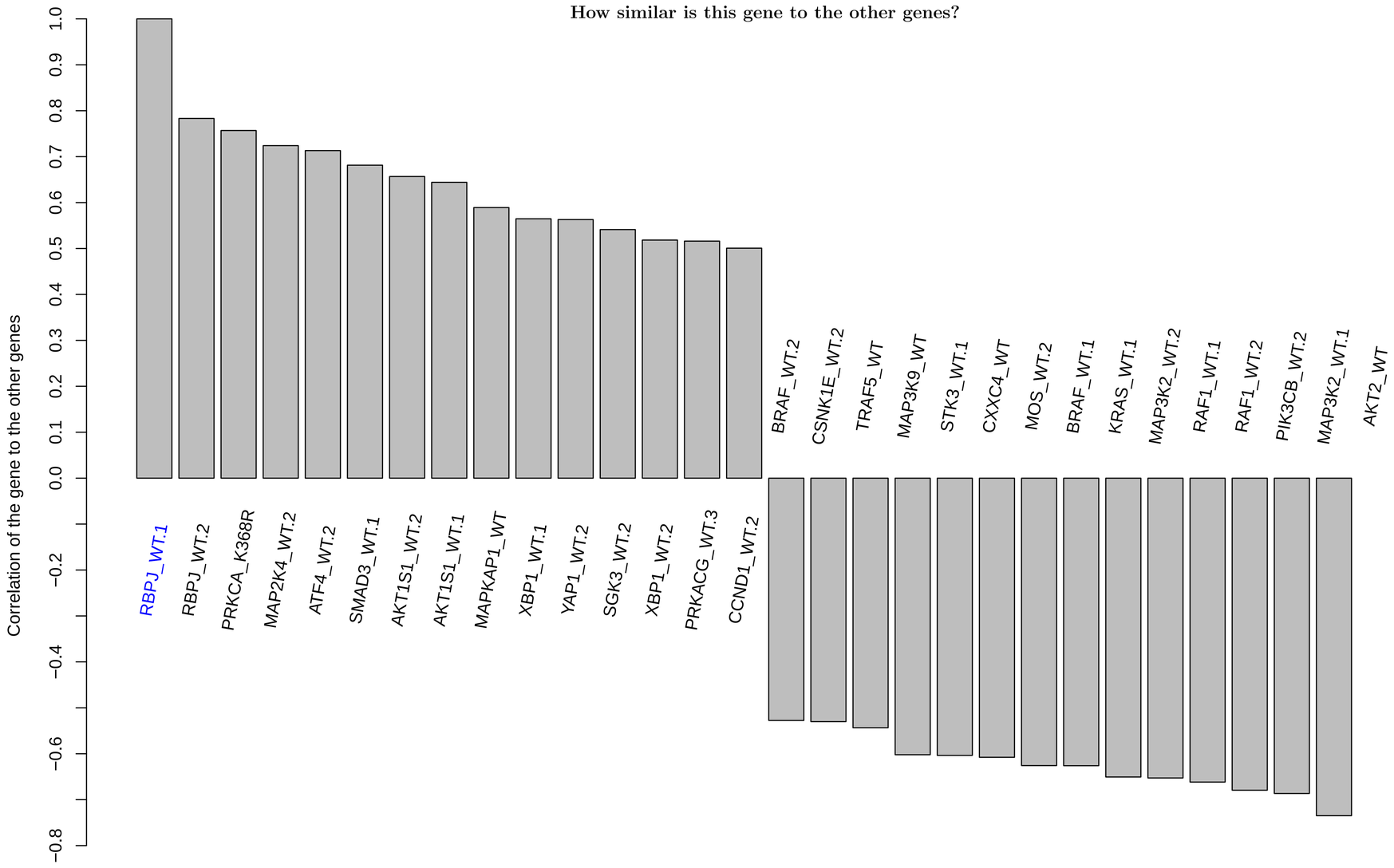
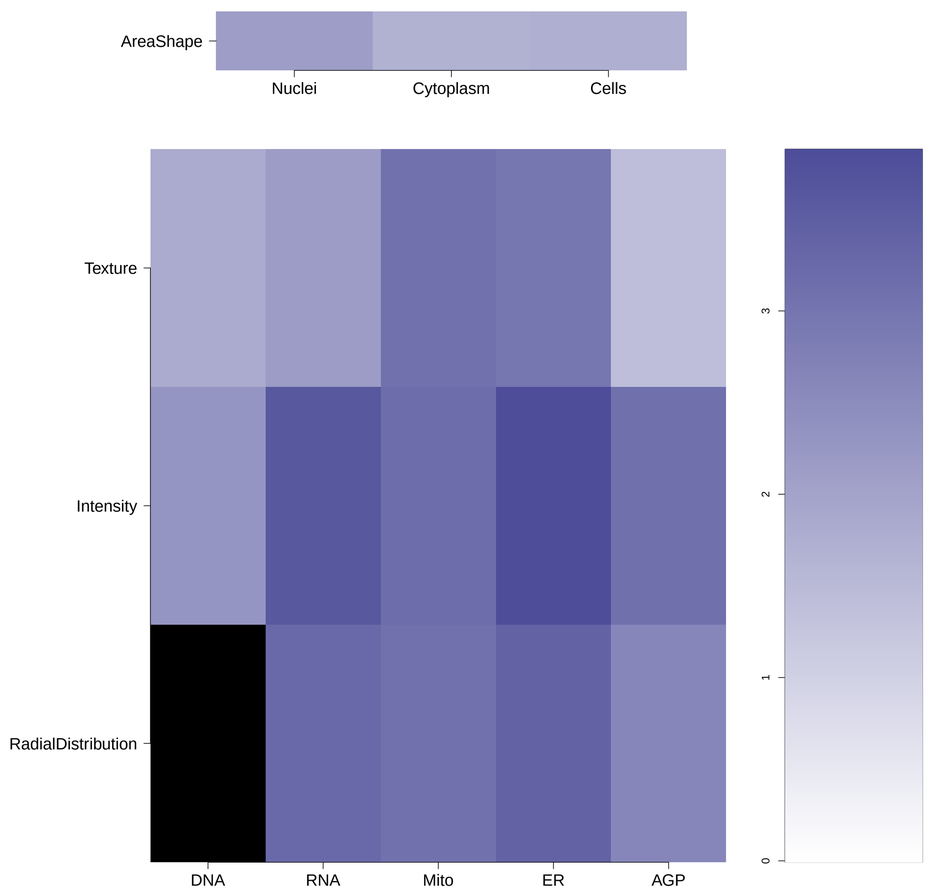
CONFIDENTIAL, contact the Imaging Platform to collaborate