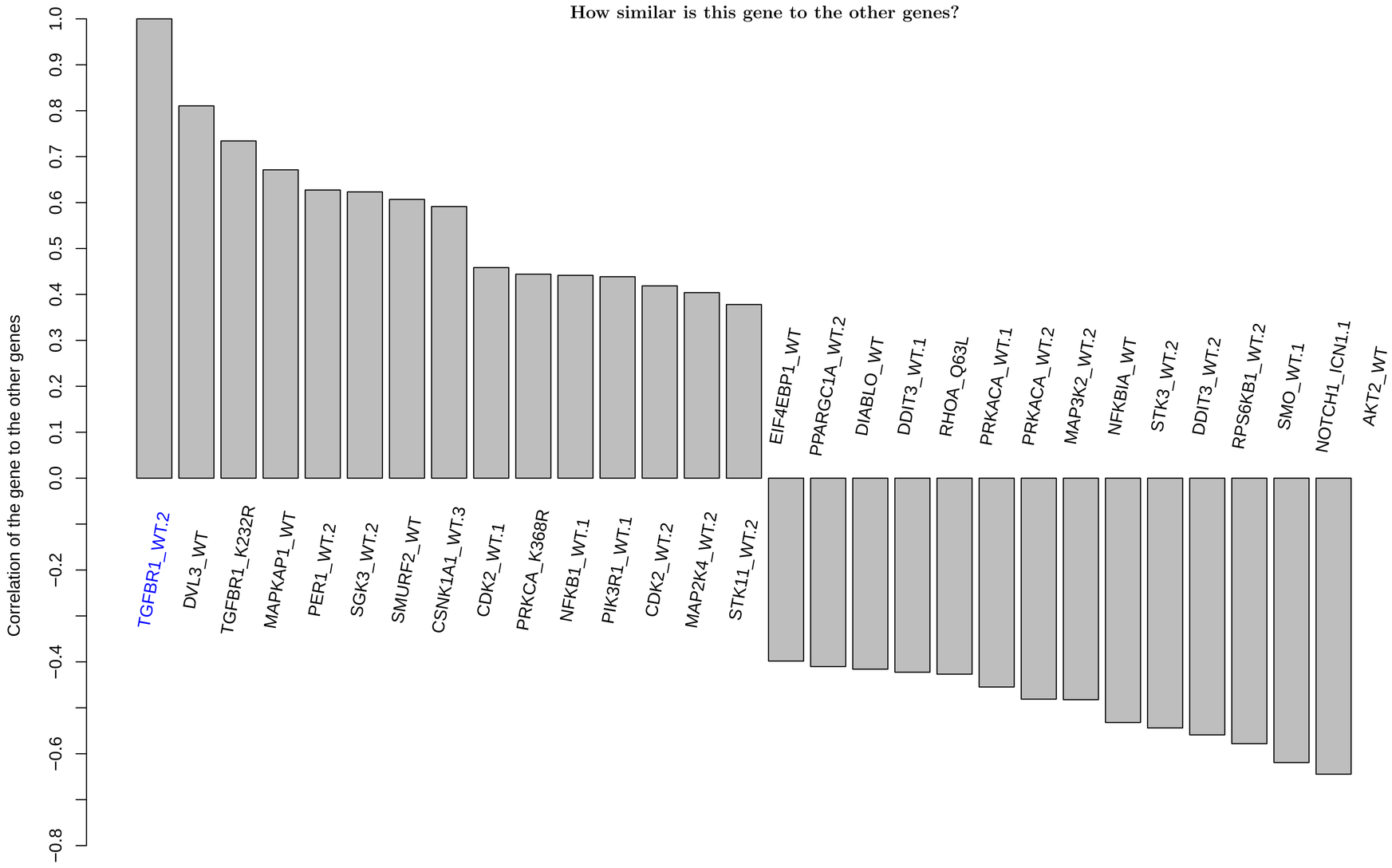
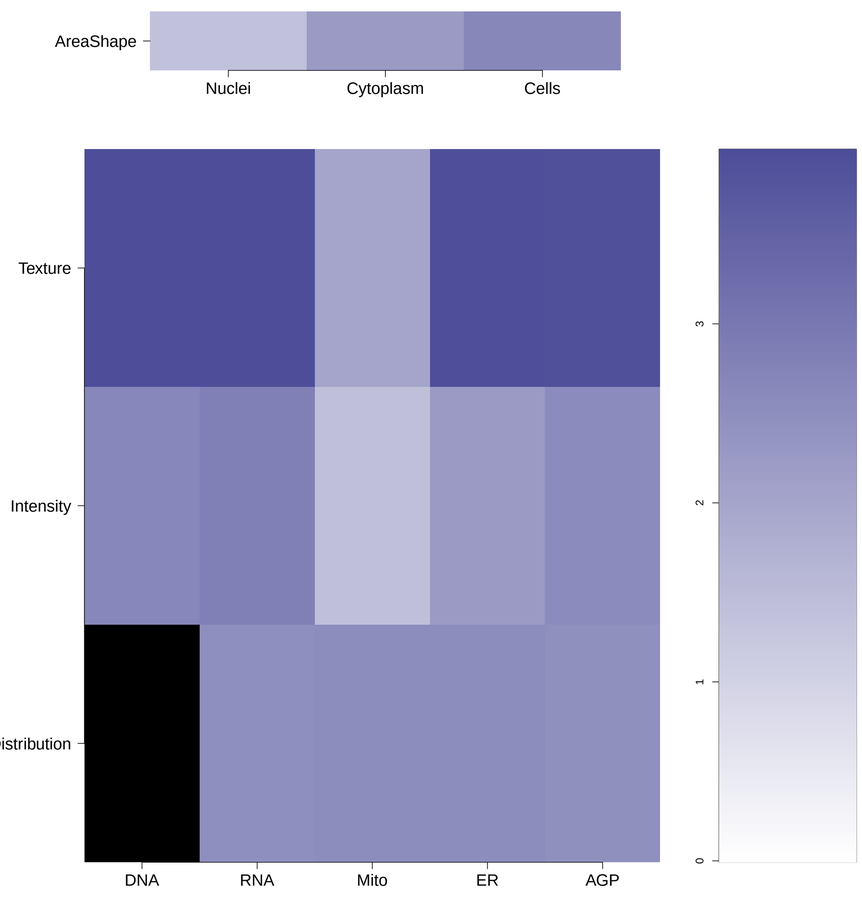
CONFIDENTIAL, contact the Imaging Platform to collaborate on the findings herein

