

Vanish

Therapeutics, Inc.

Opioid-Free Pain Relief





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Triple Board Certified in
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Team



Tracy Cui, PhD
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Founder

William Kepler Whiteford Professor
National Leader in Bioelectrodes



Kevin Woeppel
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Founder

PhD Candidate, Cui Lab

Awards in 2021:
\$50,000 Pain Research Challenge Winner
\$75,000 Pitt Chancellor's Gap Fund Winner
\$35,000 LifeX Pitch Competition – Second Place

Problem

Too Many Americans Live With Acute or Chronic Pain



50 million Americans live with chronic pain

Only cardiovascular disease costs more to the health care system (pain costs \$300B)

100 customer interviews have been conducted

Problem: How Pain is Currently Treated

PATIENTS HAVE TRIED AND FAILED

PATIENTS AREN'T INTERESTED



Conservative

(Risk of Addiction)

Gap in Current Treatment

Surgically-Placed Steel Nerve Stimulators

Invasive

FEW MINIMALLY INVASIVE OPTIONS ARE AVAILABLE

Problem

Current surgically placed nerve stimulators have an overall complication rate of 30-40%



Issues with Current Technology:

High Costs

Lead migration rate as high as 20%-22.6%

21% of patients never experienced any relief

Incompatible with MRI, Defibrillators, Pacemakers

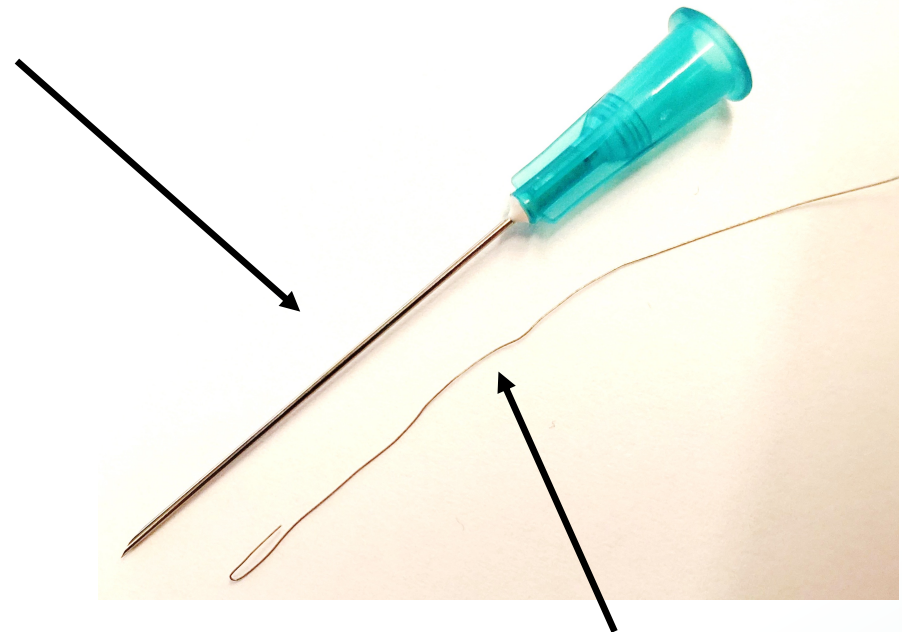
Solution: Bioresorbable and Injectable Nerve Stimulators

Benefits:

Injectable/non-surgical

Relief lasts long after device degrades

Flu-Shot Needle for Size Comparison



Scaled Version of Prototype Vanish Stimulator

Competition

surgically implanted permanent steel stimulators

	<i>Vanish</i>	Opioids	Sprint Peripheral Nerve System	Medtronic (Intellis)	Abbott (Proclaim XR)	Nevro (Omnia)
Injectable	✓	N/A	✓	✗	✗	✗
Bioresorbable	✓	N/A	✗	✗	✗	✗
Affordability	\$	\$	\$	\$\$	\$\$	\$\$
No Potential for Abuse	✓	✗	✓	✓	✓	✓

