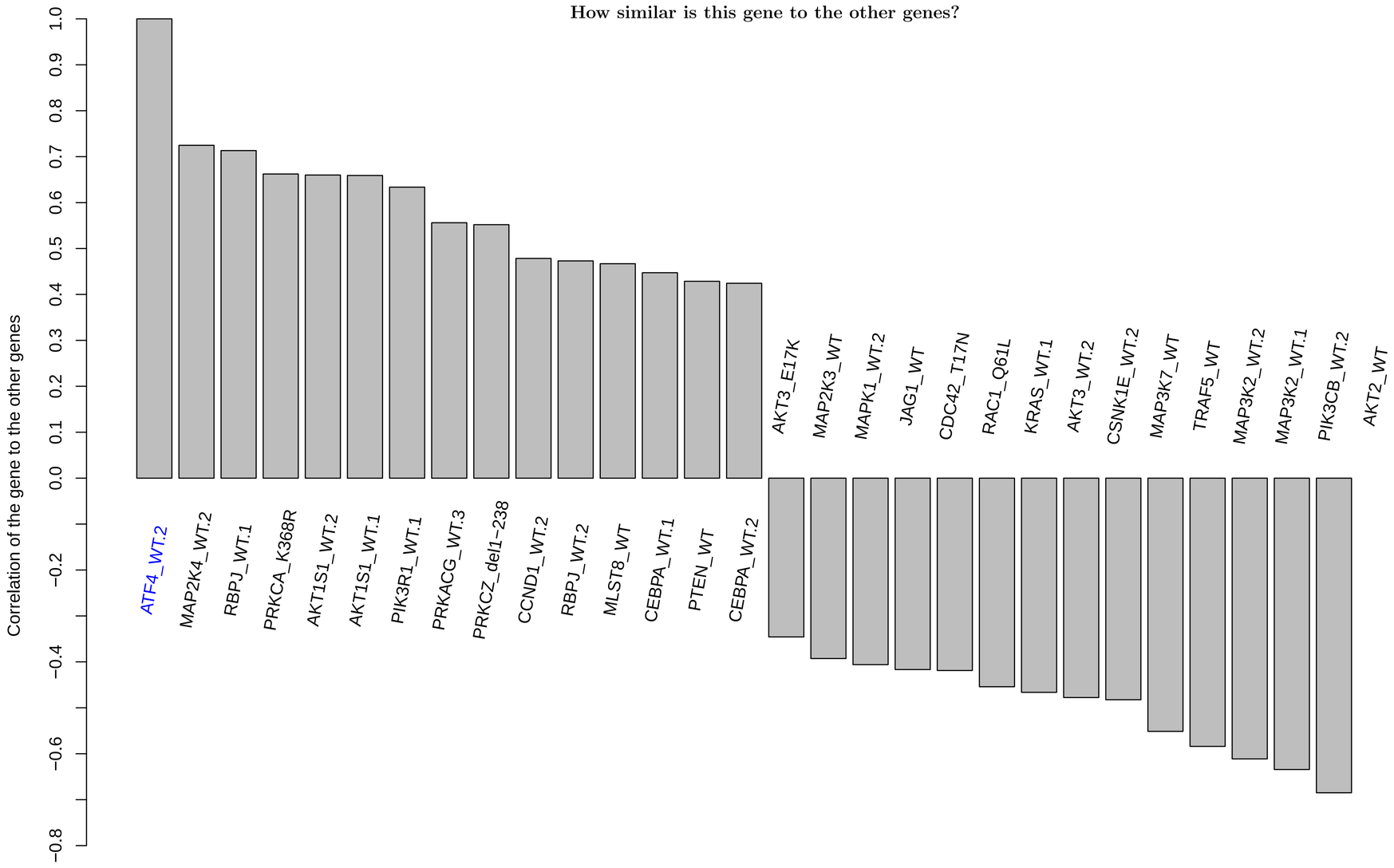
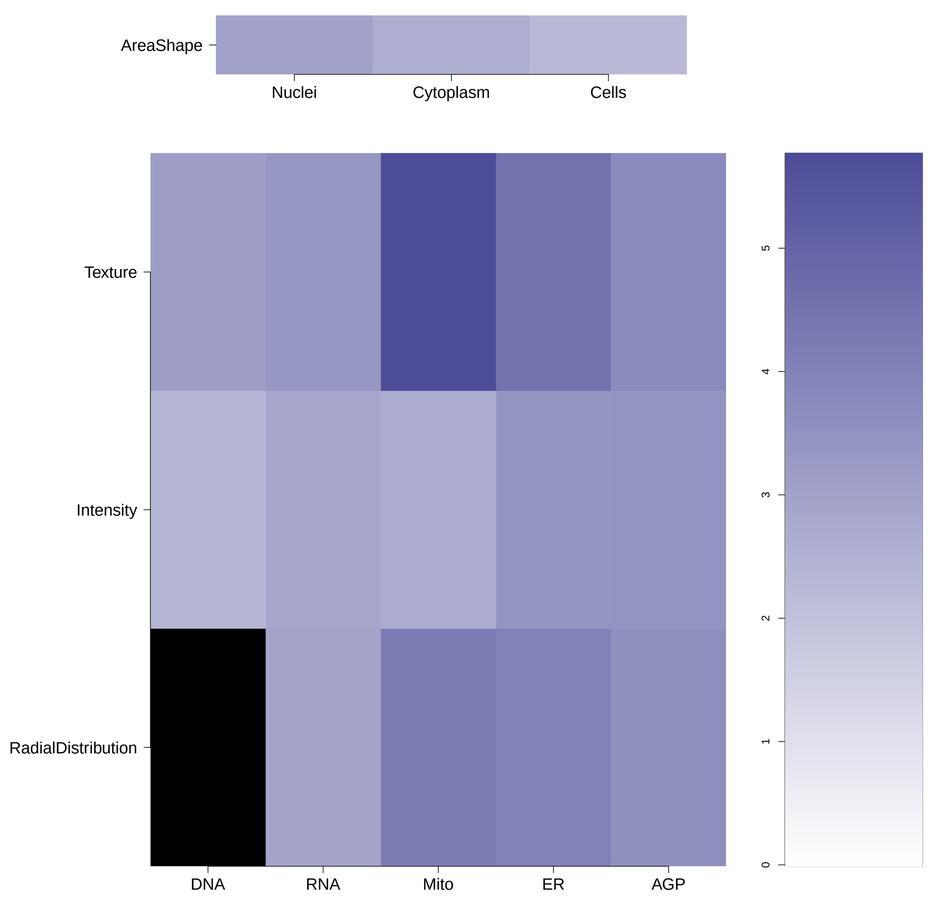
ATF4_WT.2 - in Canonical ER Stress/UPR

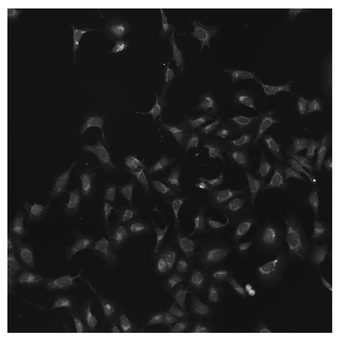
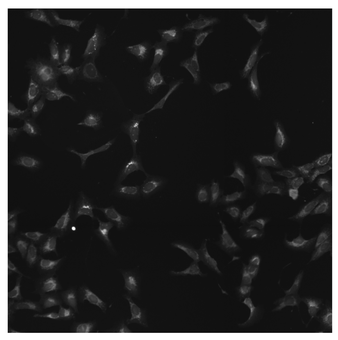
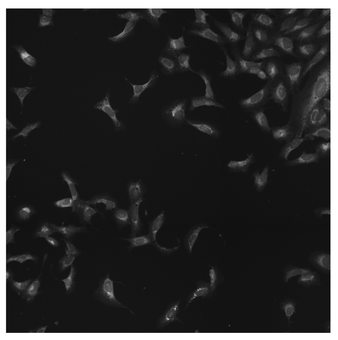
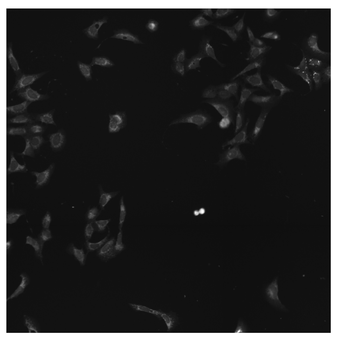
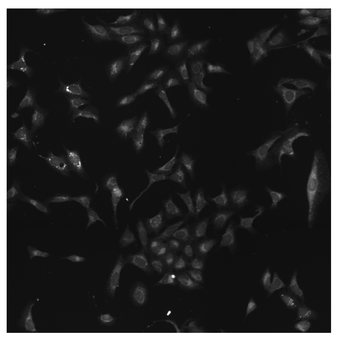
