

Structure-activity Relationship Studies and Biological Evaluation of Selective Sphingosine
Kinase Inhibitors

Emily Anne Morris

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in
partial fulfillment of the requirements for the degree of

Master of Science
In
Chemistry

Webster L. Santos, Chair
David G.I. Kingston
Paul R. Carlier

April 20th, 2015
Blacksburg, VA

Keywords: sphingosine 1-phosphate, sphingosine kinase inhibitors, structure-activity
relationships, guanidine inhibitors

Copyright 2015 by Emily Morris

Crystal Structure of Sphingosine Kinase 1 with PF-543

[Jing Wang](#)[†], [Stefan Knapp](#)^{†‡}, [Nigel J. Pyne](#)[§], [Susan Pyne](#)[§], and [Jonathan M. Elkins](#)^{†‡}

[†] Structural Genomics Consortium, University of Oxford, Old Road Campus Research Building, Old Road Campus, Roosevelt Drive, Oxford OX3 7DQ, U.K.

[‡] Target Discovery Institute, University of Oxford, NDM Research Building, Old Road Campus, Roosevelt Drive, Oxford OX3 7FZ, U.K.

[§] Cell Biology Group, Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde, Glasgow G4 0RE, U.K.

ACS Med. Chem. Lett., **2014**, *5* (12), pp 1329–1333

DOI: 10.1021/ml5004074

Publication Date (Web): October 27, 2014

Copyright © 2014 American Chemical Society

*E-mail: jon.elkins@sgc.ox.ac.uk.

ACS AuthorChoice - This is an open access article published under a Creative Commons Attribution (CCBY) [License](#), which permits unrestricted use, distribution and reproduction in any medium, provided the author and source are cited.



Structure–Activity Relationship
Studies and in Vivo Activity of
Guanidine-Based Sphingosine
Kinase Inhibitors: Discovery of
SphK1- and SphK2-Selective
Inhibitors

Author: Neeraj N. Patwardhan, Emily A.
Morris, Yugesh Kharel, et al

Publication: Journal of Medicinal Chemistry

Publisher: American Chemical Society

Date: Feb 1, 2015

Copyright © 2015, American Chemical Society

LOGIN

If you're a **copyright.com**
user, you can login to
RightsLink using your
copyright.com credentials.

Already a **RightsLink**
user or want to [learn more?](#)

PERMISSION/LICENSE IS GRANTED FOR YOUR ORDER AT NO CHARGE

This type of permission/license, instead of the standard Terms & Conditions, is sent to you because no fee is being charged for your order. Please note the following:

- Permission is granted for your request in both print and electronic formats, and translations.
- If figures and/or tables were requested, they may be adapted or used in part.
- Please print this page for your records and send a copy of it to your publisher/graduate school.
- Appropriate credit for the requested material should be given as follows: "Reprinted (adapted) with permission from (COMPLETE REFERENCE CITATION). Copyright (YEAR) American Chemical Society." Insert appropriate information in place of the capitalized words.
- One-time permission is granted only for the use specified in your request. No additional uses are granted (such as derivative works or other editions). For any other uses, please submit a new request.

BACK

CLOSE WINDOW