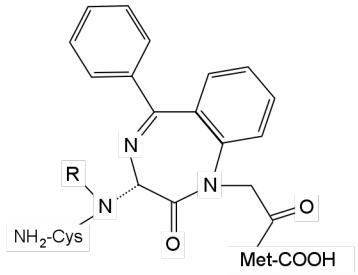
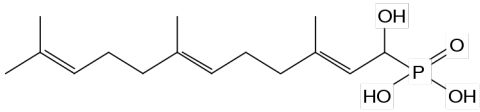
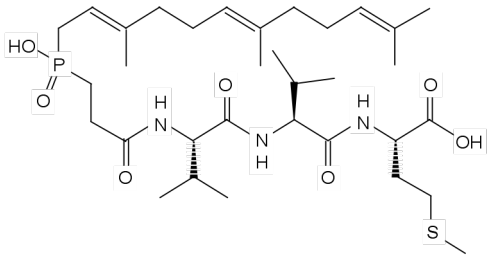
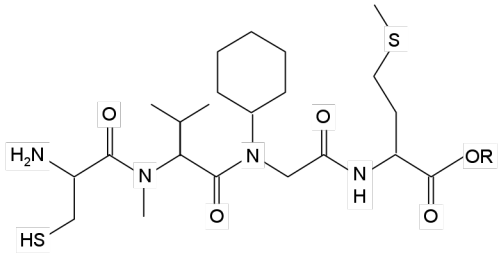
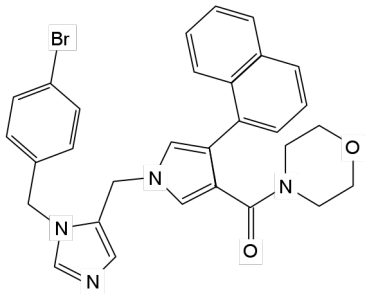
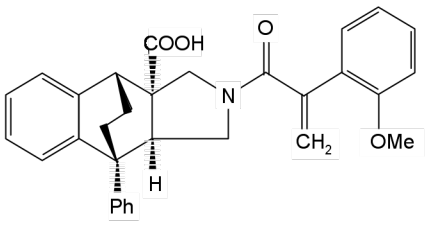
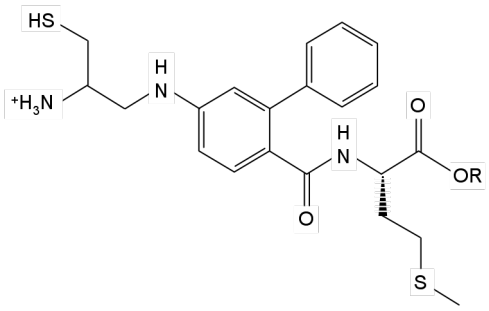
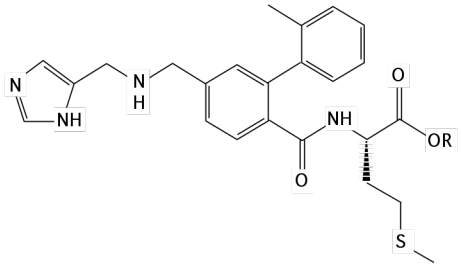
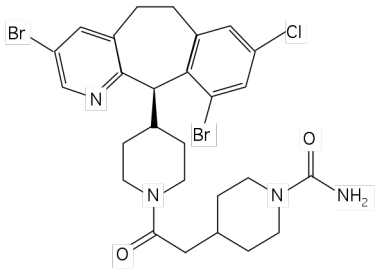
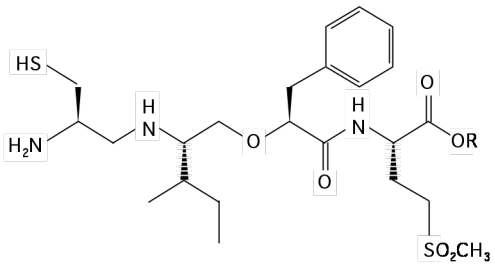
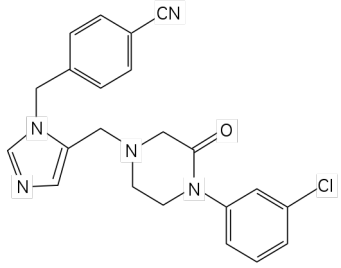
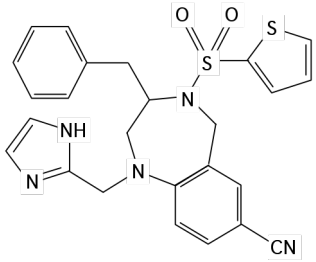
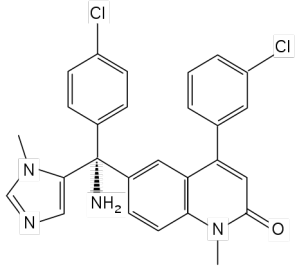
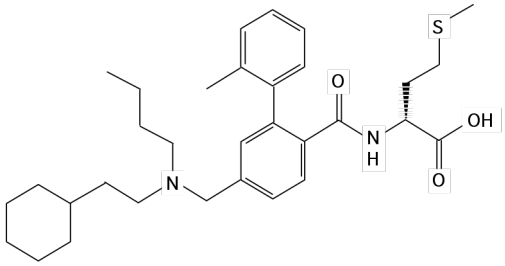
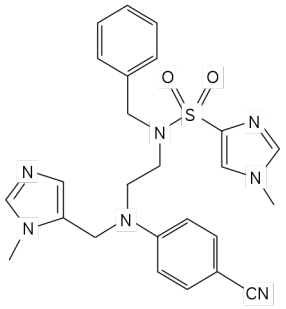
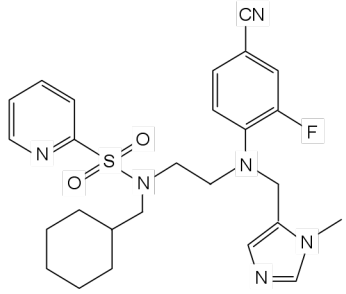
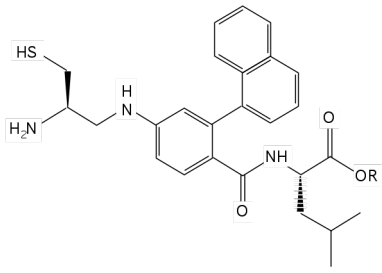
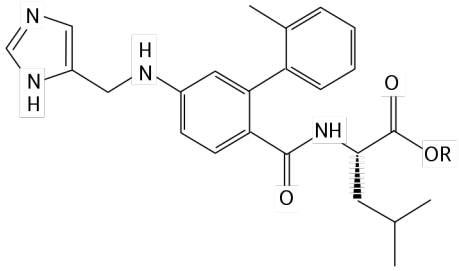
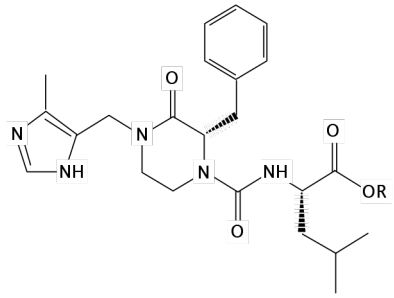
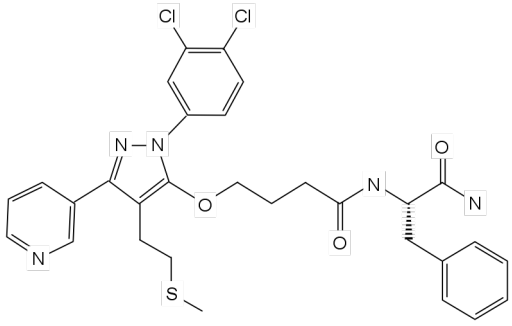
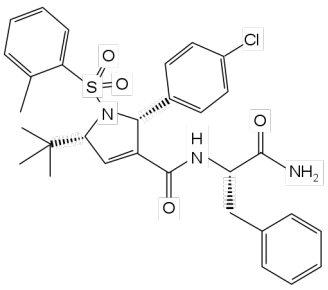
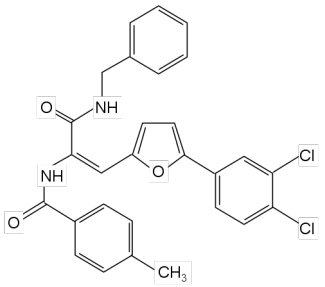
Supplementary Information S1 (Table) | **Compound structures and *in vitro* properties**

