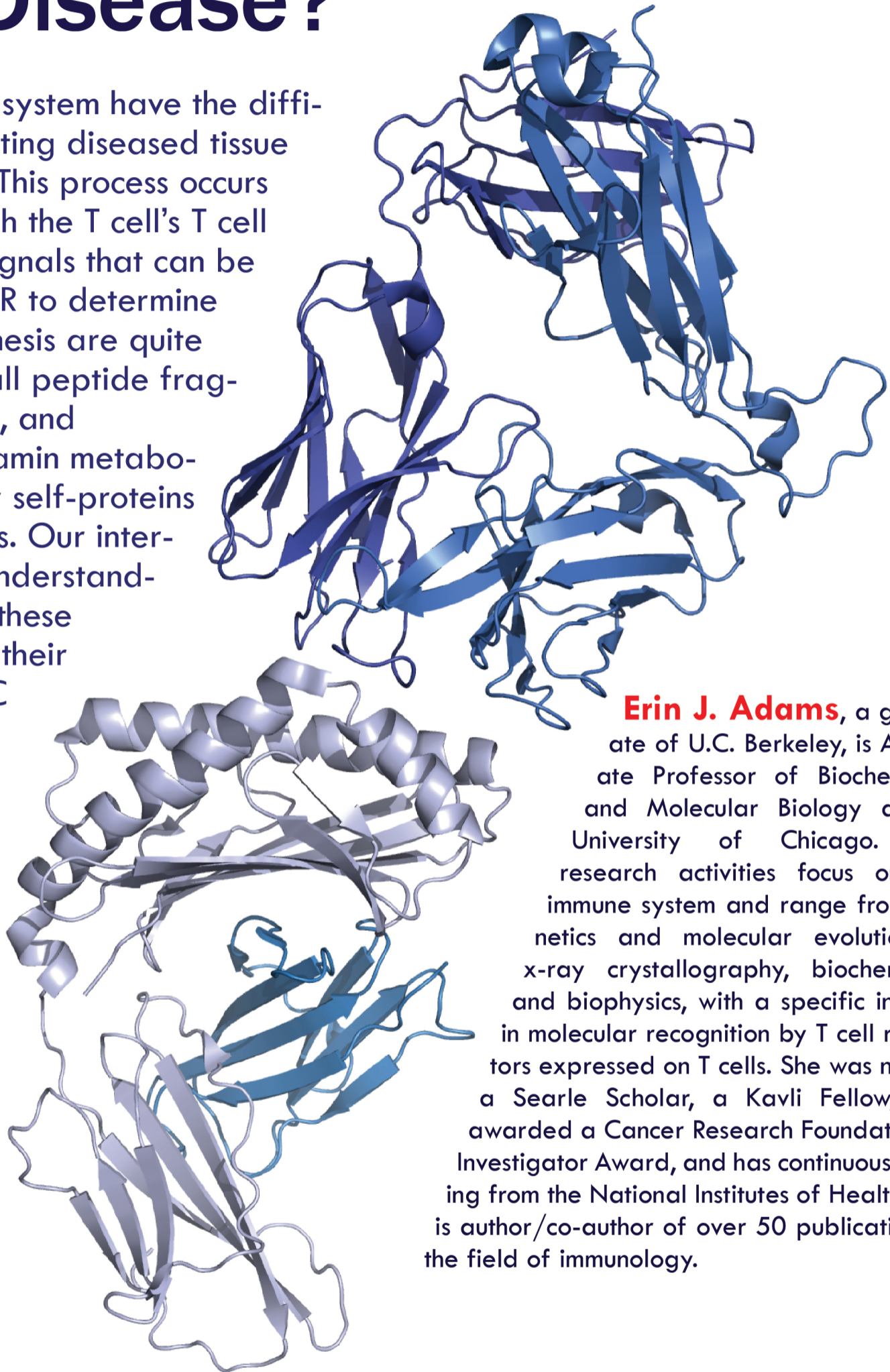# Erin J. Adams

How Does Our Immune System Detect Disease?

T cells of our immune system have the difficult task of discriminating diseased tissue from that of healthy. This process occurs predominantly through the T cell's T cell receptor (TCR). The signals that can be recognized by the TCR to determine infection or tumorigenesis are quite diverse, including small peptide fragments, lipid molecules, and bacterial-derived vitamin metabolites, all presented by self-proteins called MHC molecules. Our interests are focused on understanding how T cells "see" these diverse antigens and their similarly diverse MHC presenting molecules and what signals ultimately trigger the disease alarm, initiating the cascade of events that result in an effective immune response against infection and cancer.

Erin J. Adams, a graduate of U.C. Berkeley, is Associate Professor of Biochemistry and Molecular Biology at the University of Chicago. Her research activities focus on the immune system and range from genetics and molecular evolution to x-ray crystallography, biochemistry, and biophysics, with a specific interest in molecular recognition by T cell receptors expressed on T cells. She was named a Searle Scholar, a Kavli Fellow, and awarded a Cancer Research Foundation Jr. Investigator Award, and has continuous funding from the National Institutes of Health. She is author/co-author of over 50 publications in the field of immunology.

Wednesday, February 6, 2013 | 3:00 p.m.

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