TGFBR1_WT.2 - in Canonical TGFbeta

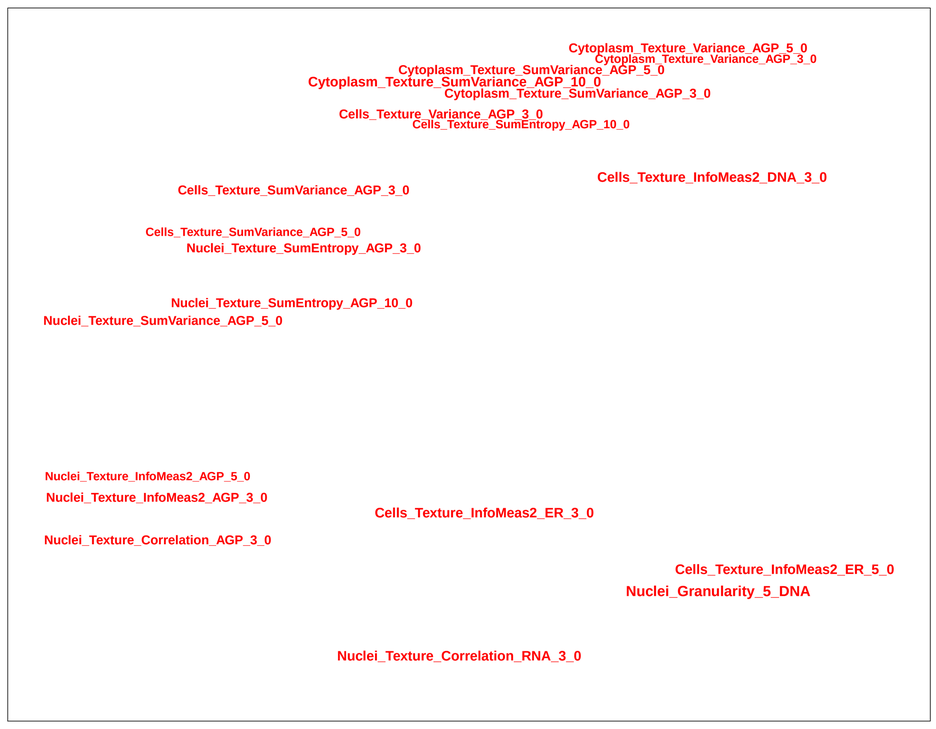
How similar is this gene to the other genes?

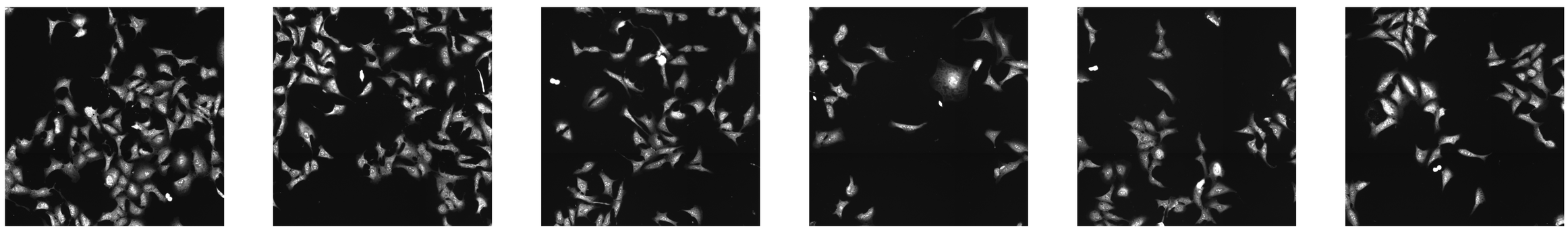
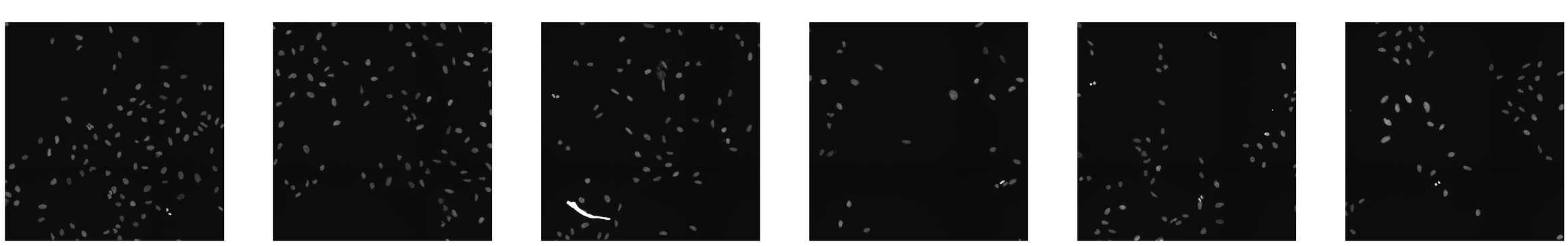


What groups of morphological features are distinguishing in the cluster relative to the untreated samples? (maximum of absolute m-score for the features belonging to the same category; m-score defined as median of a feature z-score across genes in the cluster) Black means no feature is available in the category