on the findings herein

RBPJ_WT.1 - in NOTCH

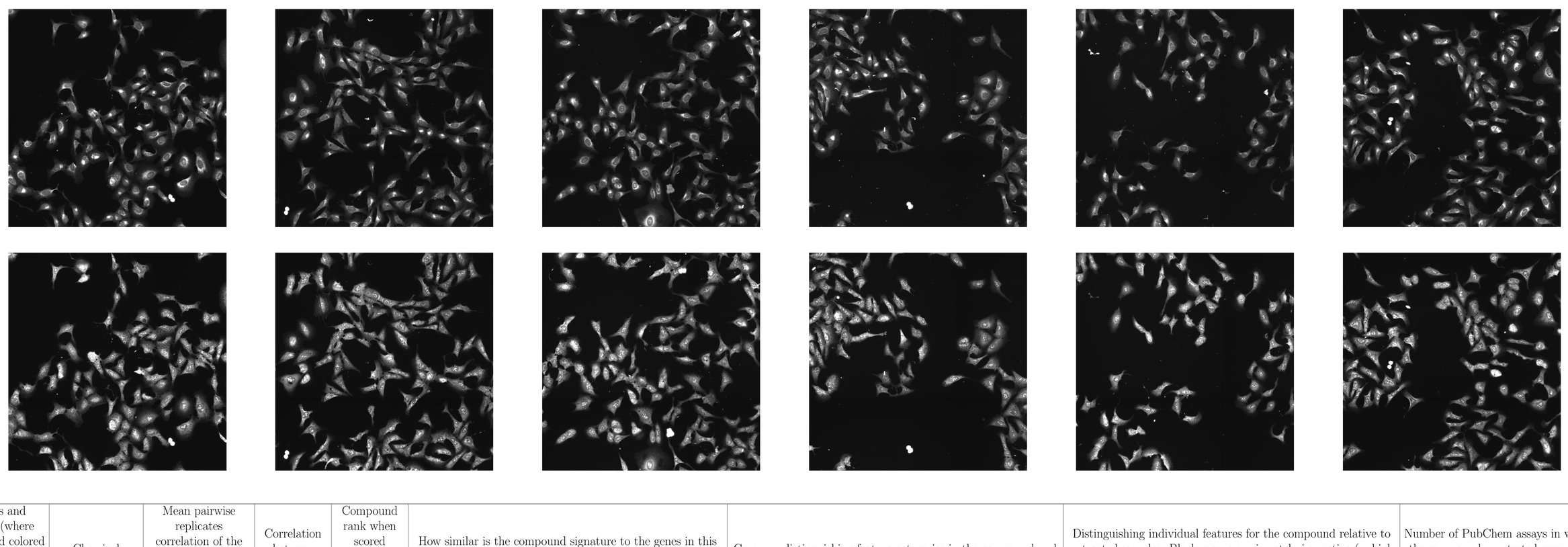
How similar is this gene to the other genes?



