From the Executive Director

Despite these challenging times, there have been highlights to the year. We had a Fall Dinner presentation by UC Berkeley Professor Eva Nogales, which included an overview of the principles and use of cryo-electron microscopy (cryo-EM), a structural biology technique that is revolutionizing how we understand the workings of macromolecular complexes. She gave several examples of how cryo-EM has been used in her lab to study large, flexible and challenging complexes involved in processes as diverse as chromosome segregation during cell division, and the regulation of gene expression at the transcriptional level. Some of the images she has generated will replace some of the cartoons we biologists use in thinking about these basic cellular processes. In addition, the year was filled with fascinating weekly lunch talks by Fellows, Miller Visiting Professors and Miller Professors. We have continued these talks, now via Zoom. I am so glad so many of our current Fellows and Professors continue to participate in these weekly events. Also, our Senior Miller Fellows – Professors Susan Marqusee (Chemistry/Molecular and Cell Biology), Michael Jordan (Electrical Engineering and Computer Sciences/Statistics), and Alex Filippenko (Astronomy) - contributed to the community last year by hosting small group lunches with Fellows and of course, through their participation in Miller Institute events.

Once again, the Spring Symposium Committee, under the guidance of faculty leader Michael Manga (Earth and Planetary Science), put together a spectacular program. We held out for as long as we could but in early March, we decided to cancel the event, which in the end was the right thing to do. Luckily all of the speakers have agreed to participate next year, so expect a full report in the Fall 2021 newsletter!

One of the most exciting events of the year was the start of the Kathryn A. Day Miller Postdoctoral Fellowship, initiated through an inspiring gift from Randy Schekman and Sabeeka Merchant. The fund received quite a boost with generous donations from current and former members of the Miller Community. Several Miller Fellows are off to new adventures while we welcome 10 new Fellows this Fall; you can read more about the Fellows’ next steps on page eight. Members of the Miller community continue to receive recognition for their professional accomplishments - to keep up with the great successes of the members of the Miller Community, check out the announcements on the Miller website (miller.berkeley.edu).

The leadership at the Miller remained constant this year. The Executive Committee - Stephen Leone from Chemistry/Physics, Yun Song from Statistics and Computer Science, and Roland Bürgmann from Earth and Planetary Science - continue to be active participants in Miller events in addition to working hard each Fall to select the next year’s Fellows, Professors and Visiting Professors. Also remaining constant is the membership of the Advisory Board, which is composed of Professors Steve Block (Stanford), Feryal Ozel (University of Arizona), Luis Caffarelli (University of Texas – Austin) and Tim Stearns (Stanford). I will also continue for a second term of the Miller Executive Director, which is really one of the most wonderful honors of my career. I look forward to working with them and the rest of the Miller community to guide the Miller Institute into an era of increased diversity. And I hope to see more of you in person very soon!

O f course, the Miller community has also been disrupted by the appearance of SARS-CoV-2 and the resulting pandemic. The abrupt shut down of the University and the surrounding communities continues to affect all of our research and also has introduced an air of uncertainty that has impacted people on personal and professional levels. It has become quite clear that science is so critical for our understanding of the many aspects of this pandemic and hopefully seeing our way out of it. In this realm, it has been wonderful to learn more about the virus and its impact on society from our Miller community. I offer a few examples here. Former Miller Professor Britt Glausinger (2015) gave a heavily watched seminar in the molecular virology of SARS-CoV-2. Former Miller Professor Bin Yu (2004, 2016-2017) has been working on forecasting “the severity of the epidemic for individual counties and hospitals in the US.” And current Miller Fellow Cara Brook (2017-2020) - who studies zoonotic infections with a focus on viral infections in Madagascar fruit bats - has given several presentations on her work both to the Miller community and on campus, and was also interviewed on CNN!

P rior to the March shutdown the Miller community was firing on all cylinders. New Chief Administrator Hilary Jacobson, has spent the year learning the ropes and is bringing strong leadership and a wonderful energy to the Institute during these challenging times. Unfortunately, the departure of staff member Erin Douglass left a lot more work for everyone but with the help of the long-time Miller Staff Emily Birman and Donata Hubert, the Miller Institute continues to run smoothly. I do want to acknowledge the tremendous effort Hilary has put in keeping the community going via Slack and Zoom lunch meetings and for facilitating the efforts of the Miller Fellows for implementing change that will enhance diversity.

How many years can some people exist before they’re allowed to be free?
How many times can a man turn his head and pretend that he just doesn’t see?

-Bob Dylan, Blowin in the wind, 1963

Marla Feller, Miller Institute Executive Director & Paul Licht Distinguished Professor in Biological Sciences

Note: Photos on this page showing Miller members in close proximity were taken before shelter-in-place orders.