Vical Corporate Overview
June 2017

NASDAQ:VICL

Shaping the Future of Vaccines and Therapeutics
Safe Harbor

This presentation contains forward-looking statements that are subject to risks and uncertainties that could cause actual results to differ materially from those set forth in the forward-looking statements, including risks related to whether any product candidates will be shown to be safe and efficacious in clinical trials and the other risks set forth in the company’s Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission. Actual results may differ materially from those projected. These forward-looking statements represent the company’s judgment as of the date of this presentation. The company disclaims, however, any intent or obligation to update these forward-looking statements.
Vical at a Glance

- Pipeline and expertise in infectious diseases
  - Cytomegalovirus
  - Herpes simplex virus type 2
  - Invasive fungal diseases

- Strategic partnerships with Astellas

- GMP manufacturing facility

- Sufficient cash to fund programs through 2018
# Vical’s Development Pipeline

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<tr>
<th>CMV</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
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<td>ASP0113 for HCT</td>
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<td>CyMVectin™ for congenital CMV</td>
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<td>Vaxfectin® Adjuvant</td>
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<td>VCL-HB01</td>
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<td>Vaxfectin® Adjuvant</td>
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<th>Invasive Fungal Infections</th>
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Vical’s Vaccine Technology Platform

- Noninfectious vaccines
- *E. coli*-based fermentation
- Formulated to increase potency (poloxamer, Vaxfectin®)
- Capable of inducing T-cells and antibodies
- No immunologic response to vector – allows repeated doses
- Favorable clinical safety profile
CMV: Significant Unmet Medical Need

- CMV infects >50% of U.S. adults by age 50

- Risk for severe disease
  - Immunocompromised transplant patients
  - Congenitally-infected infants

- 70,000 allogeneic HCT procedures per year globally

- First CMV vaccine in pivotal Phase 3 trial
Completed Phase 2 HCT Trial

- **Randomized, double-blind, placebo-controlled study**
  - 74 CMV positive HCT recipients with leukemia or lymphoma

- **Results published in Lancet Infectious Diseases 2012**
  - Decreased CMV reactivation
  - Decreased duration of viremia
  - Delayed time to CMV viremia episodes
  - Improved cellular responses to pp65 and gB
Pivotal Phase 3 HCT Trial
Enrollment Completed 3Q 2016; Data 1Q 2018

- Global study initiated June 2013
- 515 CMV seropositive allogeneic HCT recipients
- 1:1 randomized, double-blind, placebo-controlled
- 5 doses: 0, 1, 2, 3, 6 months
- Primary endpoint: Composite of overall mortality and CMV end organ disease
- Over 70 sites in 11 countries: U.S., Canada, EU, Australia, Japan, Korea, Taiwan
Herpes Simplex Virus Type 2

- Leading cause of genital herpes worldwide
- 1 in 6 infected
  - Worldwide >400M
  - U.S. 40-60MM
- Virus frequently reactivates
  - 20% of patients with symptomatic recurrences
- Antivirals only - no licensed vaccine

Looker, PLoS One 2015; 15 – 49 year olds
Xu, Morbidity and Mortality Weekly Report, 2010; 14 – 49 year olds
Phase 1/2 Data: Bivalent Vaccine

- Significant reduction in viral load at 3 months
- Significant reductions in lesion rates at 3 and 9 months
  - 57% reduction at 9 months
- Favorable impact on recurrence rate, time to first recurrence and recurrence-free endpoints
- Significant increase in UL46-specific IFN-gamma-producing T cells

Significance: p<0.05
Phase 2 HSV-2 Trial
Initiated 3Q 2016; Data 2Q 2018

- Double-blind, placebo-controlled, 2:1 randomization
- Enrollment of 261 HSV-2+ symptomatic subjects completed 3Q 2017
- Four intramuscular vaccinations 28 days apart
- Primary endpoint: Annualized recurrence rate
- Secondary endpoints:
  - Time to first recurrence
  - Proportion of subjects who are recurrence free
Invasive Aspergillosis

- Annual incidence ~150,000 in U.S. and EU combined
  - Predominantly occurs in immunocompromised patients
- High unmet medical need
  - ~50% mortality in high risk groups (Baddley, CID, 2010)
  - Current antifungals may have slow onset of action, drug-drug interactions
  - Increasing resistance
  - Adverse events and drug intolerance to existing antifungals
- Only 1 new therapy class introduced in past 30 years
VL-2397 Novel Mechanism of Action

- VL-2397 represents a potentially new class of antifungal agents
- Active transport into *A. fumigatus* occurs via Sit1
  - Mammalian cells lack Sit1 transporter
- Activity results from effect on an intracellular target
Rapid Activity Against *Aspergillus*
Including Drug-Resistant Isolates

**Rapid Onset of Antifungal Activity**

- **Control**
- **VL-2397 1 x MIC**
- **VL-2397 16 x MIC**
- **VRCZ 1 x MIC**
- **VRCZ 16 x MIC**

Viable Fungal Counts (log CFU/ml)

- MIC: minimal inhibitory concentration
- VRCZ: Voriconazole

**Activity vs. Azole-Resistant Aspergillus**

- **Control**
- **VL-2397 4 mg/kg BID**
- **VL-2397 8 mg/kg BID**
- **PSCZ 10 mg/kg BID**

Percent survival

- N = 10 mice /group
- PSCZ: Posaconazole

VL-2397 Antifungal
Phase 1 Summary

Seven single-ascending dose cohorts, three 7-day multiple-ascending dose cohorts, one 28-day cohort
- Total enrollment 96 healthy subjects-ages 19 to 55

Safety review committee: “Pleased with the overall safety profile of VL-2397”

Predictable PK
- Minimal inter-subject variability
- No apparent accumulation of VL-2397 was observed

Data support advancement to Phase 2 in IA patients
Mechanisms for Rapid Clinical Development

- FDA designations for VL-2397 treatment of IA
  - QIDP – August 2015
  - Orphan drug – December 2015
  - Fast Track – March 2016

- Phase 2 trial planning underway for IA
  - Exploring expedited development pathway
    - Ongoing discussion with FDA
  - Trial participation with Mycoses Study Group (MSG)
    - Trial design and protocol input from MSG and FDA
  - Target 4Q 2017 for first patient dosed
Vical Value Drivers

- **ASP0113 CMV vaccine: Strategic partnership with Astellas**
  - First CMV vaccine to enter pivotal Phase 3
  - Phase 3 in HCT data expected 1Q 2018

- **VCL-HB01 HSV-2 vaccine: Large commercial opportunity**
  - Phase 2 trial initiated September 2016 with a clinically-relevant primary endpoint

- **VL-2397: Antifungal with novel mechanism of action**
  - Phase 1 data in 1H 2017; Phase 2 planning underway

- **Cash position sufficient to fund operations through 2018**
  - $39 million as of March 31, 2017