

Walking the Line

“When it looked like my time was up, selling outdoor home supplies no longer seemed worth my time,” says Loren Wolfe.

At 60 years old, he dropped his sales routine and picked up the guitar he had played for more than 50 years. He always entertained the idea of making a living from music but never dared leave the security of a guaranteed paycheck. But a pain in his shoulder changed how he viewed the world. And his place in it.



Seeking a New Standard for Therapy

Wolfe had no reason to believe he was ill—"Oh, I had a bit of tendinitis in my shoulder," he says. "Other than that, I was as healthy as healthy can be." But in 2010, the pain got in the way of throwing a football to his grandkids, and he decided to "get it looked at," presuming nothing more than arthritis.

The MRI came back tagged with results no one expected: a suspicious mass.

"Turns out," Wolfe says in a baritone chuckle, "it was as bad as bad can be."

What started as undetected skin melanoma had spread to a lymph node. By the time Wolfe had noticed anything, the mass had developed into stage III cancer the size of a baseball. Thankfully, his tumor was contained to one lymph node that his oncologist in Minneapolis successfully removed.

But cancer is a formidable adversary. Because the cancer invaded a lymph node, Wolfe faces a 70 to 80 percent chance of it returning within the next three to five years.

To lessen the odds, Wolfe's oncologist recommended interferon-alfa2b as an adjuvant (after-surgery) treatment. (Interferon is a natural part of the immune system that scientists can produce in a laboratory to boost the body's ability to fight cancer.) But as with many good things, there's a downside. Interferon's side effects include flu-like symptoms and fatigue, bone marrow suppression, liver damage, depression, loss of appetite and impaired cognitive function.

Wolfe sought a second opinion at Mayo Clinic.

"If you live in Minnesota and you face a life-changing event like cancer, why wouldn't you go to Mayo?" he asks.

Wolfe's charts passed the keen eye of Svetomir Markovic, M.D., Ph.D., the Charles F. Mathy Professor of Melanoma Research. Dr. Markovic is a world leader in the battle against melanoma. His research is changing the landscape of cancer treatment by integrating different systemic treatments into more-effective therapies for advanced melanoma.

"Loren was uneasy with using the 'standard' immunotherapy approach of adjuvant therapy for metastatic melanoma," Dr. Markovic says. "We offered him an alternative."

Dr. Markovic suggested Wolfe use Leukine, an adjuvant therapy currently under study that has shown promising results. It boosts the body's immune system like interferon but has fewer side effects. Dr. Markovic is hopeful that it will become an approved form of immunotherapy.

Turns Out, Fighting Cancer IS Rocket Science

A tumor exhausts the immune system, leaving the body defenseless against it. Doctors try to boost immunity to give the body a fighting chance, but often fail.

To find out why, Dr. Markovic enlisted NASA to harness its ability to process immensely complex data.

Using aerospace analytical tools, Dr. Markovic and his team worked collaboratively with engineers from Texas A&M University and NASA to measure and track the dynamics between tumor, blood supply and the body's immune response. Through state-of-the-art engineering and mathematical tools, a pattern is beginning to emerge that suggests a complex dynamic interaction between cancer and the entire body's immune system. This pattern appears similar to changes in the immune system



commonly observed during pregnancy (a "placenta-like" effect).

The team is heavily invested in attempting to decipher this phenomenon and use it to design novel therapies. One answer could be as simple as delivering treatment during a specific phase of the patient's immune biorhythm, e.g. giving chemotherapy on a Tuesday instead of a Friday.

"Things are moving, and we are improving survival," Dr. Markovic says, emphasizing that his staff and the consortium work day and night to find an answer to cancer. "We do not give up, we don't surrender. There's one issue on the table—life. I'll be darned if I'm going to back down."

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Because the World Needs a Little More Johnny Cash

Today, Wolfe spends his time doing what he loves.

"Every day is a gift," says Wolfe, who recently released a CD that includes classic hits from Johnny Cash and others plus two original songs. The title track "N.E.D. and Me"—which stands for No Evidence of Disease—is Wolfe's tribute to the term used to describe a patient's status after treatment, when cancer is defeated.

*"I just met N.E.D. recently.
I was facing a life emergency.
I can't say we're close friends just yet.
Sure hope someday that's a safe bet."*

To learn more about Loren Wolfe and his music, visit: lorenwolfe.com. ■