



PETER BAKER

Laurel Schwartz

## A Passion for Discovery

**Fueled by a fascination with science and medicine** and the experience of losing her husband to cancer almost 20 years ago, Laurel Schwartz is committed to supporting cancer research. But the personal connection she has with Daniel DiMaio, MD, PhD, and his work, is the driving force behind her long term contributions to support his research in tumor virology.

Schwartz and Dr. DiMaio, Deputy Director of Yale Cancer Center and Waldemar Von Zedtwitz Professor of Genetics at the School of Medicine, met through a mutual friend more than half a dozen years ago. When she heard about his research on using viruses to understand how cells work and how to manipulate them to fight cancer, she was impressed. “For me, it’s critical to be involved with the person who’s doing outstanding work,” she said. Although Dr. DiMaio’s work is unrelated to the cancer

that claimed the life of her husband, Schwartz recognized the importance of learning more about the role of viruses in cancer. According to Dr. DiMaio, viruses cause about 15 percent of all human cancers, including cervical cancer, as well as forms of head and neck cancer, liver cancer, lymphoma, and Hodgkin’s disease.

Schwartz’s support over the past several years has allowed Dr. DiMaio

to explore avenues that would otherwise have been difficult to pursue. She has funded Dr. DiMaio’s work on an unusual viral protein that affects cell behavior, isolated from a papillomavirus that causes warts in cows and is related to the human papillomaviruses, which causes cervical cancer and some head

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Schwartz, a member of the Yale Cancer Center Director’s Advisory Board, understands the value of providing an

NIH grants. At the same time, her contributions have led to important findings that have enabled him to leverage his work to obtain larger grants from the federal government.

Schwartz’s interest in cancer research extends to immunology as well. Dr. DiMaio and Akiko Iwasaki, PhD,

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Daniel DiMaio, MD, PhD

and neck cancers. He has gone on to design artificial proteins based on this viral protein that block HIV infection (which is often linked to cancer), cause cells to differentiate into red blood cells, or most recently, prevent cancer formation in model cellular systems. He is pursuing this line of inquiry by exploring additional targets for these artificial proteins, attempting to simplify them and make them smaller in the hopes of developing drugs, and trying to understand the mechanisms by which they engage the cellular machinery.

“These are very much unconventional experiments,” said Dr. DiMaio. “Laurel, who’s been a supporter of science for many years, appreciates the necessity for continuing to do basic

opportunity for researchers to delve into promising questions. “It’s reassuring for researchers to have support in unusual areas that could be very meaningful,” she said. She notes that investigators often lack the funds to pursue unusual developments sparked by their research.

The trust Schwartz places in Dr. DiMaio and the flexibility of her support are liberating, allowing him to switch directions if he sees more promising prospects. “Dan has a very good sense of long term answers, where something is going and its possibilities,” she said. In an era of shrinking federal funding for research, Schwartz’s donations are especially valuable because they allow him to move quickly, avoiding the cumbersome grant application and review process associated with

Professor of Immunobiology, are studying how viruses can block the immune system to cause cancer, and she has supported their work that defines a new mechanism of how human papillomaviruses can block immunity.

For Schwartz, passion is the key to success. She and Dr. DiMaio share a love of opera and Schwartz supports talented young opera singers through the Opera Studio at Accademia Nazionale di Santa Cecilia in Rome. It is their mutual passion for science, however, that spurs her ongoing support of his work. “It gives me satisfaction to help someone do something extraordinary,” she said.

“Our job is to help define for the patient and the family what their hope is.”