

# Honors 2006

Requirements for Honors in Chemistry include a program of research with readings from the original literature, presentation of an Honors Essay, typically about 60 pages in length, and the satisfactory completion of a comprehensive oral examination in the subject area of the research. This year eleven Seniors were awarded Honors; nine in Chemistry, one in Biology and one in Interdisciplinary Studies. Faculty mentors' names are in parentheses.

**Chris Brown** (Bagdassarian)

A Theoretical Approach to Understanding the Evolution of Species Persistence in Ecosystems

**Ellie Browne** (Kranbuehl)

The Kinetics of Amide Bond Hydrolysis

**Steve Calder** (Knudson)

Determination of a Semiclassical Wave Function for a Single-Electron Diatomic Molecule

**Brad Carra** (Bebout)

The Characterization of Zn(II), Cd(II), and Hg(II) Complexes with Biologically Relevant Ligands by X-Ray Diffraction of Nuclear Magnetic Resonance

**Ryan Fame** (Biology, Saha)

The Role of BMP-4, FGF-8b and Retinoic Acid on the Specification and Differentiation of GABAergic and Glutamatergic Neural Phenotypes

**Steven Lewis** (Harbron)

Modulated Fluorescence in Films of Azobenzene-functionalized PPV Derivatives

**Chris O'Neill** (Orwoll)

Development and Analysis of Polymers for Use in Radiation Shielding in Manned Deep Space Flight

**Sarah Orski** (Starnes)

A Study of the Synergistic Effects of Additives and Nanocomposites on the Fire Retardance and Smoke Suppression of Poly(vinyl chloride)