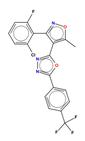
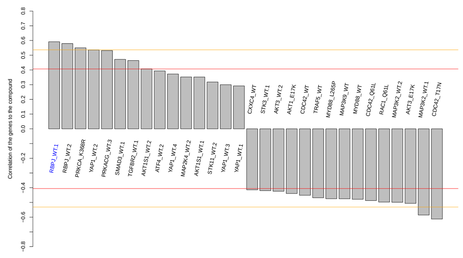
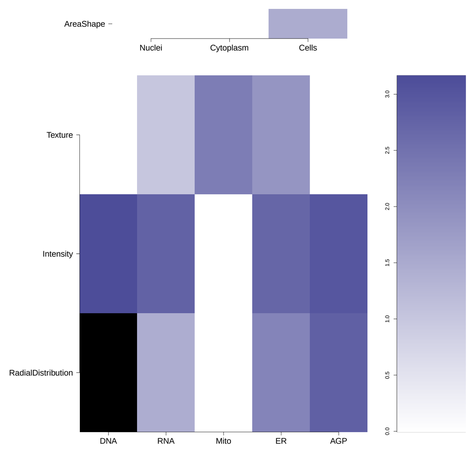
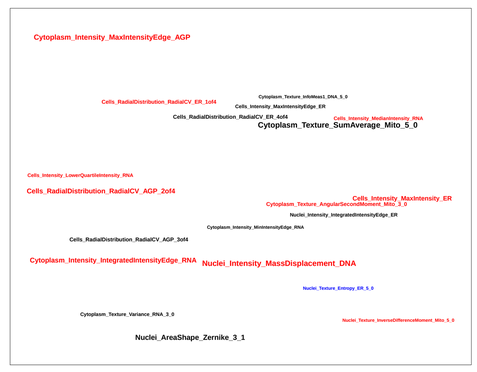
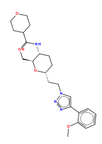
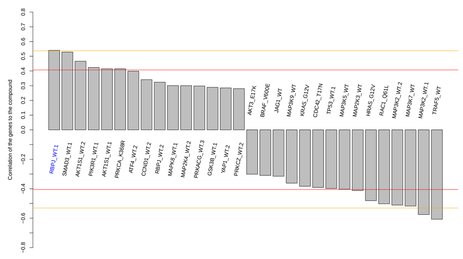
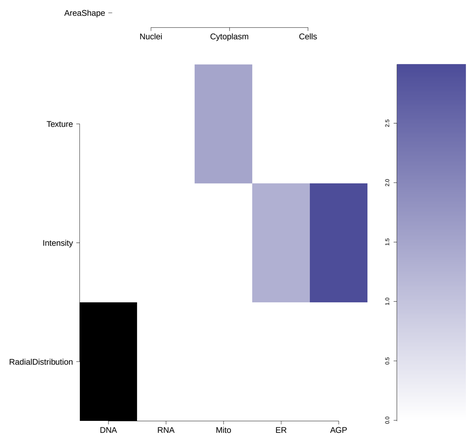
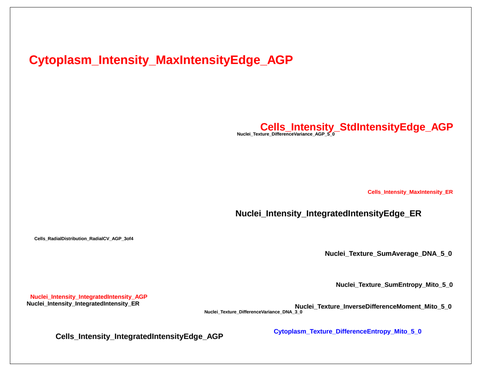
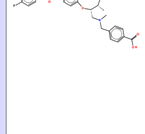
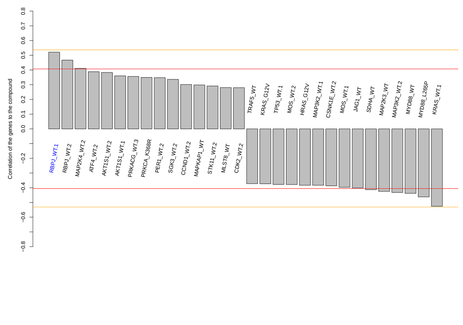
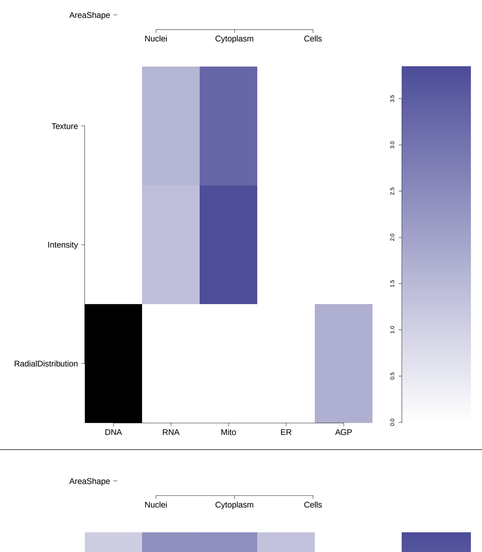
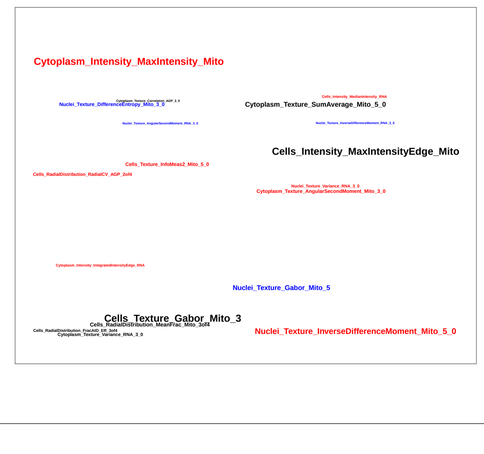
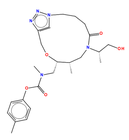
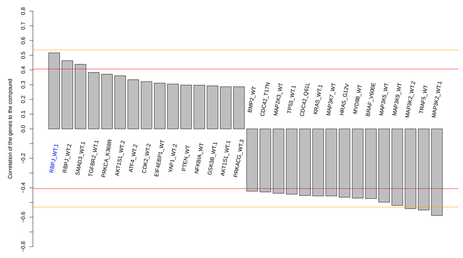
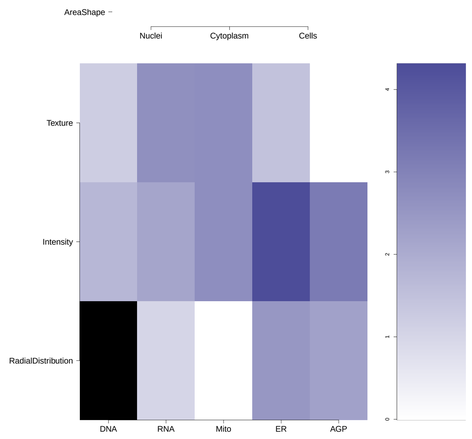
