as a module within the facilities of the existing 27 processors in the US market. Thus, primary sales will be made through direct sales/partnerships.

Envirobe plans to collaborate/partner/join with environmental (e.g. WWF, 5 Gyres Institute, etc) and professional PET-recycling organizations (e.g. APR, NAPCOR, PETRA) in tandem with trade show presence to facilitate adoption.

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### Financial Projections

<table>
<thead>
<tr>
<th></th>
<th>FY'21</th>
<th>FY'22</th>
<th>FY'23</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>$1.2M</td>
<td>$2.2M</td>
<td>$3.2M</td>
</tr>
<tr>
<td><strong>Expenses &amp; Costs</strong></td>
<td>$606K</td>
<td>$631K</td>
<td>$900K</td>
</tr>
<tr>
<td><strong>Profit</strong></td>
<td>$634K</td>
<td>$1.6M</td>
<td>$2.3M</td>
</tr>
</tbody>
</table>

---

### Milestones

- Completion of microbial R&D: Feb 2, 2021
- Small-scale bioreactor pilot completion: Mar 2, 2021
- Acquisition of first licensing contract: Apr 2, 2021

---

### Team and Key Roles

- **Samuel J. Magaziner**
  
  CEO/Co-founder
  
  With degrees from Columbia/Cambridge and 6 years of microbiology experience, Sam wishes to bring biological solutions to man-made problems

- **Manyung Emma Hon**
  
  COO/Co-founder
  
  A Hong Kong native Emma possesses first-hand knowledge of the dangers of environmental pollution and wishes to develop sustainable solutions

- **Ravish Rawal**
  
  Engineering Lead
  
  Rav is a mechanical engineer with 4 years of experience leading product design with companies such as Leviton Manufacturing Inc. and Latch
Our Opportunity

Problem worth solving
Vascular access is required to initiate 15 million procedures annually in the US, but 5% of access attempts result in bleeding complications, that add $18,000 in additional costs / complication, due to limitations associated with ultrasound guidance.

Our solution
EVA acts as a guide that constrains the needle to the plane of imaging relative to the ultrasound probe, ensuring visualization throughout the procedure. Its unique features provides a solution that physicians can use for all patient characteristics.

Target market
1. Central Access Procedures
2. Difficult Peripheral Access Procedures
3. Tissue Biopsies
4. Pain Management Procedures
5. Abscess Drainage Procedures

Our solution
EVA acts as a guide that constrains the needle to the plane of imaging relative to the ultrasound probe, ensuring visualization throughout the procedure. Its unique features provides a solution that physicians can use for all patient characteristics.

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Guidance</td>
<td>Proactive rather than reactive solution</td>
</tr>
<tr>
<td>Fixed needle guides</td>
<td>One-size-fits-all device</td>
</tr>
</tbody>
</table>

Funding needed $500K
We will continue to refine the design and engage in expanded usability and validation testing with potential users and animal models.

Sales and Marketing

Sales channels

Marketing activities
EVA access kits will be purchased by hospitals through contract negotiation initiated by a sales team for all central access procedures performed by cardiologists, interventionalists, and other surgeons and physicians.

Initial contracts will be pursued with institutions in the Texas Medical Center, especially those associated with our advisors. We will then use post-market clinical data and leverage the support of key opinion leaders to expand our reach.

**Forecast**

**Revenue streams**

*We will sell EVA to hospital purchasing departments as a disposable device. As we establish demonstrated benefits, we will look to partner with an existing ultrasound company to sell the device as an accessory to their imaging products.*

**Major costs**

*Our primary major costs will be paying an external manufacturer to injection mold and assemble the device. As manufacturing is scaled up and the designs are finalized, these per unit costs will decrease.*

**Milestones**

- **Final Device Design**
  - Oct 1, 2020
- **Submit notification to the FDA**
  - Oct 31, 2020
- **Begin Animal Testing**
  - Jan 2, 2021
- **Verification and Validation Testing**
  - Mar 2, 2021

**Team and Key Roles**

- **Rocky Browder, MD**
  - Clinical Lead
  - Vascular Surgery resident at Baylor College of Medicine
- **Ellie Reynolds**
  - Product Manager
  - Graduate student in the Bioengineering Medical Innovation Program at Rice University
- **Erik Wu**
  - Technical Lead
  - Graduate student in the Bioengineering Medical Innovation Program at Rice University
- **Tyler Melton**
  - Business Strategy Lead
  - MBA student at Rice University
Sanjana Mahapatra, PhD
Clinical Strategy Advisor
Clinical Immunology Scientist and
Strategy Director at Skipper
BioMed

Partners and Resources

Texas Heart Institute
Advising from
electrophysiologists and other
medical professionals at Texas
Heart Institute

Baylor College of
Medicine
Advising and clinical support from
surgeons and other physicians
throughout Baylor College of
Medicine

Rice University -
Bioengineering
Support and product
development resources available
within the bioengineering
department and throughout the
university

Created by Ellie Reynolds (elr13@rice.edu) using LivePlan. All rights reserved.
Fractal

Fractal streams GPU-powered cloud computers to creatives and PC gamers at ultra-low latency, enabling them to edit and play from any device.

Problem worth solving

Today, creative professionals either need to buy a $3,000+ computer to do their best work and be confined to a physical location, or work on-the-go with an underpowered laptop and experience frequent crashing and hardware issues.

Our solution

Fractal streams GPU-powered cloud computers to any device, enabling creative pros to access full-blown Windows 10 cloud computers with a GPU from an underpowered laptop or iPad to edit, render and play at insane speed, on-the-go or in the office.

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade Shadow</td>
<td>Color-Accurate Streaming, File Sharing</td>
</tr>
<tr>
<td>Public Clouds</td>
<td>Consumer-Oriented offering</td>
</tr>
<tr>
<td>Parsec/Rainway</td>
<td>Color-Accuracy, Cloud PCs integration</td>
</tr>
<tr>
<td>Mighty</td>
<td>Full OS streaming instead of single app</td>
</tr>
</tbody>
</table>

Target market

- Freelancers: 57% ($5B)
- PC Gamers: 23% ($2B)
- Creative Pros: 11% ($1.5B)
- iPad Power-users: 9% ($375M)

Market size: $8.9B

Funding needed

$750K

250k: Hiring 4 additional software engineers, 150k: marketing, legal, etc. fees, 250k: building our first server, extra for buffer

Sales and Marketing

Sales channels

Users sign up directly for our service on our website. We are currently servicing our waitlist customers acquired through Reddit, and will then move into targeted advertising on creative forums, and eventually partnering with design schools.

Marketing activities

We first marketed and did customer research by web scraping creative subreddits on Reddit. We have about 1,200 users waiting on our waitlist from this, and are slowly rolling them out. We then plan to use targeted advertising and referrals.
Financial Projections

Revenue

Expenses & Costs

Profit

Milestones

First 50 users
Apr 1, 2020

Preseed Close
Apr 11, 2020

First 100 users
May 1, 2020

Moving away from Azure into Fractal infrastructure
May 31, 2020

First 300 users (on Fractal infrastructure)
Jun 21, 2020

Team and Key Roles

Philippine Noel
Chief Executive Officer
Philippine is a twice TEDx Speaker, a prior Microsoft Azure product manager and serves as the CEO of Fractal.

Ming Ying
Chief Product Officer
Ming has prior experience in startups, having co-founded Vaultima, along with software engineering/quant at AQR. He serves as CPO of Fractal.

Nicholas Pipitone
Chief Technology Officer
Nicholas Pipitone is a software engineer with a love for learning about upcoming technologies, and for solving complex problems.

Partners and Resources
Microsoft Azure
We are backed by the Microsoft for Startups program.

Dorm Room Fund
Our first investors
Iconic Air's SaaS platform enables oil and gas companies to visualize and analyze emissions data across their daily operations and assets.

Our Opportunity

Problem worth solving
High emitting companies are at risk of losing investor debt and equity financing from groups like BlackRock and Vanguard if they do not better address fugitive gas emissions and other environmental risks across their operations and assets.

Our solution
Iconic Air's analytics platform and emission model algorithms provide users with standardized emission reports and insights. This includes fugitive emission locations and other key environmental metrics investors use to rate companies.

Target market
1. Marcellus Shale O&G Companies ($3.2M)
2. United States O&G Companies ($625M)
3. Rest of World O&G Companies ($3.5B)

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aclima</td>
<td>Sensor agnostic platform</td>
</tr>
<tr>
<td>Canary Project</td>
<td>More accurate and scalable</td>
</tr>
<tr>
<td>c3.ai</td>
<td>Ease of use</td>
</tr>
</tbody>
</table>

Funding needed $500K
Funds will be used to scale our solution across the US oil and gas market, hire 2 full-time software developers, and pay for legal counsel.

Financial Projections

- Revenue: $2.4M
- Expenses: $236K
- Profit: $204K
- Investment: $531K
- Cost of goods sold: $713K
- Net income: $788K
- Additional expenses: $181K
- Total expenses: $1.6M
- Net loss: ($85K)
Milestones

- **Submit PA government contract with partner Thrasher Engr.**
  - Apr 1, 2020
- **Negotiate annual contract with company from first paid pilot**
  - Apr 15, 2020
- **Version 1.0 Release of Analytics Platform**
  - Jun 30, 2020
- **Ingest 9.5 million+ data points to improve algorithm accuracy**
  - Sep 1, 2020
- **Subscribe 100+ recurring users to the platform**
  - Dec 1, 2020

Team and Key Roles

- **Kyle Gillis**
  - CEO & Co-Founder
  - Recent engineering graduate with experience in business consulting and strategy. Formerly employed by Connors Group.

- **James Carnes**
  - CTO & Co-Founder
  - Recent engineering graduate with experience in software development and data science. Formerly employed by Deloitte and Leidos.

- **Alan Brockman**
  - Full Stack Developer
  - Senior engineering student with experience in full-stack development and data science.

- **George Stakias**
  - Business Developer
  - Current MBA Student with experience in business development, market analysis, and financial modeling.

Partners and Resources

- **Thrasher Engineering**
  - Largest engineering firm and collector of mobile data in WV, PA, and OH region.

- **NOAA**
  - NOAA is the world's largest provider of weather and climate data. We use this data to enhance the accuracy of our emission models.

- **Aeris Technologies**
  - Aeris is a cutting edge stationary emission sensor company and recent recipient of R&D 100 Awards.

