

# STAFF

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# EDITOR'S NOTE



*Jonathan Kuo*



*Rosa Lee*

Bonds govern the world around us. Chemical bonds build our environment and regulate our interactions with our surroundings. When you take in the sharp aroma of your morning coffee, odorant molecules rise from your cup and bind to your olfactory receptors, triggering the twisting and rearrangement of the peptide bonds of the receptor. Our treatment of the environment binds us more tightly than ever before. Wildfires, zoonotic diseases, and climate change have all intensified over the past year, causing destruction with seemingly no end in sight lest we change our actions. Social bonds color our daily lives in new, unforeseen ways. Bustling lecture halls and social gatherings are now replaced by Zoom calls, with familiar faces and warm conversation emanating from rectangular boxes on our screens.

In this issue, we explore the ways in which bonds, of all types, shape us and our surroundings. Microrobots that act as moveable bridges between neuron clusters are opening new ways to study neuronal communication. New algorithms that predict off-target binding of CRISPR guide RNAs provide an improved method for anticipating potential undesired effects of CRISPR-Cas9 genome engineering experiments. And student research in the coastal waters of French Polynesia sheds new light on resilience within coral reefs, located within an ephemeral network of anthropogenic disturbances, environmental symptoms, and scientific struggles to preserve one of the most important ecosystems on planet Earth.

This semester, our writers and editors, working from distant locations and time zones, have faced both challenges and unexpected advantages in working on this issue. While our writers can no longer drop by a researcher's office on campus, the new remote format allowed our interviews team to talk to engineers in Italy who have developed an affordable and accessible pulmonary ventilator to aid in the fight against COVID-19. It also allowed us to hear from two wonderful sets of speakers located across the country. Former BSJ editor-in-chief Yana Petri, now the co-founder and editor-in-chief of the *MIT Science Policy Review*, spoke to our writers about the process of beginning a new science publication. Our writers also engaged in a panel discussion with science journalists Shira Feder, Eric Boodman, Jane Hu, and Kate Gammon, who write for publications varying from *STAT* to *The New York Times* to *Nature*, on their experiences navigating the interface between the public and the scientific community.

During this pandemic, science is at the center of our lives. We look to scientists and healthcare professionals to characterize, understand, and develop therapeutics for this disease. The surge of research activity surrounding SARS-CoV-2 only amplifies the need for accurate and careful scientific reporting. With this responsibility in mind, we are proud to present the Fall 2020 issue of the Berkeley Scientific Journal.

*Rosa Lee*  
Managing Editor