



Overview

Advanced Life Sciences is a biopharmaceutical company engaged in the discovery, development and commercialization of drugs in the areas of infection, cancer and respiratory diseases. The Company's lead product candidate, cethromycin, is a novel once-a-day antibiotic developed for the treatment of respiratory tract infections.

Nasdaq: ADLS
 Shares Outstanding: 38.5M
 Cash Position: \$9.1M at 6-30-08
 52 Week Range: \$0.67 - \$2.85
 Market Cap: \$40M at 6-30-08
 Contact: Joe Camp
 Email: ir@advancedlifesciences.com

Advanced Life Sciences has assembled a promising pipeline of clinical and preclinical candidates using its internal discovery platform of natural product optimization through medicinal chemistry and structural biology, coupled with in-licensing promising new products. The Company has three product candidates that are either in clinical development or approved to begin clinical development.

Development Pipeline

| | Discovery | Preclinical | Phase I | Phase II | Phase III | Commercialization | |
|--------------------------------|--|--|---------|----------|-----------|-------------------|--|
| Product Portfolio (Indication) | Infectious Disease | | | | | | |
| | <i>Cethromycin</i> (Community Acquired Pneumonia) | [Progress bar spanning Discovery, Preclinical, Phase I, Phase II, Phase III] | | | | | |
| | <i>Cethromycin</i> (Anthrax) | Pre-NDA Animal Studies | | | | | |
| | Oncology | | | | | | |
| | <i>ALS-357</i> (Melanoma) | [Progress bar spanning Discovery, Preclinical] | | | | | |
| | Respiratory Disease | | | | | | |
| <i>ALS-886</i> (ARDS) | [Progress bar spanning Discovery, Preclinical] | | | | | | |

Cethromycin Program

With increasing worldwide resistance rates to current macrolide and penicillin antibiotics there is a growing medical need for new antibiotics. Cethromycin was created to address this need and Advanced Life Sciences is focusing its resources on its development and commercialization. In late 2007, we completed two successful pivotal Phase III trials for the treatment of mild-to-moderate community-acquired pneumonia (CAP) in adults. After confirming the safety of cethromycin in a thorough QT study, we compiled and recently announced the submission of a New Drug Application (NDA) to the Food & Drug Administration in CAP.

Another potential use for cethromycin is in the treatment of airborne bacterial bioterror agents such as anthrax, tularemia and plague. As resistance to the first-line treatments grows, there is a medical need for other therapeutics that work differently than existing agents to treat anthrax infection. Our collaboration with USAMRIID has produced promising results in anthrax, and a recent primate study confirmed cethromycin's efficacy in preventing anthrax infection. This study, along with the data from our recently awarded Defense Threat Reduction Awareness (DTRA) contract, could potentially support a future sNDA submission for the treatment of anthrax and other biodefense-related pathogens.

Potential Indications for Cethromycin

Respiratory tract infections (RTI) account for about 60% of prescriptions written for oral antibiotics annually, and with nearly 4 million deaths worldwide every year, have the highest mortality rate of any infectious disease. Sales of branded antibiotics recorded more than \$5 billion in the US respiratory infectious disease market in 2005.

- **Community acquired pneumonia** is the sixth most common cause of death in the United States. Community acquired pneumonia affects 5-6 million patients each year, requiring 10 million physician visits and 2 million hospitalizations annually.
- **Bronchitis** affects as many as 13 million patients per year, in the United States. Additionally, there are 32 million cases of acute exacerbation of chronic bronchitis characterized by increased coughing and additional symptoms of respiratory distress.
- **Sinusitis** accounts for an estimated 31 million cases annually, resulting in 25 million office visits per year. It is the fifth most common diagnosis for which antibiotics are prescribed.
- Work is underway to demonstrate cethromycin's utility in treating a broad range of pathogens that could be used as agents of bioterror; including **anthrax, tularemia, plague** and **melioidosis**.

Commercialization and Partnering Plan for Cethromycin

The Company has reached a commercialization agreement with Wyeth for the marketing and promotion of cethromycin in the Asia Pacific region. We plan to partner with companies in other major global markets in our effort to target primary care physicians globally.

Recently Accomplished Milestones

| | |
|---------------|---|
| October 2008 | Signed commercialization agreement with Wyeth for cethromycin in Asia Pacific region |
| October 2008 | Submitted NDA for cethromycin in CAP |
| August 2008 | Awarded U.S. Department of Defense contract to further study cethromycin as a potential broad-spectrum medical countermeasure |
| June 2008 | Article in Journal of Antimicrobial Chemotherapy supporting role for cethromycin as potential treatment for infections caused by community acquired MRSA |
| February 2008 | Announced successful thorough QT study of cethromycin |
| November 2007 | Released data from second of two pivotal Phase III clinical trials confirming earlier results in which cethromycin achieved primary efficacy endpoint of non-inferiority in CAP |

Management Team

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|-------------------------|------------------------------|
| Michael Flavin, Ph.D. | Chairman and CEO |
| John Flavin, M.B.A. | President and CFO |
| Suseelan Pookote, Ph.D. | EVP of Corporate Development |
| Ze-Qi Xu, Ph.D. | CSO |
| David Eiznhamer, Ph.D. | EVP of Clinical Development |

**ADVANCED LIFE SCIENCES™**
Advancing Discoveries For Health
1440 Davey Road
Woodridge, Illinois 60517
T: (630) 739-6744 | F: (630) 739-6754
ir@advancedlifesciences.com