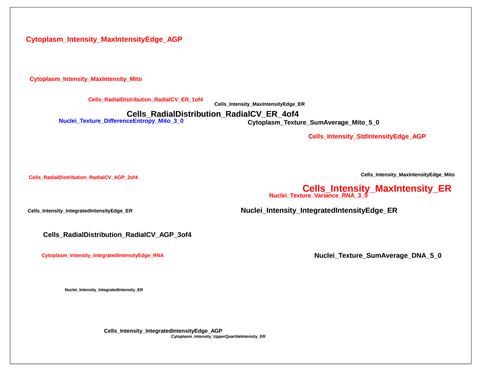
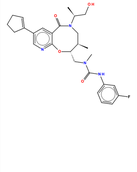
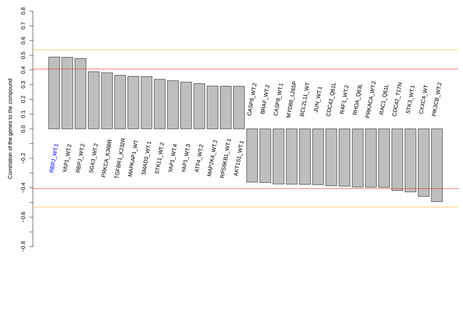
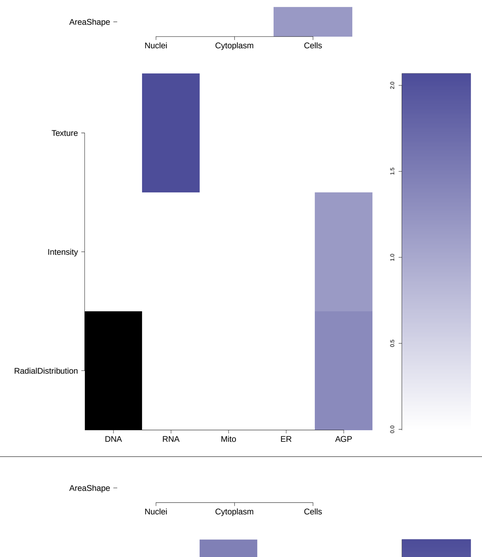
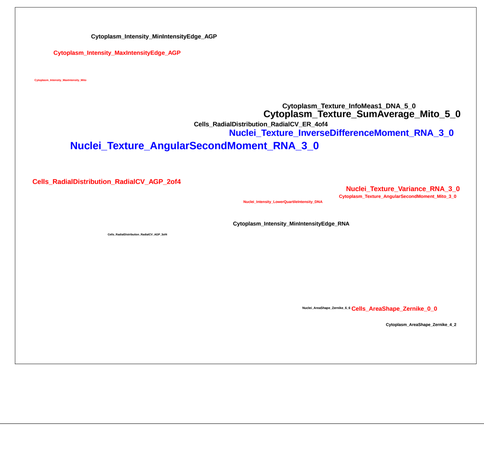
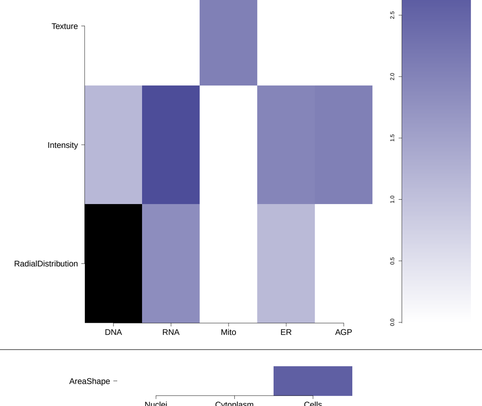
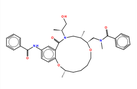
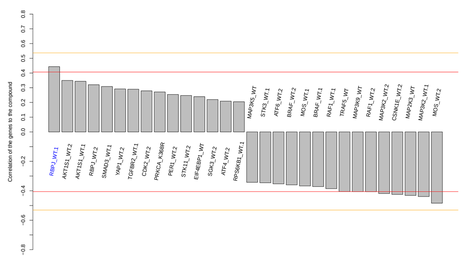
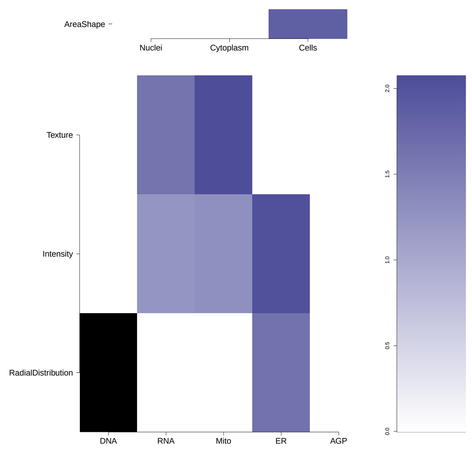
What groups of morphological features are distinguishing in the cluster relative to the untreated samples? (maximum of absolute m-score for the features belonging to the same category; m-score defined as median of a feature z-score