Traction

<\$1,500

cost to make
each device

\$5,500

sales price of device

Regional product release:
Year 3

64555

pre-existing CPT[®] code

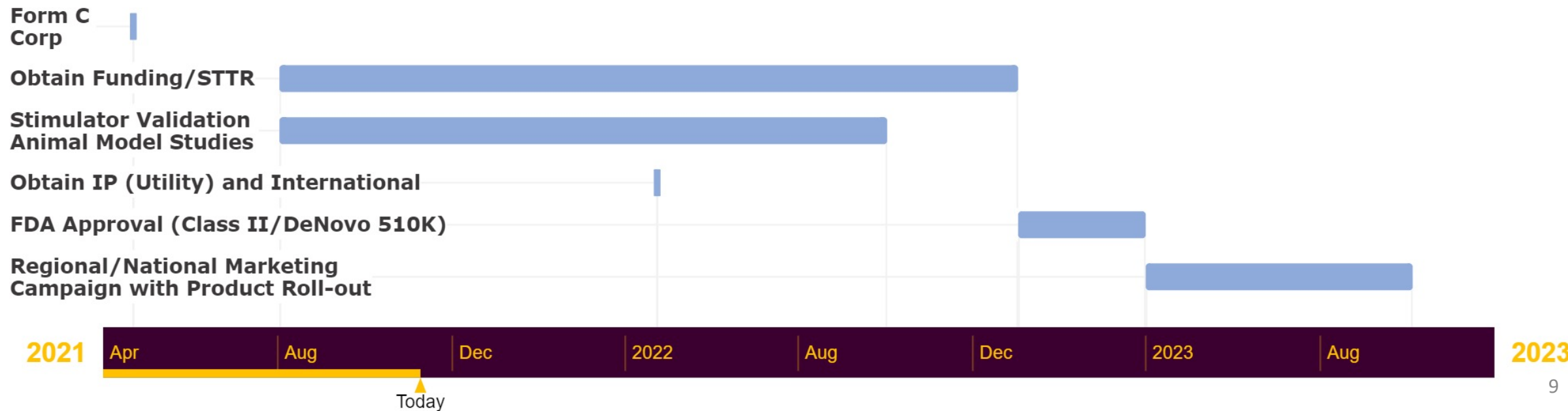
\$6,500

insurance
reimbursement
(mean)

National product release:
Year 4

Amount Being Raised

- Currently undergoing animal model (rat) testing
 - Well's competition: preliminary animal biocompatibility testing
- Future: FDA approval via Class II device/510k pathway
- Total capital needed to move company through FDA approval: \$750,000-\$1,250,000



Vanish

Therapeutics, Inc.

