FOLLOWING is the second set of vignettes of recipients of awards administered by the American Chemical Society for 2008. C&EN will publish the vignettes of the remaining recipients in January and February issues. A profile of Gabor Somorjai, the 2008 Priestley Medalist, is scheduled to appear in the April 7 issue of C&EN, along with his award address.

Most of the award recipients will be honored at an awards ceremony that will be held on Tuesday, April 8, in conjunction with the 235th ACS national meeting in New Orleans. However, the Arthur C. Cope Scholar awardees will be honored at the 236th ACS national meeting in Philadelphia, Aug. 17-21.

ACS AWARD FOR CREATIVE WORK IN FLUORINE CHEMISTRY

Sponsored by SynQuest Laboratories Inc. and Honeywell

Dennis P. Curran believes that his interest in chemistry is genetic. Both his brother, Kevin, and his father, Bill, who is a 50-year American Chemical Society member, are organic chemists. Though his daughter Kelly is an undergraduate history major, his older daughter, Molly, completed a bachelor’s degree in engineering and a master’s degree in engineering management, and she took organic chemistry “for fun,” according to her grandmother, Jane. Curran’s father never pushed him to chemistry, Jane says. She adds, “I bought him his chemistry set.”

Curran, 54, began his path in chemistry in 1971 at Boston College, where he was inspired by T. Ross Kelly, his “Introductory Organic Chemistry” professor. He completed a Ph.D. at the University of Rochester and a postdoctoral fellowship at the University of Wisconsin, Madison, and is now a Distinguished Service Professor and Bayer Professor of Chemistry at the University of Pittsburgh.

Curran says his interest in fluorine chemistry arose after reading a “spectacular” Science article (1994, 266, 72) by István T. Horváth and József Rábai, on catalytic chemical transformations using a fluororous biphasic system. Curran’s research group has projects in organic radical chemistry, but he says they have always had problems separating organofluorine reagents from their products. Horváth and Rábai’s article inspired him to learn about organofluorine chemistry, which he found could help his group’s research. “Once we started doing offbeat but simple experiments and getting exciting results, I was hooked,” Curran says.

Although Curran initially considered himself an “outsider,” his excitement about fluorine chemistry had a great deal of impact on the field. His contributions to fluorous chemistry include the creation of a fluororous solid-phase extraction technique and the introduction of many new fluorous protecting groups, scavengers, reagents, and catalysts. G. K. Surya Prakash, the George A. & Judith A. Olah Nobel Laureate Chair in Hydrocarbon Chemistry at the University of Southern California, Los Angeles, says Curran “has shown the creativity to consistently take the fluorous field in new directions.” He adds that other groups have made many “innovative and potentially very important contributions,” such as oligosaccharide synthesis with fluorous microarrays, “which follow directly from concepts and techniques that Curran introduced and pioneered.”

“The original uses of fluorous chemistry in small-molecule synthesis and separation have expanded dramatically in recent years to biomolecule synthesis, natural products isolation, proteomics, microarrays, and others,” Curran says. Because of this expansion, he has been able to commercialize his discoveries in fluorous chemistry: In 2000, he started a company called Fluorous Technologies, which provides tags, scavengers, reagents, and custom compounds and services.

Curran is an ISI Highly Cited Researcher, among the top 100 in chemistry, and holds many awards, including the 2000 ACS Award for Creative Work in Synthetic Organic Chemistry and the 1998 Janssen Prize for Creativity in Organic Synthesis. He has published 358 articles, has 29 patents and dozens more pending, cowrote the book “Stereochemistry of Radical Reactions: Concepts, Guidelines, and Synthetic Applications,” and has edited or coedited four other books, including the “Handbook of Fluorous Chemistry.”

The award address will be presented before the Division of Fluorous Chemistry.—KENNETH MOORE

ACS AWARD FOR CREATIVE INVENTION

Sponsored by ACS Corporation Associates

Wide-ranging technology developments stemming from a breadth of knowledge are what stand out from the work of Adam Heller, professor emeritus of chemical engineering at the University of Texas, Austin. His ability to integrate different elements into novel and useful applications has garnered him the award for creative invention.

“His inventions have profoundly impacted the quality of public health care, and in fact, it is from this that Heller derives the most satisfaction: producing technological advances that directly improve the daily lives of millions,” says Roger T. Bonnecaze, chairman of UT’s chemical engineering department. With regard to his achievements, other colleagues call Heller one of the most accomplished engineers in the world.

In the 1970s, Heller and James J. Auborn at GTE Laboratories built the first lithium thionyl chloride battery. Today it is used