across genes in the cluster) Black means no feature is available in the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

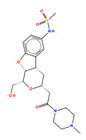
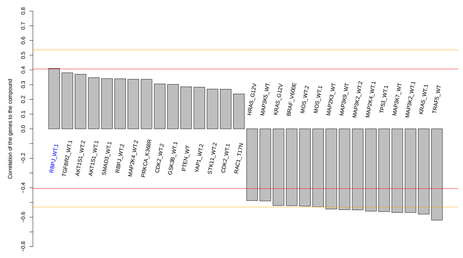
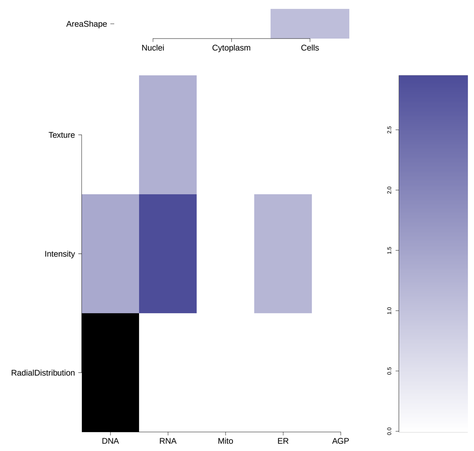
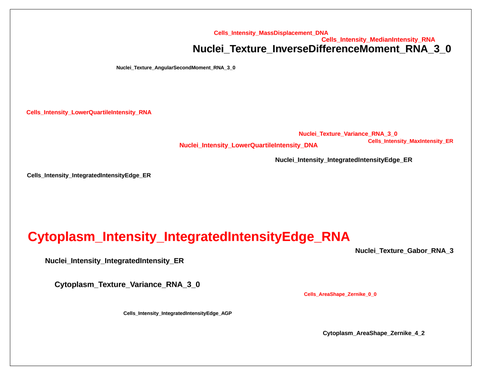
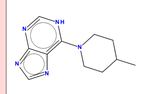
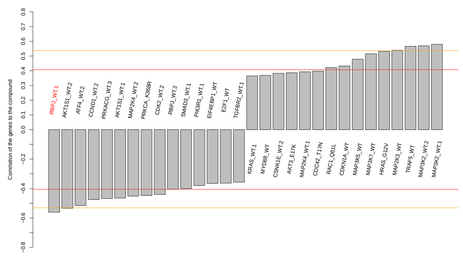
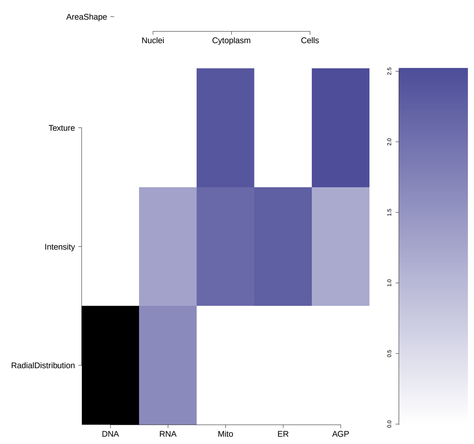
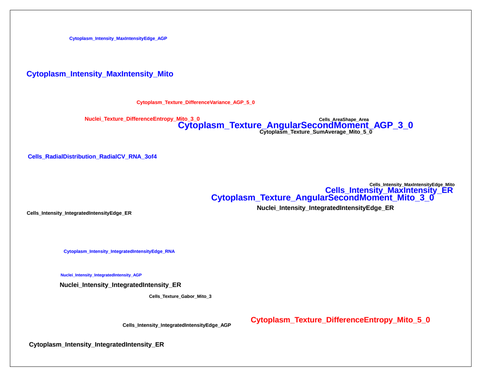
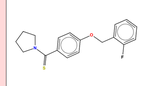
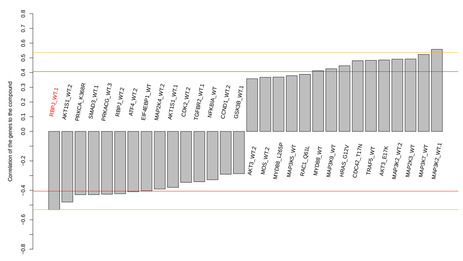
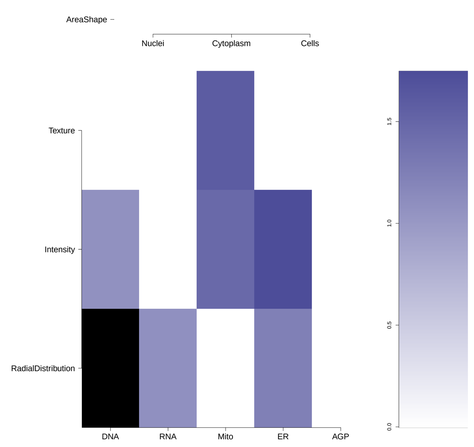
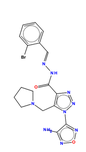
