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Recent Events: *Aradigm completed a Phase 2b trial of its once-daily treatment for Bronchiectasis, a severe orphan lung disease with unmet medical need; Novo Nordisk acquired 26 million shares of the company's stock in an equity-for-debt swap at \$0.35 per share; UK and Germany approved SUMAVEL® needle-free migraine treatment; Aradigm received \$733,438 in US Gov't Qualifying Therapeutic Discovery Project grants.*

KEY CONSIDERATIONS

- Aradigm is developing late stage drug candidates delivered by inhalation for treatment of severe respiratory diseases.

- Its lead products -- ARD-3100 and ARD-3150 -- are reformulated versions of a potent antibiotic made safer and more effective with the company's proprietary inhalation treatment -- Bronchiectasis (BE) and Cystic Fibrosis (CF) are the first indications.

- Partnering discussions in anticipation of Phase 3 clinical trials are underway.

- BE is a severe respiratory condition associated with chronic lung infections. There are approximately 110,000 non-CF BE patients in the US and 210,000 in the EU. There also is a high incidence of BE in Asia. China is believed to have more BE patients than the rest of the world combined.

- CF is a genetic disease that causes thick, sticky mucus to form in the lungs, pancreas and other organs. It affects approximately 30,000 patients in the US and 70,000 worldwide.

- There are currently no FDA-approved pharmaceutical treatments specifically for BE.

- Global revenues of two approved orphan CF inhalation products -- TOBI® and Pulmozyme® -- were approximately \$750 million in 2009. Both BE and CF are chronic conditions which require lifelong treatment.

- Aradigm completed a successful Phase 2b trial with its once daily ARD-3150 treatment for BE in September 2010.

- A Phase 2a trial of ARD-3100 for treatment of CF has been completed successfully.

- Orphan drug designations have been granted for both BE and CF in the US and for CF in EU.

Aradigm Corporation (ARDM)

Recent Price:	\$0.19
Shares Outstanding:	172 Million
Approx. MktCap:	\$33 Million
Avg Daily Vol:	200,000
Fiscal Year Ends:	Dec. 31

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- Aradigm's ARD-3100 and ARD-3150 products, which require only once-daily administration, offer significant advantages in terms of patient convenience and quality of life versus competing FDA-approved inhaled treatments for CF. TOBI® is a three-daily treatment; Cayston® is a three times daily formulation.

- Aradigm's technology may have applicability for treatment of some patients with other respiratory conditions, including COPD (Chronic Obstructive Pulmonary Disease), asthma, inhalation tularemia, plague, non-tuberculosis mycobacteria and multi-drug resistant tuberculosis.

- Aradigm has begun receiving royalty payments from sales of SUMAVEL® DosePro™ needle-free migraine treatment which is marketed by Astellas and Zogenix in the US and Desitin in EU.

- The company has an extensive intellectual property portfolio, including its AERx™ inhalation drug therapy delivery technology.

OVERVIEW

Aradigm is a respiratory specialty pharmaceutical company developing late stage drug candidates delivered by inhalation for treatment of severe respiratory diseases. Aradigm does not develop new drug entities; rather it develops proprietary formulations or delivery mechanisms for proven drugs. As a result, the company's regulatory path to FDA approval is shorter, requires much less

preclinical development and generally fewer clinical trials with lower levels of clinical risk and considerable savings in terms of time and expenditures.

Aradigm's lead products are for treatment of Bronchiectasis (BE) and Cystic Fibrosis (CF). The company anticipates entering into partnerships prior to the start of the pivotal trial and would like to retain co-marketing rights for its products in the US or EU and build a specialty sales force targeting respiratory physicians. An estimated 80-90 percent of CF patients in the US are treated through approximately 120 centers accredited by the CF Foundation.

In addition to its lead products targeting BE and CF, Aradigm has an extensive intellectual property portfolio, including its AERx™ inhalation drug therapy delivery technology. In 2010, the company began receiving royalty payments on SUMAVEL® DosePro™ needle-free migraine treatment which it sold to Zogenix. SUMAVEL® is marketed in the US by Zogenix and Astellas and by Desitin in the EU.

INHALED CIPROFLOXACIN

Aradigm's lead products -- ARD-3100 and ARD-3150 -- are proprietary formulations of inhaled ciprofloxacin for treatment of Bronchiectasis (BE) and Cystic Fibrosis (CF).

Ciprofloxacin is a well-known, broad spectrum antibiotic typically used in oral or injectable forms to treat acute exacerbations due to respiratory infections. Chronic management of these infections to prevent the exacerbations is highly desirable as the cost of treatment of the exacerbations and the impact on the patients' quality of life are high. Aradigm's inhaled liposomal ciprofloxacin formulation offers several significant advantages for management of chronic severe respiratory infections:

- Inhalation therapy allows targeting high concentrations of antibiotic to the infected area with limited systemic exposure and reduced risk of systemic side effects or development of systemic resistance.

•Aradigm uses lipids of the type occurring in the human lung to encapsulate ciprofloxacin. This "liposomal" formulation ARD-3100 provides sustained release within the lung, thereby allowing once-daily treatment.

•Aradigm's inhaled ciprofloxacin product successfully addresses issues of tolerability and adverse respiratory reactions which have caused failure in previous attempts to develop inhaled antibiotic treatments for BE.

