

**2011 Iota Sigma Pi Undergraduate Award for Excellence In Chemistry  
Emma Yates**



Emma Yates, a senior at Princeton University, not only excels in Chemistry and coursework, but also excels in other areas, such as her leadership roles in campus organizations. She has a strong research interest in the development of novel classes of pharmaceuticals to be applied to important human diseases. Emma writes: "The overriding goals of my research career will be to elucidated the structural and mechanistic bases for how protein-protein interactions and protein aggregation processes occur inside of living cells, and to develop novel classes of small molecule therapeutics designed to selectively and locally redirect these biologically and clinically relevant interactions." She will have the opportunity to work in this field as a Churchill scholar at Cambridge in Professor Chris Dobson's lab. Her nominator, Professor Annabella Selloni, writes: "Despite the demands of senior coursework and responsibilities as the president of the University's Bioethics Forum (which includes organizing and overseeing the annual Princeton Bioethics Conference she initiated last year), this young scientist manages to devote an inordinate number of hours to her research." Her research advisor at Princeton, Professor Erik J. Sorensen, writes: "I have never had an undergraduate research participant become so important to one of our research projects, and I have never seen anyone at her stage of development learn new concepts, methods, and techniques as quickly and thoroughly as Emma." He also writes: "Emma became integral to our ongoing effort to expand the depth and diversity of the "pleuromutilin" class of antibiotics through advances in *de novo* chemical synthesis."

