

Matsui honored for mentoring students into health professions

 news.berkeley.edu/2011/06/07/matsui-honored-for-mentoring-students-into-health-professions

By Robert Sanders, Media relations | June 7, 2011

January 11, 2030

For first-generation college students, the University of California, Berkeley, can be daunting.

Even more overwhelming is the cutthroat coursework required of students who are science majors, said John Matsui. When he first came to UC Berkeley's Student Learning Center 20 years ago, it was basically sink or swim in biology classes, he added, and many students who were the first in their family to attend college sank.

“These students had the same aspirations and motivation as other students, but their experience and sometimes different treatment made them question whether they could do science, and even whether Berkeley had made a mistake in admitting them,” said Matsui, himself a first-generation college student who grew up in West Berkeley.

The campus's Biology Scholars Program, which Matsui co-founded in 1992, has given low-income, first-generation college students – many of them women and underrepresented minorities – a lifeline. Between 2004 and 2010, 83 percent of students in the program who applied to medical school were accepted, versus 55 percent of the general student body. Biology Scholars Program students graduated with equivalent or higher GPAs.



John Matsui, director of UC Berkeley's Biology Scholars Program.

In recognition of nearly two decades of mentoring successful biology students, Matsui now holds the title of “Champion of Health Professions Diversity,” an award bestowed by The California Wellness Foundation this year to three leaders in higher education. Matsui and his fellow awardees – Charles J. Alexander of UCLA and José Ramón Fernández-Peña of City College of San Francisco and San Francisco State University – were honored at a ceremony on June 1 in Los Angeles.

“The changing demographics of our state and the current shortage of health workers underscore the need to prioritize efforts that enable young people and foreign-trained health professionals to obtain careers in health care,” said Wellness Foundation president and CEO Gary L. Yates in announcing the awards in early May. “These leaders have advanced model programs and policies based in higher education settings that support students on a path toward health professions.”

Matsui’s goal was to level the playing field for undergraduate students from diverse social, cultural and economic backgrounds to help them succeed in the biological sciences and go on to graduate work or medical school.

“Universities like UC Berkeley are set up in a way that best reaches those who have a background that has been historically successful,” said Matsui, assistant dean for biological sciences in the College of Letters and Science. “I was looking to fill the gaps, to create support services that were not here at Berkeley in order to better serve the students who no one really expected to survive in higher education. I saw a lot of talent being wasted, so, like Billy Beane of the Oakland Athletics, I went looking for that undervalued talent – students with the potential to be scholars.”

Thanks to Matsui and funding from the Gordon and Betty Moore Foundation, programs similar to the Berkeley Scholars Program have been established at 11 other colleges around the country, including UC San Diego, UC Riverside, the universities of Washington, Texas and Arizona, and small colleges such as Occidental in Los Angeles and Towson in Maryland.

“When I got the phone call about this (award), I started crying,” Matsui said. “I am honored.”

Maximizing potential

The Biology Scholars Program got off the ground with a major grant from the Howard Hughes Medical Institute to improve undergraduate education and was spearheaded by Matsui and two other faculty members – Corey Goodman, professor of molecular and cell biology and an HHMI investigator; and Caroline Kane, an adjunct associate professor of molecular and cell biology.

“BSP was John’s vision that we all implemented to encourage the students in maximizing what we knew they could do, and done it they have,” said Kane, who is now an emerita professor in residence. “Their community of encouraging each other, and their voices, which we could take to policy makers about what students need and can do ... those have contributed to the successes of BSP and its members. John is truly the guiding hand.”

The program quickly had an impact on retention of underrepresented students in biology majors. In the first five years, African American and Hispanic students who participated in the Biology Scholars Program graduated with a biology degree at the same rate (60 percent) as Asian and white students who were not in the program and at more than twice the rate (24 percent) of minority students who did not participate in the program.

The statistics have continued to improve, and to date some 2,500 students have participated in the program. About 650 students were active during the past year. Seventy percent of them were women, 60 percent members of underrepresented ethnic groups, and 80 percent low-income, first generation students. One-quarter of the students are recruited from UC Berkeley's rigorous, six-week academic Summer Bridge Program that facilitates the transition of students from high school to university.

"We are extremely proud of Assistant Dean John Matsui's tireless and creative efforts on behalf of Berkeley's diverse student community," said Mark Schlissel, dean of the biological sciences at UC Berkeley's College of Letters and Science. "The BSP provides a sense of community and intensive mentoring, resulting in outstanding academic results from student participants. We also support John's effort to study what approaches work best in this area and to share this knowledge with the broader academic community."

Matsui is modest about his accomplishments, arguing that the success of Biology Scholars Program students could merely be because the most highly motivated students seek out his program. He is in the process of planning a Science Diversity Institute, endowed by \$200,000 from UC Berkeley Chancellor Robert Birgeneau, to focus on collecting data that can be used to establish a causal effect and to learn more about what characteristics lead to success in the health professions. He knows already that student success can't be predicted by one's high school GPA, college GPA or test scores.

Last year, Matsui and Stanford University sociologist Donald Barr published a study showing that chemistry courses are the number one reason that pre-med students abandon their dreams of becoming a physician, and that this is especially true for underrepresented minority students.

"We have made a difference, but we still need to know more about what works for whom and how we can do better," Matsui said. "BSP is a work in progress, and it always will be if I have anything to say about it."

For more information:

- 2011 Champions of Health Professions Diversity [press release](#)
- "The Chairman," a Berkeley Science Review [profile](#) of John Matsui