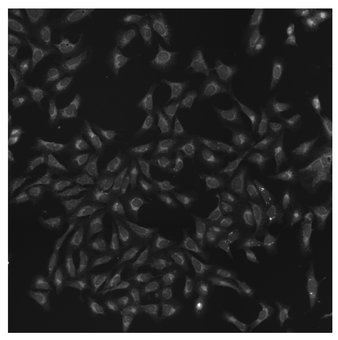
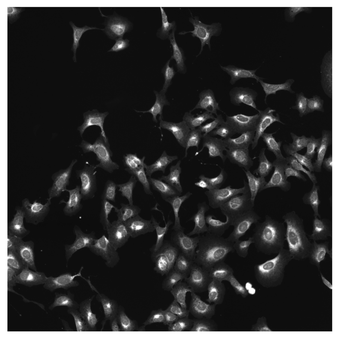
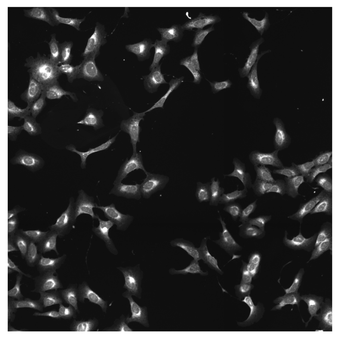
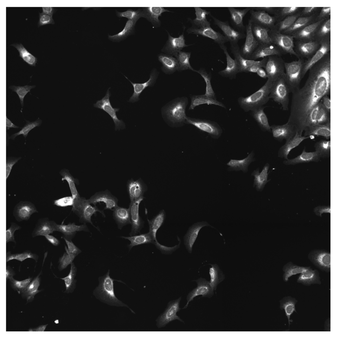
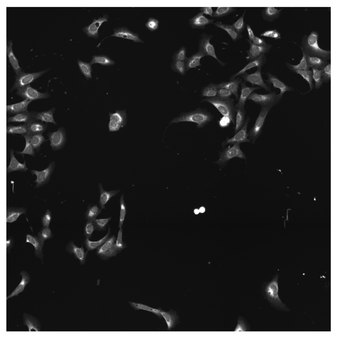
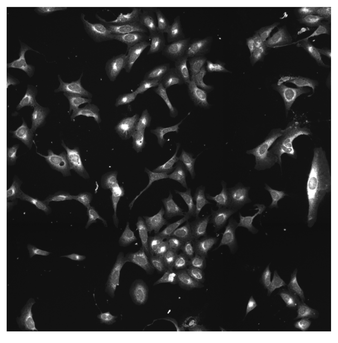
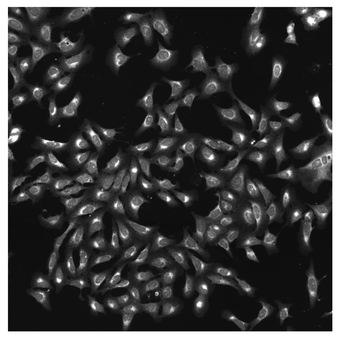
How similar is this gene to the other genes?



