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Sculpting Science: Inspired Artwork from the Microscopic World

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Art can be inspired by nature, but art can help in biological understanding of complex systems (Gross, 2013). Since the spring of 2014 the School of Life Sciences (SoLS) and School of Art (SoA) at Arizona State University have been involved in a collaborative project called 'Sculpting Science.' The aim of this effort is to facilitate ongoing exchanges of positive and synergistic ideas, creativity, and knowledge that result in provocative and aesthetically pleasing works of art. The resulting artworks are exhibited in art galleries around the Phoenix area and within SoLS and SoA for the long-term enrichment of our students, faculty, and community. Student objectives include: i) to gain an understanding of the artistic processes of creativity and technical skills needed to complete the project, ii) during exhibitions of the artworks students will describe their works being displayed, and iii) students will be involved in publicizing their progress throughout the SoLS newsletter and SoA-eblast media. Students work in small groups of two to three, they may also work individually in order to artistic concepts. Based on these images, original artworks are created that directly reflect the nature of the microscopy images or are conceptual interpretations of them. Drs. Roberson and Beiner oversee these events closely, while providing an atmosphere of independence and creative thought. Drs. Roberson and Beiner also facilitate the decisions that lead to the selections of what images will be displayed and discussions on how the works will be arranged. There is some time devoted for preparation of display elements such as pedestals, frames, and other hanging devices. Participating graduate and undergraduate students (20 - 25) from both the SoLS and SoA enroll in art classes that include the disciplines of ceramics, drawing, and other mixed media. Students then visit seven to ten biology laboratories that are actively involved in research ranging from studies of cell and molecular biology, neurobiology, human health, ecological, and evolution. Professors explain aspects of their research while emphasizing how microscopy is used in addressing their objectives. From these experiences, art and biology students work together in finding inspiration for new artwork and data presentation from learning about and seeing the microscopic world of biology. These are just one student's words describing her experience as a participant in Sculpting Science – 'an innovative and eclectic art exhibition influenced by microscopic nature.' The forth installment of Sculpting Science will be initiated during the spring of 2021.

References

M Gross. 2013. Where art and biology meet. Current Biology 23: R47-R50