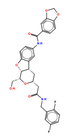
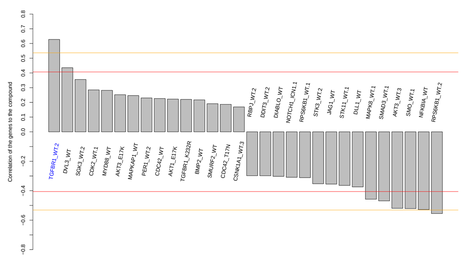
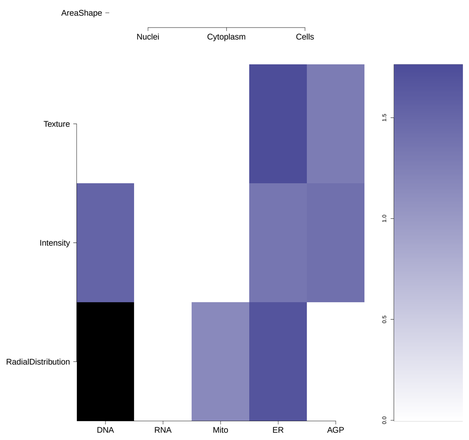
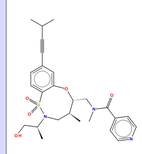
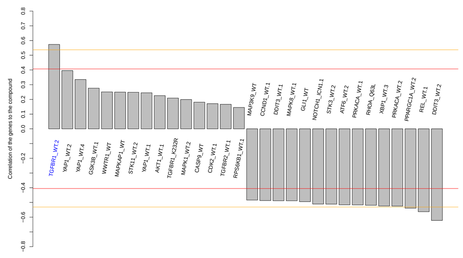
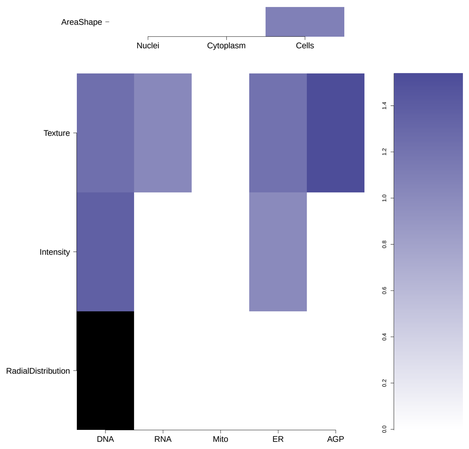
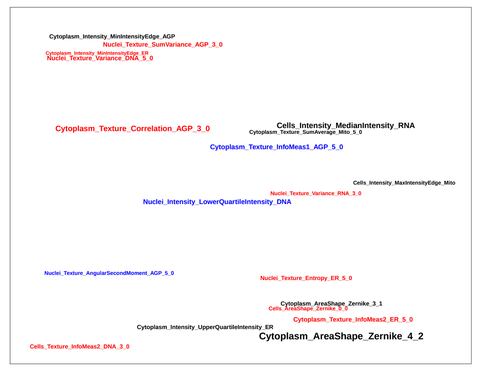
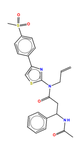
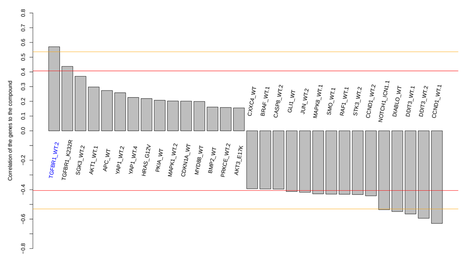
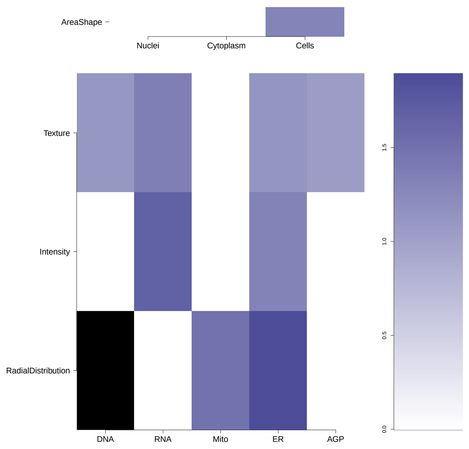
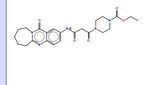
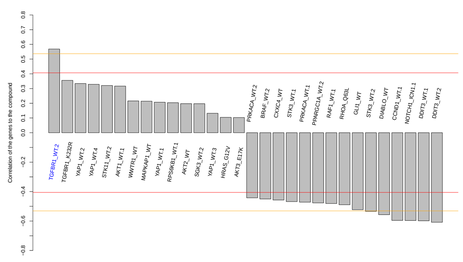
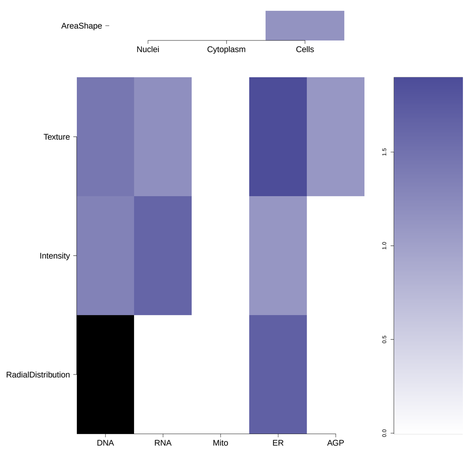
