

WINNER #2

Frank Finocchiaro Memorial Scholarship

Sponsored by the Italian Society of Savannah

St. Vincent's Academy (Grade 11 Only)

Scholarship Entry Form

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Personal Statement

I attest that the attached Essay is my original work and that all personal information is true. I understand that once the Essay and Resume have been submitted, they become the property of The Italian Society of Savannah for whatever use they deem appropriate. When asked, I agree to cooperate with The Italian Society of Savannah in any and all promotional activities related to the scholarship competition, and should I be selected a winner, I give them my permission to use my name and photograph in their promotional activities.

Signed by: Megan Vierheilig Date: 2-17-16

Teacher Verification

I have read the enclosed essay and attest that the above named student is in good standing and verify that the Essay reflects the student's original work.

Signature: Bonnie Hance Date: 3-14-2016

All entries must be submitted to the Guidance Office by March 15th, 2016

WINNER #2

Meghan Vierheilig

Hance

AP Language and Composition, Block D

March 15, 2016

Enrico Fermi and How He Changed the Course of American History Forever

“My God, what have we done?” This was the American bomber’s reaction to the bomb dropped on Hiroshima, August 6, 1945. The bomb that ignited nuclear warfare. The bomb that would end hundreds of thousands of Japanese lives in a matter of seconds. The bomb that would terminate World War II.

The nuclear bomb could not have been created without the knowledge of Enrico Fermi. Enrico discovered the nuclear chain reaction and a way to control this reaction. However, his success began much earlier. In September of 1901, Fermi was born in Rome, Italy where he pursued his passion of physics. He continued his studies at Scuola Normale Superiore University in Pisa, Italy with the scholarship he was awarded by the Italian government in 1918. Fermi began his most important work of the atom in 1934 after becoming the professor of theoretical physics at the University of Rome. He discovered that in almost every element, nuclear transformation could occur, which led to his discovery of slowing down neutrons. During this time, Enrico’s wife was in danger due to the target placed on her for being of Jewish descent. Fermi’s Nobel Prize in Physics (1938) “for his work with artificial radioactivity produced by neutrons, and for nuclear reactions brought about by slow neutrons” gave Enrico and his family a ticket to escape to America. In the United States, Fermi taught at Columbia University where he

discovered that uranium neutrons could split other uranium atoms, setting off a chain reaction with an enormous amount of energy, if uranium neutrons were discharged into fissioning uranium. These discoveries led to a major turning point in the United States: December 2, 1942: the first controlled nuclear chain reaction, held under Stagg Field at the University of Chicago. After this test, the unthinkable could be achieved: the start of a new age, the nuclear age, and an end to World War II.

The Manhattan Project controlled the advancement of the atomic bomb. Fermi worked with Albert Einstein and other scientists on this secret project. They wrote a letter to President Roosevelt urging him to fund atomic research. One of the reasons this group was pushing strongly for the research on the atomic bomb was the idea of Nazi scientists developing the method first to use against them. Once developed, the United States sent the first atomic bomb to Hiroshima. That day, fear surrounded the world. Thousands of innocent Japanese were killed in seconds. The survivors didn't know what was going on other than the fact that an enormous mushroom-shaped smoke cloud had emerged. Three days later the United States sent the second atomic bomb, this time to Nagasaki. The Japanese realized after this attack that it was time to surrender to the Americans, ending the long and horrific Pacific war.

America was changed after the bombs. They were overjoyed for the conclusion of World War II, however, the moral justice on how the victory was achieved took a toll on many Americans. Some felt it was wrong to kill thousands of innocent civilians to end a war. Others justified the bombings by thinking about all the lives saved due to the end of the war. If the Japanese wouldn't have surrendered, they would have continued to attack. Many Americans focused on the success of the atomic bomb rather than thinking about the lives lost. The releasing of the atomic bomb was also the beginning of nuclear warfare. The United States showed the

world that it was possible to make this bomb, so other countries were determined to also be successful. This placed a fear on several Americans that they could be bombed at any time.

The great physicist Fermi had an enormous part in the World War II victory for the United States'. If Fermi hadn't discovered how to control a continuous nuclear chain, thousands of other American lives in World War II would have been lost. The success and legacy of this "architect of the nuclear age" has also affected the present-day science world. His inventions are still used and he has become an inspiration for aspiring scientists. Fermi once said, "It is no good to try to stop knowledge from going forward. Ignorance is never better than knowledge." If he wouldn't have been so determined in his experiments, our lives would have been substantially different. He showed the world that if you set your mind to the unthinkable, you can achieve it with hard work and dedication. Enrico Fermi made an enormous contribution to the United States and America is proud to call him one of their own.