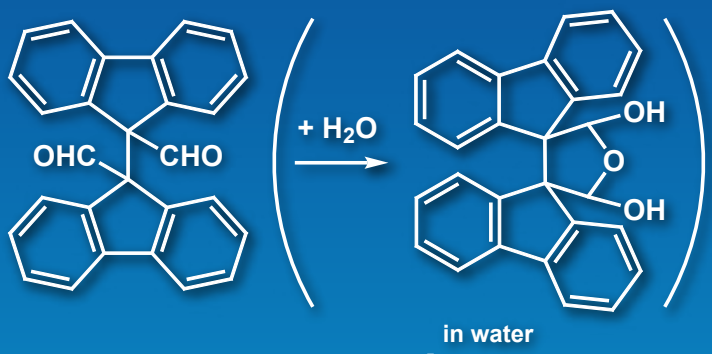
New

LIFE SCIENCE

Rapid Apoptosis-Inducer Raptinal



Raptinal
[R0199]

Advantages

- Rapid apoptosis induction (minutes) - faster than staurosporines!
- Induces cell apoptosis via the caspase-dependent intrinsic pathway.
- IC_{50} of <10μM across 22 cell lines after 24 h of incubation.
- Tumor inhibition activity *in vivo* in zebrafish embryos and mice.
- Non-light sensitive and easy to handle.

Professor Paul J. Hergenrother has recently identified and prepared Raptinal, a small molecule that is notable for inducing apoptotic cell death at unparalleled speeds (minutes) via the intrinsic pathway, a process that typically takes hours. Additionally, Raptinal has shown tumor growth inhibition *in vivo*. This impressive and unmatched activity lends raptinal to many research applications in biology, pharmacology, and chemistry.

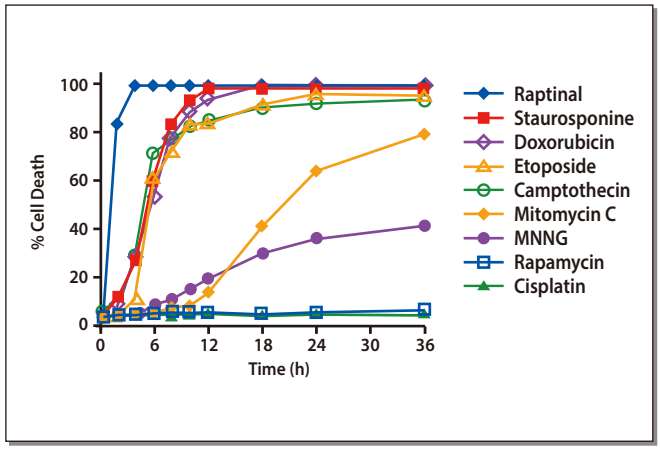


Fig. 1 Raptinal shows significantly accelerated apoptotic cell death compared to other apoptotic compounds such as Staurosporine and Camptothecin.

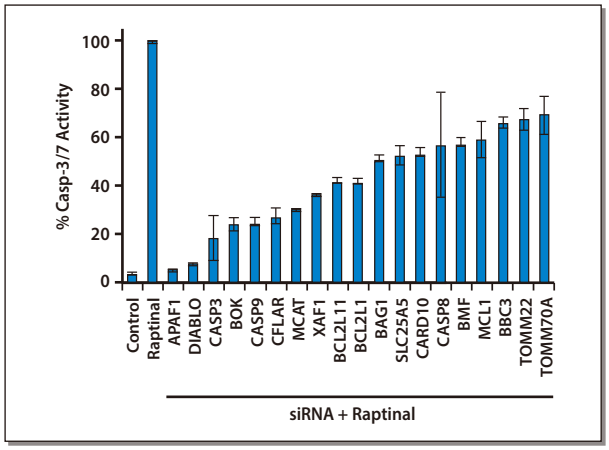


Fig. 2 Capsase-3/7 assay of Raptinal vs. siRNA sequences.

(Graphics provided Prof. Hergenrother)

References

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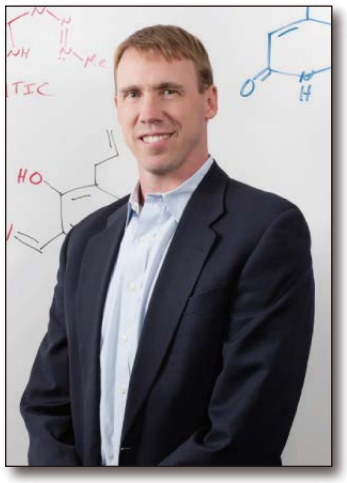
Raptinal 10mg / 50mg **[R0199]**

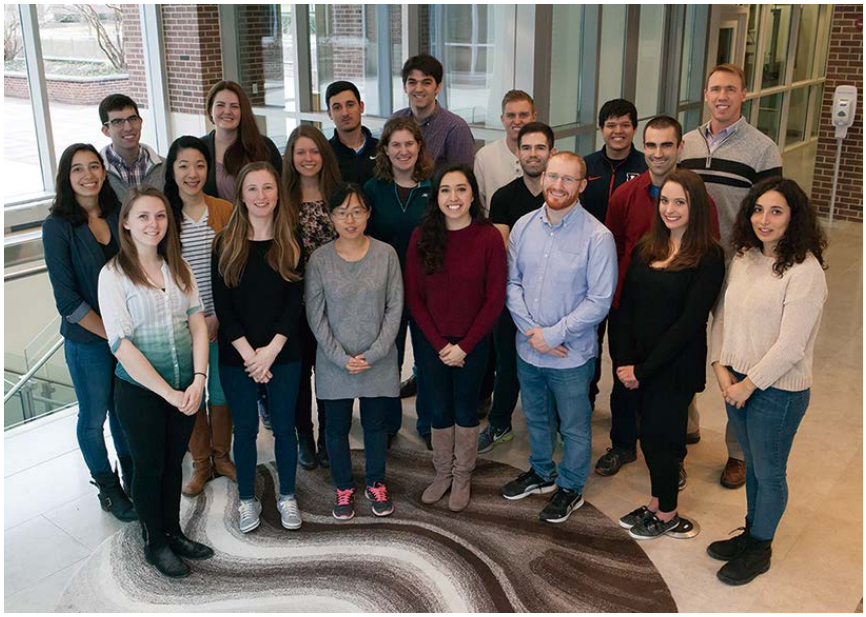
Introduction of the Researcher



Professor **Paul J. Hergenrother**
the University of Illinois
Champaign-Urbana

The Hergenrother Research Group

Natural Products Chemistry,
Anticancer Research,
Drug-Resistant Bacteria Research



Research Description

Paul J. Hergenrother was born in 1972 and raised in Akron, Ohio. He attended the University of Notre Dame, where he received his B.S. in Chemistry in 1994. From there Paul moved to the University of Texas at Austin, to conduct graduate research under the direction of Professor Stephen F. Martin and received his PhD in 1999. He then conducted postdoctoral research at the American Cancer Society at Harvard University, under Professor Stuart L. Schreiber. Paul is currently a Professor and the Kenneth L. Rinehart Jr. Endowed Chair in Natural Products Chemistry at the University of Illinois Champaign-Urbana. He is also the co-founder and chief scientific officer of Vanquish Oncology.

The Hergenrother group is focused on the synthesis of complex organic compounds and their application in anticancer and antibacterial research. Recently, the Hergenrother group identified and prepared Raptinal, a small molecule that induces-apoptotic cell death at unparalleled speed via the intrinsic pathway, a process that typically takes many hours. This impressive and unmatched activity lends Raptinal to many applications in biology, pharmacology, and chemistry.

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