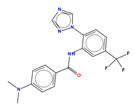
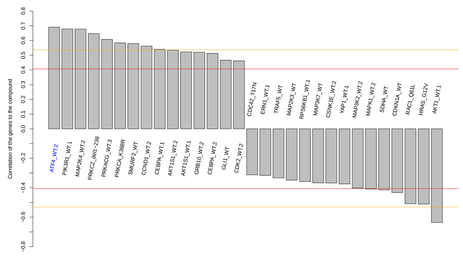
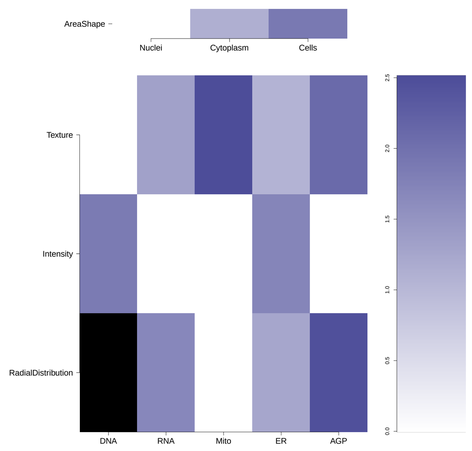
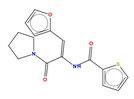
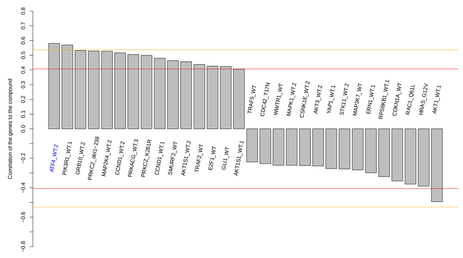
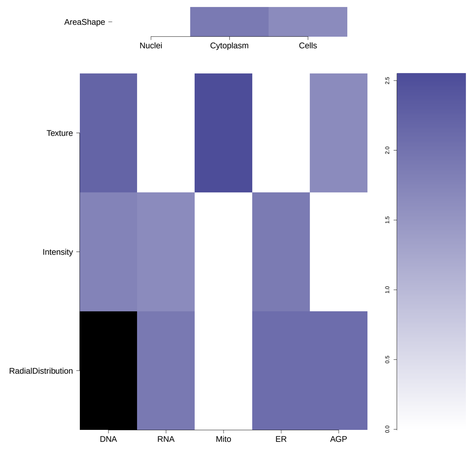
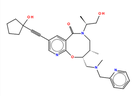
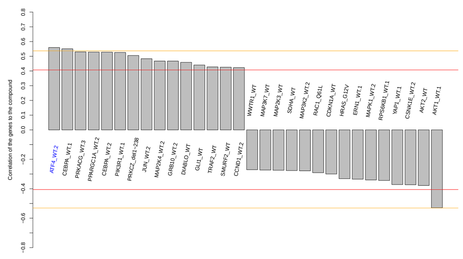
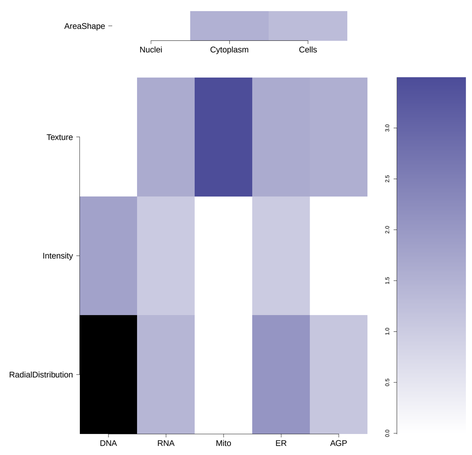
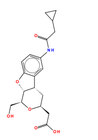
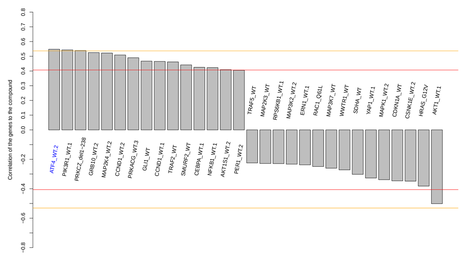
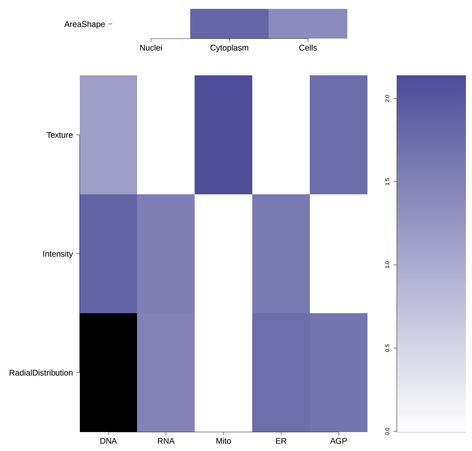
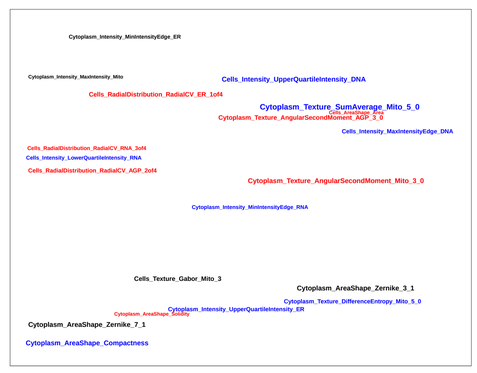
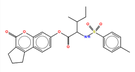
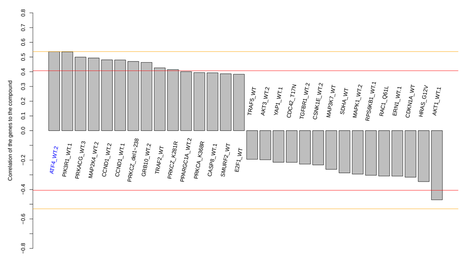
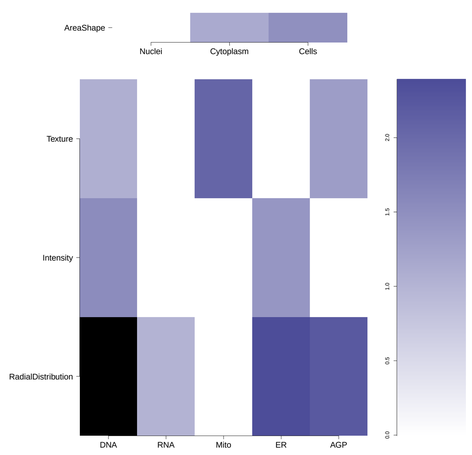
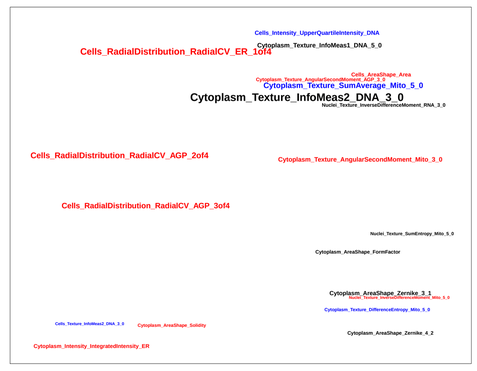
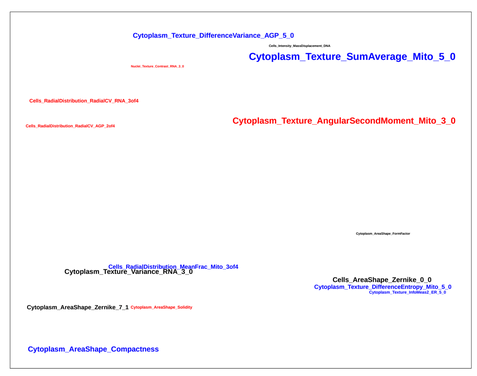
