

The Sun Devil who revolutionized kitty litter

By Meenah Rincon, ASU News

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If you have a cat, there's a good chance you're benefiting from the work of an Arizona State University alumna.

In honor of Women's History Month, we're sharing her story.

A pioneering chemist and educator, Barbara Munk left an indelible mark on household products and science education.

In 1947, Ed Lowe invented kitty litter, but Munk and her colleagues took Lowe's invention to the next level.

Barbara arrived at ASU to study chemistry in 1976 with a passion for science and teaching, inspired by her aunt, a Franciscan Sister, and the legendary Marie Curie.

While pursuing her degree, she also found love — meeting fellow chemistry student Stephen Munk in an organic chemistry lab. The two married the day after Barbara graduated in 1979, beginning a lifelong partnership.

“Barbara Munk was a committed scientist and science educator,” said [Stephen](#), who is now deputy director at ASU's Biodesign Institute. “As a scientist, she patented and developed very successful consumer products and worked to get FDA approvals for various prescription medicines.”

Her early career took her to Clorox, where she [co-invented Fresh Step Kitty Litter](#), patented in 1983 — the breakthrough product that introduced movement-activated odor control, revolutionizing pet care by keeping homes fresher.

But Barbara's impact didn't stop there.

She went on to work in pharmaceuticals, contributing to drug research and education at companies like Pfizer and Allergan.

Barbara also helped shape the future of science education at Wayne State University and UC Irvine, where she championed new teaching methods and curriculum development.

In 2018, Barbara and Stephen returned to ASU, where she became a clinical assistant professor, teaching both in-person courses and virtually through [ASU Online](#).

“I think that her greatest professional joy and accomplishments came from sharing her love of chemistry with undergraduate students and working with ASU’s [School of Molecular Sciences](#) and with the [Migratory Student Summer Academy](#),” Stephen said.

At ASU, she helped develop a computational chemistry and biochemistry course. While working on an innovative chemistry VR project, [she passed away](#) just hours after sharing her latest ideas with university leadership.

ASU Professor [Judith Klein-Seetharaman](#), who teaches in the College of Health Solutions and the School of Molecular Sciences, emphasized the importance of collaboration, including more voices in science fields and being open to bold and creative ideas to achieve meaningful societal impact.

??”We are at an exciting time in research with an unprecedented pace of progress due to technological advances in collecting data as well as analyzing it,” Klein-Seetharaman said. “It makes it possible to enter new areas of research much more rapidly than it used to be.”

Munk may not be a household name, but her contributions have reached millions.

From improving pet care to revolutionizing chemistry education, she exemplified Sun Devil pride and left a legacy that continues to inspire.

“Barb was an incredibly passionate educator and a highly respected member of the School of Molecular Sciences,” said [Tijana Rajh](#), director and professor at the School of Molecular Sciences. “Her dedication to students and innovation in chemistry left a lasting impact on our community. We are honored to have had her as part of SMS, and her legacy continues to inspire us all.”

Very few women scientists are adequately recognized for their immense contributions to science.

“I hope that she will become a household name and be as widely known as the Fresh Step household product all cat owners know,” Klein-Seetharaman said.



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Main image



ASU alumna Barbara Munk returned to ASU in 2018 as a clinical assistant professor teaching both in-person courses and virtually through ASU Online. Photo courtesy of Stephen Munk

Text image(s)



Barbara Munk in the 1980s. Photo courtesy of Stephen Munk