COREY MCCANN, MD, PHD
Founder and CEO
Pear Therapeutics

Evidence-Based Digital Therapies for Enhanced Clinical Outcomes

“How Self-Care Technology Is Changing Lives and Improving Treatment”
PEAR Therapeutics overview

PEAR Therapeutics is developing eFormulations™ - prescription digital therapies designed to treat disease.

We have a portfolio of clinically-validated digital health interventions that have already shown the ability improve outcomes across a range of mental health conditions.

PEAR has laid the groundwork to create a portfolio of eFormulations™ redefining the standard of care in mental health by:

1) assembling a cross-functional team
2) in-licensing blocking IP
3) rolling-up the best, most validated digital health content
4) building a user portal and forming an initial commercial partnership
5) establishing the pathway for FDA approval

Our lead product, reSET™, has demonstrated efficacy in randomized controlled trials in Substance Use Disorder and Opiate Dependence, paving the way for FDA approval in 2016.
Multimodal therapy is standard of care for disorders of the brain

Medications with demonstrated clinical benefit + Disease specific cognitive and rehab programs = Current standard of care
PEAR’s eFormulation™ platform is based on clinical evidence that drug-software combinations can enhance clinical efficacy.

Medication with clinical benefit + eFormulation™-digital therapeutic designed to enhance medication efficacy = Combination therapy with proven synergistic effect.
eFormulations™ are pharmaceuticals co-packaged with unique software access codes, enabling combined clinical use.
**eFormulations™** bridge the gap between home and clinic, enabling demonstration of enhanced outcomes.

1. Patient receives a package including both a medication and a software access code.
2. Access code enables entry to the Pear Platform.
3. Drug and software work synergistically to treat disease.
4. Data is collected from patients and displayed to the care team.
5. Data enhances clinician decision-making.
We have developed a pipeline of eFormulations™

<table>
<thead>
<tr>
<th>Indication</th>
<th>Stage</th>
<th>Content Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prototype</td>
<td>In-licensed</td>
</tr>
<tr>
<td>Substance Use Disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opiate Dependence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat-PTSD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Anxiety Disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insomnia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traumatic Brain Injury</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major Depressive Disorder</td>
<td></td>
<td>Internal</td>
</tr>
<tr>
<td>Acute &amp; Chronic Pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Our lead program, reSET™ establishes POC by enhancing clinical outcomes across multiple addiction disorders

Key aspects of reSET™

- reSET™ is a proprietary digital therapy involving a CBT, Fluency Training, and Contingency Management
- The digital therapy collects real-world data and displays patient and clinician-specific dashboards for an enhanced clinical dialogue
- reSET™ has been evaluated in 6 clinical studies, involving over 1500 patients, and has attracted more than $40M in National Institute of Health (NIH) funding¹-⁴
- We have submitted reSET™ to the FDA as a class II medical device (De Novo submission) with claims for treatment of Substance Use Disorder (SUD), enhancement of abstinence and program retention, and direct substitution of clinician time

**reSET™** has been shown to double abstinence in Substance Use Disorder

---

**Graph:**

- **Y-axis:** % Abstinent
- **X-axis:** Half Week Visit
- **Legend:**
  - In-office therapy
  - reSET™

---

<table>
<thead>
<tr>
<th>Population</th>
<th>Time Point</th>
<th>reSET (n=205)</th>
<th>In-office (n=190)</th>
<th>Odds Ratio (95% CI)</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All comers</td>
<td>Week 9-12</td>
<td>47.1%</td>
<td>22.8%</td>
<td>3.02 (1.39, 6.57)</td>
<td>0.0053</td>
</tr>
<tr>
<td>Non-abstinent at start</td>
<td>Week 9-12</td>
<td>26.7%</td>
<td>3.2%</td>
<td>11.02 (2.50, 48.53)</td>
<td>0.0015</td>
</tr>
</tbody>
</table>

- Randomized trial consisted of **507 patients** seeking treatment for Substance Use Disorder at 10 nationwide centers
- Patients received 12 weeks of typical outpatient treatment or reSET™ with limited clinician exposure; abstinence was measured through urine analysis and self reports

---

**reSET™** enhances the efficacy of pharmacotherapy in Opiate Dependence

- 2 Randomized trials consisting of 295 total patients completing **outpatient buprenorphine**\(^1\) or **methadone**\(^2\) maintenance treatment

- Patients received either the current standard of care or **reSET™ with limited clinician exposure**; abstinence was measured through urine analysis

- Patients using **reSET™** displayed a **significantly greater ability to remain abstinent**

- The combination enhanced abstinence outcomes while **reducing required clinician intervention**

---

\(^1\) Marsch et al. J Substance Abuse Treatment. 2014.