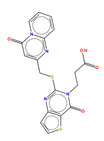
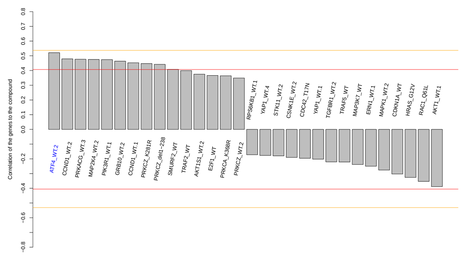
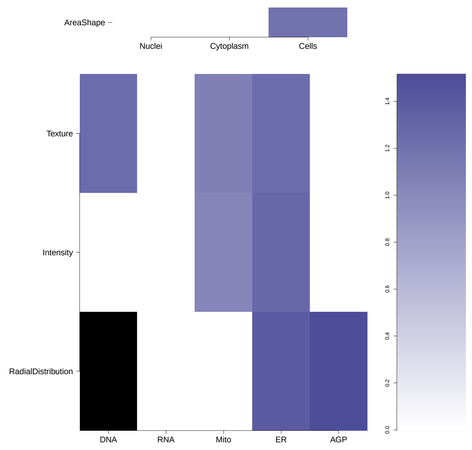
What groups of morphological features are distinguishing in the cluster relative to the untreated samples? (maximum of absolute m-score for the features belonging to the same category; m-score defined as median of a feature z-score across genes in the cluster) Black means no feature is available in the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

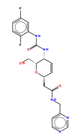
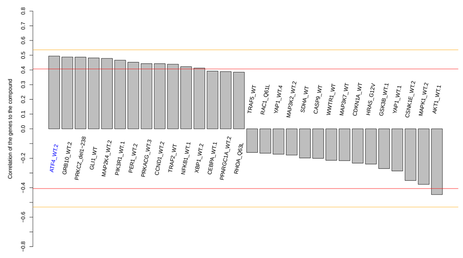
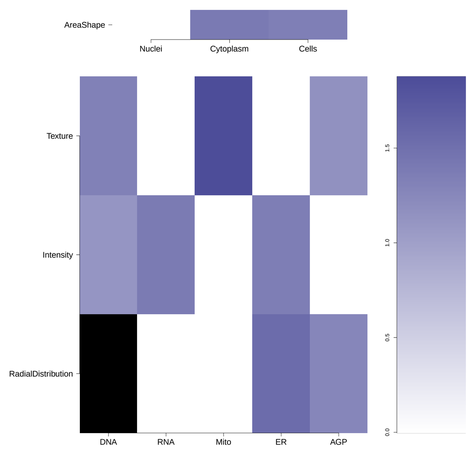
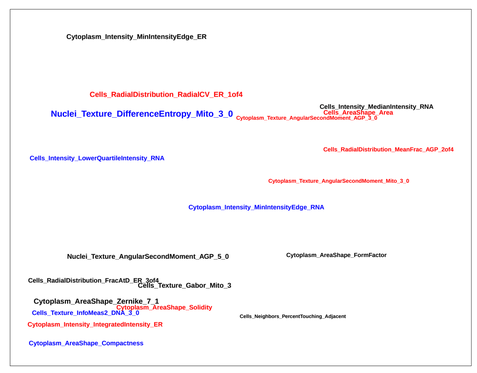
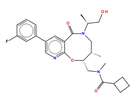
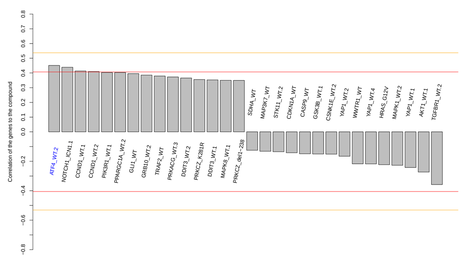
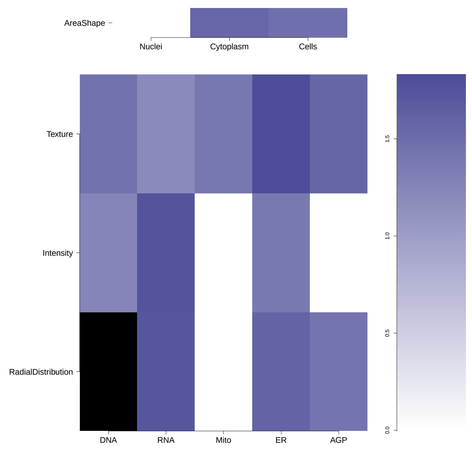