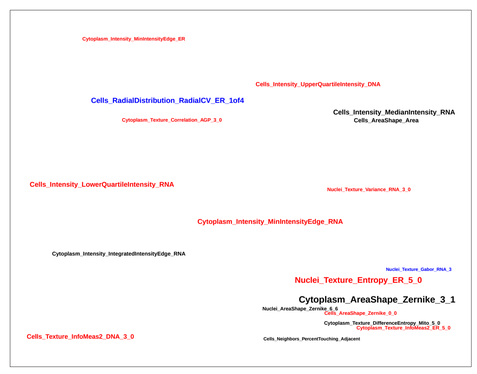
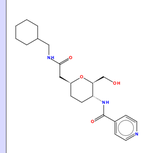
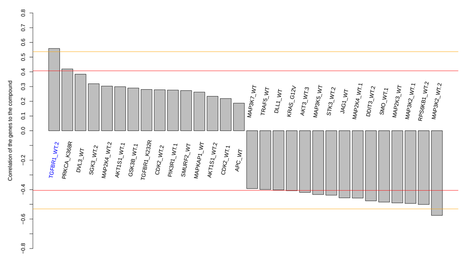
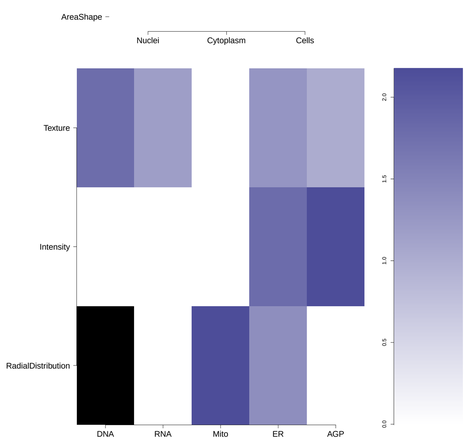
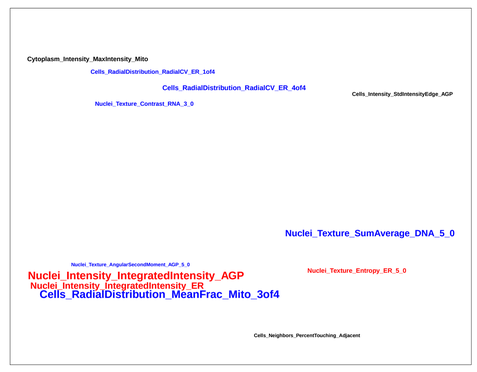
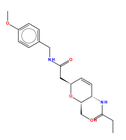
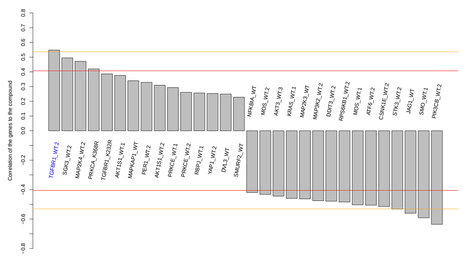
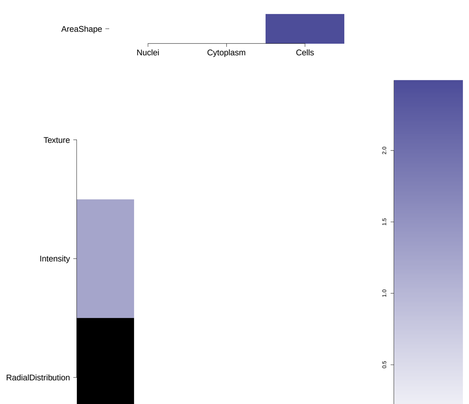
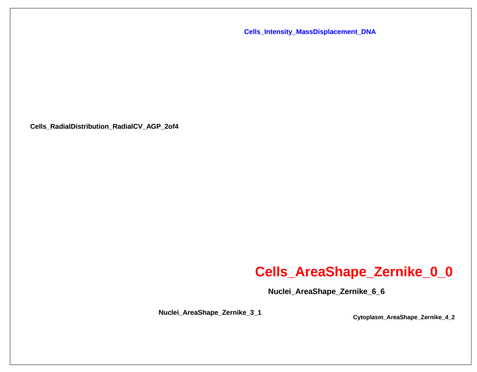
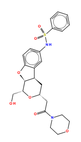
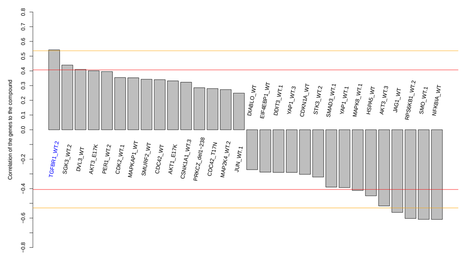
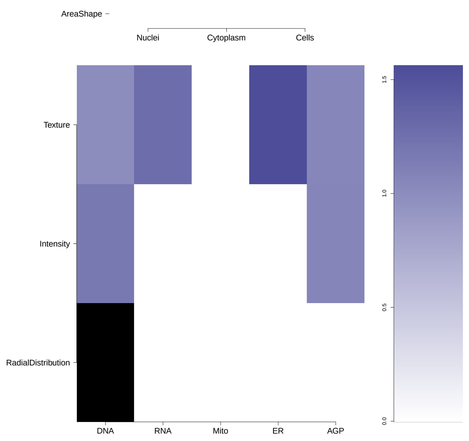
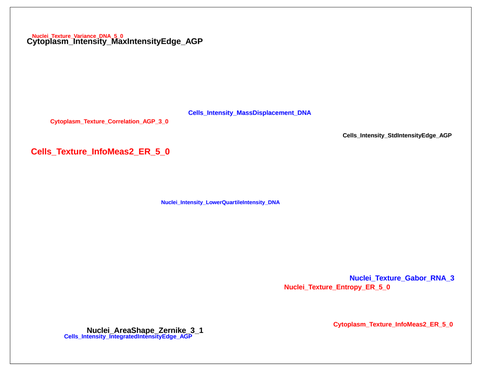