**reSET™ enhances patient outcomes across a spectrum of clinical settings**

### Care paradigms
- Enhanced abstinence when used in multiple clinical care paradigms including; 1) in lieu of in-office therapy\(^4\), and 2) as partial substitution of clinician time\(^1,7\)

### Substances of abuse
- Enhanced abstinence and overall outcomes for patients addicted to opiates\(^2,3,4,7\), stimulants\(^1,4\), marijuana\(^1,4\), and alcohol\(^1\)

### Clinical outcomes
- In addition to abstinence, demonstration of enhanced program retention\(^1,3\), improved Addiction Severity Index (ASI)\(^7\), reduced high risk behavior\(^4,5\), reduced HIV infection\(^4,5\), and reduced recidivism\(^4\)
- Efficacy demonstrated in studies where patients used reSET™ for durations ranging from 12 weeks\(^1\) to 1 year\(^2\)

### Treatment durations
- Successful use across multiple clinical settings including Intensive Outpatient Therapy (IOT)\(^1\), Methadone Maintenance Therapy (MMT)\(^2\), and in prison settings\(^4\)

### Clinical settings
- Demonstrated efficacy when used as monotherapy\(^1,4\), and when used in combination with buprenorphine\(^3,7\) and methadone\(^2\)

See backup for specific citations
**THRIVE™** is a mobile medical application used in conjunction with medication for treating schizophrenia.

**Introducing THRIVE™**

- THRIVE™ is a **clinically validated digital intervention** applying evidence-based, multi-modal, and reinforcement therapy targeting Positive Symptoms in Schizophrenia.
- It is comprised of a **patient-facing smartphone application** and **clinician-facing web interface**.
- THRIVE™ is a digital therapy that provides **24/7, real-time patient monitoring and support**.
- THRIVE™ provides real-time interventions targeting positive symptoms of schizophrenia including hallucinations and delusions, and also provides support for schizophrenia-related mood disorders.
THRIVE™ enhances the efficacy of atypical antipsychotics for treating Schizophrenia

- 33-patient longitudinal study\(^1,2\) evaluating usability and efficacy of THRIVE
- Schizophrenia patients on antipsychotics at study start were given access to software and followed over 1 month of use
- Patients interacted with software an average of 5.2 times per day; 63% of use was patient-initiated
- Study showed 8% average reduction in total PANSS, beyond antipsychotic treatment

\[ p<0.01 \]

\[ p<0.001 \]

\[ p<0.01 \]

\[ p<0.01 \]
THRIVE™ is currently enrolling additional trials examining efficacy in Schizophrenia.

**Ongoing studies featuring THRIVE**

- Currently concluding a *3-year multi-site/ multi-state CMS funded implementation project* in which 400+ patients with schizophrenia receive PEAR-002 for 6 months of treatment after discharge from the hospital.

- In 2016 we will conduct an *RCT (n=40 people with schizophrenia) of PEAR-002 vs Treatment as Usual*.

- In 2016 we are starting a *2.5 year PCORI-funded RCT* comparing PEAR-002 to a clinic-based group intervention (N=160 people with SMI).
We are also developing a pipeline of additional *eFormulations™* addressing high volume conditions across CNS.

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Pipeline Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic opiate (207M US script/yr)</td>
<td>• <strong>Chronic-pain management software</strong> developed for adolescent patients</td>
</tr>
<tr>
<td></td>
<td>• Provides distraction therapy along with gamified CBT for long-term pain reduction</td>
</tr>
<tr>
<td>Generic benzodiazepine (150M US scripts/yr)</td>
<td>• <strong>Anxiety relief application</strong> developed with Catholic University, Milan</td>
</tr>
<tr>
<td></td>
<td>• Provides validated (n=~500pts) exercises to enhance medication</td>
</tr>
<tr>
<td>Generic SSRI (100M US scripts/yr)</td>
<td>• <strong>Gamified therapy paradigm</strong> with efficacy in adolescents and teens</td>
</tr>
<tr>
<td></td>
<td>• Therapy plus medication addresses hyperactivity symptoms</td>
</tr>
<tr>
<td>Generic Zolpidem (50M US script/yr)</td>
<td>• <strong>Circadian entrainment software</strong> co-developed with NASA</td>
</tr>
<tr>
<td></td>
<td>• Combination reduces habit-forming nature of sleep medications</td>
</tr>
</tbody>
</table>
The Pear Platform delivers our offerings, and parses data for enhanced clinical decision-making.

All code created under current good manufacturing practices (CGMP’s) according to FDA’s 21 CFR part 820.

Real-time data analytics engine for identifying at-risk patients.

Token-based patient onboarding with role-based security of admins & clinicians.

Patient Facing Applications

Mobile Backend

Analytics Engine

Messaging

Assessments

Data Storage

Online Dashboards

Clinician dashboards with additional analytics for review by payors and providers.

SDK for modular integration across mobile platforms, browsers, and VR.

Push notifications for medication dosing reminders and badges for rewards.

Validated clinical assessments for outcomes tracking.