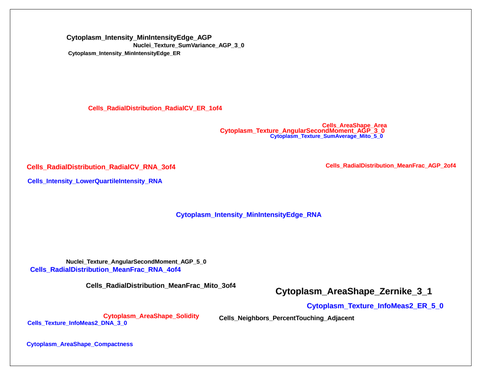
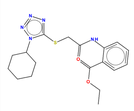
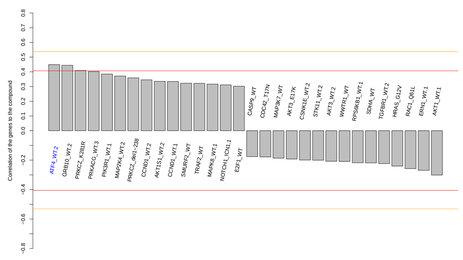
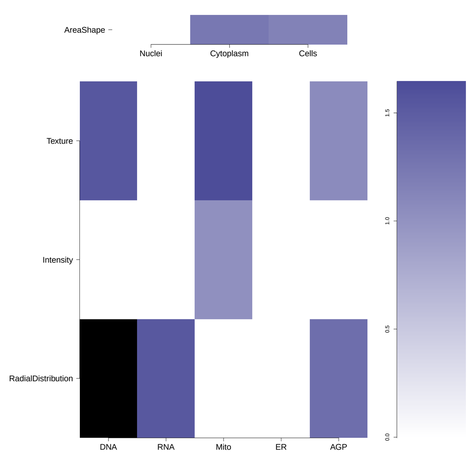
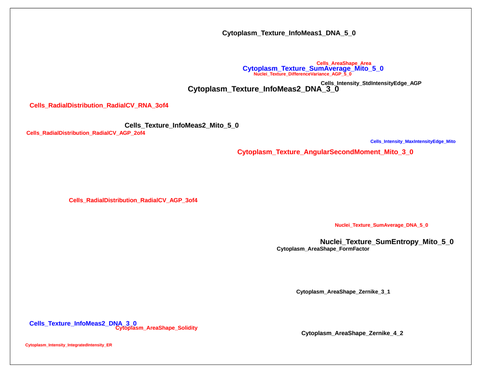
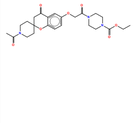
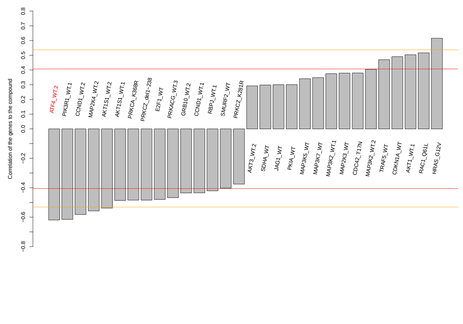
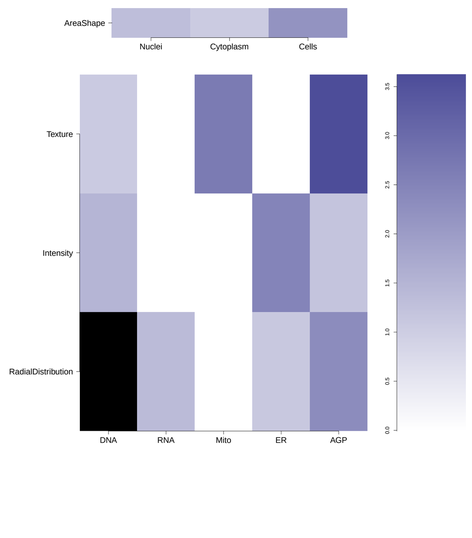
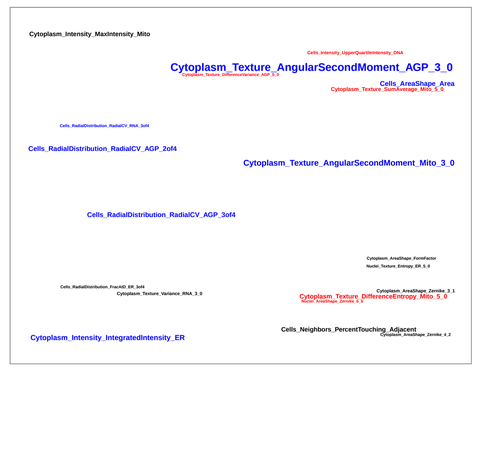
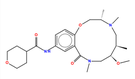
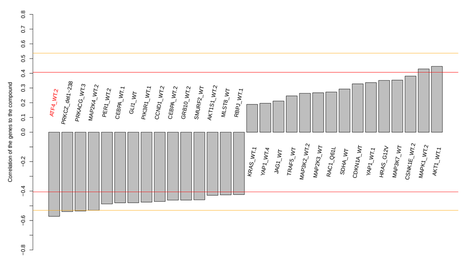
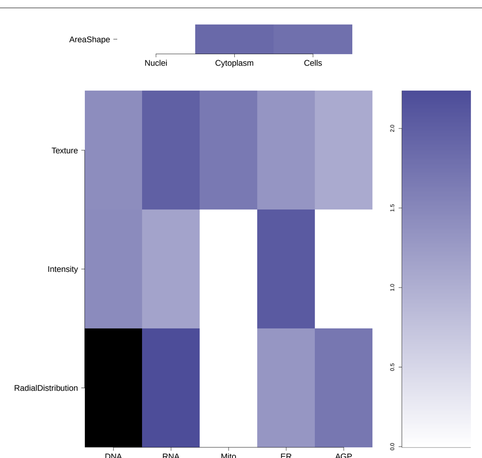
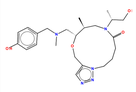
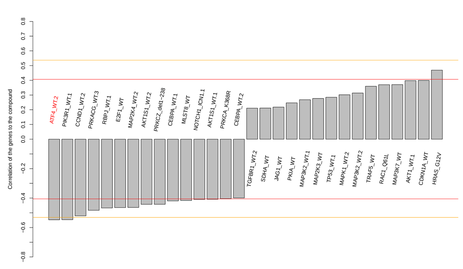
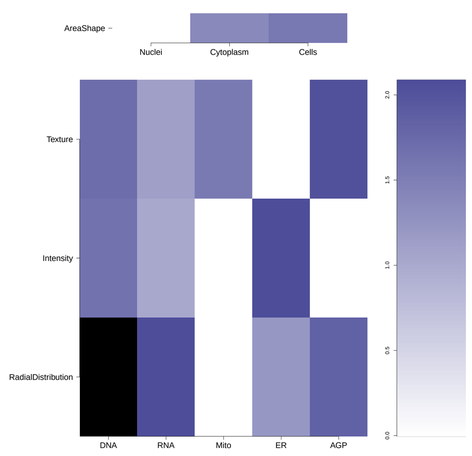


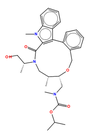
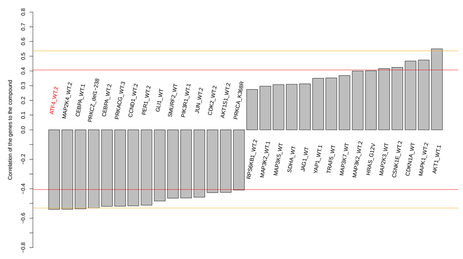
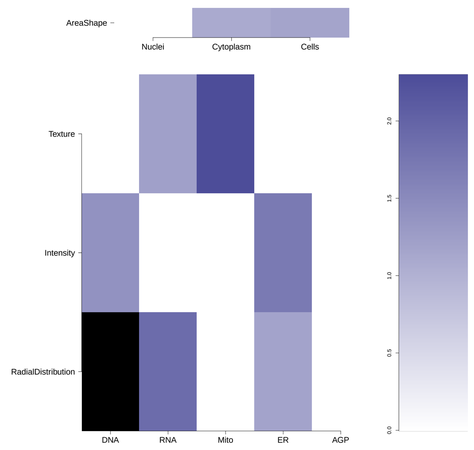
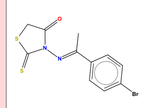
