



# Fourth of July Parade Special Section

## MARINSCOPE COMMUNITY NEWSPAPERS

VOL. 100, NO. 26 | A MARINSCOPE COMMUNITY NEWSPAPER

THE WEEK OF JUNE 28, 2023

NOVATO ADVANCE • SAN RAFAEL NEWSPINTER • ROSS VALLEY REPORTER • TWIN CITIES TIMES • MILL VALLEY HERALD • SAUSALITO MARINSCOPE

# Parade Grand Marshal is Homegrown Scientific Whiz

Dr. Kenny Wilson is a renowned researcher at the Buck Institute

Years ago when he was a young kid in Novato, Kenny Wilson's worst subject in school was science.

Now you can call him Dr. Kenny Wilson. All grown up now, he is a postdoctoral researcher studying how genetics and dietary intake influence brain aging and Alzheimer's disease.

Wilson is one of three grand marshals for the Novato Fourth of July Parade, which starts at 10 a.m. July 4 and runs through Old Town on Grant Avenue. Joining him will be Betsy Ricketts of Ultragenyx and Ken Sprague of BioMarin as the parade pays tribute to "A Nation of Innovation."

Wilson said it will be "a surreal experience" to be featured in the Novato parade.

"There is no place in the world where I feel more at home, and to be considered a Novato native worth celebrating is an incredibly warm feeling," he said. "I look forward to many more years in this field to show that Novato develops some great researchers, both homegrown and others, who have come to Novato to



contribute to the field of aging biology.

How did he go from childhood science failure to brainiac scientist? The transformation, naturally, can be traced to inspirational teachers.

Jean Scott taught science at Our Lady of Loretto School. Wilson, who lived in Ignacio with his family, attended there from kindergarten through eighth grade.

"She had an engaging attitude about science that helped make it fun," he said. "I remember growing bean plants

from seeds in a wet paper towel. It was really interesting that they didn't need soil. I also remember performing an experiment for our school science fair to determine which liquid evaporates first between water, milk, eggnog, and orange juice. They started growing mold before they evaporated, so I changed the experiment to "Which liquid is more prone to mold growth?"

### Way to adapt.

Wilson remained in Ignacio, growing up (with brother Cody and sister McKenna) in a household headed by a dental hygienist for a mom and a commercial salesman for a dad. Kenny kept his scientific curiosity on high heat at St. Vincent de Paul High School in Petaluma. There, Darvin DeShazer was the teacher who orchestrated dissections and sent students on expeditions to find certain species of plants and fungi. Wilson's best friends were his bio class benchmates and friends from the debate team. A B-plus grade in sophomore year bio class qualified Wilson for advanced placement bio the following year.

"That solidified that this was the subject I wanted to consider for my career," Wil-

son said. "That class was so informative and jumpstarted my love for genetics."

Setting aside his competing love for debate and law, he earned his bachelor's degree in molecular and cell biology from UC Berkeley. He focused on genetics and genomics.

After graduation from Cal, Wilson returned to Novato in 2012 when and began working at the Buck as a master's student through Dominican University of California, in San Rafael. He wrapped up his studies there in 2014, then embarked on his doctoral degree at the University of Southern California. In 2019, the same year he finished at USC, Wilson became the first person to graduate from the Buck's Ph.D. program in the biology of aging.

Today, there are approximately 40 postdoctoral researchers at the Buck. Wilson said Buck postdoc opportunities are strong for those with Ph.D.s and there, but there are also programs for high school and undergraduate internships, master's student research positions, and lab support service positions. "Anybody who is passionate about aging should

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look into it," he said.

Day to day, Wilson is concentrated on understanding how the genetic differences between people can influence how bodies respond to diet. Most of his studies have involved fruit flies, which have DNA very similar to a human. He has identified a few genes that are important for diet response and longevity, as well as how healthy people are as they age. His Buck team has identified genes that influence insulin production, neurodegeneration, and weight gain.

"I can prevent a gene from functioning properly in a fly, see if the fly gains weight, lives longer, or is more active, and that gives an insight into what happens in humans," Wilson said. "And the crazy part is that it works! Hundreds of

genes have been found in flies that affect human health and longevity. It is incredibly easy to manipulate a fly's DNA, which is just amazing to me."

Influential scientists have noticed his work. Wilson was recently rated as being in the top 0.4% of all researchers studying aging and longevity. Not just at the Buck or in the United States, but in the world.

What's the Buck all about? Let's start with that wild-looking building halfway up the southern slope of Mount Burdell. It was designed by famous architect I.M. Pei and opened in 1999. The argument could be made the Buck building is tied with City Hall and the quirky octagon house as the most iconic landmarks in Novato.

An awful lot of amazing stuff happens inside those angular walls. The Buck is the world's only research institution focused on the biology of aging and

is a global leader in the field. It internationally recognized for coining the term 'geroscience' for studying aging and chronic diseases. It was at the Buck where the first successful use of a pharmacological compound to extend lifespan in an animal. Scientists there also launched the Marin Women's Study for breast cancer research, founded the annual North Bay Discovery Day.

"I frequently go to national and international conferences, and all of the attendees know about the Buck and the great findings we have uncovered," Wilson said. "In fact, the term geroscience, as a field of study focused on aging, was invented at the Buck. There have been countless groundbreaking studies and pioneer researchers who have pushed the field forward."

The Buck employs over 150 researchers from over 20 countries focused on

improving lifespan and healthspan and identifying the underlying causes and treatments for age-related disorders such as cardiovascular disease, cancer, wound healing, osteoporosis, sarcopenia, and neurodegenerative diseases such as Alzheimer's, Parkinson's, Huntington's, and age-related dementia.

Wilson said his career goal is pretty simple: to find something that can be useful for aging individuals, maybe by aging more gracefully with fewer aches and pains or improving lifestyles and lifespans without having to go on a diet.

"When I take a step back and look at the body of work I have contributed to, I do feel that I contribute to innovation," Wilson said. "I think the contributions I am making will help people live healthier."