

First U.S. woman to attempt Everest faces challenge with toxins research

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Berkeley resident Arlene Blum with her (late) cat Midnight. Blum began working on issues related...



BERKELEY — Arlene Blum has done some mind-boggling and challenging things in her 63 years. But even after climbing some of the world's highest mountains, writing two books and earning a Ph.D. in biophysical chemistry, the Berkeley woman says working to reduce toxic chemicals in consumer products is one of the most rewarding things she's ever done.

In 1976, Blum was the first American woman to attempt to climb the icy slopes of Mount Everest, which at 29,028 feet is the highest mountain on Earth. She made it to 24,500 feet but wasn't picked by one of the leaders in her group for the summit team. It didn't stop her from trekking on.

In 1978, Blum led a team of 13 women in attempting to climb Annapurna in Nepal, considered the most dangerous and difficult of the Himalayan giants. The team succeeded

in making the first American ascent, but tragically, the two women in the second summit team fell to their deaths.

In 1981-82, Blum walked a couple thousand miles across the Himalayas, and 21 years ago she hiked 600 miles across the European Alps with her baby daughter on her back.

The Berkeley mountaineer and biophysical chemist still leads treks in the Himalayas for men and women. But she is now using the proceeds from those trips to finance the latest chapter in her life: reducing the use of chemicals that she says threaten human health and the global environment.

"This is my favorite and most important (part of my life). I really like bringing people together from different fields to solve important problems," said Blum.

Last year, Blum launched the nonprofit organization the Green Science Policy Institute from her kitchen table.

The organization provides scientific data to government, industry and nongovernmental organizations in the United States, Canada, Europe and around the world to bring about "more informed decision making about chemicals used in consumer products," said Blum, who is a visiting scholar in UC Berkeley's department of chemistry.

Blum's Green Science Policy Institute, working with an international coalition, has already stopped the passage of five different flammability standards that would have required the use of hundreds of millions of pounds of potentially toxic flame retardant chemicals in household electronic products around the world, she said.

The work that she is doing now actually started more than 30 years ago. In 1977, while working as a researcher at UC Berkeley, Blum learned that a fire retardant known as Tris damaged DNA and was absorbed into children's bodies from their sleepwear. Her research and an article she wrote for the journal Science ultimately led to a ban of Tris from children's sleepwear that year. Tris has been shown to cause cancer in animals, she said.

These days, Blum is making direct appeals to the state legislators, the governor and consumers to get regulations requiring high levels of toxic fire retardants lowered in California, a state which requires the highest levels of toxic fire retardants in the nation, she said.

She said the standard, drafted by the California Bureau of Home Furnishing and Thermal Insulation, provides a very small potential fire safety benefit of slowing a fire by seconds or minutes compared to a large likely negative impact on human health and the environment.

Blum was the scientific adviser for AB 706, a bill in the California legislature that would have increased fire safety and decreased toxics. The measure would have been the first to

put the burden of proof on chemical companies. After heavy lobbying by the chemical industry, the bill was defeated last August.

"Before you legislate chemicals into people's beds, you have to require some health information about those chemicals," she said.

Blum knows a great deal about science and has written articles and speeches on toxins but it was her cat Midnight that led her back to working on reducing toxins, this time in furniture.

Midnight died last October and the cat's passing has "increased my motivation" for reducing toxins in products for future generations, she said.

In 2006, Midnight had lost seven of her 14 pounds and was diagnosed with hyperthyroidism, a common condition in older cats that requires daily medication and other treatments.

But Blum found that the cat's blood and her household dust both contained very high levels of fire-retardant chemicals. Blum said she learned that the chemicals move from furniture and other household products into dust, soil, rivers and the food chain, causing cancer, reproductive and neurological harm, thyroid problems, and endocrine disorders.

"It's hard to turn organizations and people on a dime," said Sara Schedler of Friends of the Earth in a statement. "She did it." Schedler called Blum "one of the most remarkable scientists I've ever met. She just lives and breathes her care for the world, and she has the background to translate science for policymakers, legislators, and the general public."

Blum, who also recently published her memoir "Breaking Trail," about her climbing life, was recently one of six entrepreneurs over age 60 to win a \$100,000 "Purpose Prize for Innovation, Extraordinary Contribution in Encore Careers." Blum was chosen from more than 1,000 nominees, prize organizers said. The prize is from Civic Ventures in San Francisco with funding from The Atlantic Philanthropies and the John Templeton Foundation in Pennsylvania.

She said she will use the money to further her work with her new organization.

To hear Blum and a host of other experts speak about the fire retardant dilemma you can attend a seminar from 8:30 a.m. to 3 p.m. on Jan. 30 at UC Berkeley. To attend, e-mail your contact information to FRDilemma@gmail.com. The cost is \$20 per person to cover lunch, continental breakfast and snacks.

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