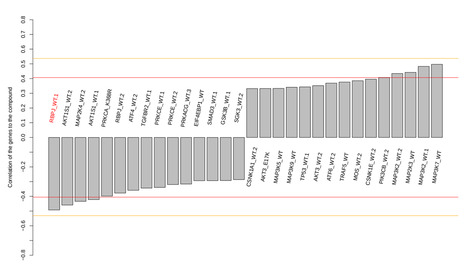
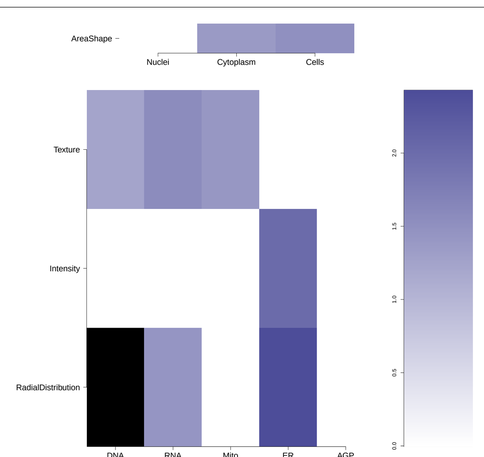


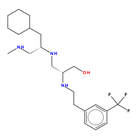
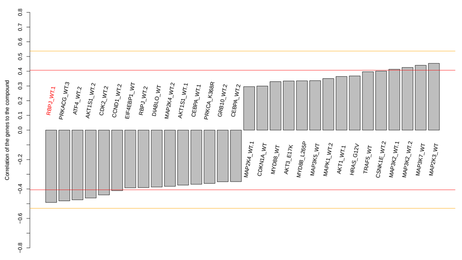
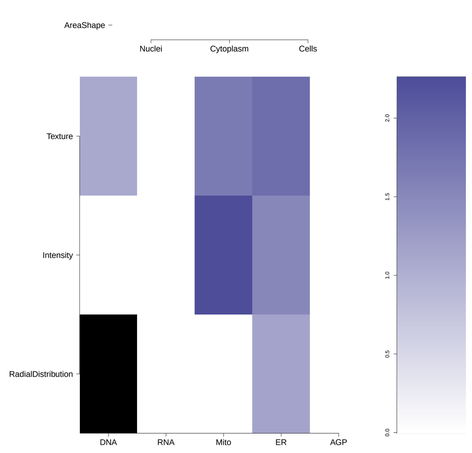
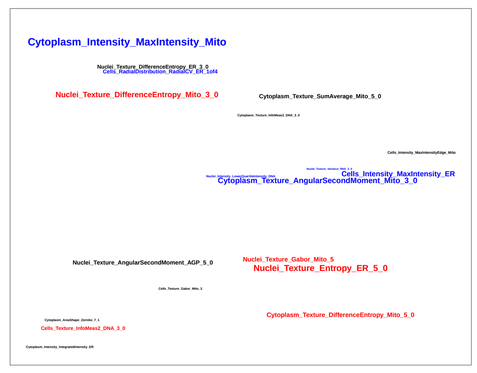
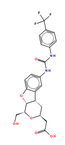
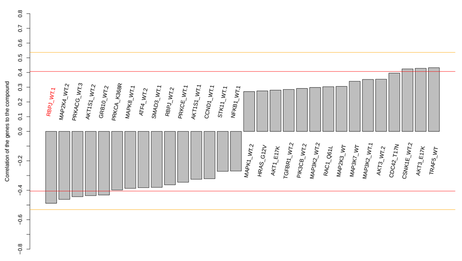
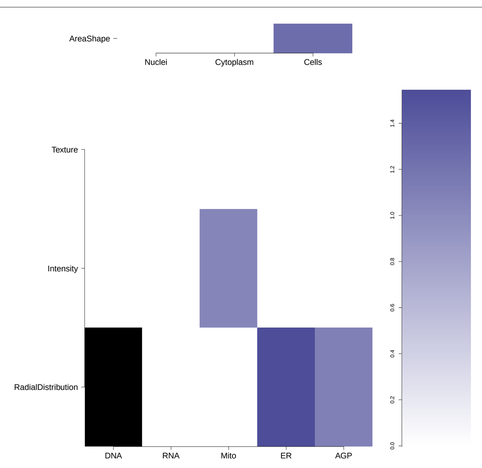
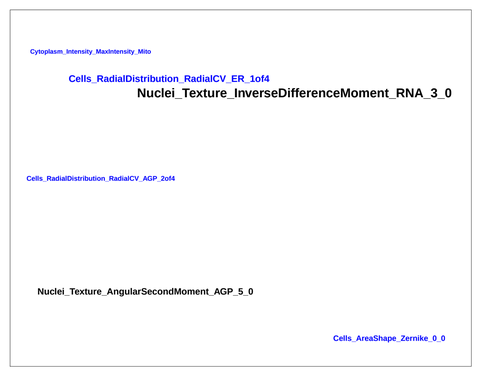
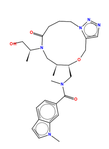
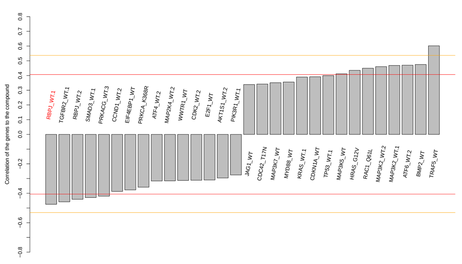
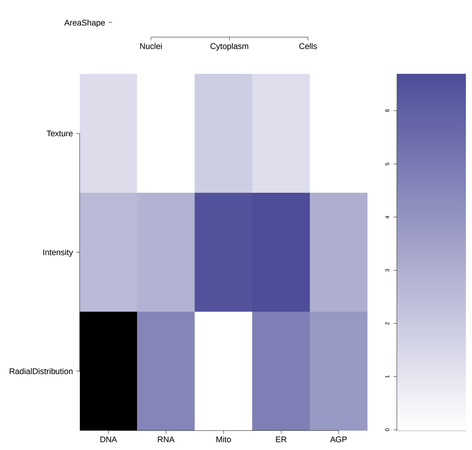
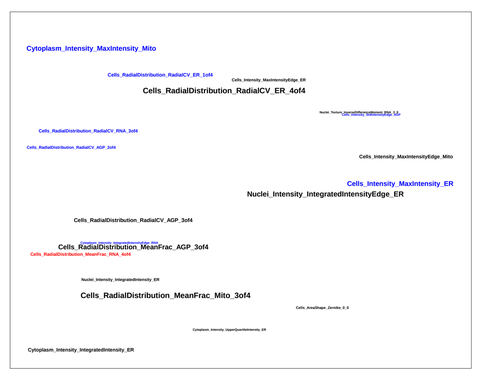