- **Vantage Ventures**
  - Iconic Air is currently a resident company in this tech focused accelerator located in Morgantown, WV.
Future Founders
Iconic Air is a fellow in the 2020 cohort. Future Founders is a prestigious year-long program that helps accelerate top startups in the US.

Venture Well
Iconic Air is a part of their National E-Team Program focused on helping young entrepreneurs scale and grow their business.
Our Opportunity

Problems worth solving
1. Accessibility of CAR T therapy
2. Affordability of CAR T therapy
3. 2 M Indian patients affected with cancer
4. 40% patients - relapse - palliation - die

Our solutions
1. Developed Indigenous CAR T cell platform
2. 70-90% cost reduction of the therapy
3. Providing benefit to incurable patients
4. Platform translatable to other cancers
5. Paradigm shift in cancer treatment

Target market
1. 2 million cases of cancer per year
2. 10k-20k - affected blood cancer
3. < 40% do not respond to current therapy
4. 7 lakhs cancer deaths every year
5. out of pocket expenditure in cancer care

<table>
<thead>
<tr>
<th>Competitors</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Stem Cell Transplant</td>
<td>Autologous treatment , Targeted action</td>
</tr>
<tr>
<td>Novartis</td>
<td>Patented technology , Affordable model</td>
</tr>
<tr>
<td>Gilead</td>
<td>Patented Technology , Affordable model</td>
</tr>
</tbody>
</table>

Funding needed $2M
Conduct first in-human Phase I clinical trial in India and Capacity building across the country in order to larger sections of the society

Sales and Marketing

Sales channels
1. Government and Private Hospitals
2. Cancer care specialities
3. Out licensing to the Biopharma

Marketing activities
Cost Effective product, Capacity building at cancer center with excellence in treatment & research-TMC-first centre to initiate bone marrow transplant in India, Evidence based effective clinical trial design, Easy market access compared to competitor
Forecast

Revenue streams

Initial stage - Technology transfer & product licensing - License fee/ Upfront/milestone payments/ royalty payments and Capacity building - training man-power & consulting on infrastructure on CART.

Major costs

The costs of goods/dose of the product is 7k$. The product would be marketed at price of 10k$-14k$. 70-90% costs reduction as compared to our competitors. Every year 10000 patients could be benefited, which would generate a revenue of 120M$.

Milestones

First in-human CAR T cell therapy clinical trial in India
Dec 2, 2020

Capacity building across major cancer centers
Dec 2, 2020

Pipeline product development
Mar 3, 2021

Commercialization of product
Dec 31, 2022

Team and Key Roles

Rahul Purwar
Director
Extensive professional experience in T cell immunotherapy.
purwarrahul@iitb.ac.in

Alka Dwivedi
Co-Founder
Expertise in indigenous and affordable CAR T cell platform development.
lkdwivedi06@gmail.com

Atharva Karulkar
Co-Founder
Expertise in indigenous and affordable CAR T cell platform development.
karulkaratharva@gmail.com

Partners and Resources

Scientific Advisory Board

Knowledge Partners
KnoNap

*LivePlan not yet available.*

*Company description below.*

KnoNap is a cocktail napkin that, upon saturation, is capable of indicating the presence of specific drug presence. To use, the consumer places a few drops of their drink on the napkin in the designated testing area. In drug presence, the saturated area of napkin changes color to a bright red, discreetly indicating to the user that their drink is not safe for consumption. KnoNap looks and feels like a traditional napkin, so it can be comfortably incorporated into any social setting. KnoNap is patent pending and all development is the confidential and proprietary information of KnoNap, LLC.
LittleMoochi

LittleMoochi is an app that helps children develop healthy eating habits by “raising” an AI-powered digital pet.

Our Opportunity

Problem worth solving

LittleMoochi seeks to solve the growing childhood obesity crisis triggered by increasingly unhealthy eating habits. Today 1/3 of all U.S. children are obese or overweight. Recently, unhealthy eating pattern has gradually become the major contributor.

Our solutions

1. Fun - Snap your plate and feed Moochi
2. Professional - Follow USDA guideline
3. Personalized - food recommendations
4. Deep Learning Backed Technology

Target market

1. Parents whose kids have obesity issue
2. Parents whose kids are picky eaters
3. Parents who want nutritional suggestions

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyFitnessPal</td>
<td>Children-specific nutrition designs</td>
</tr>
<tr>
<td>Kurbo</td>
<td>Gamification design; Lower price</td>
</tr>
<tr>
<td>Habitz</td>
<td>Patented technology</td>
</tr>
</tbody>
</table>

Funding needed

$500K

45% - App development (Recruiting/infrastructure); 30% - Marketing Expense (User acquisition/PR; 20% - Operation Cost (IP/others)

Sales and Marketing

Marketing activities
Sales channels

- Offline market campaigns
- Partnership with children healthcare organizations
- Online advertisements (e.g., Facebook)
- Cross promotion with key influencers

---

Forecast

**Revenue streams**

1. In-app Purchase & Merchandise (65%)
2. Social Media Native Advertising (20%)
3. Licensing (Future Growth, 15%)

**Major costs**

1. Merchandise Cost - 50%
2. App Infrastructure Cost - 15%
3. Marketing - 15%
4. Salaries (SG&A) - 15%
5. Other - 5%

---

Milestones

- **5 offline marketing campaigns at Pittsburgh**
  - May 1, 2020
- **LittleMoochi 2.0**
  - May 31, 2020
- **AI platform 2.0**
  - May 31, 2020
- **Start promotion at 5 target cities**
  - Aug 2, 2020
- **Start online advertising**
  - Dec 2, 2020

---

Team and Key Roles

- **Summer Xia**
  - Co-founder
  - MBA of Tepper School of Business, CMU; 10+ year senior product manager in tech industry and game industry.

- **Zhuyun Dai**
  - Co-founder
  - Ph.D. Candidate of School of Computer Science, CMU; Rich experience in information retrieval, deep learning, natural language processing.

- **Yi Xu**
  - Co-founder
  - MISM graduate at CMU; 12 years Senior manager at HP and PwC. Rich experience in software engineering.

- **Julie Qin**
  - Finance and Marketing
  - MBA at Tepper School of Business, CMU; Equity research analyst of a well-known investment banking firm.
LorCan

Connectivity solution for remote area data transmission.

Our Opportunity

Problem worth solving
Remote areas host $395B of crucial operations in North America, from infrastructure development to resource extraction. These industries rely on remote sensors to gather the necessary data but current solutions are expensive and unreliable.

Our solution
LorCan’s leading-edge technology will allow customers to gain access to their valuable remote area data on a consistent and frequent basis to effectively manage their operations and environmental impact.

Target market
1. Environmental Monitoring
2. Oil & Gas
3. Mining
4. Infrastructure Development

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campbell Scientific</td>
<td>Longer range transmission</td>
</tr>
<tr>
<td>Machine Q/ Semtech</td>
<td>Utilizing existing sensors</td>
</tr>
<tr>
<td>Eleven X/QuaeNet Inc</td>
<td>Focuses in Remote Area Environments</td>
</tr>
<tr>
<td>Satellite Telemetry</td>
<td>Immediately identifying technical issues</td>
</tr>
<tr>
<td>Telecoms</td>
<td>Cost effective</td>
</tr>
</tbody>
</table>

Funding needed
LorCan is looking for $2.0M in funding with key expenses going to prototype development, testing and product go to market.

Sales and Marketing

Sales channels
Marketing activities
LorCan will focus on direct sales to the government and industry with projects in remote areas. We will work to understand the procurement process in each segment for an efficient sales cycle.

Our Marketing strategy will ensure effective partnerships are developed to leverage networks for future prospects. Currently, we are working with Yukon Fish and Wildlife for our beta test for future government projects.

---

**Financial Projections**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Expenses &amp; Costs</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$0</td>
<td>$345K</td>
<td>($345K)</td>
</tr>
<tr>
<td>2021</td>
<td>$4.5M</td>
<td>$1.6M</td>
<td>($1.6M)</td>
</tr>
<tr>
<td>2022</td>
<td>$22.1M</td>
<td>$6.9M</td>
<td>($2.4M)</td>
</tr>
<tr>
<td>2023</td>
<td>$33.5M</td>
<td>$14.9M</td>
<td>$7.1M</td>
</tr>
<tr>
<td>2024</td>
<td>$33.5M</td>
<td>$24.2M</td>
<td></td>
</tr>
</tbody>
</table>

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**Milestones**

- **Provisional Patent Filed**
  - Jun 13, 2020
- **Phase 1 Test - UWaterloo**
  - Sep 2, 2020
- **Phase 2 Test - Algonquin Park**
  - Dec 2, 2020
- **Phase 3 Test- Lab Conditions**
  - Jan 16, 2021

---

**Team and Key Roles**

- **Minelli Clements**
  - CEO & Founder
  - A diverse background in finance, telecommunications, and law specializing in enterprise-level connectivity deployments.

- **Alison Purdon**
  - Chief Operating Officer
  - Global development specialist with experience leading innovation teams, currently

- **Krishna Vegiraju**
  - Chief Technical Officer
  - Years of ingenuity and passion in providing cradle-to-grave leadership over various hardware

- **Stuart Munro**
  - Lead Product Designer
  - Twice Red Dot Design winner, Stuart's passion for industrial design and biomimicry will help to
Andres Canalizo  
**Electrical Engineer**  
Over 20 years of experience in Telecommunication product development and deployment.

Dale Mah  
**Network Solutions Design**  
Over 20 years of experience in Telecommunication Network Architecture.

Ryan Van Der Marel  
**Environmental Advisor**  
A passionate conservationist and author with experience in environmental monitoring with valuable contacts within the industry.

Tim McCoy  
**Financial Advisor**  
Over 30 years of Leadership experience in financial reporting and management for Satellite and Telecommunications.

---

**Partners and Resources**

**University of Waterloo**  
The University of Waterloo rated the most innovative in Canada, is a public research university located in Waterloo, Ontario.

**The Conrad School**  
The Conrad School is an immersive educational environment for entrepreneurial students at all stages of their journey.

**Network for Research and Validation**  
The network promotes integrated approaches to the interconnected economic, social and environmental challenges confronting the world.

**Use Case**  
Potential to test and validate our prototype with a sensor placed 1,000km from the closed point of connect.

