

October 10, 2014 - The Search For The Ebola Virus Vaccine – By Jeffrey Hagenmeier



As the Ebola virus continues to spread in parts of West Africa and more medical professionals become ill people naturally fear the contagion. Given the total associated costs in dealing with the disease, makes the search for a vaccine all the more important. The diagnosis of the first patient in the United States with Ebola gives ample evidence of this. The medical care provided to Thomas Eric Duncan when he became ill while on vacation in the United States, will probably exceed \$1 million USD (United States Dollar) The special cleaning of the apartment alone that he visited while in the United States, is reported to cost \$130,000 USD.

There are a number of companies searching for a vaccine, both public and private. After the initial investor enthusiasm for these companies, the share value has declined recently. This is the result of two issues. The first is that a ready supply of possible vaccines will not be available until well into 2015. The limited stock of these

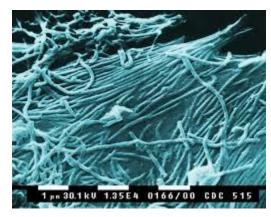
experimental medications have run out. The second was the death of Mr. Duncan. His condition continued to deteriorate once he was hospitalized. Even though he was given drugs that were supposed to treat the virus, he became critically ill and later died.

There are now questions concerning the efficacy of the drugs used. However, what is not debatable is the financial necessity of finding a vaccine that will eventually work. There will also be a need for more medications that can be used in combating the virus. One can also expect specific medical cases, where the vaccine may not be as effective with individual patients.

There are two companies that are working to provide treatment for the Ebola virus. The first is the bio-pharmaceutical company of Chimerix based in North Carolina. This company was founded in 2000 and specializes in developing oral antivirals, to address unmet medical needs in the United States. The second company is Tekmira Pharmaceuticals located in Vancouver, Canada.

The FDA (Food and Drug Administration) in the United States has approved the use of the drug brincidofovir for use in treating Ebola patients. This antiviral drug has been previously tested by the CDC (Center for Disease Control) and the National Institutes for Health in the United States. The drug was created by Chimerix and has been fast tracked by these institutions.

It is important to note that Mr. Duncan was given brincidofovir during his treatment but each medical case is different. The drug could have





applications for other viruses, such as HIV.

The FDA also moved forward to approve a drug named TKM-Ebola, for emergency use to fight the Ebola virus. The medication was made by Tekmira. It was given to an Ebola patient in Atlanta Georgia, that would survive being sick with the virus.

These two medications are not vaccines, but they will provide something in the arsenal to fight against the Ebola virus as the search for a vaccine continues.

Chimerix ended the day on October 09<sup>th</sup> at \$31.81 USD. It had lost \$1.10 for the day which is a loss of 3.34%. The open share price was \$33.30 with a high \$33.32 and a low of \$31.40. The market capitalization for the company stands at \$1.13 billion USD. Last year at this time, the stock was trading at \$16.88 a share, so the company has done well. As late as July it was still trading below \$20.00. Since then the stock has increased in value over 60%. The 52 week range has gone from a low of \$12.96 to a high of \$35.98. The volume traded was over 2 million shares. The average trading volume over the last 3 months has been close to 800,000 shares. The target price can be set for a minimum of \$35.50 USD.

**Tekmira** ended the day **October 09** with a share price of **\$23.82 USD**. The stock had lost \$0.04 for the day which is a total of 0.17%. The stock opened at \$23.76 and reached a low of \$22.31. The high for the day was \$24.75. Market capitalization for the company stands at \$527.45 million USD. The 52 week range was from a low of \$7.17 USD to a high of \$31.48 USD. The total volume traded today was near 6 million shares. The three month average was 5 million. The **target price** can be set at a **minimum** of **\$27.50 USD**.

One can imagine that these companies will continue to have medical significance, not just with Ebola but with future breakouts of viral infections. An investor can easily decide to maintain a position with these companies for the foreseeable future.