

## Vitamin D analogs fight cancer with minimal side effects

A novel series of vitamin D analogs synthesized at Johns Hopkins University exhibit cancer preventive properties in animal tests but do not show the serious side effects that often characterize this class of agents. Vitamin D and a number of closely related structures have well-known cancer preventive activity. But at the dose level that would be needed for anticancer treatment, they

can cause loss of bone calcium, stunting of growth, or even death. Hopkins chemistry professor [Gary H. Posner](#) and his coworkers have now designed vitamin D analogs called deltanoids, like the one shown above, that delay the onset and reduce the frequency of skin cancers in mice but do not cause significant bone-calcium loss or growth inhibition. Drug companies have tried to do this in the past. "What we did was to take some of the best structural changes that large pharmaceutical companies have made public and incorporated those changes with a structural change that we discovered here eight years ago in a different portion of the molecule," Posner says. The researchers hope eventually to put a deltanoid into human clinical trials.