---

Created by Minelli Clements (m9clemen@uwaterloo.ca) using LivePlan. All rights reserved.
MedLock

MedLock improves treatment for opioid addiction by leveraging data collected by our medication dispenser to individualize patient care

Our Opportunity

Problem worth solving

In Medication-Assisted Treatment, the gold standard of opioid addiction recovery, 45% of patients still drop-out of treatment by the 6-month mark due to a lack of individualized medical counseling, at-home care, and barriers to relapse.

Our solution

Our platform's pill dispenser records timestamps when patients dispense a unit of medicine or record their symptoms on the device. Then, this data is analyzed to time the delivery of virtual therapeutical messages and to inform providers' counseling.

Target market

1. Medicated Treatment for Opioids: $2.8 bb
2. Mental Health Illness Treatment: $5.5 bb

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adheretech</td>
<td>Ability to track a single pill at a time</td>
</tr>
<tr>
<td>Pilleve</td>
<td>No smartphone required</td>
</tr>
<tr>
<td>Pillsy</td>
<td>On-device symptom tracking</td>
</tr>
<tr>
<td>Hero Health</td>
<td>Stand-alone, portable device</td>
</tr>
</tbody>
</table>

Funding needed

$375K

Main Costs: Scaling manufacturing: $84000, First 2500 dispensers: $60,000, Redox software license: $35000, Non-provisional Patent: $15000.

Sales and Marketing

Sales channels

We partner with recovery clinics that pay a monthly subscription fee per patient on our platform. During regular consultations, patients will receive the physical

Marketing activities

Since the addiction recovery market is both niche and highly fragmented, we will hire a VP of sales familiar with this space who will target these clinics through
dispenser, as well as video tutorials and written instructions on using the platform. Managed Care Organizations, medical conferences, and academic medicine research.

---

**Financial Projections**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Expenses &amp; Costs</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>$68K</td>
<td>$415K</td>
<td>($347K)</td>
</tr>
<tr>
<td>2022</td>
<td>$234K</td>
<td>$388K</td>
<td>($154K)</td>
</tr>
<tr>
<td>2023</td>
<td>$609K</td>
<td>$571K</td>
<td>$37K</td>
</tr>
</tbody>
</table>

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**Milestones**

- **Begin feasibility study with UVA Pain Clinic**
  - Mar 24, 2020
- **Begin further testing with 2 more partnered clinics**
  - Apr 21, 2020
- **Commercialization**
  - May 19, 2020
- **Submit SBIR application**
  - Jun 30, 2020
- **File Non-Provisional Patent Application**
  - Aug 16, 2020

---

**Team and Key Roles**

- **Rishub Handa**
  - Chief Executive Officer
  - Interned at a health-tech startup where he performed data analytics on hospital readmission rates; 1000+ clinical shadowing in hospitals.

- **Alex Zorychta**
  - Chief Financial Officer
  - 6 years of experience in early startups, including building a low-resource medical device; previously accepted into Y-Combinator.

- **Sahil Parikh**
  - Chief Operating Officer
  - Analyst for both Profit with Purpose and the McIntire Investment Institute; national finalist in the Federal Reserve Finance Challenge.

- **Roy Jad**
  - Chief Design Officer
  - Award for best hardware hack at HackBi; at WagiLabs, he utilized his design skills to retain children’s entrepreneurial interests.
Aditya Narayan  
Chief Research Officer  
Fulbright Research Scholar; sat on the Virginia Higher Education Substance Use Advisory Committee; founded ReinventEd Labs.

Brock Ferraro  
Lead Hardware Developer  
Developed an electrocardiogram and audio frequency visualizer highlighting both his mechatronics and data analytics abilities.

Chase Dawson  
Lead Software Developer  
Designed a curriculum for a Java bootcamp; developed an application to detect early-stage Parkinsons; trained an ML model to track mice.

UVA Pain Clinic  
Agreed to host our first trial; presented our solution at the annual conference of American Anesthesiology and Pain Medicine.

CleanSlate Centers  
This chain of 80+ recovery clinics has approved our trial in their corporate compliance department. Richmond is our specific trial location.

Insight Into Action Therapy  
The trial at this clinic in Ashburn, VA will include both recovering opioid patients, but also anxiety, depression, and ADHD patients.

UVA Innovation Lab  
After participating in the 2019 Summer Incubator Program, this organization continues to provide us mentorship.

Health Quality Innovators  
Our mentor, Cindy Warriner, agreed to have us listed as an HQI community partner. This company suggests improvements to health systems.

VentureWell  
Their Pioneer Program gave us the skillset to approach entrepreneurship scientifically. We will apply to their Stage 2 summer program.
MORFEO implements AI solutions to reduce likelihood of industrial accidents.

Our Opportunity

Problem worth solving

2.8 million workplace injuries were reported in the industry in the US in 2018, being over 5,000 fatal injuries causing elevated costs for companies, high mortality rates and unquantifiable trauma to victims’ families.

Our solution

MORFEO’s mission is to help industries reduce the likelihood of accidents applying artificial intelligence. We are able to recognize when safety protocols are being violated, monitor high risk areas, create automatic alarms and take immediate action.

Target market

1. Oil and gas facilities
2. Metalworking facilities
3. Cement factories
4. Automotive manufacturing facilities
5. Chemical factories

<table>
<thead>
<tr>
<th>Competitors</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sparkcognition</td>
<td>We are more specified in manufacturing</td>
</tr>
<tr>
<td>Copanga</td>
<td>Present and future control methods.</td>
</tr>
<tr>
<td>Deepomatic</td>
<td>We focus on the safety of the employee</td>
</tr>
<tr>
<td>Prysmex</td>
<td>We do not require phone connection.</td>
</tr>
</tbody>
</table>

Funding needed $250K
The funds will be used to pay programmers’ salaries, work stations and other administrative expenses to fully develop our software.

Sales and Marketing

Sales channels

Sales will be made in B2B form in the industrial sector through direct sales by a specialized sales team. As well, we have an online presence strategy through our web page where potential customers can receive further information about the company.

Marketing activities

We will introduce ourselves to our market through conferences and industrial events like The OSHA Oil and Safety Conference and publishing videos in social media concerning industrial safety and indirectly transmitting MORFEO’s mission and values.
Financial Projections

Revenue

Expenses & Costs

Profit

Milestones

Install prototype in LafagargeHolcim  
Mar 22, 2020

Recruit Programming team  
Mar 31, 2020

Marketing Activation  
Aug 2, 2020

Launching Software  
Oct 1, 2020

Team and Key Roles

Victor Oyervides  
Lead Programmer
B.S. in Computer Science with 11 years of experience in programming. Proficient in C++, Python and SQL languages.

Maria Trevino  
Head Finance
Finance Administration Student-entrepreneur passionate in social responsibility. Communication, leadership and business plan skills.

Sergio Sepulveda  
Marketing and Sales Head
Student-Entrepreneur mostly passionate for Alternative Energy Technology, Industry 4.0 Business Models and Sustainability-Driven Innovation.

Partners and Resources
LafargeHolcim
Collaboration with LafargeHolcim creating a pilot prototype for cement manufacturing facilities that matches their specific needs.

Business Incubator
Scholarship awarded in Business Incubator in Tec Lean Discovery Program where we have access to mentoring, workshops and connections.

Zona Ei
Convergence zone for the ecosystem of entrepreneurship and innovation of Tec de Monterrey, offering solutions for startups.
NanoCare Pharma, Inc.

Our mission is to bring advanced healing solutions to the wound care market with our revolutionary nanotechnology called AccelGel.

Our Opportunity

**Problems worth solving**
1. Wound Infection
2. Painful Inflammation
3. Antibiotic Resistance
4. Lengthy Healing Time

**Our solutions**
1. Stops Bleeding
2. Antiseptic Without Antibiotics
3. Eliminates Painful Inflammation
4. Accelerates Healing

**Target market**
1. OTC Disinfectant/Antiseptic $16 Billion
2. Wound Care Manufacturing $2.8 Billion
3. Veterinary Surgery Treatment $2 Billion

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Neosporin</td>
<td>Disinfects without using antibiotics</td>
</tr>
<tr>
<td>Vaseline</td>
<td>Stops bleeding</td>
</tr>
<tr>
<td>Iodosorb gel</td>
<td>Accelerates healing</td>
</tr>
<tr>
<td>Curad Germ Shield</td>
<td>Improves hypoxia</td>
</tr>
</tbody>
</table>

**Funding needed**

$550K

The funds will predominantly be used for R&D to pursue FDA clearance on our claims to reduce pain and inflammation and accelerate healing

**Sales and Marketing**

**Sales channels**
1. Online
2. Veterinarian supplies distributors
3. Consumer pharmaceutical wholesalers

**Marketing activities**
1. Free promotional packets
2. Promotional packages through distributor
3. Wholesaler network of customers
4. Digital media and marketing
5. Word of mouth

---

**Financial Projections**

**Revenue**

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$112K</td>
<td>$371K</td>
<td>$1.3M</td>
</tr>
</tbody>
</table>

**Expenses & Costs**

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenses &amp; Costs</td>
<td>$654K</td>
<td>$342K</td>
<td>$670K</td>
</tr>
</tbody>
</table>

**Profit**

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit</td>
<td>($542K)</td>
<td>$29K</td>
<td>$605K</td>
</tr>
</tbody>
</table>

---

**Milestones**

- **Veterinarian clinical trials complete**
  - Jun 2, 2020
- **FDA clinical trials complete**
  - Feb 2, 2022

---

**Team and Key Roles**

- **Dr. Gary W Beall**
  - Chief Executive Officer
- **Dr. David Cocke**
  - Chief Technical Officer
- **Shubha Malla**
  - R&D Manager
- **Quinn Robichaux**
  - Chief Operations Officer
- **Stephen Moczygemba**
  - Chief Marketing and Sales
- **Tyler Rico**
  - Chief Brand Officer
nanopathdx

We're developing platform technologies to fill the global need for rapid, sensitive disease diagnostics.

Problem worth solving
COVID-19 has resulted in over 6 million cases and over 360,000 deaths worldwide. Despite the prevalence and rapid spread of the disease, the majority of diagnostic tests remain time-intensive, require external reagents, and lack sensitivity.

Our solution
Our platform can sensitively and rapidly identify multiple viral RNA targets directly from a nasal swab. Our point-of-care system is urgently needed to support ongoing disease surveillance efforts, reopen global economies, and secure global health.