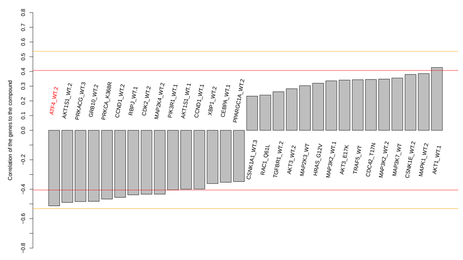
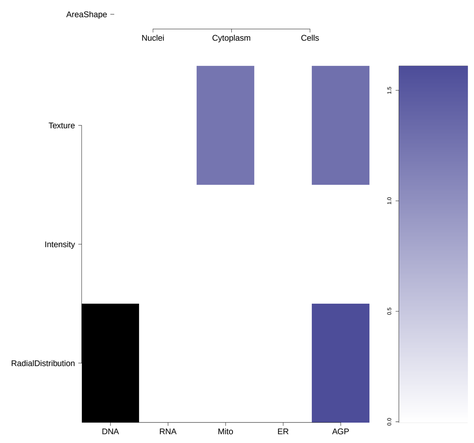
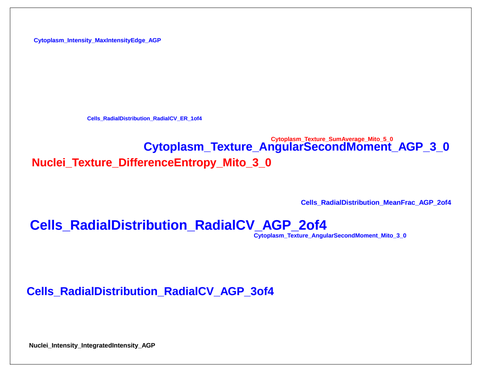
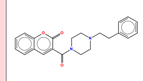
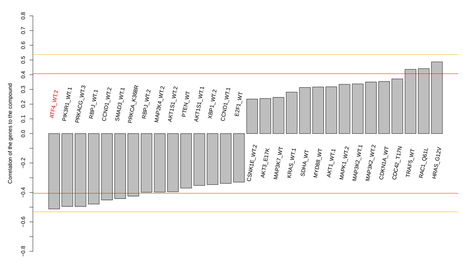
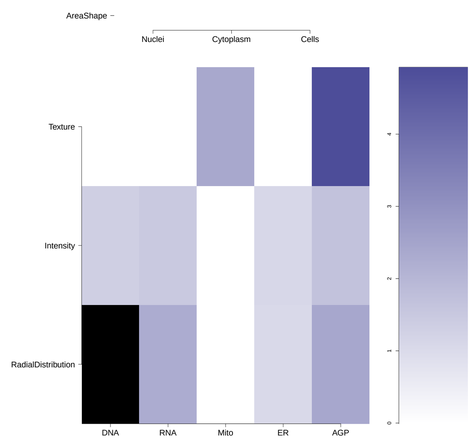
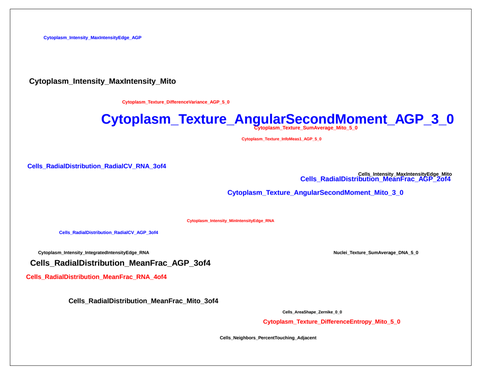
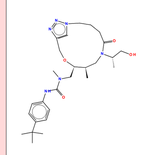
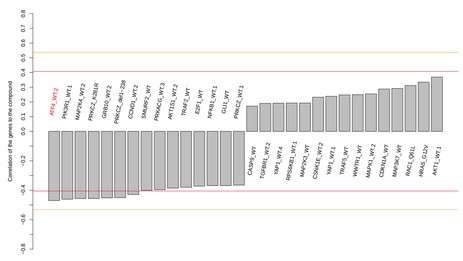
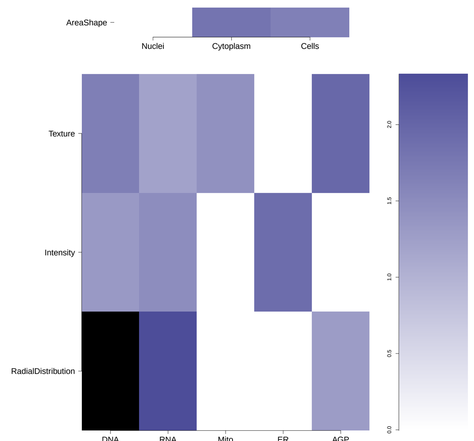
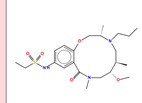
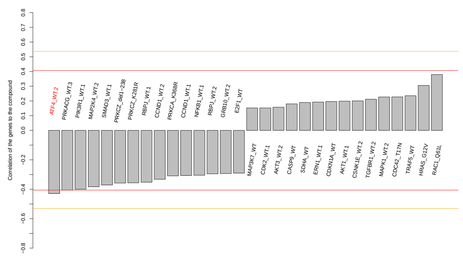
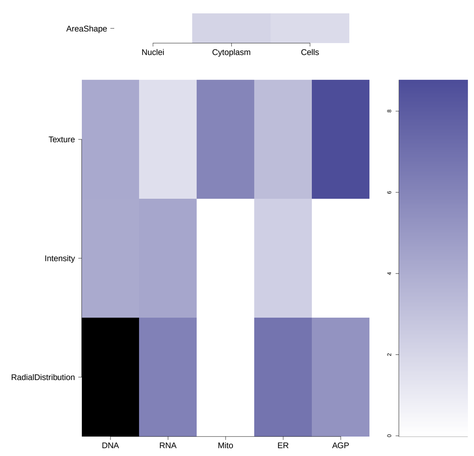
Which individual morphological features are distinguishing in the gene relative to the untreated samples? Blue/Red means the feature has a positive/negative z-score. Size is proportional to the z-score value.

