

## Creating partnership through improved communication

# Technology transfer of an innovative drug delivery system: The "Accordion Pill"

PDA Israel

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Ronny Reinberg
Intec Pharma



- Intec Pharma introduction
- The Accordion Pill Technology
- CMO selection
- LTS introduction
- Project management approaches

# Forward Looking Statements

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### Intec Pharma







# Utilizing 505(b)(2) regulatory pathway

Faster and less expensive pathway to market

### AP Cannabinoids (CBD, THC)

Various indications in Phase 1



Proprietary drug evaluation



# Future potential value drivers

Potential for multiple collaborations



# What we are about: The Accordion Pill (AP)

## AP Platform Technology

A customized solution for each application

- Each film layer can be designed as a different delivery system
- Mix and match multiple layers, multiple drugs

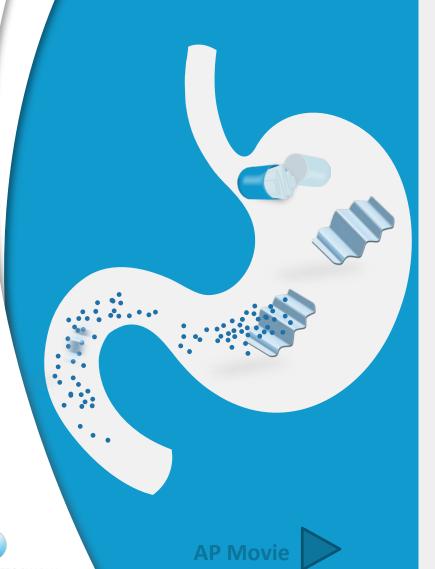


### **Accordion Pill™ Unique Advantages**:

- Enhanced gastric retention
- Improved PK
- High drug loading
- Fix dose combination
- Multiple drug release profiles
- Tested in Multiple clinical trials (PK and efficacy studies)



# The Accordion Pill: A new platform for oral drug delivery



AP capsule dissolves and outer layers facilitate unfolding mechanism of films

Layers comprise an inner, controlled release drug-containing layer, and/or immediate release layer(s) for multiple drug release profiles and/or fixed-dose combinations

Retained in stomach for up to 12 hours, AP releases drug in controlled manner towards upper part of gastrointestinal tract, where it is absorbed

Once AP is out of stomach, it is fully degraded in small intestine.

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# Levodopa PK Is Important In Parkinson's

Majority of PD patients on levodopa therapy

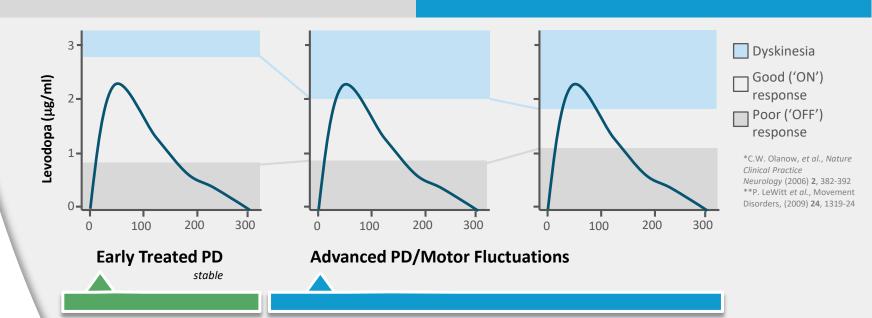
#### **Challenge in improving LD PK**

- Levodopa absorption is confined to upper part of GI tract
- Very short half life ~90 min
- Efficacy and AE profile relates directly to plasma levels

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Stabilizing LD plasma levels becomes a major factor for improving anti-parkinsonian control in Advanced PD

15 years

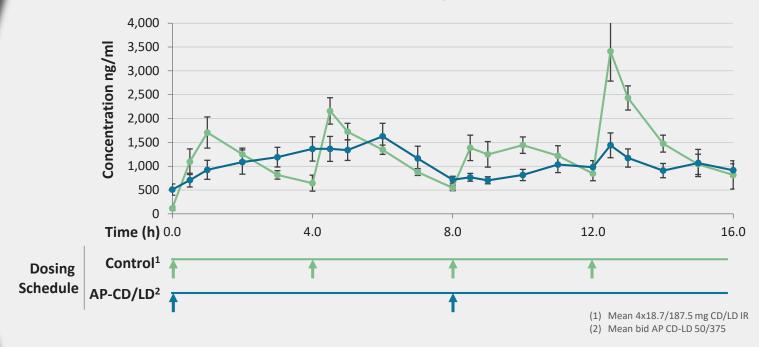


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# Phase II AP-CD/LD Results AP-CD/LD Enables Steady Therapeutic Levodopa Levels







#### Significantly More Stable PK Achieved by AP-CD/LD

- Prolonged absorption
- Decreased peak to trough ratio
- Significantly higher morning plasma levels



# Phase II AP-CD/LD Results

Significant reduction in daily off time and dyskinesia

# Significantly Reduced Off Time

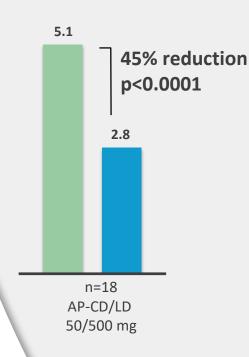
#### Off Time (Hours)