Target market

<table>
<thead>
<tr>
<th>Prospects</th>
<th>Market size: $4B</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 (US)</td>
<td>76% ($500M)</td>
</tr>
<tr>
<td>Sepsis (US)</td>
<td>15% ($2B)</td>
</tr>
<tr>
<td>Wound Infection (US)</td>
<td>8% ($1.5B)</td>
</tr>
<tr>
<td>HPV (Global)</td>
<td>1% ($10M)</td>
</tr>
</tbody>
</table>

Competitors | How our solution is better
---|---
PCR (Gold Standard) | Faster, More Portable, & Lower Cost
Isothermal NAAT | Faster & More Sensitive
Next Gen Sequencing | Lower Cost, More Portable, & Much Faster
RNA Microarrays | More Portable & Lower Cost

Funding needed

$300K

We have applied to SBIR grants starting Summer 2020, and are seeking funding to cover immediate R&D costs, salary, and IP filings/licensing.

Sales and Marketing

Sales channels
Our go-to-market strategy involves a strategic partnership with one of the large players in the in vitro diagnostics market. This will help us navigate the

Marketing activities
We are participating in NSF I-Corps to build customer relationships with clinicians, patients, insurance companies and hospitals. We are also building interest
complex healthcare and regulatory ecosystems to bring our product to patients. by attending scientific conferences and maintaining an active social media presence.

---

**Financial Projections**

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Expenses &amp; Costs</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>$525K</td>
<td>$325K</td>
<td>$200K</td>
</tr>
<tr>
<td>2021</td>
<td>$7.7M</td>
<td>$3.9M</td>
<td>$3.9M</td>
</tr>
<tr>
<td>2022</td>
<td>$24.1M</td>
<td>$11.6M</td>
<td>$12.6M</td>
</tr>
</tbody>
</table>

---

**Milestones**

- **IP Licensed from Dartmouth & Regulatory Strategy Developed**
  - Jul 1, 2020
- **>$250,000 in SBIR Funding Secured**
  - Aug 1, 2020
- **Diagnostic Efficacy Evaluated in Pilot Patient Trial**
  - Aug 31, 2020
- **Personnel Hired for Operations & Marketing**
  - Oct 1, 2020

---

**Team and Key Roles**

- **Dr. Amogha Tadimety**
  - Co-Founder & CEO
  - PhD Graduate, Thayer School of Engineering at Dartmouth (’20).
  - Her background combines scientific expertise with industry experience.

- **Alison Burklund**
  - Co-Founder & CTO
  - PhD Candidate, Thayer School of Engineering at Dartmouth (’21).
  - She is pioneering novel approaches to rare biomarker capture and detection.

- **Dr. John Zhang**
  - Co-Founder & Advisor
  - Dr. Zhang is an expert in biosensing and diagnostic microsystems. He is a Professor of Engineering at Dartmouth College.

- **Dr. Gregory Tsongalis**
  - Clinical Advisor & Mentor
  - Dr. Gregory J. Tsongalis is the Director for the Laboratory for Clinical Genomics. His lab has processed over 12,000 COVID-19 samples.

---

**Partners and Resources**
Dartmouth College
Nanopathdx was spun out of the Thayer School of Engineering at Dartmouth College. We have access to key laboratory resources and experts.

Dartmouth Hitchcock Medical Center
DHMC gives us access to the Molecular Pathology, Clinical Microbiology, and Clinical Genomics and Advanced Technology Departments.

NSF I-Corps
We are participating in the NSF I-Corps Site Program through the Tuck School of Business for customer discovery.

Magnuson Center for Entrepreneurship
The Magnuson Center provides entrepreneurial education and experiences, funding opportunities, and connection to Dartmouth's alumni network.

Filed IP and Technology Transfer
We have filed two patents through Dartmouth's Technology Transfer Office and plan to license through their inventor-friendly policy.

Alumni Networks
Our team has access to world-class alumni networks from our prior institutions: Princeton University, Johns Hopkins, and UC Berkeley.

Created by Alison Burklund (nanopathdx@gmail.com) using LivePlan. All rights reserved.
NOMA AI

NOMA AI is building the next generation of patient monitoring and alerting solutions using machine learning and artificial intelligence.

Our Opportunity

Problem worth solving

Today's patient monitoring and alerting solutions fail to detect and alert adverse medical events and human medical errors resulting in more than 450,000 death every year and causing more than $350B additional cost to healthcare annually.

Our solution

NOMA AI is building the next generation of patient monitoring and alerting solutions for early detection of adverse event and identification of human medical errors using artificial intelligence and machine learning.

Target market

1. Hospitals (38.2%)
2. Physician and Clinics (23.4%)
3. Nursing care (5.8%)
4. Home care (4%)
5. Others (28.6%)

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>MedAware</td>
<td>No real-time solution</td>
</tr>
<tr>
<td>Clew</td>
<td>Early Stages, No real-time solution</td>
</tr>
<tr>
<td>Google</td>
<td>early stages, potential future investor</td>
</tr>
</tbody>
</table>

Funding needed

$6

R&D, Clinical Trials and Sales

Forecast

Revenue streams

Sale of patient monitoring and alerting solution and modules to hospitals. We forecast to reach $76M revenue by the end of year seven and become profitable by the end of fifth year.

Major costs

Clinical Trials and Development
Salim Malakouti  
**Chief Executive Officer**  
PhD candidate, University of Pittsburgh, working on technology and machine learning solutions for healthcare.

Yashar Aucie  
**Chief Engineering Officer**  
PhD candidate, University of Pittsburgh, bioengineering, rehabilitation of post stroke patients and sensor data collection.

Milos Hauskrecht  
**Chief Scientific Officer**  
Faculty, University of Pittsburgh, with more than 30 years of research in machine learning solutions for healthcare.

Gilles Clermont  
**Chief Medical Officer**  
Physician, serial entrepreneur, faculty, University of Pittsburgh, with more than 30 years of research in quantitative methods for medicine.

Created by Salim Malakouti (salim.malakouti@gmail.com) using [LivePlan](https://www.liveplan.com). All rights reserved.
NUnode

We produce a “drop-in” high capacity anode nanomaterials in a low cost and ecofriendly manner for battery manufacturers.

Our Opportunity

Problem worth solving
As more devices become "smarter" and begin to gain wireless capabilities, battery reliability becomes an increasing need and graphite anodes need to be improved to meet these demands with higher capacity at a lower cost.

Our solution
Our customers will save time and money by using batteries that last 3 times longer than standard batteries available in the market.

Target market
1. Internet of Things
2. Home Security
3. 1.5-3 V rechargeable batteries

Competitors | How our solution is better
---|---
Targray | Higher Capacity, Lower Cost
Shenzhen BTR | Higher Capacity, Lower Cost
Hitachi Chemical Co. | Higher Capacity, Lower Cost
Mitsubishi Chemical | Higher Capacity, Lower Cost
Shanshan Tech. Co. | Higher Capacity, Lower Cost

Funding needed
$1.2M

Funds will be used to develop and optimize prototype, establish scaling up process at Argonne, and pilot test with anode manufacturers.

Sales and Marketing

Sales channels
We will be directly selling to the battery anode manufacturers and also working closely with anode manufacturers by providing a service that will add value by increasing the capacity of their anodes.

Marketing activities
We will attend battery conferences to present and connect with potential customers. We will also develop online presence through a website.

Forecast

Revenue streams

Major costs
We will be selling products directly to the anode manufacturers and providing a service to add value to their existing products via our patented technology. The major costs will be related to acquiring and operating the equipment, as well as renting space to develop our nanocomposites. As our company grows, the bulk production will lower the cost of our product.

**Milestones**

- **Optimization of Nanocomposite**
  - Sep 1, 2020
- **Structural Characterization**
  - Feb 1, 2021
- **Prototype Full Cell Development**
  - Jun 1, 2021
- **Pilot Testing**
  - Feb 1, 2022

**Team and Key Roles**

- **Cesar Villa**
  - Co-founder, CTO
  - 5th year Doctoral Candidate in Materials Science & Engineering, 6 years hands on lab experience in energy material processing and analysis

- **Dr. Vikas Nandwana**
  - Co-founder, CEO
  - Award winning researcher/inventor in the field of functional nanomaterials. With more than 40 journal articles, book chapters, and 7 patents

- **Linggang Jiang**
  - Business Development
  - The Chinese Institute of Certified Public Accountant; 3 years experience in Deloitte as a senior auditor; 1 year experience in investment banking

- **Gabrielle Stein**
  - Operations
  - Senior Undergraduate in Chemical Engineering; Certificate in Sustainability and Energy; 3 years developing/managing operations for BrewBike

- **Troy Daley**
  - Product Development
  - Senior Undergraduate in Chemical Engineering, Certificate in Sustainability/Energy; 1 year experience commercializing national lab tech

- **Kyle Owen**
  - Product Development
  - Master’s student in Chemical Engineering, 5 years experience in project engineering and validation engineering at large pharmaceutical site

- **Joshua Kim**
  - IP Strategist
  - Master’s student in Chemical Engineering; 2 years computational models to assess energy transfer + battery performance, process engineering

- **Professor Vinayak P. Dravid**
  - Technical Advisory Board
  - Abraham Harris Chaired Professor of Materials Science & Engineering at Northwestern University. Founding director of the NUANCE Center.

**Partners and Resources**

**Argonne National Lab**

- **MERF**
  - Manufacturing engineering research facility to assist with scale up
We want to make the ocean more accessible. OA is addressing the increasing need for remote ocean monitoring across different industries.

**Our Opportunity**

**Problem worth solving**

Today’s remote ocean monitoring buoys have an astronomical cost. The biggest challenge is that the buoys must withstand extreme weather and wear & tear, and the costs associated with design and materials that can withstand this are extremely high.

**Our solution**

Ocean Access is developing an autonomous communication system that only comes up to the sea surface when transmitting data. Our solution will significantly reduce costs and increase reliability for remote ocean access.

**Target market**

1. Temporarily abandoned O&G wells (pilot)
2. Other O&G applications
3. Ocean science & environmental monitoring
4. Aquaculture
5. Naval defense and coastline monitoring

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moored buoys</td>
<td>Reduced cost + storm protection</td>
</tr>
<tr>
<td>ROV inspections</td>
<td>Increased autonomy, continuous monitoring</td>
</tr>
</tbody>
</table>

**Funding needed**

$300K

Salary 3 engineers, digital prototyping/dynamic simulations to optimize design, build/test prototype, IP/legal fees, prod. visualization.

