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INDUSTRIAL CHEMISTRY**

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**James A. Cella**, who was a principal scientist in the chemical energy systems laboratory at GE Global Research, in Niskayuna, N.Y., until he retired in 2009, is being honored for his accomplishments in polymer synthesis and silicone chemistry and for the impact of his work on GE and the broader scientific community, according to the company's Global Technology Leader, Terry K. Leib.

Cella's technical contributions "have been financially significant and scientifically meaningful," adds Jonathan D. Rich, a former colleague who is now president and chief executive officer of the specialty chemical company Momentive Performance Materials, in Albany, N.Y.

Cella, 63, became interested in chemistry as a boy with the help of Mr. Wizard, a chemistry set, and experiments with home-brewed rocket fuel. He earned a B.S. in chemistry at Seton Hall University in 1968 and a Ph.D. in organic chemistry at Ohio State University in 1973.

After graduation, he served as an officer in the Army Medical Service Corps, conducting medicinal chemistry research at Walter Reed Army Institute of Research, in Washington, D.C. Upon completion of his military service in 1976, he moved to GE's Corporate Research & Development Center, where he found the diversity of projects exceptionally stimulating. "I've been on learning curves my whole career," he says. "That's been fun. You never get stale."

Some of the highlights of his tenure with the company include his work with the team that developed Siltem. This high-temperature thermoplastic elastomer combines the fire-resistance of polyetherimide with the ductility of silicone—features that are particularly useful in aircraft applications such as doors for luggage compartments. Cella also helped develop new silicone-based antifouling coatings to keep ship hulls and water-intake tunnels free of barnacles and other organisms.

In another project, "Jim took on one of the most important challenges in the silicones industry by determining the environmental fate of silicones used in many personal care and consumer products," Rich says. "Jim's pioneering work demonstrated that silicone products are indeed biodegradable and showed definitively the fate of these products in various ecosystems."

Before retiring, Cella joined GE's research and development effort in organic light-emitting diodes, which the company hopes will one day replace incandescent and fluorescent light bulbs in homes.

Altogether, he holds more than 50 patents, but there's more to Cella than his discoveries in the lab. "Jim was one of the most sought-after mentors in our chemistry organization," Leib says. Furthermore, "through three decades of science shows with local schools, Jim has inspired countless children to believe in the magic of chemistry."

Currently, Cella is busy working as the sauté chef at his family's **Cella Bistro**, which is just down the road from the GE lab. In a sense his career has come full circle: When he interviewed for his first job at GE, his future employers treated him to dinner at the restaurant that used to occupy the bistro's present site. And because the location is still popular with the GE crowd, Cella can keep up with the latest happenings at the company.

Cella will present the award address before the Division of Business Development & Management.