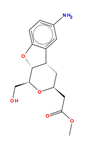
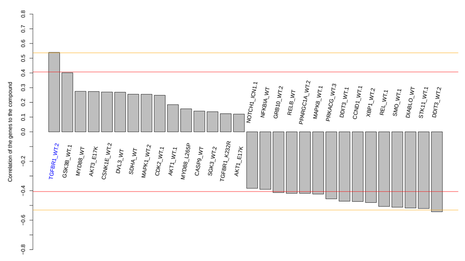
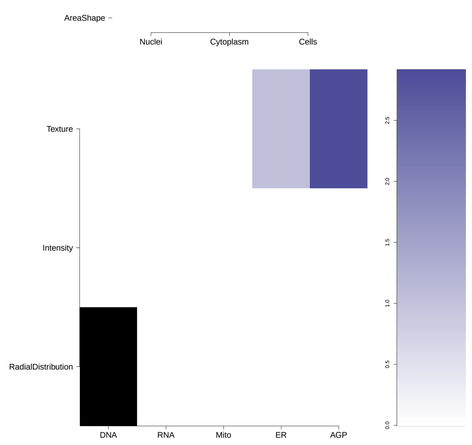
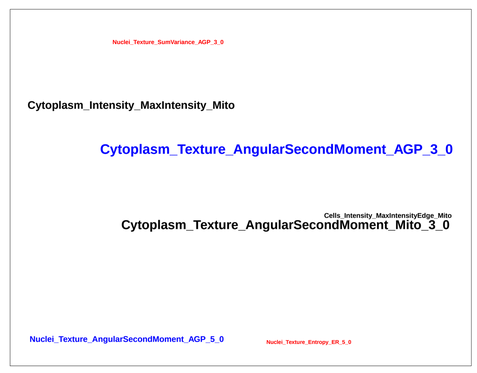
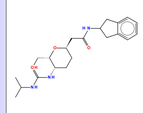
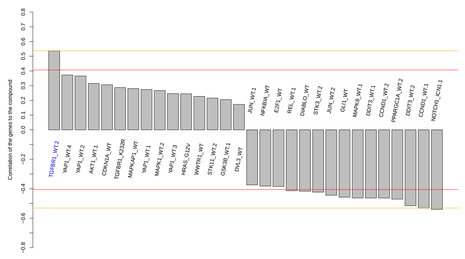
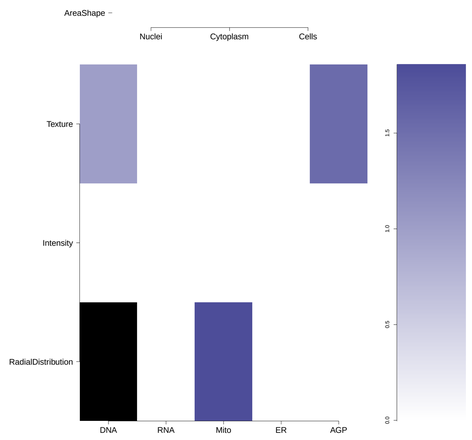
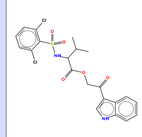
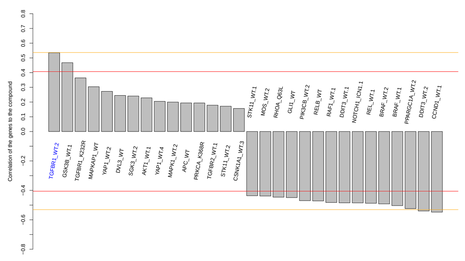
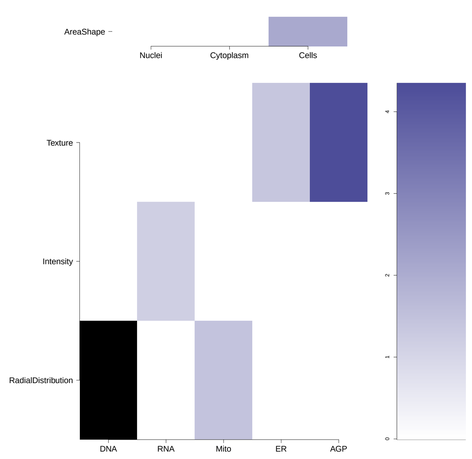
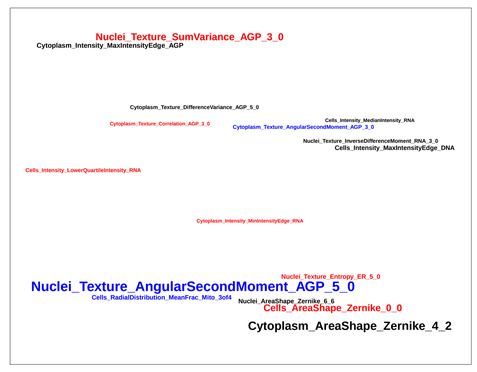
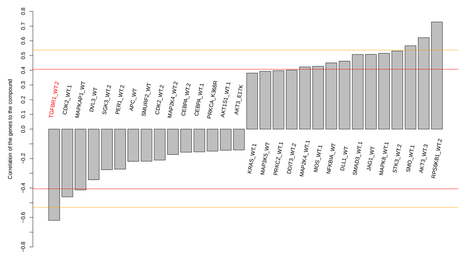
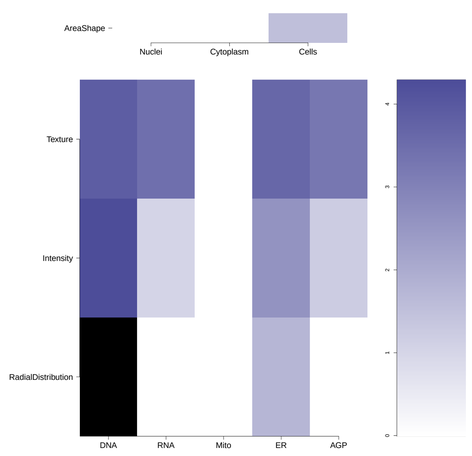
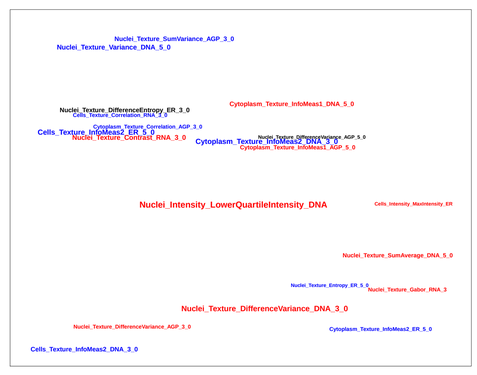
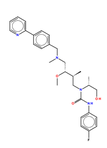
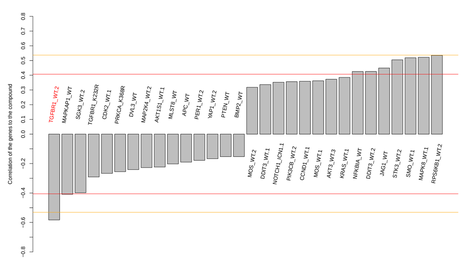
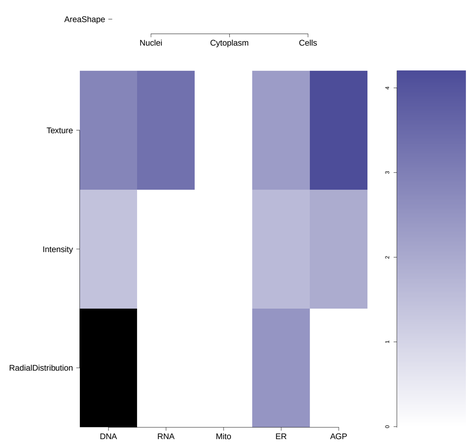
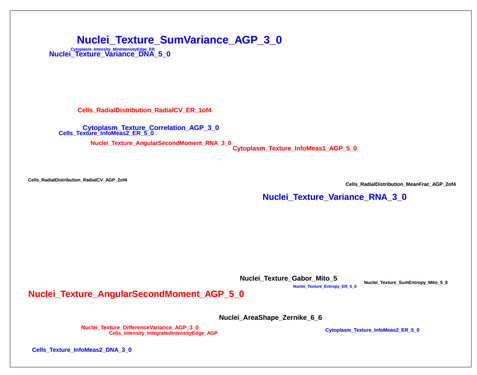
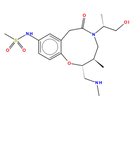
Which individual morphological features are distinguishing in the gene relative to the untreated samples? Blue/Red means the feature has a positive/negative z-score. Size is proportional to the z-score value.

