



BÉATRICE DE GÉA Los Angeles Times

**HEART OF THE MATTER:** Justice Shank, left, and Ashley Cano, both 12, hold a pig heart they are dissecting during a science and math career conference Saturday at Mount St. Mary's College near downtown Los Angeles.

## Girls Do the Math — and Science

**An all-day event for middle-school students from L.A. County targets possibilities for careers in mostly male-dominated fields.**

By CAITLIN LIU  
Times Staff Writer

Seeing a tray of fleshy, blood-encrusted pig hearts for the first time, Justice Shank and Ashley Cano screamed — in total delight.

"Blood! Hearts! This looks like fun!" said Justice, poking at a pink, grapefruit-sized blob through surgical gloves. "Look at all the arteries."

Ashley cupped the porcine organ to her chest in a swoop of pretend sadness. "Hey, hey, don't stick your finger in my heart," she said. "You're going to break it!"

Justice of Glendale and Ashley of South Los Angeles, both 12, were among the 210 fifth- through eighth-grade girls from across Los Angeles County who gathered Satur-

day at Mount St. Mary's College near downtown Los Angeles for a conference designed to encourage their interest in scientific and medical careers.

Since the annual Expanding Your Horizons event was conceived 26 years ago, women have made strides in scientific professions — but not nearly enough, conference organizers say.

A firestorm was unleashed recently when Lawrence H. Summers, the president of Harvard University, suggested publicly that women might be innately less capable than men in mathematics and science.

The comment angered many women in academia who have noted that elite institutions, such as Harvard, tend to have disproportionately low levels of tenured female faculty in math and science departments, compared with the percentage of PhDs awarded to women in the same fields.

"His remarks were simply inappropriate for his position as the president of a university," said Carol Fan, a research mathematician and one of the volunteer organizers of this

year's conference, which was sponsored by Math/Science Interchange, a Los Angeles nonprofit group. "It doesn't encourage women to go into sciences. It's hard to overcome institutional prejudices."

In workshops, labs and classes throughout the day, doctors, scientists and engineers told their young audience: Believe in yourself.

"You can do anything you want to in science," said Nicole MacLennan, a lab manager at UCLA's David Geffen School of Medicine, standing next to a large picture of a DNA double helix. "If you know basic lab techniques, you're marketable anywhere in the world."

As girls sat wide-eyed, some were so small their feet didn't quite reach the floor, MacLennan explained amino acid protein sequences and displayed a diagram of "genotype to phenotype."

She then clicked to a slide of what looked like a page full of typewritten gibberish.

It was the complete genetic code for a black mouse.

"These are the alphabet of life!" said Sarah Zwickel, 12, of

Manhattan Beach. "This is the first time I've ever seen a real code for a gene."

Some conference volunteers say Summers might have advanced the cause they advocate. After being barraged by criticism, he is now spearheading an effort to improve the hiring and retention of female faculty at Harvard. And people across the country are talking more about the hurdles that women still face.

"It's almost a good thing that he made the remarks, because that got the issues to the forefront," said Theresa Lynn, a staff physicist at Caltech, who delivered the morning keynote speech on cosmic rays. "Especially in the physical sciences, it's still the case that there's a skewed ratio."

"There's still a lot of assumptions from parents, teachers, whomever, that girls are not going to be interested in math and sciences," Lynn said. "What we're still creeping toward is a time when we don't have to have a conference like this because it's just as common for girls to go into science as it is for boys."