**Sales and Marketing**

**Sales channels**

Direct sales to O&G operators. We are currently working closely with Equinor to refine our solution, and our goal is to secure a pilot project in 2021 for monitoring temporarily abandoned subsea wells on the Norwegian continental shelf.

**Marketing activities**

We are focused on building strong relations with potential customers to receive feedback on our solution and understand their needs. In addition to meetings with potential customers we will attend industry conferences to promote our product.
Forecast

Revenue streams
We expect to commercialize in 2023 with 10 units sold the first year (revenue $1M) and 40 sales in 2024 (revenue of $5M). We are selling directly to the O&G operator, with a product pricing of $100,000 per year per unit.

Major costs
We expect that our R&D expenses and the cost to develop our solution will be around $1.2M. After commercialization, total incurred cost to deploy and maintain the product over 5 years is expected to be around $200k/unit.

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build/test 1st prototype</td>
<td>Sep 1, 2020</td>
</tr>
<tr>
<td>Recruit three engineers</td>
<td>Oct 1, 2020</td>
</tr>
<tr>
<td>Finish digital prototyping</td>
<td>Feb 1, 2021</td>
</tr>
<tr>
<td>Complete 2nd prototype</td>
<td>Aug 1, 2021</td>
</tr>
<tr>
<td>Pilot project</td>
<td>Oct 1, 2021</td>
</tr>
</tbody>
</table>

Team and Key Roles

Andreas Mauritzen  
CEO & Co-founder

Fredrik Lilleøkdal  
CTO & Co-founder

Simen Helgeland  
Marine Cybernetic Engr.

Shirin Safarzadeh  
Business Developer

Partners and Resources

Equinor  
Kongsberg Innovasjon  
NTNU  
Ocean Autonomy Cluster
Equinor is supporting us in the development of our product. Joint industry incubator by Kongsherg, Equinor, TechnipFMC and Dresser-Rand. Strong support through our professors and advisors at the Department of Marine Technology at NTNU. Norway’s leading hub for expertise on ocean autonomy.
Phylomics Diagnostics

Developing a simple, easy to use, cost-effective blood testing platform to help diagnose a range of cancers early.

Our Opportunity

Problem worth solving

In 2018 there were 18 M new cases of cancer and more than 10 M deaths. Cancer’s high cost of care and low survival rate stems from the lack of an affordable, non-invasive clinical test with the required accuracy to enable early detection.

Our solution

Phylomics provides a non-invasive blood test with 30% greater accuracy than the leading market alternatives to detect the 6 most common types of cancer early when treatment is most effective and treatment cost the lowest.

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next-Gen Sequencing</td>
<td>Higher specificity and sensitivity</td>
</tr>
<tr>
<td>PSA Blood Test</td>
<td>40% more accurate</td>
</tr>
<tr>
<td>Mammography</td>
<td>Less-invasive/ painful</td>
</tr>
<tr>
<td>Prostate Exam (DRE)</td>
<td>No lubricant required</td>
</tr>
<tr>
<td>Grail</td>
<td>Uses existing hardware</td>
</tr>
</tbody>
</table>

Funding needed

$1M

Funds will be used for a retrospective third party validation study ($270k), accompanying IP, product development, and clinical trials.

Sales and Marketing

Sales channels

Marketing activities
Initially a research use only platform used for blood sample analysis, biomarker discovery and tool for real-time treatment efficacy for pharma. Our ultimate goal is to be used in a clinical setting as an in vitro diagnostic reimbursed by insurers.

Our current marketing activities include a social media presence (Twitter, Instagram, LinkedIn), a website, and maintenance of key partnerships.

Forecast

Revenue streams

Initially we will sell and/or license the use of our platform for biomarker discovery, blood sample analysis, and testing the efficacy of therapeutics. Ultimately we will be used in hospitals and reimbursed by insurers as a clinical diagnostic.

Major costs

The majority of costs are associated with conducting clinical trials, which includes regulatory fees, sample acquisition, and payments to a clinical research organization who will conduct and oversee the studies.

Milestones

- CLIA Lab Integration
  - May 1, 2020
- Retrospective Study (Trial 1)
  - Jul 1, 2020
- Prospective Clinical Trial
  - Feb 1, 2022
- Clinical Utility Trial
  - Jan 31, 2024
- FDA Approval
  - Jan 31, 2026

Team and Key Roles

Charles Sturgeon
VP of Operations
3rd year student at George Washington University; Majoring in Cellular and Molecular Biology with graduate coursework in phylogenetics.

David Posawatz
VP - Business Development
MS in Biotechnology student at Georgetown University (Entrepreneurship track); BS in Physiology from Michigan State University

Bhavesh Pranav
VP Strategy
MBA graduate from Southern Methodist University. He earned a MS in Biophysics/Physiology from Georgetown and completed a practicum at Yale.

Hakima Amri
VP of R&D
Dr. Amri received her MS in Reproductive Physiology, and Ph.D. in Biochemistry; Postdoc and teaching faculty at Georgetown University.

Partners and Resources
Patented Bioinformatics Algorithm
We have one issued patent for our proprietary bioinformatics algorithm and two pending patents.

Georgetown University
We currently utilize Georgetown University’s core metabolomics facility to process blood samples and conduct mass spectrometry.

National Institutes of Health
Partnership with NIH to receive blood and tissue samples from healthy and histologically-confirmed positive cancer specimens.

Halcyon Incubator
Selected for a 6 month residential incubator for social impact companies in Washington DC (1.8% acceptance rate; 432 applicants)

Capital Factory Austin
Joined the Capital Factory Accelerator in Austin, TX; Receive mentorship, investor relations, and access to human capital.

Mass Challenge
Selected as a top 14 company from a pool of 600+ applicants (~2% acceptance). Developed relationship with biotech mentors.

Deloitte
Selected to receive pro-bono engagement with healthcare strategy team. Deliverable: regulatory pathway validation and report.

National Science Foundation
Participated in extensive customer discovery interview program to establish product market fit.
Quantum Lock Technologies

At Quantum Lock Technologies (QLT), we are building the best security for connected facilities and equipment.

Our Opportunity

Problem worth solving

The locks on hotel rooms and the keycards used to access them are easily exploited to gain unauthorized access without real time detection. This weakness leaves millions of hotel guests and their valuables vulnerable everyday.

Our solution

Our patent pending technology creates completely random and untraceable digital keys for keycards and smartphones to secure and facilitate every point in communication between the room locks, guests, and staff.

Target market

- Mid-Sized Hotels 55% ($610.5M)
- Small Hotels 25% ($120M)
- Large Hotels 20% ($270M)

100K Prospects
Market size: $1B

Competitors

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenKey</td>
<td>Security, Monitoring, and Detection</td>
</tr>
<tr>
<td>Lock Manufacturers</td>
<td>Patented security technology</td>
</tr>
</tbody>
</table>

Funding needed

$500K
Software development, hardware design, early-stage operations

Sales and Marketing

Sales channels

Initially we will sell our hardware and software directly to large hotel groups with 50+ hotels, working with distributors, then developing strategic partnerships with one or more of the lock manufacturers with an existing hotel customer base.

Marketing activities

We will attend targeted hotel conferences, supplier expos, and trade shows to create broader awareness of security risks and our unique solution. Strategic relationships with key lock manufacturer(s) will put us in front of decision makers.
Forecast

Revenue streams
1. One-time hardware fee
2. Recurring software as a service fee

Major costs
1. Hardware (chip) design
2. Software development
3. Patent prosecution

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demo QLT to Potential Partner</td>
<td>Apr 21, 2020</td>
</tr>
<tr>
<td>Hardware Design Development</td>
<td>May 2, 2020</td>
</tr>
<tr>
<td>Begin Alpha Testing</td>
<td>Aug 2, 2020</td>
</tr>
<tr>
<td>Partner with Manufacturer</td>
<td>Oct 2, 2020</td>
</tr>
<tr>
<td>Acquire First Hotel Customers</td>
<td>Jan 2, 2021</td>
</tr>
</tbody>
</table>

Team and Key Roles

Erica Grant  
Founder and CEO  
Erica is a PhD student at Oak Ridge National Laboratory and the University of Tennessee studying quantum computing and entrepreneurship.

Phoenix Van Zutphen  
CFO  
Phoenix is a distinguished finance major with real world experience running his own successful startup.

Kurt Bruck  
Software Developer  
Kurt previously worked as IoT software engineer for Radio Systems Corporation where he built secure Bluetooth communication for pet devices.

John Bruck  
Business Adviser  
John is an entrepreneur in residence at the University of Tennessee and an investor with Queen City Angels.

Lynn Youngs  
Financial Adviser  
Lynn is the director of the Anderson Center for entrepreneurship at the University of Tennessee. He is
Partners and Resources

Anderson Center for Entrepreneurship
The Anderson Center is an accelerator program and business incubator at the University of Tennessee.

Innovative Design Inc
Innovative Design aids in prototyping with 3D modeling and design services.

Glacier Software
Glacier is a software development firm specializing in IOT.
QV Bioelectronics

Doubling the life expectancy of patients with terminal brain tumours using an implanted electrotherapy device.

Our Opportunity

Problem worth solving

Glioblastoma is an incurable cancer with life expectancy of just 14 months, despite intensive treatment. Newer therapies require patients to wear a conspicuous, $21,000/month, 3kg backpack for 18 hours/day, impacting patient quality of life.

Our solution

An electrotherapy device implanted into the cavity left during the existing tumour resection surgery. The device will deliver continuous and focal treatment, doubling patient life expectancy vs current standard treatment.

Target market

1. USA / $558M / 6,098
2. UK / $80M / 1,960
3. GER / $81M / 2,151
4. FRA / $65M / 1,440
5. FRA / $59M / 1,592

Competitors | How our solution is better
--- | ---
Novocure | Improved Quality of Life
DCVax-L | Cost-effective
Gliadel Wafers | Better Efficacy

Funding needed

$3.3M Complete all development up to 1st in man clinical trials. Includes full prototyping, PCT patent filing and pre-clinical testing.

Sales and Marketing

Sales channels

1. Use of KOL's to promote product
2. Medical Representatives and Sales Team
3. Medical Publications/Conferences
4. Dissemination events

Marketing activities

1. Dissemination Events
2. Publications in High-impact Journals
3. Conferences and Trade Shows
4. Presentations at society meetings
5. Corporate Branding
Revenue streams

Selling products directly as a first-line treatment, of primary focus this would be the NHS, covering all UK patients, and CMS in the USA, alongside the largest US insurers (by members) i.e. United Healthcare Group, Anthem, Aetna & Cigna etc

Major costs

Major costs will be in salary and for R&D. The R&D costs will significantly increase as we progress along the regulatory pathways. Intellectual property protection will also become increasingly expensive as we move into the national phase.

