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The University of Virginia Patent Foundation congratulates

2010 Edlich-Henderson Inventors of the Year

Kevin R. Lynch, Ph.D., and
Timothy L. Macdonald, Ph.D.

From left: Timothy L. Macdonald, Ph.D.,
and Kevin R. Lynch, Ph.D.

Photo by Jackson Smith

The highest honor bestowed by the U.Va. Patent Foundation, the Edlich-Henderson Inventor of the Year award recognizes inventors whose technology has proven to be of notable value to society. Named for U.Va. Professor Emeritus Richard F. Edlich, M.D., Ph.D., and Christopher J. Henderson, the award is a tribute to their enduring support of and commitment to the University and its inventors.

Lynch, a professor of pharmacology and biochemistry and molecular genetics, and Macdonald, a professor of chemistry and pharmacology, are among the University's most prolific inventors. They were honored for their achievements in modulating the activity of two of the body's naturally occurring signaling molecules, sphingosine 1-phosphate (SIP) and lysophosphatidic acid (LPA).

The inventors have developed a number of small molecules that mimic or block SIP and LPA at their receptors and thereby offer tremendous potential therapeutic benefits. Because SIP and LPA have each been shown to influence cell growth, migration and survival, drug molecules that modify their behavior could be helpful in treating a variety of diseases involving these factors, such as cancer, fibrosis, autoimmune disorders and atherosclerosis.

Lynch and Macdonald are pioneers in this effort, having received the first research grant ever to be focused solely on LPA signaling in 1994 from the National Institutes of Health. Two of the researchers' SIP receptor molecules are currently in development with major pharmaceutical companies, which licensed the molecules from the Patent Foundation. The researchers also co-founded a biotech start-up company, Catena Pharmaceuticals Inc., in 2008 to put their LPA drug compounds on the path to the marketplace. They hold 14 U.S. patents and patent applications in this area, including two U.S. patents that issued in 2009.



Science at the interface of medicine, biology and chemistry:
an up-close look at mass spectrometry equipment.

Photo by Jackson Smith

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