Educational highlights: I am a very proud graduate of the Honors College and will cherish my experiences there. My GPA is approximately 3.99, and I have completed a double major in English and Psychology. I am the president of Golden Key International, an academic and service honor society, as well as the secretary of the psychology honor society Psi Chi. I am also a member of the National Society of Collegiate Scholars, Sigma Tau Delta, and Phi Kappa Phi. My studies in biological psychology led me to a great love of neuroscience, and I have focused my most recent education on pursuing research in this field.

Research focus or project: My bachelor’s essay investigates the effects of ammonium perchlorate on neurodevelopment. Perchlorate is a water-soluble oxidizer used for rocket fuel and fireworks; if improperly disposed of, it can infiltrate an ecosystem through contamination of its water supply. Research has shown concern for this known neurotoxin's effects on thyroids, estrogens, and white matter tracts. Because perchlorate can inhibit neural mechanisms responsible for apoptosis in white matter tracts, these areas in the brain (such as the corpus callosum and anterior commissure) often become larger than normal. I have harvested and prepared brain tissue collected from rats treated prenatally with this compound and am currently quantifying the data to determine any effects in the treatment group. Results of this study will be used in a multi-tiered project investigating the impact of perchlorate, including behavioral and neurological measures of treated animals.

Future plans: I will be pursuing a doctoral degree in Neurobiology at UNC - Chapel Hill's Biological and Biomedical Sciences Program. My research interests include neurodevelopmental and neurodegenerative diseases, especially Alzheimer's Disease, as well as addictive behaviors. I hope to pursue beneficial research in these areas. I would like to thank Jill Conway of the Honors College, my bachelor's essay advisor Dr. Michael Ruscio, and Dr. Garrett Milliken of the Psychology Department, who has taught me that “it's your movie; you're directing.”

Cynthia Lowenthal, Dean

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College of Charleston