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Pancratistatin Cyclic Phosphate Prodrugs and Phenpanstatin Cyclic Phosphate Prodrugs

The early promise of pancratistatin as a new type of anticancer and antiviral drug led to various preclinical developments. While there have been improvements to the availability of pancratistatin by the development of new horticultural and synthetic approaches, still there is a need for more efficient techniques for the conversion of pancratistatin to the water soluble phosphate prodrug.

Researchers at Arizona State University have developed a new series of promising 3, 4-O cyclic phenpanstatin phosphate prodrugs, 3,4-O cyclic pancratistatin phosphate prodrugs, and 4-O sodium pancratistatin phosphate drugs. They have also developed novel methods for synthesizing each of these new compounds.

The prodrugs exhibit excellent cancer cell inhibitory activity. This suggests that they could be developed into significant anticancer drugs. Pancratistatin has also been found to display remarkable activity against microspirochosis, another potentially lethal challenge for some cancer patients.

Potential Applications

- Phosphate prodrugs
- Anticancer drugs
- Antiviral drugs

Benefits and Advantages

- Can be prepared as a capsule or for injection
- Oral administration could be either solid or liquid

For more information about the inventor(s) and their research, please see [Dr. Pettit's departmental webpage](#)

