

## Molecular Candidates for Therapeutic Use Identified from Sericultural Field and Entomoresource

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Entomoresource field contained sericulture has a long history of producing foods and therapeutic agents. Recently some cytotoxic peptides and proteins appear to be constitutively present in the insect. These facts suggest that a variety of biologically active molecules of sericultural and insect origin have a potential to be developed as therapeutic agents for anticancer treatments.

We have isolated a novel pentapeptide from diapsuing pharate first instar larvae of the wild silkworm *Antheraea yamamai* and an endogenous diapause/hibernation-specific peptide from the leaf beetle *Gastrophysa atrocyanea*. The pentapeptide suppresses proliferation of the rat hepatoma cells and another provides antifungal activity, acts as a N-type voltage-gated Ca<sup>2+</sup> channel blocker. We also found cytotoxic activity in the colleterial glands of the wild silk moth against rat hepatoma cells. In addition, an understanding of a novel protein and prenylflavonoid of sericultural origin may prove useful for the development of therapeutic agents.