Which individual morphological features are distinguishing in the gene relative to the untreated samples? Blue/Red means the feature has a positive/negative z-score. Size is proportional to the z-score value.

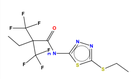
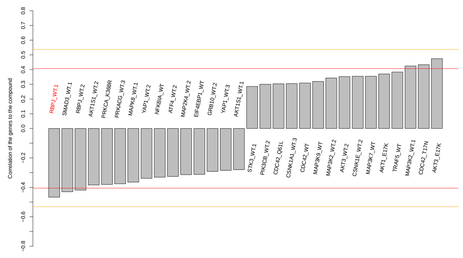
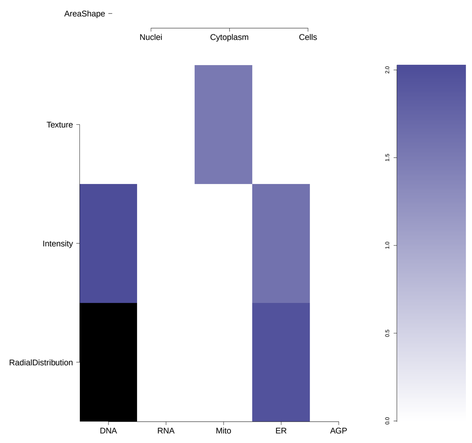
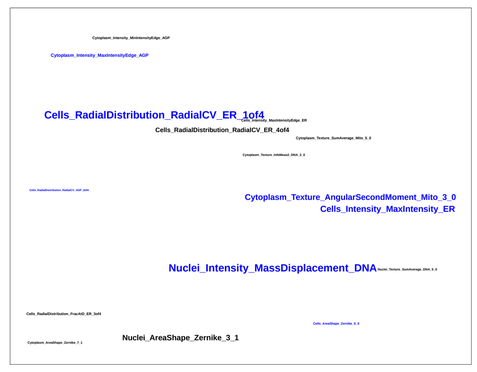
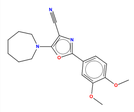
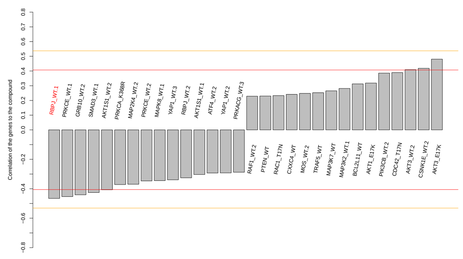
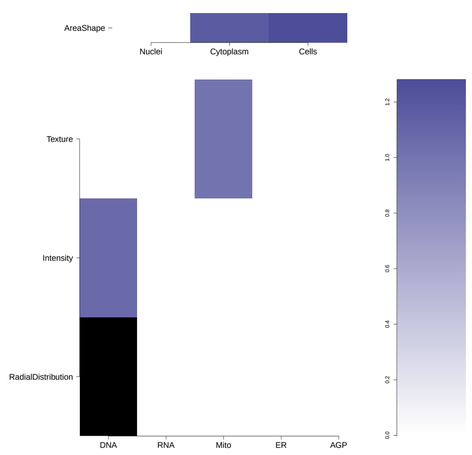
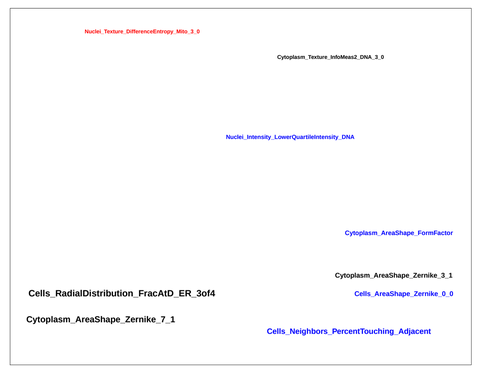
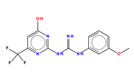
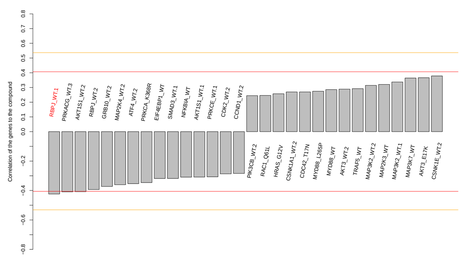