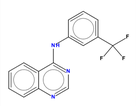
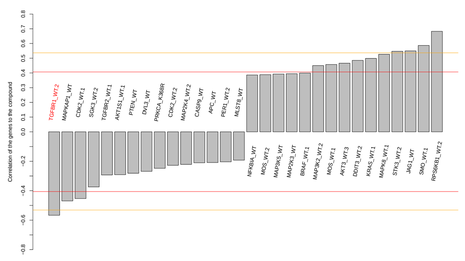
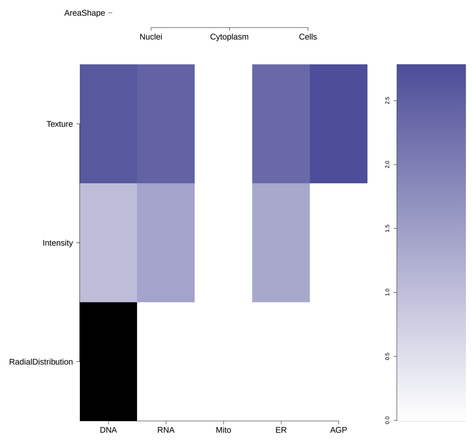
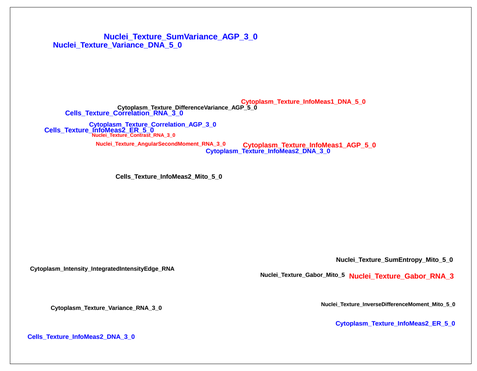
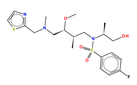
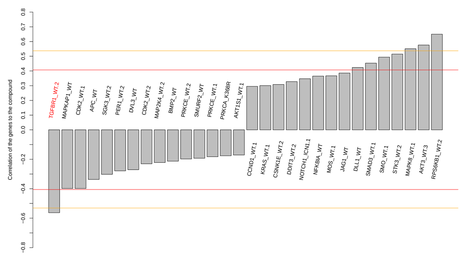
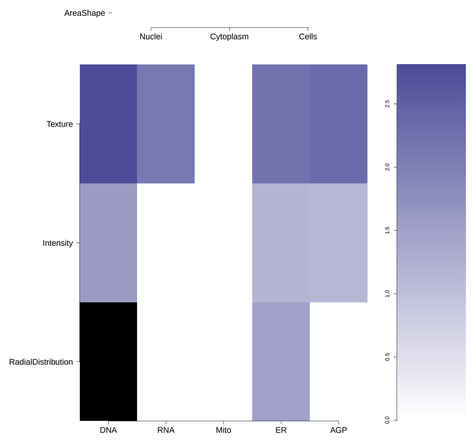
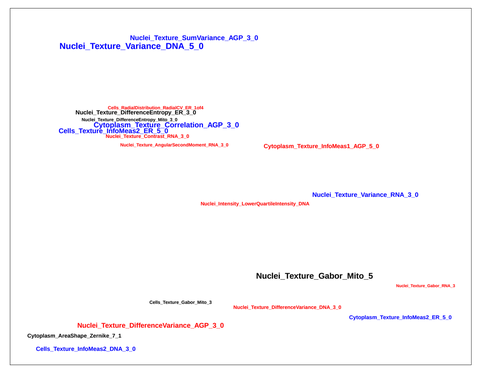
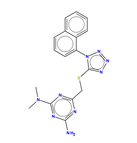
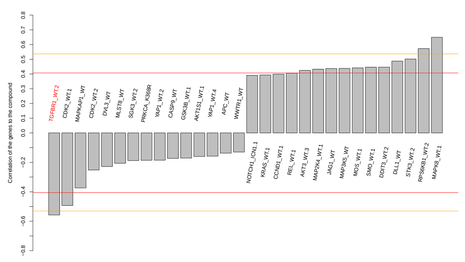
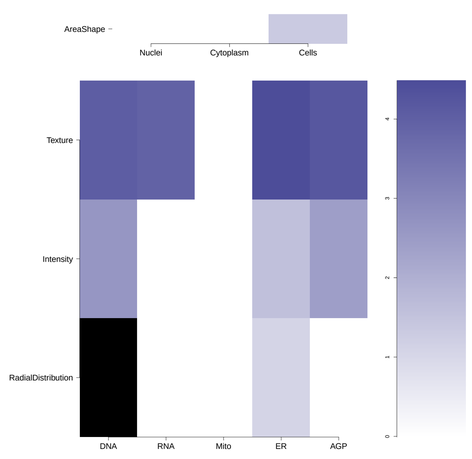
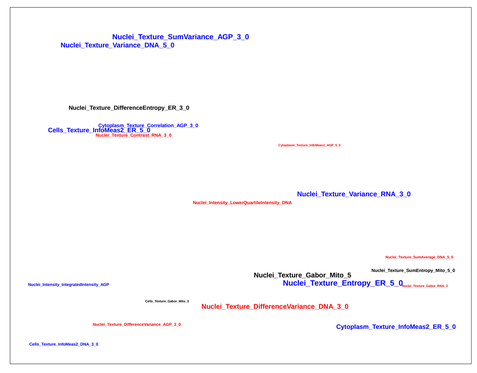
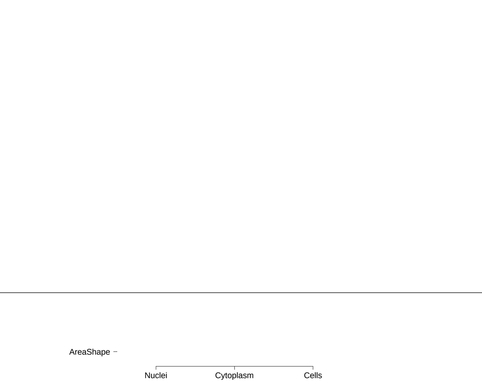
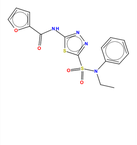
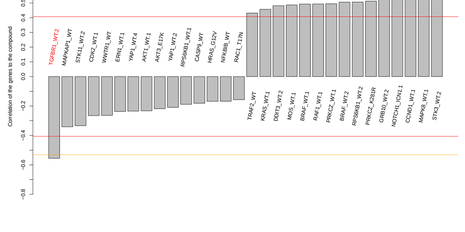
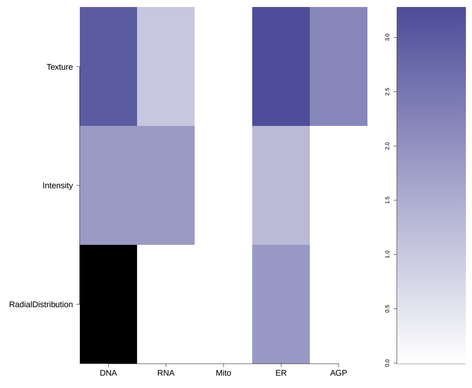
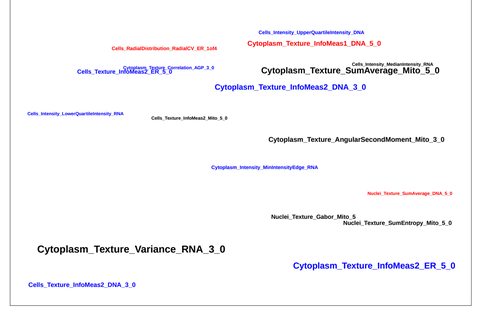


