Experimental Pathology acts as a bridge between the rapidly advancing basic sciences and the application of modern scientific investigation to understanding disease processes. At Cedars-Sinai, the Experimental Pathology Lab has a major interest in the biological functions of the renin-angiotensin system. By serendipity, we discovered that these mice over expressing angiotensin converting enzyme (ACE) have an enhanced immune resistance stimulating a new research initiative into the possibility of manipulating ACE to regulate immune function. The lab also completed studies of Alzheimer’s disease and whether the increased effectiveness of ACE over expressing macrophages will prevent the deposition of amyloid in animal models of the disease. The data indicate that increased ACE expression by such macrophages leads to decreased soluble levels of pathogenic Aβ1-42, decreased cerebral plaques and retained cognitive function.

**Major Accomplishments:**

- Publication of 2 manuscripts in *J. Clin. Invest*
- Dr. Bernstein was honored by being named a Distinguished Scientist of the American Heart Association
- A total of 10 manuscripts published, in press or submitted in 2013-2014
- Organized and directed the 23 lecture cardiovascular core portion of the Cedars-Sinai graduate program
- Organized and headed the 5th Cedars-Sinai Research Day in January, 2014. This celebration of research featured a keynote talk by Dr. Dr. Jonathan S. Weissman, U.C., San Francisco. Over 100 posters by researchers at Cedars-Sinai were presented

**Future Goals:**

- Continue to investigate the role of the renin-angiotensin system in a variety of processes, including the control of blood pressure, tumor response, infection, lung injury and kidney disease
- Continue to support the Cedars-Sinai graduate teaching program by directing the cardiovascular medicine teaching block (23 lectures)
- Organize the Cedars-Sinai-wide Research Day in January, 2015
- Continue to assist and interact with the Molecular Pathology clinical program