Milestones

Prototype Completion
Mar 1, 2021

PCT patent filing
Mar 1, 2021

Pre-clinical Data collection completion
Jun 1, 2022

Permission granted for Feasibility Study Initiation (UK)
Nov 1, 2024

Pivotal-PCT Trial Initiation (UK, USA & International)
Jan 1, 2026

Team and Key Roles

Dr Chris Bullock
CEO
A biomedical engineer and entrepreneur. He holds a PhD focused on bioelectronics and has publications and patents in the field.

Dr Richard Fu
Clinical Director
A neurosurgery resident who is directly involved in the treatment of GBM patients. Leads the clinical aspects of the device development.

Dr Nimrah Munir
Principal Scientist
Nimrah brings her PhD experience in cartilage tissue engineering, in which she was pioneering bioactive scaffolds

Qasim Akhtar
Business Dev. Officer
A biotechnologist by background with an entrepreneurial background, with experience in marketing, sales and financial account management.

Partners and Resources

[NIHR National Institute logo]
[Henry Royce Institute logo]
[CellSine logo]
[The University of Manchester logo]
National Institute for Health Research
UK government agency funding our major ongoing technical project on engineering design and prototype development.

Henry Royce Institute
UK’s National Institute for Materials Science, providing us with access to facilities and equipment for materials related research.

CellSine
Partner on an EU collaboration pilot program, Helping us to develop electrochemical impedance for use in our device.

Graphene Engineering Innovation Centre
World-class specialist facility for the development of graphene technology for industry.

Lucid Innovation
Medical device engineering & design consultancy. Consulting on further prototype development as part of the grant funded NIHR Project.

The Brain Tumour Charity
The world's leading brain tumour charity, assisting us in carrying out patient and public involvement studies and surveys.
The RefresherBoxx disinfects, dries and refreshes textiles of any kind, without water and without chemicals.

Problems worth solving
1. Removing odour from ANY textiles
2. Desinfection
3. Suitable for Sportsequiments
4. Washing without water or chemicals
5. enviromental and material friendly

Our solution
Using combination of physical methods: Killing microorganisms (responsible for odour), remove sweat and odour - for any textile, especially the ones you can’t put in the washing machines: within 30 minutes: disinfect, dry, refreshed, good new odour

Target market
1. Hotel
2. Sport (university, club, gym freetime)
3. Leisure centers
4. Offices (professional, bank, co working)
5. Dry Cleaning

Competitors How our solution is better
- Sagrotan suitable for any and gentle materials
- StinkBoss suitable for any textiles
- SteriShoes safe to use, not harmful
- LG Styler no water, desinfection

Funding needed $1.5M
Market entry; Production cost; Sales employees; Marketing

Sales and Marketing

Sales channels
1. own sales team
2. successful participation competition
3. cold aquise
4. Network
5. distributors

Marketing activities
1. successful participation competition
2. Television appearances
3. website
4. Interviews (newspaper, motivation talks)
5. fair trades, exhibitions
Financial Projections

Revenue

Expenses & Costs

Profit

Milestones

- POC with Henkel
  Apr 1, 2020

- 2nd POC with Miele
  Jun 1, 2020

- Application for CE and TUEV certification
  Sep 1, 2020

- Market Entry
  Nov 1, 2020

Team and Key Roles

Sing-Hong Stefan Chang
CEO
CEO & Co-Founder; PhD Student in Chemistry

Gernot Jonathan Suemmerman
CTO
CTO & Co-Founder; Bachelor Student in mechanical engineering

Marko Kloiber
Sales and Lawyer
Co-Founder & Sales; Lawyer

Dr. Martina Maywald
Scientist
Scientist; Ph.D. in Biotechnology
Partners and Resources

RWTH Aachen University
RWTH Aachen Innovation
Research Center Juelich
European Union
Transfer Gründer Zentrum
Ministry of Economic Affairs, Innovation
Enpact
German Cooperation

Created by Sing-Hong Stefan Chang (stefan.chang@refresherboxx.com) using LivePlan. All rights reserved.
Relavo is a medical device company aiming to prevent infections in home-based treatment systems such as peritoneal dialysis.

Our Opportunity

Problem worth solving

The risk of infection in home-based therapies is a major barrier to peritoneal dialysis (PD) use. These infections, known as peritonitis, affect over 30% of PD patients each year and are a primary factor in 1 in 6 deaths.

Our solution

The PeritoneX is a novel connection device that reduces the risk of peritonitis by internally disinfecting PD connection points. This device flushes an antimicrobial solution into the connection space to prevent microbes from entering the body.

Target market

1. Current PD Patients (US: 52,000)
2. Other dialysis patients (US: 450,000)
3. Central Venous Catheters (US: 250,000)

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puracath Medical</td>
<td>Fully compatible with existing supplies</td>
</tr>
<tr>
<td>Sterile Procedure</td>
<td>Does not rely on patient compliance</td>
</tr>
</tbody>
</table>

Funding needed

$1.6M

These funds will be used for R&D (prototyping, testing), compliance (regulatory consulting and submission, quality systems), and legal fees.

Sales and Marketing

Sales channels

Following the current dialysis supply chain, we will sell to dialysis clinics and ship devices directly to patient homes in one-month supplies by partnering with a distribution company.

Marketing activities

We will conduct a post-market study at DaVita dialysis clinics to demonstrate clear reductions in peritonitis rates and spending. Prior to and during this study, we will attend kidney health conferences to expand our network.
Financial Projections

Milestones

- FDA Pre-Submission Meeting: Apr 16, 2020
- Ergonomic Usability Study: May 2, 2020
- Low-Batch Manufacturing: Jul 1, 2020
- Bench-Top Verification Studies: Aug 1, 2020
- Animal Study: Dec 2, 2020

Team and Key Roles

- Sarah Lee
  Chief Executive Officer
  Sarah is a mechanical engineering graduate student at JHU. She is experienced in project management, business development, and budgeting.

- Tejasvi Desai
  Chief Operating Officer
  Tejasvi is a biomedical engineering student at JHU with extensive experience in medical device product development and team management.

- Anna Bailey
  Chief Innovation Officer
  Anna is a recent JHU BME graduate with technical writing and wet lab research experience. She leads product design and regulatory efforts.

- Eugene Oh
  Clinical Dev. Engineer
  Eugene is a BME student at JHU who serves as the primary liaison between engineers and clinical staff by coordinating IRB-approved studies.
Alicia Neu, MD  
Clinical Advisor  
Chief of Pediatric Nephrology at Johns Hopkins Hospital with over 20 years of experience with kidney failure treatment.

Future Hire  
Chief Technology Officer  
Someone with expertise in medical device development who has brought a new product to market.

James Hong  
Business Advisor  
CEO and Founder of Solinas Medical. Recently sold his medical device company which operated in the dialysis market.

Partners and Resources

Patent for mechanical injector system  
We have filed a provisional and PCT patent, and will file a non-provisional patent in the next year.

Johns Hopkins Technology Ventures  
Technology transfer office at JHU that offers lab and office space, mentorship, and legal advice.

DaVita  
Partnership for potential post-market clinical study. Advisory relationship through product development.
ReMatter Inc.

ReMatter is the operating system of the $110B+ industrial recycling industry. Our digital tools will bring efficiency to an analog industry.

Our Opportunity

Problem worth solving

*Despite being one of the largest export industries in the US and being incredibly dollar-rich, the industrial recycling industry is a highly-fragmented legacy industry that is technology-poor. This results in poor economic and environmental outcomes.*

Our solution

*We are creating the first end-to-end ERP for industrial recycling facilities that eliminates a variety of serious pains in the industry. This "single player mode" for recyclers will then be leveraged into a two-sided industrial materials marketplace.*

<table>
<thead>
<tr>
<th>Target market</th>
<th>Prospects</th>
<th>Market size: $3.5B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market place</td>
<td>50%</td>
<td>($3.4B)</td>
</tr>
<tr>
<td>Medium Recyclers</td>
<td>37%</td>
<td>($153.4M)</td>
</tr>
<tr>
<td>Small Recyclers</td>
<td>13%</td>
<td>($30M)</td>
</tr>
<tr>
<td>Large Recyclers</td>
<td>1%</td>
<td>($6.8M)</td>
</tr>
<tr>
<td>Massive Recyclers</td>
<td>&lt;1%</td>
<td>($2.5M)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAI</td>
<td>Significantly lower price, modern tech</td>
</tr>
<tr>
<td>Scrap Dragon</td>
<td>Significantly lower price, more features</td>
</tr>
<tr>
<td>ROM</td>
<td>More fully-featured, modern tech</td>
</tr>
<tr>
<td>Pop Scrap</td>
<td>More fully-featured, modern tech</td>
</tr>
<tr>
<td>CRO</td>
<td>Features actually work, more features</td>
</tr>
</tbody>
</table>

Funding needed

$1M

We plan on expanding our dev and sales teams so we can continuously improve our platform, launch new products, and reach new customers.
Sales and Marketing

Sales channels
We are currently utilizing direct sales to customers with our early customers. There is very strong word of mouth in this industry, so we will accomplish most later sales through referrals, industry conferences, and through industry group webinars.

Marketing activities
This industry is very relationship-based, so our best marketing is selling to initial customers then doing an excellent job with them so that they refer their network to our product. It has been working very well for us to this point in time.

Financial Projections

Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$770K</td>
<td>$7.4M</td>
<td>$15M</td>
</tr>
</tbody>
</table>

Expenses & Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$209K</td>
<td>$2M</td>
<td>$3.6M</td>
</tr>
</tbody>
</table>

Profit

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$561K</td>
<td>$5.3M</td>
<td>$11.4M</td>
</tr>
</tbody>
</table>

Milestones

- **Asset Tracking & Dispatching Production Launch**
  - Jun 23, 2020
- **Full ERP Beta Launch**
  - Jul 1, 2020
- **Full ERP Production Launch**
  - Sep 1, 2020
- **Industrial Materials Marketplace Beta Launch**
  - Sep 16, 2020

Team and Key Roles

- Wyatt
- Sean
- Drake
- Future Industry Advisor
CEO
BS & MS in Management Science and Engineering.
Significant financial experience in hedge funds. Data science, optimization, and modeling.