Empty	TGFBR1_WT.2 (41744)	TGFBR1_WT.2 (41755)	TGFBR1_WT.2 (41756)	TGFBR1_WT.2 (41757)	TGFBR1_WT.2 (41754)
RNA					
DNA					

Compound IDs and common names (where available); blue/red colored box means the matching compound is positively/negatively correlated with the cluster	Chemical structure	Mean pairwise replicates correlation of the compound signature (95th DMSO replicate correlation is 0.52)	Correlation between compound the gene	Compound rank when scored against the gene using L1000 profiling	How similar is the compound signature to the genes in this experiment? (Yellow and red lines correspond to top/bottom 1st and 5th percentile DMSO correlation to all the genes)	Common distinguishing feature categories in the compound and the gene relative to the untreated samples	Distinguishing individual features for the compound relative to untreated samples. Black means a mismatch; i.e. active (= high z-score in magnitude) in the compound, and either inactive (= small z-score in magnitude) or oppositely active in the gene	Number of PubChem assays in which the compound was tested; assays in which the compound was active are itemized

BRD-K04267190-001-01-4 PubChem CID : 54646512		0.72 (in 4 replicates)	0.63	0.761				Total number of assays tested in: 37.
BRD-K27735716-001-01-8 PubChem CID : 54618805		0.63 (in 3 replicates)	0.57	0.127				Total number of assays tested in: 37. Active in the following assays: • Small molecule inhibitors of miR122 Measured in Cell-Based System Using Plate Reader - 2144-01_Activator_SinglePoint_HTS_Activity (AID 623901) • Small molecule inhibitors of miR122 Measured in Cell-Based System Using Plate Reader - 2144-01_Activator_Dose_CherryPick_Activity (AID 651956) • Cytotoxicity Assay Measured in Cell-Based System Using Plate Reader - 2144-02_Inhibitor_Dose_CherryPick_Activity_Set2 (AID 720697)
BRD-A42388265-001-05-5 T5535119 SMR000592452 MLS001177256 MLS003913451 PubChem CID : 16293736		NA (in 1 replicates)	0.57	NA				Total number of assays tested in: 502. Active in the following assays: • Cycloheximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314) • A qHTS for Small Molecule Inhibitors of Shiga Toxin (AID 2315) • High throughput screening of inhibitors of transient receptor potential cation channel C6 (TRPC6) (AID 2553) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 48 hour incubation (AID 504832) • Screen for inhibitors of the SWI/SNF chromatin remodeling complex (esBAF) in mouse embryonic stem cells with Luciferase reporter assay Measured in Cell-Based System Using Plate Reader - 2141-01_Inhibitor_SinglePoint_HTS_Activity (AID 602393) • Screen for inhibitors of the SWI/SNF chromatin remodeling complex (esBAF) in mouse embryonic stem cells with Luciferase reporter assay Measured in Cell-Based System Using Plate Reader - 2141-01_Inhibitor_Dose_CherryPick_Activity (AID 651717) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in absence of CPT (AID 686978)
BRD-K24588660-001-05-1 SMR000029508 AC1MMPHI MLS000093894 MLS002588230 HMS2172A20 HMS3307J08 ZINC4077675 PubChem CID : 3242390		NA (in 1 replicates)	0.57	NA				Total number of assays tested in: 758. Active in the following assays: • Factor XIIa Mixture HTS (AID 684) • CYP2C9 Assay (AID 777) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 48 hour incubation (AID 504832)
BRD-K29073962-001-01-3 PubChem CID : 54641201		NA (in 1 replicates)	0.56	NA				Total number of assays tested in: 38.
BRD-K45566213-001-01-3 PubChem CID : 54641069		NA (in 1 replicates)	0.55	NA				Total number of assays tested in: 37.
BRD-K49911380-001-01-4 PubChem CID : 54645972		NA (in 1 replicates)	0.54	0.762				Total number of assays tested in: 43.

BRD-K31230167-001-01-8 PubChem CID : 54646113		NA (in 1 replicates)	0.54	0.172				Total number of assays tested in: 40.
BRD-K25367375-001-01-4 PubChem CID : 54641172		NA (in 1 replicates)	0.54	NA				Total number of assays tested in: 38.
BRD-A47393232-001-05-0 MLS000409274 SMR000243613 AC1NIO3E MLS003912484 BDBM114051 HMS2575L04 T5304168 PubChem CID : 4834110		NA (in 1 replicates)	0.54	NA				Total number of assays tested in: 639. Active in the following assays: • qHTS Assay for Inhibitors of the ERK Signaling Pathway using a Homogeneous Screening Assay; Stimulation with EGF (AID 1454) • Counterscreen qHTS for Inhibitors of Tau Fibril Formation, Fluorescence Polarization (AID 1463) • qHTS Assay for Promiscuous and Specific Inhibitors of Cruzain (without detergent) (AID 1476) • Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 MEK Kinase 2 mutant (AID 1530) • Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 binding to MEK Kinase 2 Wildtype (AID 1531) • Nrf2 qHTS screen for inhibitors (AID 504444) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 48 hour incubation (AID 504832) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 96 hour incubation (AID 504834) • High-throughput multiplex microsphere screening for inhibitors of toxin protease, specifically Botulinum neurotoxin light chain A protease, MLPCN compound set (AID 588499) • HTS to identify compounds that promote myeloid differentiation with MLPCN compound set (AID 624256) • QFRET-based biochemical primary high throughput screening assay to identify exosite inhibitors of ADAM10. (AID 720582) • QFRET-based biochemical primary high throughput screening assay to identify exosite inhibitors of ADAM17. (AID 720648) • QFRET-based biochemical high throughput confirmation assay to identify exosite inhibitors of ADAM17 (AID 743257) • Counterscreen for exosite inhibitors of ADAM17: Fluorescence resonance energy transfer (FRET)-based biochemical high throughput dose response assay to identify inhibitors of ADAM10 (AID 743259)
BRD-K61020385-001-01-2 PubChem CID : 44495910		0.75 (in 4 replicates)	-0.62	0.317				Total number of assays tested in: 58. Active in the following assays: • HIV entry: Env-mediated Cell Fusion Measured in Cell-Based System Using Plate Reader - 7013-01_Inhibitor_SinglePoint_HTS_Activity (AID 651610)
BRD-K62820230-001-01-1 PubChem CID : 54649258		0.62 (in 2 replicates)	-0.58	0.817				Total number of assays tested in: 38.
BRD-A64728896-001-05-2 SMR000078761 AC1MGNZ8 MLS000050999 MLS002547299 HMS2184H15 PubChem CID : 2963973		NA (in 1 replicates)	-0.58	NA				Total number of assays tested in: 805. Active in the following assays: • qHTS Assay for Inhibitors of HADH2 (Hydroxyacyl-Coenzyme A Dehydrogenase, Type II) (AID 886) • Fluorescence polarization-based biochemical primary high throughput screening assay to identify activators of the Protein Kinase A-R1A (PKA-R1A) complex (AID 504707)

