## Mr. Michael Ryan Class of 2002 Columbia High School Alumni Hall of Fame, 2015

Mr. Michael Ryan is a chemist with Vertex Pharmaceuticals, Inc., a global biotechnology company based in Boston, Massachusetts. In 2012, the company received FDA approval in 2012 for Kalydeco (VX-770), which marks a major advance in the search for a cure for cystic fibrosis (CF). Mr. Ryan was a member of the team that developed this medication, and continues working on bringing other CF treatments to market.

While a student in the East Greenbush Central School District, Mr. Ryan had three great passions: music, soccer and science. The first of these began with trumpet lessons in a Genet classroom; later in high school, Mr. Ryan began teaching himself guitar (today, he owns four). Three times a week, Mr. Ryan can be found out on a soccer pitch, competing in Boston recreational leagues. His love of the game traces back to countless hours spent with the East Greenbush Youth Soccer club team as well as the Goff and Columbia school teams. What of that third passion, science?

Beginning in Goff Middle School, Mr. Ryan was a member of the Science Olympiad team in 1997-98 that placed first in New York State and went on to Nationals to place in the top twenty. In individual events, he placed among the top ten to fifteen students in the nation as well, an achievement that still makes his team advisor from Goff, Donnamarie Vlieg, smile with pride. He later captained Columbia's Science Olympiad team that, under the guidance of Diane Prout, ranked perennially among the best teams in the state. Throughout high school, Mr. Ryan also made it a point to stop by Goff to offer his expertise and encouragement to the middle school Science Olympiad team; magnanimously, he would offer the same support for both of his former East Greenbush teams while home on break from college and in the years to come. The enthusiasm that Mr. Ryan had developed for scientific inquiry and being part of a team would serve him well at Worcester Polytechnic Institute, where he graduated with distinction and a Bachelor's in Science in Chemistry, and subsequently during research endeavors at Vertex Pharmaceutical.

Vertex's development of Kalydeco, the first drug that treats the underlying cause of cystic fibrosis, has received plaudits since its FDA approval for a select segment of those with cystic fibrosis (CF), ages 6 and older, who suffer from the G551D mutation. Dr. Robert J. Beall, president and CEO of the Cystic Fibrosis Foundation, believes that "the science behind the drug has opened exciting new doors to research and development that may eventually lead to therapies that will benefit more people living with CF." Meanwhile, FDA commissioner Margaret A. Hamburg believes that the partnership between the CF Foundation and Vertex "serves as a great model for what companies and patient groups can achieve if they collaborate on drug development." While only 4% of CF patients have the G551D mutation, this new drug's efficacy so far has been extraordinary: there is well-documented evidence of improved lung function and weight gain for those taking Kalydeco.

Shortly after the drug's approval, Mr. Ryan corresponded with Mrs. Vlieg's 7<sup>th</sup> grade class at Goff, answering their questions about his role in the research, the clinical trials, his thoughts on first hearing of the approval, and the prospects for new "personalized medicine" drugs for the majority of CF patients. In September 2013, the world's largest scientific society, the American Chemical Society—a non-profit organization chartered by the U.S. Congress— honored Mr. Ryan and the team from Vertex Pharmaceutical with the "Heroes of Chemistry" Hall of Fame award.

This evening, the East Greenbush Education Foundation is honored to induct Mr. Michael Ryan, an alumnus who has distinguished himself through his professional achievement and contribution to humanity.