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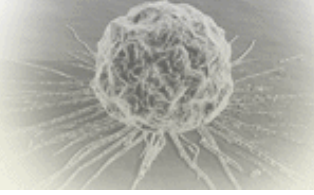
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## Research News



### Cochran receives Martin D. Abeloff Scholar Award from The V Foundation for Cancer Research

By Elizabeth Crown

Jennifer Cochran, PhD, assistant professor of bioengineering and a researcher at the Stanford Cancer Center, has received the 2008 Martin D. Abeloff Scholar Award from The V Foundation for Cancer Research. The Abeloff Award recognizes Cochran as the highest rated of this year's 15 V Scholars.

The V Scholars are the cornerstone of The V Foundation's grant program, which are designed to identify, retain and further the careers of promising young researchers. Each V Scholar is selected through a highly competitive process.

The \$100,000, two-year award will support Cochran's research to develop a new class of molecules as alternatives to monoclonal antibodies for targeted cancer therapy and imaging.

For example, her lab has created peptides that specifically target cell surface molecules which mediate the formation a blood supply that a tumor needs to grow and metastasize.

The peptides are engineered through a process called "directed evolution." With this method, Cochran and her colleagues corral a natural process of producing and replicating proteins but introduce small errors that result in a diversity of traits. Using this process they generate millions of different mutant versions of these molecules and sort through them to find peptides that bind to tumor-specific targets.

Specifically, the Cochran lab is developing cystine knot peptides as a new class of tumor-targeting agents for uses in cancer diagnosis and therapy. Cystine knot peptides possess several desirable qualities for use as drugs or diagnostic agents, including the fact they are non-toxic;



**Jennifer Cochran, PhD**

however, they do not naturally bind to tumor-specific receptors. Cochran's group is using molecular design and engineering to custom-tailor the peptides' binding specificities to target receptors that are overproduced in human cancer.

"This new platform has the potential to be applied to virtually any target of interest across a spectrum of cancers. It is our hope that these agents will enable physicians to identify patients who are appropriate candidates for molecular therapies and can be used to follow tumor responses," said Cancer Center director Beverly Mitchell, MD.

(Posted 10/31/08)



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