	Empty	ATF4_WT.2 (41744)	ATF4_WT.2 (41755)	ATF4_WT.2 (41756)	ATF4_WT.2 (41757)	ATF4_WT.2 (41754)
Mito						
ER						

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-K50700495-001-05-0 ZINC03217226 MLS000569421 AC1M5TOT HMS1399C03 HMS2313L04 ZINC3217226 SMR000155025 T0505-7968 PubChem CID : 2335893		NA (in 1 replicates)	0.69	NA				Total number of assays tested in: 696. Active in the following assays: • High Content Assay for Compounds that inhibit the Assembly of the Perinucleolar Compartment (AID 2417) • Primary cell-based high-throughput screening for identification of compounds that antagonize MrgX1 receptor signaling (AID 588676)
BRD-K58629399-001-05-0 AC1LFC3S MLS000552402 HMS2367F07 ZINC264225 ZINC00264225 BAS 01128323 SMR000176524 ST50246978 PubChem CID : 775618		0.73 (in 3 replicates)	0.58	NA				Total number of assays tested in: 661. Active in the following assays: • qHTS Assay for Inhibitors of Bacillus subtilis Sfp phosphopantetheinyl transferase (PPTase) (AID 1490) • High Content Assay for Compounds that inhibit the Assembly of the Perinucleolar Compartment (AID 2417)
BRD-K30738885-001-01-2 PubChem CID : 54618807		0.71 (in 3 replicates)	0.56	0.644				Total number of assays tested in: 34.
BRD-K04407772-001-01-2 PubChem CID : 54647298		0.67 (in 4 replicates)	0.55	0.843				Total number of assays tested in: 39.
BRD-A41717767-001-05-9 MLS000578786 SMR000186575 AC1MEKEP BDBM100046 HMS2481N24 CCG-2760 ST50453486 PubChem CID : 2856656		0.82 (in 2 replicates)	0.54	NA				Total number of assays tested in: 681. Active in the following assays: • Screening for Modulators of Post-Golgi Transport, Control Strain (AID 738) • CYP2C9 Assay (AID 777) • CYP2C19 Assay (AID 778) • Cytochrome panel assay with activity outcomes (AID 1851) • Fluorescence-based biochemical primary high throughput screening assay to identify inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 588726) • Full deck counterscreen for positive allosteric modulators (PAMs) of the human M1 muscarinic receptor (CHRM1): Fluorescence-based cell-based high throughput screening assay to identify nonselective activators and assay artifacts using the parental CHOK1 cell line (AID 602247) • Fluorescence Intensity-based biochemical primary high throughput screening assay to identify activators of kallikrein-7 (K7) zymogen (AID 652039) • Fluorescence Intensity-based biochemical primary high throughput confirmation assay to identify activators of kallikrein-7 (K7) zymogen (AID 686949) • Counterscreen for activators of kallikrein-7 (K7) zymogen: Fluorescence intensity-based biochemical high throughput counterscreen assay for activators that optically interfere with measurement of EDANS-DABCYL fluorescence (AID 686952)
BRD-K78764313-001-01-3 PubChem CID : 54618428		0.57 (in 4 replicates)	0.53	0.644				Total number of assays tested in: 23.
BRD-K72244395-001-05-4 AC1MT3TW MLS000673395 HMS2694A19 ZINC2932382 CCG-33821 SMR000314636 EU-0061913 PubChem CID : 3544515		0.69 (in 4 replicates)	0.52	NA				Total number of assays tested in: 624. Active in the following assays: • qHTS Assay for Agonists of the Relaxin Receptor RXFP1 (AID 2676)

BRD-K14706855-001-01-5 PubChem CID : 54640356		0.58 (in 4 replicates)	0.49	0.657				Total number of assays tested in: 36.
BRD-K11652878-001-01-7 PubChem CID : 54619350		0.59 (in 4 replicates)	0.45	0.220				Total number of assays tested in: 38.