CTO
BS in Computer Science.
Previously founded several small technology companies. Full-stack development and software architecture.

COO
BAH in Political Science.
Previously founded civic-engagement platform startup. Extensive UI/UX, design, and customer relations experience.

Industry Advisor

Future Hire
Head of Sales

Partners and Resources

TomKat Center for Sustainable Energy
Grant funding

Stanford GSB
Business support

Created by Wyatt Pontius (wyatt@rematter.io) using LivePlan. All rights reserved.
RIZIN Technologies

RIZIN Technologies, a breath technology company, promotes the wellness and safety of our communities, roadways, and public safety personnel.

Our Opportunity

Problem worth solving

*Marijuana impairs critical functions necessary for performing tasks such as driving and operating heavy machinery. Existing testing methods are ineffective at detecting recent use and are invasive, inaccurate, or expensive.*

Our solution

*RIZIN Technologies has developed the HiTRACE, which utilizes a patent pending process to analyze a breath sample and detect marijuana use that has occurred in the last three hours.*

Target market

1. Law Enforcement
2. Human Resources
3. Hemp Regulation

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbott</td>
<td>More reliable method of sampling</td>
</tr>
<tr>
<td>CannabixTechnologies</td>
<td>More testing applications</td>
</tr>
<tr>
<td>Draeger</td>
<td>More reliable method of sampling</td>
</tr>
<tr>
<td>Hound Labs</td>
<td>Lower price and more testing application</td>
</tr>
<tr>
<td>SannTek</td>
<td>More testing applications</td>
</tr>
</tbody>
</table>

Funding needed

$1.1M

Research & Development; Clinical Testing; Manufacturing
Sales and Marketing

Sales channels
1. Distributors
2. Website
3. Direct Sales

Marketing activities
1. Conferences and Trade Shows
2. Public Relations
3. Online Advertisements

Forecast

Revenue streams
1. Sample Collection Device
2. Silicon Chip
3. Mouthpiece

Major costs
1. Research & Development
2. Clinical Testing
3. Manufacturing
4. Regulatory Pathway

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patent Conversion</td>
<td>Mar 28, 2020</td>
</tr>
<tr>
<td>Clinical Testing</td>
<td>Feb 3, 2021</td>
</tr>
<tr>
<td>Pilot Testing</td>
<td>May 4, 2021</td>
</tr>
<tr>
<td>Launch HiTRACE</td>
<td>Jan 3, 2022</td>
</tr>
</tbody>
</table>

Team and Key Roles

Phillip Cupp
Chief Executive Officer

Ashley Krems
Chief Operating Officer

Chiraag Bhimani
Chief Financial Officer

Partners and Resources
University of Louisville
Conn Center for Renewable Energy Research

Kentucky Office of Highway Safety
The Kentucky Office of Highway Safety works specifically to save lives by reducing Kentucky’s highway crashes, injuries, and fatalities.

Galls
National Distributor and Retailer of Public Safety Equipment
SeebeckCell Technologies

SCT develops & manufactures liquid-based thermoelectric modules & power generators for the space, automotive & wearable tech applications.

Our Opportunity

Problem worth solving
Out of all generated energy, 60% is wasted as unused heat. Current, solid-state thermoelectric technology uses expensive precious metals, is inefficient (5 - 8% average thermal efficiency), and heavy, using various metallic elements.

Our solution
SeebeckCell offers an ionic liquid-based thermoelectric cell that is tailored to meet customer requirements. We produce thermoelectric modules for various applications ranging from wireless sensors to radioisotope thermoelectric generators.

Target market
1. Electric Vehicle Thermoelectrics
2. Radioisotope Thermoelectric Generators
3. Wearable Thermoelectric Generators
4. Aerospace & Defense Thermoelectrics

Our solution table:

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teledyne Energy</td>
<td>Lighter, Cost Effective, Scalable</td>
</tr>
<tr>
<td>II-VI Marlow</td>
<td>Lighter, Cost Effective, Scalable</td>
</tr>
<tr>
<td>Perpetua</td>
<td>Lighter, Cost Effective, More Efficient</td>
</tr>
<tr>
<td>Ferrotec</td>
<td>Lighter, Cost Effective, More Efficient</td>
</tr>
<tr>
<td>TE Technology</td>
<td>Lighter, Cost Effective, More Efficient</td>
</tr>
</tbody>
</table>

Funding needed

We are currently in the development phase and our focus is to build our first minimum viable product (MVP). $600K
Sales and Marketing

Sales channels
Sales channel will be direct sale to automotive, aerospace, and defense industries. Online sale platform will be set up for the sales of bench-marked power generators.

Marketing activities
Primarily direct marketing, Tesla and electric vehicle manufacturers are our primary focus, with interest indicated by Rolls-Royce. Our high-temp module MVP development will be focused on space-based industries and department of defense contracts.

Financial Projections

Revenue

<table>
<thead>
<tr>
<th></th>
<th>FY’21</th>
<th>FY’22</th>
<th>FY’23</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$75K</td>
<td>$427K</td>
<td></td>
</tr>
</tbody>
</table>

Expenses & Costs

<table>
<thead>
<tr>
<th></th>
<th>FY’21</th>
<th>FY’22</th>
<th>FY’23</th>
</tr>
</thead>
<tbody>
<tr>
<td>$581K</td>
<td>$1.7M</td>
<td>$2.9M</td>
<td></td>
</tr>
</tbody>
</table>

Profit

<table>
<thead>
<tr>
<th></th>
<th>FY’21</th>
<th>FY’22</th>
<th>FY’23</th>
</tr>
</thead>
<tbody>
<tr>
<td>($581K)</td>
<td>($1.6M)</td>
<td>($2.5M)</td>
<td></td>
</tr>
</tbody>
</table>

Milestones

- Contract with UTARI
  - Jun 1, 2020
- MVP for Mid-Temp Applications
  - Dec 31, 2020
- SBIR Phase I
  - Jan 31, 2021
- MVP for Low-Temp Applications
  - May 1, 2021
- SBIR Phase II
  - Oct 31, 2021

Team and Key Roles

- Taylor Shead
- Ali Farzbod
- Julian Crawford
- Amin Haghmoradi
Partners and Resources

Technology Advisor
Dr. Hyejin Moon is Associate Professor and director of Integrated Micro and Nanofluidics laboratory at the University of Texas at Arlington.

UTARI Laboratories
UTARI is focused on applied research for the development of novel, affordable solutions to complex technical problems.

Nano Technology Research Center
The Nanotechnology Research Center is an interdisciplinary resource open to scientists within and outside of the University.

Startup Lounge
Startup Lounge is a collision space for entrepreneurs which provides entrepreneurial resources including seminar series and working spaces.

Created by Taylor Shead (shead@seebeckcell.com) using LivePlan. All rights reserved.
SlumberFlow

SlumberFlow is a comfortable, quiet, and easy to use device to treat obstructive sleep apnea and get you the night’s sleep you deserve.

Our Opportunity

Problem worth solving
Our target customer has a diagnosis of obstructive sleep apnea. They may find themselves excessively tired throughout the day and snore quite loudly. Over time, this disease can lead to higher blood pressure, heart failure, stroke.

Our solution
The SlumberFlow offers patients with obstructive sleep apnea a way to sleep comfortably with an affordable, quiet, and effective device when compared to other treatments that are intolerable.

Target market
- Undiagnosed 80% ($0)
- CPAP Nonadherent 8% ($750M)
- CPAP Adherent 8% ($2.5B)
- Oral Appliances 2% ($300M)
- Surgery 1% ($1.5B)

30.1M Prospects
Market size: $5.1B

Competitors
<table>
<thead>
<tr>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nastent</td>
</tr>
<tr>
<td>Patented design that does not collapse</td>
</tr>
<tr>
<td>Inspire Medical</td>
</tr>
<tr>
<td>No implant or patient exclusion criteria</td>
</tr>
<tr>
<td>CPAP</td>
</tr>
<tr>
<td>No bulky equipment, nonelectric</td>
</tr>
<tr>
<td>Surgery</td>
</tr>
<tr>
<td>No risk of complications</td>
</tr>
<tr>
<td>Oral Appliances</td>
</tr>
<tr>
<td>No jaw pain or soreness</td>
</tr>
</tbody>
</table>

Funding needed
$300K
Patent submission, clinical trial, submission to FDA for clearance, capital equipment for commercial launch, and legal fees for FDA/patent

Sales and Marketing

Sales channels
1. Physician’s offices and clinics
2. Website
3. Catalog

Marketing activities
1. Physician research meetings
2. Directly to sleep medicine clinics
3. Targeted online ads
Forecast

Revenue streams
1. Direct from products
2. Subscription sleep monitoring

Major costs
1. Patent submission costs
2. Clinical trials
3. FDA clearance submission
4. Capital equipment for production
5. Licensing royalties to University for IP

Milestones

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Review Board Submission</td>
<td>Jun 2, 2020</td>
</tr>
<tr>
<td>Pilot Study</td>
<td>Sep 2, 2020</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td>Feb 2, 2021</td>
</tr>
<tr>
<td>FDA Submission</td>
<td>May 4, 2021</td>
</tr>
</tbody>
</table>

Team and Key Roles

Juan Noda
Founder
US Army veteran and MD/MBA Candidate, Class of 2020. Brings his medical and device startup experience to the team.

Allison Powell
Inventor, Founder
Masters of Biomechanical Engineering and MD candidate, class of 2021. Saw a need for SlumberFlow in a patient and made the device.

Lindsey Furness
Founder
Bachelor of biomechanical engineering class of 2021 and enthusiastic entrepreneur.

Partners and Resources
University of Michigan

Provided laboratory space and resources for development of IP and future clinical trial.

Created by Juan Noda (juannoda@umich.edu) using LivePlan. All rights reserved.
Interventional surgery involves using catheters to accessing injury sites and deploy implantable devices for treatment. A key short coming of existing devices is the absence of controlled actuation at the catheter tip; the leading cause of procedural failures. Our technology translates hand commands of surgeons into bending motion of the catheter tip deep inside the patients’ artery. This enables surgeons to navigate arteries faster, access vascular injuries more precisely, and deploy sophisticated implants more effectively. As result our breakthrough technology will result in better patient outcomes and lower healthcare costs for all.
TeguTech

We seize the body's ability to heal to set a new standard in wound treatment. Our first focus is the treatment of pressure wounds.