Following 3 Weeks Treatment

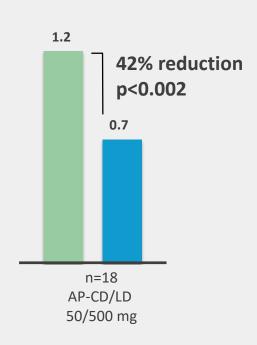
# Significantly Reduced TSD

#### ON with Troublesome Dyskinesia Time (Hours)

Following 3 Weeks Treatment



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#### **Demographics**

- Mean Age: 67.7
- Gender: 83% male
- Years LD Therapy: 9.5 +/- 6.7
- Mean LD Dose: 681

#### Design

- 2 period, 21 day crossover, random order
- Open label dosing
- 4 day off-time assessment after 17-day stabilization
- AP dosed BID vs. 5.3 dose LD in control

# Manufacturing

- Certified GMP facility in Jerusalem, Israel
- Automated manufacturing lines
- Manufacturing capabilities for all clinical stages, phase 1 to 3









# So...why work with a CMO?

- ✓ Innovation
- √ R&D orientation
- Startup 

  ✓ Know how
  - √ Flexibility
  - √ IP
  - ✓ Available Infrastructure
  - ✓ Manufacturing Expertise
  - ✓ Inspected by regulatory authorities

CMO —



### **CMO** selection - Considerations

- ✓ Large Vs. Small CMO
- ✓ Target markets
- √ Geography
- ✓ Experts in the specific manufacturing technology



## LTS Lohmann Therapie-Systeme AG

- ✓ Leading CMO for innovative drug delivery systems, such as Transdermal Patches ("TTS") and Oral Thin Films ("OTF").
- ✓ More than 20 marketed products.
- ✓ Audited by the FDA, EMA, KFDA, CFDA, ANVISA etc.







## **Major Project milestones**

- ✓ Machines procurement
- ✓ Analytical Technology transfer

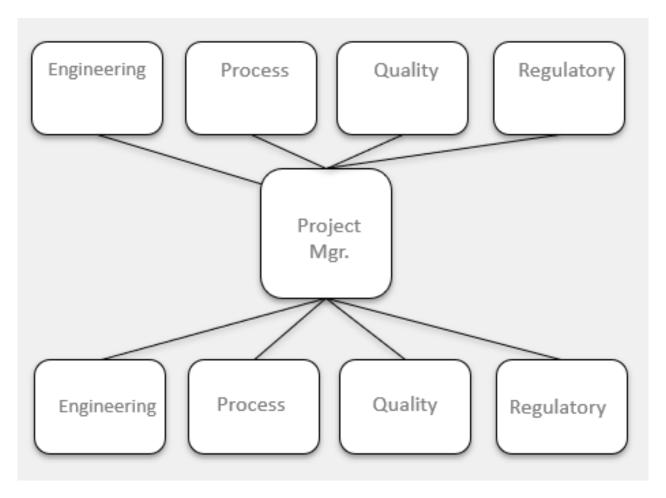
✓ Process development & Scaleup

- ✓ Process Validation
- ✓ NDA Submission



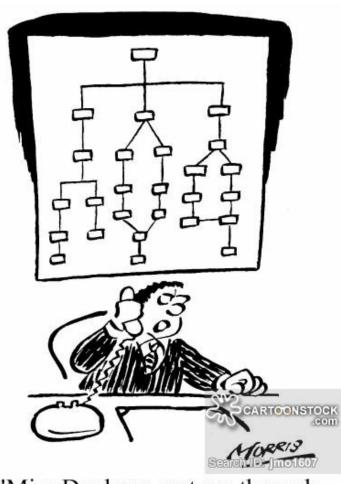


# **Classical Project Management**





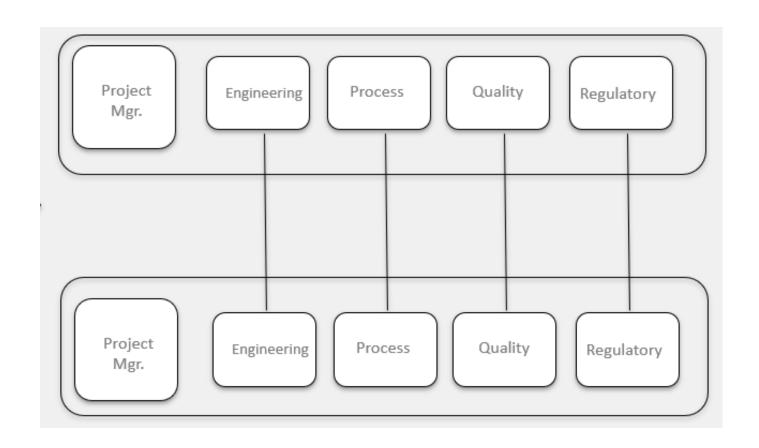
# **Communication Flow**



"Miss Duxbury, put me through to someone."



# Direct Project Management Approach





Thank you!