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Astelin Day Life Cycle Plan November 1, 2002



MEDA APTX01871176

CIP2054 Argentum Pharmaceuticals LLC v. Cipla Ltd. IPR2017-00807

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Agenda

1)	Review of Detailed Proposals and Discussion	45 Min.	R. Spivey/ D. Fink
2)	Breakout Session Instruction		D. Fink
3)	 Breakout What else do we want? Supply source/packaging? Trademarks/specifications? Studies directed specifically toward target messages? 	60 Min.	AII
4)	Reconvene and Report Back	30 Min.	D. Fink/ R. Spivey
5)	Prioritize and Next Steps	30 Min.	D. Fink/ R. Spivey
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Projects

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Packaging Configuration Projects

- Pediatric packaging
- V-Bottom bottle/cap configuration trade (30.0 mL)
- V-Bottom bottle/pump configuration trade (30.0 mL)
- V-Bottom bottle sample (5 mL)
- Calmar Albert pump



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Pediatric Packaging

- Single 17 mL flat-bottom bottle
- Current VP3 Valois pump
- Straight-forward; high probability of success
- Timing influenced by whether "value added" materials are included
- Cost is minimal



V-Bottom Bottle/Cap Configuration – Trade (30 mL)

- Back-up strategy for "pump on" plan for new V-bottom bottle
- High likelihood of success
- Requires development of data, submission, and approval by FDA

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- Available in 18 24 months
- Cost is relatively small

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V-Bottom Bottle/Pump Configuration – Trade (30 mL)

- Current, planned configuration for new Vbottom bottle
- Requires additional engineering efforts to perfect pump placement
- In addition, particulates may be an issue
- Available in 6 9 months
- Cost is estimated at \$350 400k



Already approved by FDA

Issues similar to 30 mL V-bottom bottle

Available in 6 – 9 months



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Colman – Albert Pump

- Qualification of back-up pump supplier
- Moderate likelihood of success
- Available in 18 24 months

Cost is approximately \$2.5 million

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Formulations Projects

- Astelin/steroid combination
- Taste masking meet current specifications
- New optimized formulation

Astelin/Steroid Combination

- High degree of technical difficulty
- Need to reconcile combination of solution/suspension
- Dosing differences
- 4 5 years to develop; \$75 million



Taste Masking – Meet Current Specifications

- Multiple attempts made but all altered specifications
- No feasibility to make modifications without extensive product characterization and some clinical trials

New Optimized Formulation

• To improve taste and optimize dosing

- Need to assemble taste panels to determine success
- 3 4 years in development
- Would likely cost \$4.5 million



Clinical Programs

- One spray per nostril bid (supplemental NDA)
- Perennial allergic rhinitis (supplemental NDA)
- Protocol 415 (follow-on to Protocol 414 Claritin failure trial)
- SAR and asthma
- Somnolence/cognitive function studies
- Nasal polyps (pilot study)
- Pediatric labeling (children 2 to 4 years of age)
- Non-allergic asthma (NIH study)





- New dosage regimen (current formulation)
- At least 2 trials

- Cost is approximately \$2.5 \$3 million
- New labeling by 2005

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Perennial Allergic Rhinitis

- New indication
- High feasibility; moderate to high likelihood of success
- Available mid-2005
- Cost is approximately \$3 million



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Follow-up to 414

- Follow-up to Claritin failure trial
- Could duplicate study 414 or study different antihistamine (Allergen or Zyrtec)
- Study completed mid-2003
- Cost is approximately \$2 million



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SAR and Asthma

- Effect of Astelin on SAR symptoms in patients with both asthma and SAR. Evaluate if any impact on asthma symptoms.
- Low-to-moderate likelihood of success
- Cost is approximately \$1 million
- Publication available in 2004

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Somnolence/Cognitive Function Studies

- Provide data for PI in Clinical Pharmacology section on sleep latency and/or cognitive function
- Two studies, total of \$600K
- Submission in 2004, label change by end of 2004

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Nasal Polyps (Pilot Study)

- Evaluate effect of Astelin on nasal polyps
- Depends on anti-inflammatory effect
- Cost is approximately \$850K
- Outcome is publication

Low likelihood of success

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Pediatric Labeling (2 – 4 years)

- Formally requested by FDA
- Lengthy enrollment process (over 2 allergy seasons)
- Cost is approximately \$700K
- <u>Could</u> result in 6 months of exclusivity
- Submit to FDA by 2005



Non-allergic Asthma (NIH funded)

Investigator is Dr. Jonathan Bernstein

Low-to-moderate likelihood of success

Drug supplier only (already committed)

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Preclinical Program

Otitis media (animal model)



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- Effects of antihistamine on middle ear effusion
- Study to be conducted in rats
- Publication
- Drug supplier committed

