

## **The School for Science and Math at UAB**

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The School for Science and Math at Vanderbilt (SSMV) is a rigorous one-day pull-out program for advanced high school students. The goal of the program is to strengthen critical thinking and problem solving skills through an interdisciplinary approach to STEM learning. Twenty-six students per year attend the program on the Vanderbilt campus for a full day per week during the school year plus three- to six-week intensive sessions during the summer depending on their year of study. Students commit to the full four-year program, and are required to make up any missed regular school work. To date, 83 students have graduated from this program with a majority attending top 50 colleges and universities. SSMV students outperform their peers as shown in a matched control study, and have won numerous regional, state and national STEM competitions and co-authored peer-reviewed scientific publications. The next goal for this program is to define essential programmatic components and to replicate the model based on these components at other universities. With this goal in mind, the NIH awarded the Vanderbilt Center for Science Outreach, the host organization for the SSMV, a supplement to its parent SEPA award (Transforming STEM Learning in Urban Schools Using the SSMV Model) to start a pilot replication project at the University of Alabama at Birmingham in partnership with the SEPA PI Dr. Michael Wyss. To date, Vanderbilt has defined a preliminary set of key components and will be examining the fidelity of replication based on these components in the UAB pilot program. In addition, during several virtual conferences with Dr. Wyss, it was decided to design a pilot year based on the SSMV 2<sup>nd</sup> semester junior year through 1<sup>st</sup> semester senior year, including an 8-week summer research experience. Materials have been identified for guiding the UAB team in the coming semester, and these materials together with program guides have been uploaded into a shared virtual box. The UAB team has hired a postdoctoral fellow with teaching experience and several papers in cardiovascular research to lead the SSM-UAB in its first iteration. The UAB team is in the process of recruiting 30 applicants from the Birmingham City Schools, from which 12-15 students will be selected for admission to the first class. Dr. C. Vanags, Associate Director of the CSO, will be travelling to Birmingham on December 15 to meet with the UAB team to assist in formalizing the curriculum for the pilot year. UAB has approved IRB protocols and assessment tools in place. The Birmingham school district and UAB administrators and staff are eager to see this program work well, and are supporting it with recruitment and encouragement of their faculty to participate in the program. Finally, space allocation and student transport are taken care of, and the research internships will be organized shortly. The spring session will begin on January 14, 2015 and the summer session on June 1, 2015. The team will be working on the fall course and curriculum during the spring semester.