Aradigm's ARD-3100 and ARD-3150 target the *Pseudomonas aeruginosa* bacteria (*P. aeruginosa*). Infections involving *P. aeruginosa* can be found in patients suffering from a number of severe respiratory ailments, including BE, CF, COPD and asthma.

Aradigm's inhaled ciprofloxacin has been designated an orphan drug for BE and CF in the US and for CF in the EU.

ARD-3100/ARD-3150 BRONCHIECTASIS (BE)

BE is a severe respiratory condition associated with chronic, recurrent infections which progressively damage the lung tissue and can lead to heart failure, although death in BE is usually caused by respiratory problems. Patients experience frequent pulmonary exacerbations requiring hospitalizations averaging six days in length and over \$40,000 in costs.

There are approximately 110,000 non-CF BE patients in the US and 210,000 in the EU. There also is a high incidence of BE in Asia. China is believed to have more BE patients than the rest of the world combined.

There are currently no FDA-approved pharmaceutical treatments for BE. Previous attempts to develop treatments with inhaled antibiotics (TOBI®) have been unsuccessful due to adverse respiratory reactions which outweighed the benefits of the anti-infective effect.

Aradigm's inhaled liposomal ciprofloxacin formulation successfully addresses issues of tolerability and adverse respiratory reactions. Aradigm has been testing two formulations -- ARD-3100 and ARD-3150 -- for treatment of BE. ARD-3150 combines ARD-3100 with a small spike of non-liposomal ciprofloxacin.

Aradigm completed a successful Phase 2b trial with its once daily ARD-3150 treatment in September 2010. This six-month multi-center, international Phase 2b trial enrolled 42 patients and demonstrated effectiveness in both the:

•Primary endpoint - significantly reducing (by 27,000 fold) the level of infection; and the

•Secondary endpoint - increasing the median time to first exacerbation (134 days for ARD-3150 vs. 58 days for the placebo group) following treatment.

ARD-3100 CYSTIC FIBROSIS (CF)

CF is a genetic disease that causes thick, sticky mucus to form in the lungs, pancreas and other organs. It affects approximately 30,000 patients in the US and 70,000 worldwide. As with BE, there are large numbers of undiagnosed CF patients in the developing world including an estimated 100,000 in India and large numbers in two other BRIC countries, Brazil and Russia.

At present, there are only two inhaled antibiotics approved by the FDA for treatment of CF patients with *P. aeruginosa*: TOBI® from Novartis and Cayston® from Gilead Pharmaceuticals. TOBI® is a formulation of Tobramycin and has been on the market for more than ten years. Cayston® is an inhalation form of

Aztreonam and was approved by the FDA in February of 2010.

Aradigm's ARD-3100, which requires only once-daily administration, offers significant advantages in terms of patient convenience and quality of life versus competing FDA-approved treatments: TOBI® is a twice-daily treatment; Cayston® is a three times daily formulation.

A Phase 2a trial of ARD-3100 for treatment of CF was completed successfully in 2008. This multi-center, 14-day treatment Phase 2a trial was conducted in Australia and New Zealand in 21 CF patients. Results indicated both a significant reduction in *P. aeruginosa* density and improvement in lung function.

Partnering discussions in anticipation of Phase III clinical trials are underway.

SUMMARY POINTS

Products

- **Two late stage inhalation therapies for treatment of severe orphan respiratory diseases - Bronchiectasis (BE) and Cystic Fibrosis (CF). There are no FDA-approved treatments for BE - 320,000 patients in the US and EU alone. Approved orphan inhalation products for CF have annual sales of over \$750 million. Aradigm's once-a-day treatment offers significant advantages over the two competing products for CF which require more frequent dosing.**

Clinical Status

- **Phase 2b trial of ARD-3150 for BE and Phase 2a trial of ARD-3100 for CF successfully completed. Aradigm is now planning Phase 3 studies for both indications.**

FDA Regulatory

- **Orphan drug designation granted for BE and CF in the US and for CF in the EU. FDA filings for both indications will utilize 505(b)(2) applications, a generally much shorter process available to drugs that are reformulated versions of already approved drugs. Follow-on filings anticipated for broader applications, including asthma, COPD, inhaled anthrax, inhalation tularemia, pneumonic plague, non-tuberculosis mycobacteria and multi-drug resistant tuberculosis.**

Commercial Strategy

- **Partnering discussions in anticipation of Phase 3 clinical trials are underway for ARD-3100 and ARD-3150. The company intends to reserve co-marketing rights to the US or EU market for CF, which can be addressed with a small sales force targeted at clinics accredited by the Cystic Fibrosis Foundation.**
- **Out-licensing of other Aradigm technologies ongoing. Aradigm has begun receiving royalty payments on the needle-free migraine treatment sold to Zogenix.**

Management

- **Aradigm CEO Igor Gonda, Ph.D led the development of the inhalation delivery of Genentech's Pulmozyme® (\$470 million annual sales) while he served as senior scientist and group leader at Genentech.**

Expected Coming Events

- **Second Phase 2b ARD-3150 clinical trial results**
- **Partnering progress announcements**
- **Initiation of Phase 3 trials**
- **Scientific and investor presentations and science publications.**

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