



# iPill Platform

Technology to combat  
the opioid crisis

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# The Problem: Opioid Security at Home



Hospitals  
Pharmacies

Opioids are  
triple locked

Pyxis / OmniCell

HOME



Opioids are  
easily accessed

Anyone can abuse

# The Consequence:

## Abuse



**3.3 billion**  
unused opioids  
enter our cities  
every year

## Diversion



**61%** of people who  
overdose don't have  
a prescription

## Addiction/Overdose



**47,000** deaths and  
\$696 billion per year

# The Solution iPill<sup>™</sup> for Secure Opioid Dispensing



iPill APP



iPill Dispenser

"Biometric key"



"Drug Safe"

What makes us different

- ◆ Destroy pills on tampering
- ◆ Destroy pills on in 90 days
- ◆ Biometric authentication
- ◆ Bank level security



# Operating the iPill

## Registration

**Step #1** Patient receives a prefilled iPill from the pharmacy



**Step #2** Scans QR code  
iPill App  
Automatically  
downloads



**Step #3** Registers app

- name
- birthdate
- face / fingerprint
- personal code



## Dispensing

**Step #1** Authenticate ID  
Face / fingerprint &  
personal code



**Step #2** Dispense opioid



2-point authentication  
Physician notifications

The Drug Addiction Treatment market is  
estimated to be **\$16.47 billion in 2018<sup>1</sup>**

and expected to reach \$31.17 billion by 2027

1. <https://www.globenewswire.com/news-release/2020/02/20/1988216/0/en/Drug-Addiction-Treatment-Market-To-Reach-USD-31-17-Billion-By-2027-Reports-And-Data.html>

# iPill Traction over the Past 3 years

## 2 purchase orders

Aspire-365  
Treatment  
Centers

Wheeler Addiction  
Behavioral Treatment  
Centers

## 2 major university pilots



RUTGERS

Rutgers Dental School

- 132 patients for 2 point Masseter blocks
- iPill will be used to monitor opioid use
- NIDA/NIH grant applied


**UConn**  
SCHOOL OF PHARMACY

UConn/Hartford Healthcare

- 50 postoperative patients
- iPill will be used to monitor opioid use
- Patient acceptance, iPill feasibility

FDA Innovation Challenge  
FDA Registered Class I  
FDA Breakthrough Class II

Insurance reimbursement  
coverage of FDA  
Breakthrough Products



US 10,426,707 B2

(12) **United States Patent**  
**Hsu**


(10) Patent No.: **US 10,426,707 B2**  
(45) Date of Patent: **Oct. 1, 2019**

(54) **TAMPER-PROOF PILL DISPENSING SYSTEM AND METHODS OF USE**

(71) Applicant: **John Hsu**  
(72) Inventor: **John Hsu**  
(\*) Notice: Substantive examination of this application has been initiated by the USPTO.

(21) Appl. No.: 16/011,182  
(22) Filed: Sep. 27, 2017

(65) **Related**  
Continuation-in-part of U.S. Pat. No. 15/888,824, filed on Jan. 28, 2018, now Pat. No. 10,588,824 B2.  
(60) Provisional app. No. 62/500,000, filed on Sep. 27, 2017.  
(51) Int. Cl. **A61J 7/00**  
(52) U.S. Cl. **CPC** **A61J 7/00**  
(53) Classification Search **CPC** **A61J 7/00**  
(54) Field of Classification Search **CPC** **A61J 7/00**  
(55) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.



US 10,588,824 B2

(12) **United States Patent**  
**Hsu**


(10) Patent No.: **US 10,588,824 B2**  
(45) Date of Patent: **\*Mar. 17, 2020**

(54) **TAMPER-PROOF PILL DISPENSING SYSTEM AND METHODS OF USE**

(71) Applicant: **John Hsu, Rowland Heights, CA (US)**  
(72) Inventor: **John Hsu**  
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(21) Appl. No.: 16/513,187  
(22) Filed: Jul. 16, 2019

(65) **Related U.S. Appl.**  
Continuation of application No. 15/888,824, filed on Jan. 28, 2018, now Pat. No. 10,588,824 B2.  
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US 10,709,643 B2

(12) **United States Patent**  
**Hsu**

(10) Patent No.: **US 10,709,643 B2**  
(45) Date of Patent: **\*Jul. 14, 2020**

(54) **TAMPER-PROOF PILL DISPENSING SYSTEM AND METHODS OF USE**

(71) Applicant: **John Hsu, Rowland Heights, CA (US)**  
(72) Inventor: **John Hsu**  
(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 16/786,143  
(22) Filed: Feb. 3, 2020