Compound	Structure	IC_{50}		Refs.
		FT	GGT1	
1 BZA-2B		0.85 nM	35 nM	1
2 α-Hydroxy-farnesyl phosphonic acid		30 nM	36 μM	2
3 BMS-186511		10 nM	21 μM	3
4 HR11: R=H [1] HR12: R=CH_3		1.2 nM	907 nM	4
5 LB42708		1.3 nM [3]	100 μM	5

6 RPR-115135		0.3 μM	n/d	6
7 FTI-276: R=H [1] FTI-277: R=CH_3		0.5 nM	50 nM	7
8 FTI-2148: R=H [1] FTI-2153: R=CH_3		1.4 nM	1.7 μM	8
9 Lonafarnib		1.9 nM	>50 μM	9
10 SCH56582 [2]	No structure available	1.4 μM for wt FT, >10 mM for FT^{Y361L}	n/d	10
11 L-739,750: R=H [1] L-744,832: R=$CH(CH_3)_2$		1.8 nM	>3 μM	11

12 L-778,123		2 nM	98 nM	12
13 BMS-214662		1.35 nM	>1 μM	13
14 Tipifarnib		0.9 nM	>50 μM	14
15 ABT-839		1.0 nM	>50 μM	15, 16
16 FTI-2585		56 nM	2.7 μM	17, 18

17 FTI-2734		250 nM	520 nM	18
18 GGTI-297: R=H [1] GGTI-298: R=CH_3		203 nM	56 nM	19
19 GGTI-2154: R=H [1] GGTI-2166: R=CH_3		5.6 μM	21 nM	8
20 GGTI-2418: R=H [1] GGTI-2417: R=CH_3		53 μM	9.5 nM	20
21 GGTI-DU40		> 2 μM	8.2 nM	21

22 P61-A6		> 100 μM	1 μM	22
23 GGTI- DU.Sig3		n/d	8 μM	23

Compounds 2 and 3 are representative examples of FPP and bisubstrate analogues, respectively. Compounds 5 and 6 are non-peptidomimetic inhibitors, whereas all other PTIs are either CaaX peptidomimetics or inhibitors from high-throughput screening campaigns.

[1] In experiments with intact cells, methylester prodrugs were used to improve cell permeability.

[2] Compound closely related to Lonafarnib (SCH66336)

[3] Average IC50 resulting from FT activity *vs.* HRAS, NRAS and KRAS

FT, farnesyltransferase; GGT1, geranylgeranyltransferase 1; FTI, farnesyl-transferase inhibitor; GGTI, geranylgeranyltransferase inhibitor

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