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PATENT HIGHLIGHT

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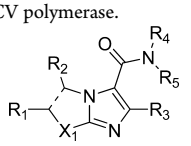
Substituted Imidazothiazoles as Inhibitors of Viral Polymerase

Gerard Rosse*

Structure Guided Chemistry, Dart Neuroscience LLC, 7473 Lusk Boulevard, San Diego, California 92121, United States, and Adjunct Associate Professor, Department of Pharmacology and Physiology, College of Medicine, Drexel University, New College Building, 245 North 15th Street, Philadelphia, Pennsylvania 19102, United States

Title:	Substituted Imidazothiazoles as Inhibitors of Viral Polymerase		
Patent/Patent Application Number:	WO 2013075173, A1	**Publication date:**	May, 30, 2013
Priority Application:	US 2011-563688P	**Priority date:**	November 25, 2011
Inventors:	Harding, M.; Bond, S.		
Assignee Company:	Biota Scientific Management Pty. Ltd., Australia		
Disease Area:	Hepatitic C Virus infection	**Biological Target:**	HCV Polymerase
Summary:	This application claims imidazothiazoles analogues for the treatment and prevention of viral infections, particularly HCV. Compounds described herein are inhibitors of HCV polymerase.		
Important Compound Classes:			
Definitions	----- Represent a single or double bond X_1 is selected from S, S═O, and S═O_2		

Special Issue: HCV Therapies

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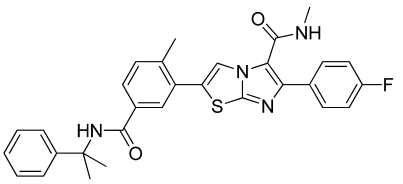
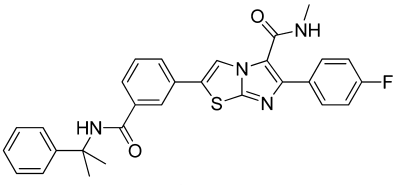
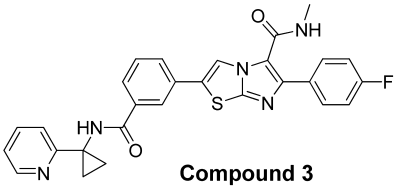
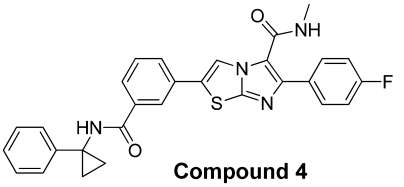
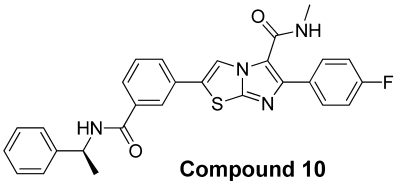
Key Structures:

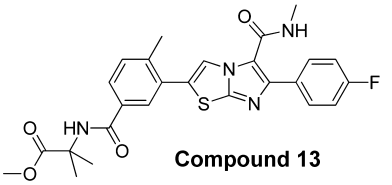

Compound 1

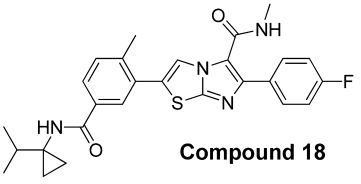

Compound 2

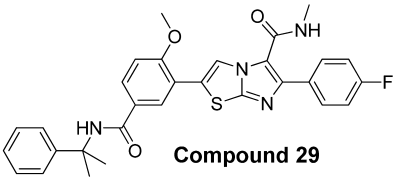

Compound 3

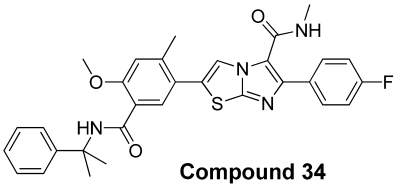

Compound 4

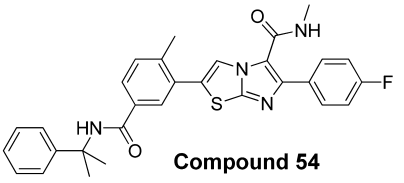

Compound 10


Compound 13


Compound 18


Compound 29


Compound 34


Compound 54

Biological Assay: Effect of compounds was evaluated using a HCV polymerase inhibition assay (41 compounds tested) and a HCV replicon assay (46 compounds tested).

Pharmacological Data: Compounds efficacy in HCV polymerase inhibition and HCV replicon assays

Compound	HCV polymerase inhibition, IC_{50} (μM)	HCV replicon EC_{50} (μM)
1	< 0.25	< 0.25
2	< 0.25-1.0	< 0.25
3	< 0.25-1.0	< 0.25-1.0
4	1.0-10	< 0.25-1.0
10	< 0.25-1.0	< 0.25
13	1.0-10	< 0.25
18	1.0-10	< 0.25
29	< 0.25	< 0.25
34	< 0.25-1.0	< 0.25
54	1.0-10	< 0.25

Synthesis: The synthesis of 54 compounds is described.

AUTHOR INFORMATION

Corresponding Author
*E-mail: grosse@dartneuroscience.com.

Notes
The authors declare no competing financial interest.