(65) **Related U.S. Appl.**  
Continuation of application No. 16/513,187, filed on Jul. 16, 2019, now Pat. No. 10,588,824, which is a continuation of application No. 15/888,824, filed on Jan. 28, 2018, now Pat. No. 10,588,824 B2.  
(60) Provisional app. No. 62/500,000, filed on Sep. 27, 2017.  
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## 3 Granted Patents: Tamper-Proof Pill Dispensing System and Methods of use

## 10426707, 10588824, 10709643 PCT Patents EU, UK, Canada



## 3 market verticals

**Dental Practices**  
**\$250 Million**

**10 million  
wisdom tooth  
extractions**

**Addiction Centers**  
**\$2.2 Billion**

**3.7 million in  
14,500 treatment  
centers**

**Pharmacy Insurers**  
**\$6.75 Billion**

**191 million opioids  
prescriptions**

# iPill Go to Market - Value Proposition

OUD Prevention

vs.

OUD Treatment



\$50 month



\$166 and \$570 month<sup>1</sup>

Relapse rate is greater than 50%

Annually

\$19,333 per patient/year

\$1.8 million per death

\$696 billion per year

Plus

Inpatient treatment

\$14,000 and \$27,000 month<sup>2</sup>

Outpatient treatment

\$5,000 and \$10,000 for 3 months

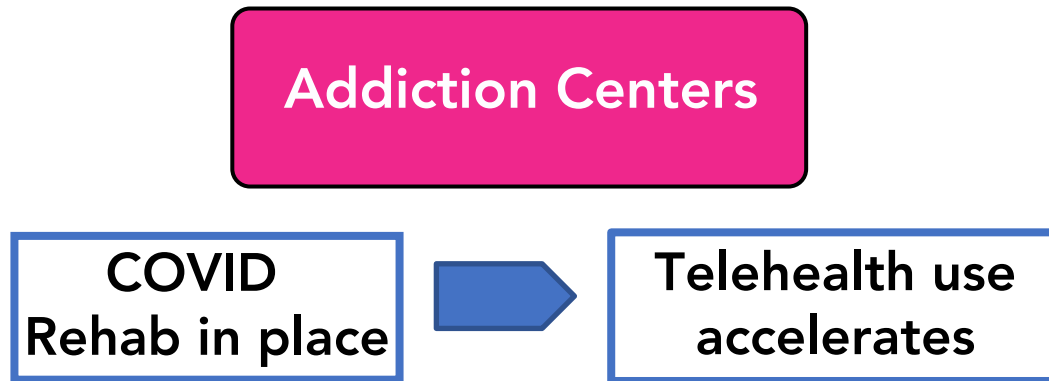
Transportation costs

\$18,000 /year transport to methadone clinic

1. Drugs.com. (2020). [Suboxone prices, coupons, and patient assistance programs.](#)

2. <https://www.rehabs.com/addiction/how-much-does-rehab-cost/>

3. 3.30 days/month roundtrip @ \$25 each way = \$18K annually



Use their telehealth software with iPill to:

- treat patients & reduce relapse rate from 91%,
- reduce transportation costs to Methadone clinics,
- Increase market brand success in treating addiction

**2 purchase orders**

## Senior Management

Clinical



CEO

- ✦ **John Hsu MD, Co-Founder**
- ✦ Anesthesia & Pain for 28 years

Marketing



CMO

- ✦ **Christopher Baker, MBA**
- ✦ Former SVP McKesson
- ✦ Operations/Marketing

Hardware



CSO

- ✦ **Bruce Sargeant, BSEE**
- ✦ Hardware Engineer
- ✦ Developer of Velodyne

Software



CTO

- ✦ **James Yang, BS,**
- ✦ Software Engineer,
- ✦ Ticketmaster and Hilton Hotel apps