BRD-K96925768-003-06-3 ST069782 SMR000010339 MLS000076322 AC1MDGS7 MLS002537108 NSC728118 NSC-728118 PubChem CID : 2789330		0.86 (in 2 replicates)	-0.57	NA				Total number of assays tested in: 749. Active in the following assays: • Luminescence Cell-Based Dose Retest to Confirm Inhibitors of Cancer Stem Cells (AID 449748) • Dose Response HTS Screen to Identify Cytotoxic Compounds of HMLE.sh.eGFP (AID 463074) • uHTS identification of small molecule inhibitors of tim23-1 yeast via a luminescent assay (AID 463212) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in absence of CPT (AID 686978) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in presence of CPT (AID 686979)
BRD-K67241457-001-01-1 PubChem CID : 54649053		0.66 (in 2 replicates)	-0.56	0.767				Total number of assays tested in: 36.
BRD-K51608872-001-12-3 SMR000076922 MLS000049874 AC1LU0GD MLS002546659 MLS002703075 BDBM39110 AOB1554 HMS2402C13 ML150 ZINC1441041 STL363359 ZINC01441041 695209-67-7 PubChem CID : 1517919		NA (in 1 replicates)	-0.56	NA				Total number of assays tested in: 850. Active in the following assays: • Pyruvate Kinase (AID 361) • Cell Proliferation and Viability (Cytotoxicity) Primary Assay 60K MLSMR (AID 463) • Primary Cell-based High Throughput Screening assay for inhibitors of the Retinoic Acid Receptor-related orphan receptor A (RORA) (AID 561) • Primary Cell Based High Throughput Screening Assay for Antagonists of the 5-Hydroxytryptamine Receptor Subtype 1E (5HT1E) (AID 571) • Allosteric Modulators of D1 Receptors: Primary Screen (AID 641) • Allosteric Modulators of D1 Receptors: Confirmation Screen (AID 642) • Allosteric Modulators of D1 Receptors: Secondary Assay 2 (AID 647) • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • MLPCN Alpha-Synuclein 5'UTR - 5'-UTR binding - inhibitors (AID 1813) • Fluorescence-based primary biochemical high throughput screening assay to identify inhibitors of Protein Phosphatase 5 (PP5). (AID 1987) • Luminescence Cell-Based Dose Confimation HTS to Identify Inhibitors of of 5'UTR Stem-Loop Driven Alpha-Synuclein mRNA Translation in H4 Neuroglioblastoma Cells (AID 1988) • Luminescence Cell-Based Dose Confimation HTS to Identify Inhibitors of of 5'UTR Stem-Loop Driven Alpha-Synuclein mRNA Translation in H4 Neuroglioblastoma Cells. (AID 2460) • ELISA Cell-Based Dose Response to Identify Inhibitors of Alpha-Synuclein Translation in SH-SY5Y Cells (AID 2473) • Western Blot Cell-Based Dose Response to Identify Inhibitors of Binding of Alpha-Synuclein Translation in H4 Cells (AID 2484) • Nrf2 qHTS screen for inhibitors (AID 504444) • Parallel artificial membrane permeability assay at pH 7.4 (AID 624339) • Counterscreen of compound fluorescence effects on High-throughput multiplex microsphere screening for inhibitors of toxin protease (AID 624483) • qHTS Assay for Inhibitors of Hepatitis C Virus (HCV) (AID 651820) • qHTS for Inhibitors of TGF-b: Confirmation of Cherry Picks (AID 720534) • qHTS Assay for Inhibitors of Hepatitis C Virus (HCV): Confirmation Assay for Cherry-picked Compounds (AID 720575) • qHTS Assay for Inhibitors of Hepatitis C Virus (HCV): Cytotoxicity Counterscreen for Cherry-picked Compounds (AID 720576)
BRD-K19608696-001-04-5 MLS001121487 HMS1859H04 HMS2253I17 ZINC6818267 ZINC06818267 SMR000626594 E157-5383 PubChem CID : 16017323		NA (in 1 replicates)	-0.56	NA				Total number of assays tested in: 508. Active in the following assays: • qHTS Screen for Compounds that Selectively Target Cancer Cells with p53 Mutations: Cytotoxicity of p53ts Cells at the Nonpermissive Temperature (AID 902) • qHTS Screen for Compounds that Selectively Target Cancer Cells with p53 Mutations: Cytotoxicity of p53 Null Cells at the Nonpermissive Temperature (AID 904) • A screen for compounds that inhibit cell wall-associated teichoic acid synthesis in Staphylococcus aureus (AID 463173) • qHTS Assay for the Inhibitors of Schistosoma Mansoni Peroxiredoxins (AID 485364) • qHTS profiling assay for firefly luciferase inhibitor/activator using purifed enzyme and Km concentrations of substrates (counterscreen for miR-21 project) (AID 588342) • Absorbance-based biochemical primary high throughput screening assay to identify inhibitors of Methionine sulfoxide reductase A (MsrA) (AID 651718) • Absorbance-based biochemical high throughput confirmation assay to identify inhibitors of Methionine sulfoxide reductase A (MsrA) (AID 651822)
BRD-K31998691-001-01-5 PubChem CID : 44494777		0.69 (in 3 replicates)	-0.55	0.163				Total number of assays tested in: 38.
BRD-K95180570-001-05-0 AC1LCINH SMR000004088 MLS000031997 HMS2175A06 ZINC8716796 ZINC08716796 ASN 05110846 PubChem CID : 650814		NA (in 1 replicates)	-0.54	NA				Total number of assays tested in: 773. Active in the following assays: • CYP2C9 Assay (AID 777) • CYP2C19 Assay (AID 778) • qHTS Assay for Inhibitors of 15-hLO (15-human lipoxygenase) (AID 887) • qHTS screen for small molecules that inhibit ELG1-dependent DNA repair in human embryonic kidney (HEK293T) cells expressing luciferase-tagged ELG1 (AID 504467) • qHTS profiling assay for firefly luciferase inhibitor/activator using purifed enzyme and Km concentrations of substrates (counterscreen for miR-21 project) (AID 588342) • qHTS of GLP-1 Receptor Inverse Agonists (Inhibition Mode) (AID 624417) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in absence of CPT (AID 686978) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in presence of CPT (AID 686979)

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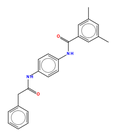
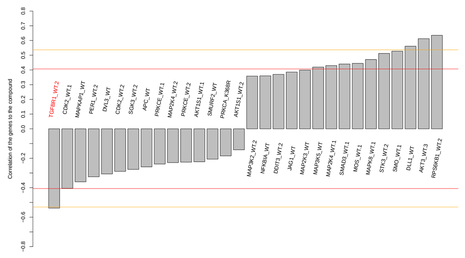
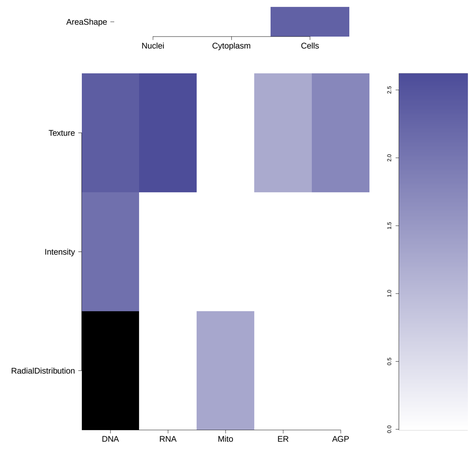


NA (in 1 replicates)

-0.54

NA





Total number of assays tested in: 634. Active in the following assays:

- Primary cell-based high-throughput screening assay for identification of compounds that protect hERG from block by proarrhythmic agents (AID 1511)
- uHTS for identification of Inhibitors of Mdm2/MdmX interaction in luminescent format. (AID 485346)
- Activator for delta FosB/delta FosB homodimer Measured in Biochemical System Using Plate Reader - 2072-01_Activator_SinglePoint_HTS_Activity (AID 493131)