BRD-K34380566-001-05-6 SMR000003775 MLS000035724 ASN 04891384 AC1LDCJN BDBM39517 HMS2477N22 PubChem CID : 645930		0.52 (in 4 replicates)	0.45	NA				Total number of assays tested in: 757. Active in the following assays: • Primary Cell-based High Throughput Screening assay for activators of the Retinoic Acid Receptor-related orphan receptor A (RORA) (AID 560) • Primary Antimicrobial Assay for E. coli BW25113 and 8710;tolC::kan Protocol for 384-well HTS (AID 573) • CYP2C9 Assay (AID 777) • qHTS Assay for Agonists of the Thyroid Stimulating Hormone Receptor: Activators of Intracellular cAMP Concentrations in Parental HEK 293 (AID 938) • Modulators of the EP2 prostaglandin E2 receptor - Primary Screening (AID 940) • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • qHTS for Inhibitors of Tau Fibril Formation, Thioflavin T Binding (AID 1460) • uHTS identification of small molecule inhibitors of tim10-1 yeast via a luminescent assay (AID 463190) • uHTS identification of small molecule inhibitors of tim23-1 yeast via a luminescent assay (AID 463212) • Primary cell-based high-throughput screening for identification of compounds that inhibit/block calcium-activated chloride channels (TMEM16A) (AID 588511) • qHTS of D3 Dopamine Receptor Antagonist: qHTS (AID 652054)
BRD-K38205896-001-05-2 SMR000023108 MLS000086885 AC1MMG1R MLS000876616 HMS2437A17 ZINC4104033 CCG-127829 PubChem CID : 3238189		NA (in 1 replicates)	-0.62	NA				Total number of assays tested in: 779. Active in the following assays: • qHTS Assay for Spectroscopic Profiling in 4-MU Spectral Region (AID 589) • qHTS Assay for Spectroscopic Profiling in A350 Spectral Region (AID 590) • Profiling the NIH Molecular Libraries Small Molecule Repository: Autofluorescence at 339/460 nm (AID 709) • uHTS for 14-3-3/Bad interaction inhibitors (AID 781) • qHTS Assay for Inhibitors of HADH2 (Hydroxyacyl-Coenzyme A Dehydrogenase, Type II) (AID 886) • qHTS Assay for Inhibitors of HSD17B4, hydroxysteroid (17-beta) dehydrogenase 4 (AID 893) • Fluorescence-based biochemical primary high throughput screening assay to identify inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 588726) • Fluorescence-based biochemical high throughput confirmation assay for inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 651616) • qHTS Assay for Activators of ClpP (AID 651965) • Fluorescence Intensity-based biochemical primary high throughput screening assay to identify activators of kallikrein-7 (K7) zymogen (AID 652039) • Counterscreen for inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis: Fluroescence-based biochemical high throughput Glycerophosphate Dehydrogenase-Triosephosphate Isomerase (GDH-TPI) assay to identify assay artifacts (AID 652141) • Fluorescence Intensity-based biochemical primary high throughput confirmation assay to identify activators of kallikrein-7 (K7) zymogen (AID 686949) • Counterscreen for activators of kallikrein-7 (K7) zymogen: Fluorescence intensity-based biochemical high throughput counterscreen assay for activators that optically interfere with measurement of EDANS-DABCYL fluorescence (AID 686952)
BRD-K76726787-001-01-1 PubChem CID : 54634405		0.59 (in 3 replicates)	-0.57	NA				Total number of assays tested in: 34.
BRD-K09407750-001-02-1 MLS003130231 SMR001834677 PubChem CID : 44505480		0.68 (in 3 replicates)	-0.55	0.356				Total number of assays tested in: 221. Active in the following assays: • DENV2 CPE-Based HTS Measured in Cell-Based and Microorganism Combination System Using Plate Reader - 2149-01_Other_SinglePoint_HTS_Activity (AID 651640)

BRD-K70158474-001-01-1 PubChem CID : 54638056		0.58 (in 3 replicates)	-0.54	0.356				Total number of assays tested in: 36. Active in the following assays: • Plasmodium falciparum Dd2 Sybr green parasite growth Measured in Cell-Based and Microorganism Combination System Using Plate Reader (AID 1159554)
BRD-K32502421-001-06-0 T0506-8356 MLS001003756 ZINC6373579 SMR000347649 PubChem CID : 9622464		0.52 (in 4 replicates)	-0.51	NA				Total number of assays tested in: 634. Active in the following assays: • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • QFRET-based primary biochemical high throughput screening assay to identify inhibitors of the Plasmodium falciparum M18 Aspartyl Aminopeptidase (PFM18AAP). (AID 1822) • Fluorescence Cell-Based Primary HTS of C.albicans growth in the presence of Fluconazole and compound (AID 1979) • Fluorescence Cell-Based Secondary Assay to Identify Inhibitors of Resistant C. albicans Growth in the Presence of Fluconazole (AID 2423) • qHTS Assay for Inhibitors of Fructose-1,6-bisphosphate Aldolase from Giardia Lamblia (AID 2451) • qHTS Assay for Inhibitors of Histone Lysine Methyltransferase G9a (AID 504332) • Full deck counterscreen for agonists of the human M1 muscarinic receptor (CHRM1): Fluorescence-based cell-based high throughput screening assay to identify nonselective activators and assay artifacts using the parental CHOK1 cell line (AID 602248) • Fluorescence Polarization with CAL-PDZ Measured in Biochemical System Using Plate Reader - 2109-02_Inhibitor_SinglePoint_HTS_Activity (AID 602252) • Primary biochemical fluorescence polarization-based high throughput screening assay to identify inhibitors of protein arginine methyltransferase 1 (PRMT1) (AID 652257) • Fluorescence polarization-based biochemical high throughput confirmation assay to identify inhibitors of protein arginine methyltransferase 1 (PRMT1) (AID 687036) • qHTS for Inhibitors of PLK1-PDB (polo-like kinase 1 - polo-box domain): Primary Screen (AID 720504)
BRD-K86231088-001-07-3 SMR000080398 MLS000065727 ST50868443 AC1LORJA MLS002547888 BDBM74661 HMS2457N19 STK461645 ZINC55060307 T5713242 PubChem CID : 1245644		0.68 (in 4 replicates)	-0.51	NA				Total number of assays tested in: 727. Active in the following assays: • uHTS identification of compounds inhibiting the binding between the RUNX1 Runt domain and CBFb-SMMHC via a fluorescence resonance energy transfer (FRET) assay. (AID 1434) • Identification of compounds inhibiting the binding between the RUNX1 Runt domain and CBFb-SMMHC via a time resolved fluorescence resonance energy transfer (TR-FRET) assay. (AID 1438) • Fluorescence Cell-Free Homogeneous Primary HTS to Identify Inhibitors of the RanGTP-Importin-beta complex (AID 2216) • Fluorescence Cell-Free Homogeneous Dose Retest to Identify Inhibitors of the RanGTP-Importin-beta complex (AID 2823) • Fluorescence Cell-Free Homogeneous Counterscreen to Identify Inhibitors of the RanGTP-Importin-beta complex. (AID 435026) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 96 hour incubation (AID 504834) • Primary cell-based high-throughput screening for identification of compounds that inhibit/block calcium-activated chloride channels (TMEM16A) (AID 588511)
BRD-K08209559-001-01-7 PubChem CID : 44496400		0.53 (in 3 replicates)	-0.47	0.356				Total number of assays tested in: 33.
BRD-K50162138-001-01-5 PubChem CID : 54634130		0.53 (in 3 replicates)	-0.43	0.868				Total number of assays tested in: 36.