## Board



- ✦ **Sherie Hsieh, BS Co-Founder**
- ✦ Clinical Toxicologist



- ✦ **Nick Spring**
- ✦ Exited from medical device and biopharma company

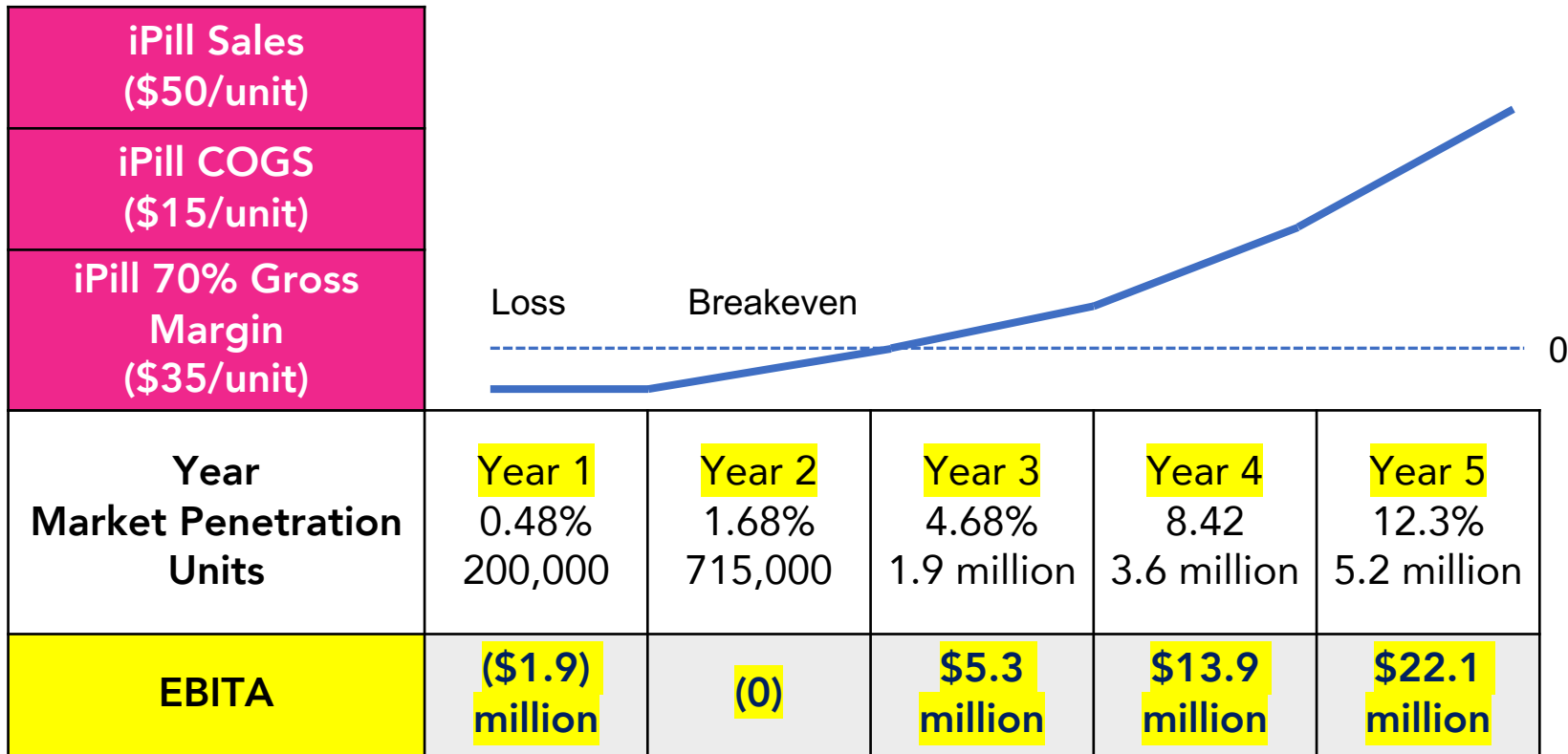


- ✦ **Peter Weinstein, PhD, JD**
- ✦ IP Attorney, Baxter






14 senior advisors support the management team



# iPill – Revenue Opportunity and Unit Economics



## i Pill the only dispenser to be covered by insurance

					
	i Pill \$50	Child Resistant Cap	Med Smart \$589.99	TAD Est. \$200	Medica Safe Est. \$250
Medication adherence	✓✓		✓	✓	✓
2-Point biometric ID	✓✓				
Secure storage	✓✓				
Destroys unused pills	✓✓				
Insurance coverage MediCare/Medicaid	✓✓				

# iPill Milestones

\$500K by  
founders

New \$500K



\$1.5 million



\$7-\$10 million



3Q20

1Q21

3Q21-3Q122

4Q22-4Q24

4Q24

## Accomplished

- Build Prototypes
- FDA Class I Registration
- FDA Breakthrough
- 3 granted patents
- 2 purchase orders