Problem worth solving

1 in 5 patients staying in a hospital suffer a pressure wound. The longer these are open, the higher the risk of infection. This leads to greater costs and patient suffering. However, wound closure remains slow given the limited treatment options.

Our solution

We have created Axolis: A cream applied on the wound that accelerates skin closure. It contains a lab-made human protein that stimulates skin cells to close the wound. By using Axolis, we reduce closure time and therefore lower the risk of infection.

Competitors | How our solution is better
---|---
Standard of Care | More effective, saves treatment costs
Advanced dressings | Will have more pressure wound evidence
Woulgan & similar | Will have more pressure wound evidence
Skin grafts | Avoids new wound and scar
ReCell | Much more cost-effective

Funding needed

$470K

This will bring us all the way to completing preclinical development & production of Axolis, and finalizing prehuman trials.
Sales and Marketing

Sales channels

Axolis will be sold to hospitals, with variations according to the regulations of each nation. We plan to create partnerships with internationally acclaimed wound care companies to access their distribution channels, allowing a large product launch.

Marketing activities

Axolis's core proposal is cost-effectiveness. Other high-efficacy products are focussed on other conditions, and are both too expensive and have limited evidence for the pressure wound market. Axolis aims to address this underserved market.

Revenue streams

Axolis will launch in 2029, selling to hospitals in the four largest EU countries (Germany, France, Italy and Spain). We will expand from there. We estimate annual revenue of $32.5 Million in 2029, and of $112 Million in 2031, after US & UK launch.

Major costs

Costs prior to EU market approval are mostly from human clinical trials, estimated to be $21.45 Million. Additional costs sum up to $24 Million. Upon product launch, costs will be proportional to sales. US & UK launches will imply further R&D costs.

Milestones

Obtaining an IP Licensing deal from Imperial College London
Jun 25, 2020

Funding round for preclinical development - Seeking $315K
Oct 31, 2020

Completion of the final preclinical trial
Oct 31, 2021

Funding round for the first human trial - Seeking $1.2M
May 31, 2022

Completion of the first human trial
Sep 30, 2023

Team and Key Roles

Sergi Fayos Villalta
CEO & Co-founder
Specialised in MedTech entrepreneurship. Responsible for the TeguTech business strategy.

Ignacio Albert Smet
Business developer
Also specialised in MedTech entrepreneurship. Has been key to designing the venture’s business plan.

Dr Helena Topouzi
CSO & Co-founder
Patent co-inventor and Axolis research expert. Obtaining business training tailored to TeguTech from Imperial College.

Dr Claire Higgins
Lead advisor & co-founder
Research expert on human skin and wound healing, and leader of the original work leading to Axolis.
Prof James Moore Jr  
**Business advisor**  
Chair in Medical Device Design for the Royal Academy of Engineering. Head of the MedTech Entrepreneurship programme at Imperial College.

Daniel Green  
**Business advisor**  
Has 14 years of experience as a Life Sciences CEO. Strong exit track record, including the sale of Phagenesis to Nestlé Health Sciences.

Talal Khayata  
**Business advisor**  
Has extensive biotech management experience. Founder and former Director at Excel Pharma Lebanon, former Managing Director at Instachem Ltd.
Upright

Delicious, earth-friendly oatmilk as nutritious as dairy

Our Opportunity

Problem worth solving
Consumers want healthy and sustainable products, but current milks force trade-offs as nothing both highly nutritious and eco-friendly exists.

Our solution
Upright offers oatmilk as nutritious as dairy. Each cup provides 8g of oat protein, 15% vitamins A&D and 25% of calcium daily needs, and 0.75g of heart-healthy fiber while avoiding allergens like lactose, nuts, and soy, and harming the environment.

Target market
- Generation X (33%) ($3.4B)
- Millennial parents (18%) ($7.6B)
- Other Millennials (18%) ($3.8B)
- Baby Boomers (18%) ($1.9B)
- Generation Z (18+) (12%) ($2.5B)

Market size: $19.1B

198.8M Prospects

Competitors

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Oatmilk Brands</td>
<td>Higher protein, vitamins and minerals</td>
</tr>
<tr>
<td>Dairy</td>
<td>As nutritious, lactose-free, plant-based</td>
</tr>
<tr>
<td>Almond Milk</td>
<td>Tastes better, nut-free, 7x less water</td>
</tr>
<tr>
<td>Soy Milk</td>
<td>Soy &amp; phytoestrogen-free, eco-friendly</td>
</tr>
</tbody>
</table>

Funding needed

$500K
Market Activation and Brand Acceleration - $100,000; Local Retail Pilot - $100,000; Final Formulation & Northeast Launch - $300,000

Sales and Marketing

Sales channels
1. Major Food Distributors such as KeHE
2. National Retailers such as Costco
3. Ecommerce Channels such as Amazon
4. Our website
5. Regional Coffee Chains such as Barismo

Marketing activities
We’re investing in a robust brand strategy to ensure our product, positioning, packaging, price, placement, and promotion resonate with our target consumers across digital and physical channels including sampling, sponsorship, and online influencers.
Financial Projections

Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$17K</td>
<td>$137K</td>
<td>$1.3M</td>
</tr>
</tbody>
</table>

Expenses & Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenses &amp; Costs</td>
<td>$81K</td>
<td>$135K</td>
<td>$1M</td>
</tr>
</tbody>
</table>

Profit

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit</td>
<td>($64K)</td>
<td>$2K</td>
<td>$316K</td>
</tr>
</tbody>
</table>

Milestones

- **Product Packaging Design Finalization**: Jun 1, 2020
- **New Haven Test Launch**: Sep 2, 2020
- **Completion of formulation revision based on NH feedback**: Nov 1, 2020
- **North East Launch**: Mar 1, 2021

Team and Key Roles

- **Betty Tang**: CEO

- **Thu Ra**: President
  - Worked extensively in supply chain, logistics and operations. Former Pubco Director of Supply Chain and Logistics, Quaker Oats intern

Partners and Resources
<table>
<thead>
<tr>
<th>Ohio State University</th>
<th>Four Local Businesses in New Haven, CT</th>
<th>Yale University</th>
<th>Ingredient Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Food Science and Technology</td>
<td>They are happy and excited to help us test launch.</td>
<td>All the well-rounded resources that Yale has provided</td>
<td></td>
</tr>
</tbody>
</table>

Created by Betty Tang (betty.tang@yale.edu) using LivePlan. All rights reserved.
Vigti

Vigti is a multi-sensor anomaly monitoring analytics platform intended to make gas distribution pipelines smarter and safer.

Our Opportunity

Problems worth solving
1. Fires due to gas pipeline leakages
2. Fatalities due to gas pipeline explosion
3. Unwanted methane leaks into environment
4. Fines of millions to gas utility company
5. Inefficiency of gas pipeline due to leak

Our solution
Vigti is a multi-sensor anomaly monitoring analytics platform that will allow businesses to early identify and locate anomalies in gas distribution pipelines as well as perform predictive maintenance for the possible future failure-prone zones.

Target market
1. Gas Utility Companies

<table>
<thead>
<tr>
<th>Competitors</th>
<th>How our solution is better</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takadu</td>
<td>Only we offer water ingress detection</td>
</tr>
<tr>
<td>Omnisens</td>
<td>Can work with existing pipelines</td>
</tr>
<tr>
<td>COWITHONE</td>
<td>Works in low pressure pipelines (~&lt;1kPa)</td>
</tr>
</tbody>
</table>

Funding needed
$750K
To be used for hiring sales representatives, expanding R&D by hiring more machine learning experts and by marketing our product

Sales and Marketing

Sales channels
1. Direct sales to gas utility companies
2. Licensing tech to system integrators

Marketing activities
1. Participate in trade shows
2. Publish product in publications
### Financial Projections

#### Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>$60K</td>
<td>$570K</td>
<td>$2.5M</td>
<td>$7.4M</td>
<td>$21M</td>
</tr>
</tbody>
</table>

#### Expenses & Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>$499K</td>
<td>$961K</td>
<td>$2M</td>
<td>$3.8M</td>
<td>$6.5M</td>
</tr>
</tbody>
</table>

#### Profit

<table>
<thead>
<tr>
<th>Year</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>($439K)</td>
<td>($391K)</td>
<td>$488K</td>
<td>$3.6M</td>
<td>$14.5M</td>
</tr>
</tbody>
</table>

### Milestones

1. **GUI development, Pre-seed close**
   - Apr 1, 2020
2. **1st client acquisition, Seed Round Close**
   - Jul 1, 2020
3. **Handheld Auxiliary Device**
   - Feb 1, 2021
4. **Optimal Sensor Placement, Series A**
   - Feb 1, 2022
5. **Scale to Gas Transmission and Water Transmission Pipeline**
   - Feb 1, 2023

### Team and Key Roles

- **Mr. Ishaan Gupta**
  - CEO
  - An engineer & data analytics expert. Ishaan is an expert in IOT Applications while also being an experienced entrepreneur.

- **Dr. Sugunakar Reddy**
  - CTO
  - He is an author of 9 Papers and 1 patent with 9+ years experience in FEM, Signal Processing and Machine Learning.

- **Professor Abhishek Ukil**
  - CIO
  - He is the inventor of 9 patents and 22 technical reports and an ex-Principal Scientist at ABB, Switzerland.

- **Professor Justin Dauwels**
  - CSO
  - He is the deputy director of ST Engineering at NTU’s Corporate Laboratory and an expert in Computer Vision, Machine Learning and AI.

- **Mr. Anubhav Seth**
- **Mr. Abhinav Mishra**
- **Ms. Kirti Gandhi**
- **Mr. Shashank Jha**
COO
He has 4+ year experience in implementing business operations for various technology enabled solutions.

VP Engineering
He has 5+ years of experience in product development and release management as well as in-depth knowledge of new product introductions.

CFO
She has over 5 years of experience as auditor and risk consultant and has led globally spread teams in financial analysis and reporting.

VP IT Operation
He has 5 years of experience in cloud computing and has developed agile solutions for global clients in the area of digital transformation.

Partners and Resources

Patent for system design

Collaboration with EMA
Collaboration with Energy Market Authority, Singapore

Partnership with SP Group
Vigti’s has successfully conducted 3 successful pilot projects with SP group - Singapore largest utility company.

Clean Tech Open
We were part of the incubator.