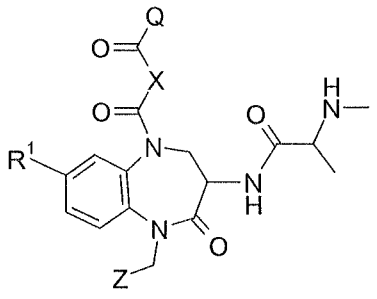
apoptotic program. See, e.g., S. Wang, "Design of Small-Molecule Smac Mimetics as IAP Antagonists," Current Topics in Microbiology and Immunology 348, DOI 10.1007/82_2010_111, pp. 89-113.

Peptides and small molecules have been reported to bind to the BIR3 region of XIAP and cIAP, mimicking the action of Smac protein and releasing activated caspases. See, e.g., Dean, supra; and M. Gyrd-Hanse et al., "IAPs: From caspase inhibitors to modulators of NF-κB, inflammation and cancer," Nature Review/Cancer, August 2010, Vol 10:561-574.

Summary ~~of the Invention~~

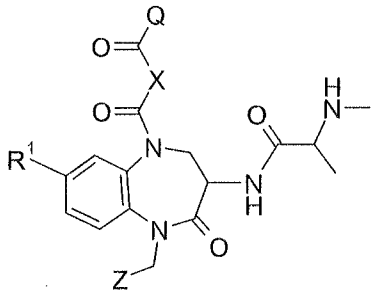
~~One aspect of t~~The present ~~invention~~ disclosure relates to ~~is~~ a compound of Formula I



I

or pharmaceutically acceptable salts thereof, wherein and are as described in this application.

Hence, in one aspect, the present disclosure relates to a compound of Formula I



I

wherein

Z is selected from the group

a) aryl that optionally is substituted with OR^3, halogen and C_{1-6}-alkyl, and

b) heteroaryl that optionally is substituted with aryl that optionally is substituted with cyano;

X is selected from the group

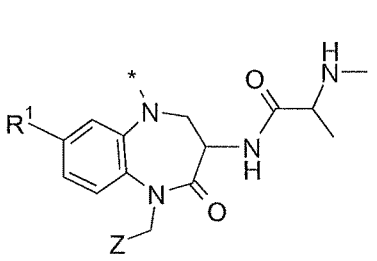
a) C_{1-6}-alkyl,

b) C_{1-6}-alkyl-aryl-C_{1-6}-alkyl

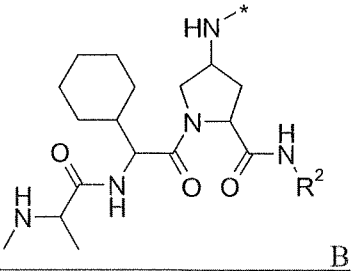
c) aryl that optionally is substituted with C_{1-6}-alkyl and –O-aryl, and

d) heteroaryl;

Q is selected from



A and



B

R^1 is selected from the group H and cyano;

R^2 is selected from the group

a) C_{1-6}-alkyl that optionally is substituted with aryl,

b) C_{3-7}-cycloalkyl that optionally is fused with phenyl,

c) phenyl, and

d) C_{3-7}-cycloalkylaryl; and

R^3 is C_{1-6}-alkyl;

or a pharmaceutically acceptable salt thereof.

In another aspect, the ~~The~~ present ~~invention~~ disclosure ~~also~~ relates to pharmaceutical compositions comprising one or more compounds of the ~~invention~~disclosure, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or excipient.

The present ~~invention~~ disclosure further relates to a method of ameliorating, controlling or treating cancer, including specifically solid tumors, for example lung, pancreatic, colon, breast, bone and prostate cancers in a mammal, specifically a human, comprising administering to said mammal a therapeutically effective amount of a compound according to the disclosure ~~invention~~ or a pharmaceutically acceptable salt thereof.

In another aspect, the present disclosure relates to compounds according to the disclosure for use as a therapeutically active substance.

In another aspect, the present disclosure relates to compounds according to the disclosure for use in the therapeutic and/or prophylactic treatment of cancer.

In another aspect, the present disclosure relates to use of a compound according to the disclosure, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the therapeutic and/or prophylactic treatment of cancer.

Detailed Description of the Invention

Definitions

or a pharmaceutically acceptable salt thereof.

14. A pharmaceutical composition comprising any of the compounds according to claims 1-13, or a pharmaceutically acceptable salt thereof, as an active ingredient together with a pharmaceutically acceptable carrier or excipient.

15. Compounds according to any of claims 1-13 for use as a therapeutically active substance.

16. Compounds according to any of claims 1-13 for use in the therapeutic and/or prophylactic treatment of cancer.

17. Use of a compound according to any of claims 1-13, or a pharmaceutically acceptable salt thereof, ~~for~~ in the manufacture of a medicament for the therapeutic and/or prophylactic treatment of cancer.

~~18. A method of treating or ameliorating cancer comprising administering to a subject in need of such treatment a therapeutically effective amount of a compound according to any of claims 1-313.~~