HIPPA-compliant data storage.
eFormulations™: Coming to patients near you…

- **reSET™**: Launch of *FDA approved product* in SUD as monotherapy
- **PEAR-002**: Launch of *510(k)* approved schizophrenia software with claims for drug/software synergy
- **Portfolio**: Launch of additional products in sleep, pain, anxiety, and beyond

- **2016**
- **2017**
- **2018**

"NATIONAL COUNCIL FOR BEHAVIORAL HEALTH"
We welcome the opportunity to continue the conversation…
The Pear Therapeutics Team is uniquely qualified to develop drug/software combinations

**Healthcare**

*Corey McCann MD, PhD – Co-founder & CEO*
- Life science investor at MPM Capital and RiverVest
- Pharma consultant and CNS expert with McKinsey & Co

*Stephen Kennedy Smith, JD – Co-founder & EVP Corp. Dev.*
- Principal at Park Agency, Kennedy Family Office
- Reimbursement expert and lobbyist for mental health parity

*William Greene, MD – Co-founder, Medical*
- Investor with MPM Capital and serial biotech board member
- Senior Clinical Scientist and Epidemiologist at Genentech

*Nandini Murthy, MS – VP Regulatory*
- Regulatory Affairs expert with specialization in de novo 510(k)s
- Formed strategy supporting WellDoc 510(k) submission

*Yuri Maricich MD, MBA – VP, Clinical Development*
- Fmr. CEO of Xydinia developing new drug therapies for pain
- MD from U Washington School and MBA from Harvard

**Software**

*Ian McFarland – Chief Technology Officer*
- Entrepreneur and Technologist, Founder of Neo Innovation
- Principal, VP of Technology at Pivotal Labs

*Beth Rogozinski – Chief Product Officer*
- Expert in media strategy, production, and marketing
- Producer of more than 30 casual games and apps

*Walter Greenleaf, PhD – Chief Science Officer*
- Expert in design of software-based healthcare interventions
- Senior Director, Stanford Center on Longevity

*Karthik Ramasamy – Lead Data Engineer*
- Full-stack data scientist and entrepreneur
- Led machine learning and big data efforts at LinkedIn

*Phu Trinh – Platform Product Manager*
- Expert in product management, software development, quality assurance, and FDA compliance
- BS in Electrical Computer Engineering from Cal State Pomona

*Marty Caplan – Senior Producer*
- Game designer and producer for over 14 years
- Specializes in Game Production Management, Computer Game Design, Computer Game QA

*Matthew C. Smith, PhD – VP, Operations & Strategy*
- Program Manager in boutique life science consultancy
- Neuropathology expert with training at Harvard and Michigan

*Yuri Maricich MD, MBA – VP, Clinical Development*
Our Advisory Board includes the top figures in healthcare, pharmaceuticals, and mobile health

<table>
<thead>
<tr>
<th><strong>Pear Therapeutics Board of Advisors</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patrick Kennedy</strong> – <em>Chair of Advisory Board and Advisor on Policy and Reimbursement</em></td>
</tr>
<tr>
<td>- Former US Rep, RI; Author of Mental Health Parity Act; Co-Founder of One Mind for Research</td>
</tr>
<tr>
<td><strong>Jeffrey Lieberman, MD</strong> – <em>Advisor on Pharmacotherapies in Psychiatry</em></td>
</tr>
<tr>
<td>- Former President of the American Psychiatric Assoc.; Chairman of Psychiatry at Columbia</td>
</tr>
<tr>
<td><strong>Zack Lynch</strong> – <em>Advisor on Neurotechnology and Neurogaming</em></td>
</tr>
<tr>
<td>- Exec Director of the Neurotechnology Industry Org. (NIO); Co-founder of NeuroInsights</td>
</tr>
<tr>
<td><strong>Albert “Skip” Rizzo, PhD</strong> – <em>Advisor on Neurosoftware content</em></td>
</tr>
<tr>
<td>- Director for Medical Virtual Reality, USC; Creator of Virtual Iraq program for PTSD</td>
</tr>
<tr>
<td><strong>JoAnn Difede, PhD</strong> – <em>Advisor on clinical development</em></td>
</tr>
<tr>
<td>- Dir., Cornell Program for Traumatic Stress; Executed largest combo efficacy studies to date</td>
</tr>
<tr>
<td><strong>Alex “Sandy” Pentland, PhD</strong> – <em>Advisor on big data strategies</em></td>
</tr>
<tr>
<td>- Director, MIT Media Lab, and Center for Future Health</td>
</tr>
<tr>
<td><strong>Magali Haas, MD, PhD</strong> – <em>Advisor on pharmaceutical industry partnerships</em></td>
</tr>
<tr>
<td>- CSO of One Mind and founder of “Integrative Solutions” at J&amp;J</td>
</tr>
<tr>
<td><strong>Eric Leuthardt, MD</strong> – <em>Advisor on intellectual property</em></td>
</tr>
<tr>
<td>- Neurosurgeon, inventor, and author of Intellectual Ventures IP</td>
</tr>
</tbody>
</table>