Opioid-free pain relief alternative

Complications don't require surgery to fix

Injectable/non-surgical

Bioresorbable



Reduced costs for
third-party payers

Improve quality of life
for patients

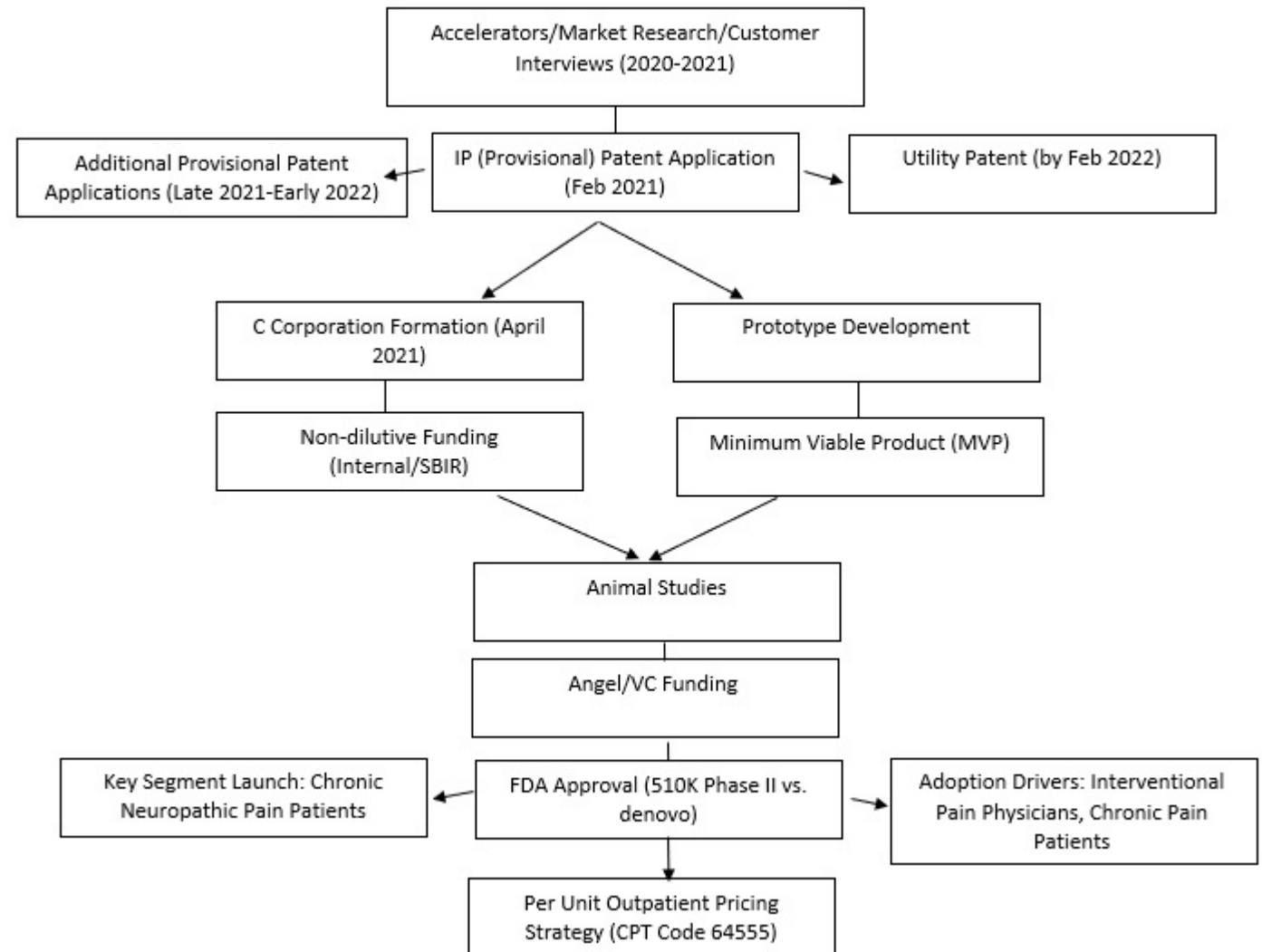
Additional References

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- 2. Cameron T. Safety and efficacy of spinal cord stimulation for the treatment of chronic pain: a 20-year literature review. *J Neurosurg*. 2004;100(3 Suppl Spine):254–267.
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- Images from: Image from https://link.springer.com/chapter/10.1007/978-3-319-60072-7_38
- Images also adapted from <https://www.legalnomads.com/chronic-pain/> and <https://www.nytimes.com/2020/10/21/us/oxycontin-victims-purdue-pharma.html>

Appendix 1: Commercialization Plan

- Milestones:

- *In vitro* studies
- Animal model study
- FDA Pre-Q Submission Meeting
- FDA Application (Class II/DeNovo)
- FDA Approval
- Post-FDA Human Studies



Appendix 2: Revenue Data

Year	Units Sold	Revenue	COGS
1	0	0	5,000
2	0	0	143,000
3	200	1,100,000	372,000
4	1000	5,500,000	1,225,000
5	3000	16,500,000	4,500,000

Appendix 3: Reimbursement

- CPT 64555: \$6,500 (Peripheral Nerve Stimulator insertion)
- CPT 64561: \$6,500 (Bladder Stimulation)
- CPT 33210: \$10,530 (Temporary Pacemaker)
- CPT 61886: \$29,000 (Deep Brain Stimulation)