



## President's Message

# PLANT BY PLANT

Of the three collecting areas at The Huntington, the most visible is the Botanical Gardens. One hundred twenty acres of sensory splendor—roses, wisteria, camellias, cacti, aloes, puyas, the list goes on—attracting hundreds of thousands of people a year from all over the world. What arguably is less well known is the amount of botanical *research* going on here.

When I was appointed president of The Huntington, as a literary scholar specializing in James Joyce, I knew about The Huntington's research program in advanced humanities and the arts. What I didn't know was the degree to which we are conducting advanced research in botanical science. In late fall, I was asked by Jim Folsom, the Telleen/Jorgensen Director of the Botanical Gardens, to join his staff for lunch, and I had a chance to hear about the research underway there.

The conversation was enthralling, for in the laboratories in the Brody Botanical Center our staff botanists are puzzling through a range of important questions. For research botanist Brian Dorsey, for example, the issue at hand is evolutionary biology, and his focus is cycads. What I'm learning from his work is that certain living species of cycads—those spiky looking plants that look a lot like palms but are actually more closely related to pines—may have diversified into new species over millennia as a result of climate fluctuations, or climate change. Brian and several collaborators recently published their findings in the *American Journal of Botany*. And, importantly, he'll be working with colleagues in Mexico and Japan on future research projects. Ultimately at issue is cycad conservation around the world, as a significant proportion of these plants are threatened in their native habitats. An article about his work appeared in the Spring/Summer 2017 edition of *Huntington Frontiers* magazine. I thought it particularly

worth mentioning now, because Jim Folsom and his team have been working hard to complete a new pathway, just south of the Huntington Art Gallery, through a dramatic planting of hundreds of spectacular cycads, a bequest from collector Loran Whitelock and the source of much of the data for Brian's recent article. The new pathway, which runs east-west from the Desert Garden to the Rose Garden, is fully wheelchair accessible and a delightful addition to the gardens. (See the related piece on page 11.)

Meanwhile, staff botanist Raquel Folgado attacks plant extinction from another angle: through cryopreservation. The general concept is to take plant tissue from endangered or threatened species, plunge it into a deep freeze using liquid nitrogen, then later thaw it out and coax it back to life. It is a painstaking process—and still in its infancy. In fact, The Huntington is one of very few spots in the world doing this work. Avocados are of particular interest for cryopreservation because of their vulnerability to drought and beetles. Raquel's work also includes magnolias (I am told that a significant proportion of magnolia species are endangered on a global scale), aloes, various cacti, and cycad pollen, among others. Among her collaborative partners are research faculty at the University of California, Riverside, and the University of Queensland in Australia.

Several of our staff botanists travel internationally each year to participate in global conferences on plant conservation and provide their expertise. As knowledge of climate change advances, so does concern for individual plant species and their ability to adapt to shifts, or not. Our botanical researchers are working feverishly to do what they can to contribute to that knowledge base. Their deep commitment is apparent all over The Huntington.

*Karen R. Lawrence, President*