## Next Steps

- Industrial design
- Injection mold
- Fulfill purchase orders
- Pilots

## Market Launch

- Build the team
- Launch to market
- Commercialize with PBM

## Build Business

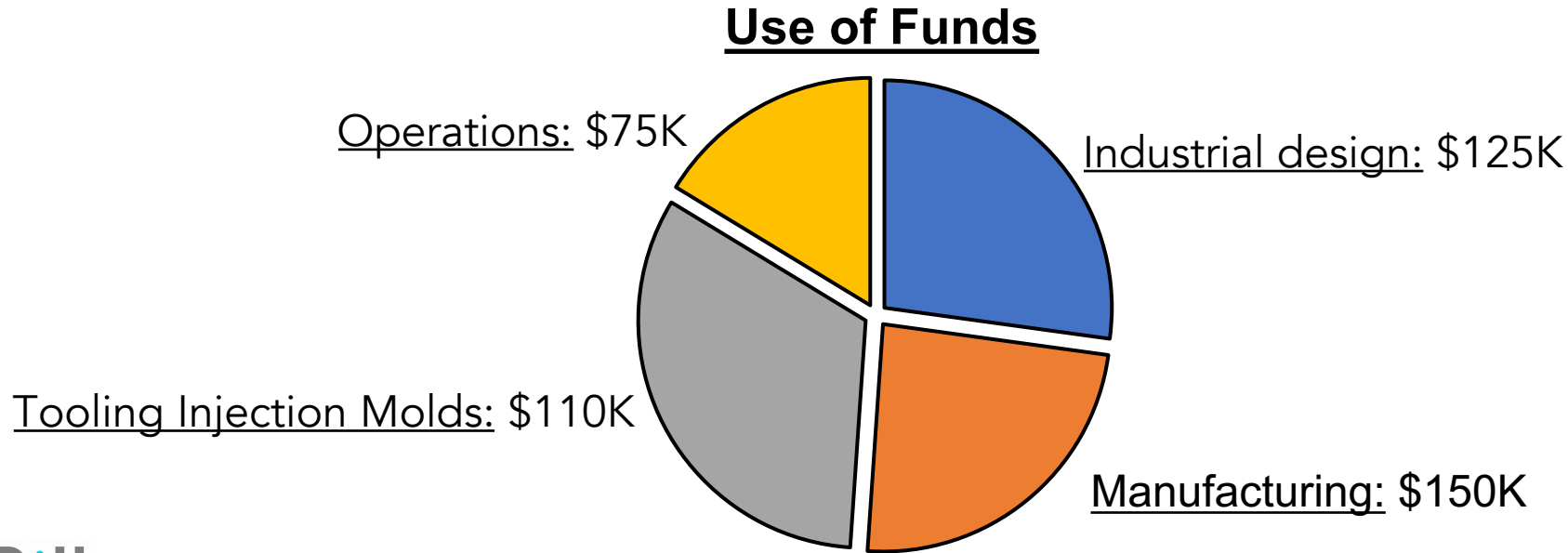
- Expand the team
- Increase B2B sales
- Explore other markets

## Explore Exit

- Addiction centers
- Behavioral centers
- Opioid Manufacturers
- Pharmacy-Insurers
- PBMs
- GPO
- Medical Device Co

Founders have invested \$500,000

New Seed Raise of \$500K to Fulfill Purchase Orders







# iPill Platform

Technology to combat  
the opioid crisis

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# iPill Current Traction

## Dental Practices Targeting <26 y.o.

- Dental consortium. pilot study planned
- Scale: 320 practices across 20 states
- **\$4.1MM annual sales opportunity**

## Addiction Centers Targeting 26 to 54

### 2 purchase orders

- Wheeler addiction treatment centers (June 19, 2020)
- Aspire-365 (Sept. 9, 2020)
- Scale 13 Clinics in state of Connecticut
- Scale 3 location in 3 states
- **\$7.8MM annual sales opportunity**

## Pharmacy Insurers Target >55 y.o.

- In discussions with a pharmacy-insurer and hospital system (behavioral health department) for coverage at \$50 per dispenser
- Pharmacy-insurer dispenses ~20 million opioid prescriptions per year
- **\$1B annual sales opportunity**

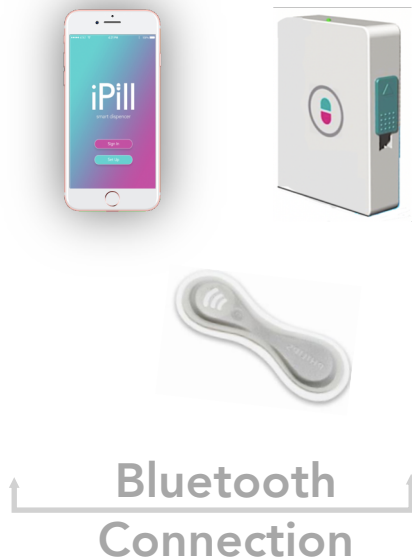


# iPill Solution (App + Dispenser)

## Tech Enabled Device to Reduce Addiction Risk

### iPill App

- **Actively controlled dispensing via mobile app.**
- **App is free for users.**
- Only the prescribed person can access pills at the prescribed dose.



### iPill Dispenser

#### Generation 1 Product:

- FDA registered – Class I Medical Device
- **Secure storage and safe disposal of unused pills.**
- Tampering destroys pills by dissolving with a DEA approved solution.
- Unused pills automatically dissolved at 90 days.

#### Generation 2 Product:

- FDA Breakthrough Designation – Class II Medical Device
- Features listed above; and
- Respiratory sensor worn on chest to measure breathing rate.
- If respiratory distress is detected, alerts EMS and stops opioid dispensing.

#### Current Market Traction:

- Pilot study + first purchase order received from a CT-state funded addiction treatment center, \$7.8MM annual sales opportunity
- Pilot study + purchase order in process with dental clinic consortium, \$4.1MM annual sales opportunity