

The Art of Science

Rachel Howard

University of North Carolina

“Study the science of art. Study the art of science. Develop your senses—especially learn how to see. Realize that everything connects to everything else.” These were the words of world-renowned Leonardo da Vinci, who was prominent for discovering intersections between art and science. As a young scientist and artist, I have admired the wisdom of Da Vinci, as he saw no divide between art and science. In contrast to modern thought, I have always received surprised looks from people when I tell them I study both disciplines. However, I believe it can be detrimental to set such barriers between our passions, even when they do come in unique, organic forms. As art has aided my learning of biochemistry through enhanced spatial awareness and colorful scientific notes and drawings, science has helped me to understand paint solubility and mixed media art. I continually find myself exercising similar skills as I move from reading a chemistry textbook, to a painting a canvas.

One day while studying electron microscopy images of neurons, I found myself mesmerized by the natural beauty and spontaneity of neurons. It then occurred to me that some of the most breathtaking, aesthetically pleasing, abstract-style art occurred naturally at a microscopic level in the world around us. I soon covered my studio space with electron microscopy images of neurons and began experimenting with various artistic techniques to try and recreate a neuron style affect. “The Art of Science” is a mixed media creation, made from different types of paint varying viscosity, chalk pastels and oil pastels.

Intersect celebrates the coming together of Science, Technology, and Society. Such an interdisciplinary approach and collaboration allows one to comprehend the complexity of scientific discovery and technology advancements, and the implications it has on a societal level. The union of these three areas also aids the process of solving intricate problems in a creative, non-traditional manner. My art is representative of these themes, as its creation relied on the scientific discovery of neurophysiology, the technological assistance of electron microscopy, and the societal impact of using the final piece of art as a form of communication and expression.

As an undergraduate, when I told people I studied both art and science I received many perplexed reactions that subtly indicated these two areas were meant to stay independent. However, I now spend much of my free time outside of the laboratory creating art as a graphics assistant

for a peer-reviewed research journal and painting windows for children in the hospital. Through breaking traditional barriers of defined disciplines, one can gain a new and enriching perspective. As I advance in academia, I am determined to continue discovering intersections between my two passions. I hope my art inspires others to explore all their interests across various disciplines with great enthusiasm. When there is not a path to follow, create your own path fearlessly with immense passion and creativity.