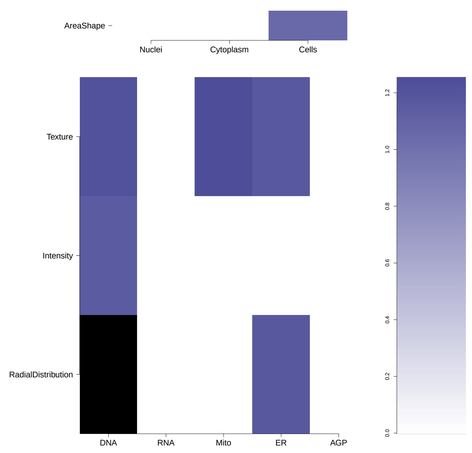
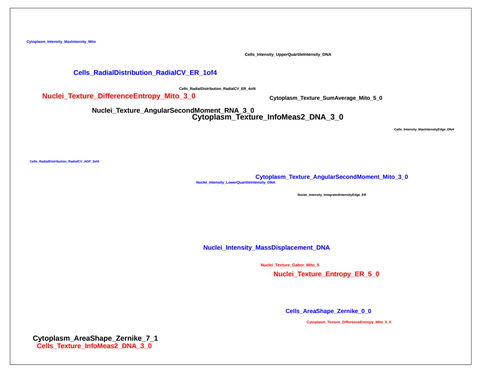
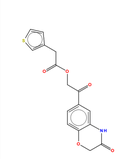
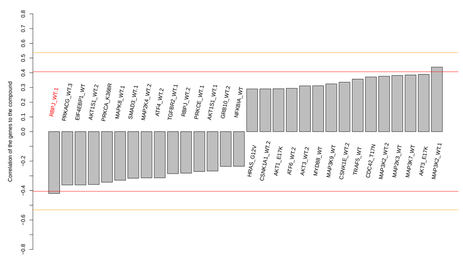
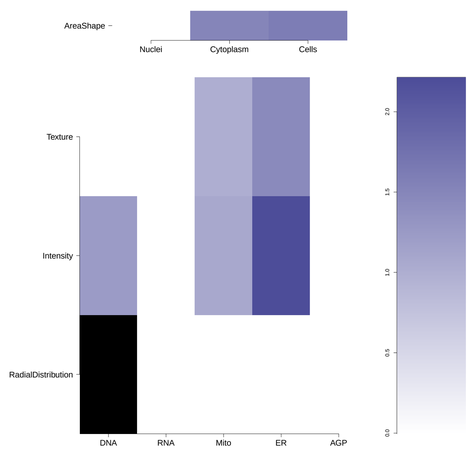
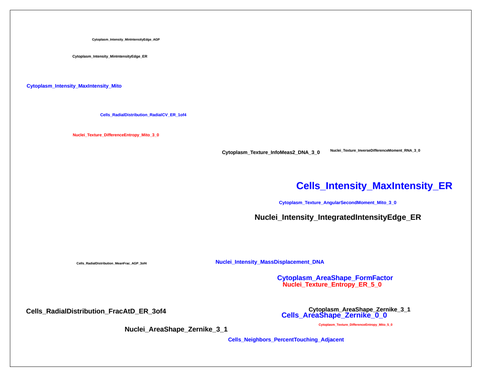


Compound IDs and common names (where available); blue/red colored box means the matching compound is positively/negatively correlated with the cluster	Chemical structure	Mean pairwise replicates correlation of the compound signature (95th DMSO replicate correlation is 0.52)	Correlation between compound 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-K04968712-001-05-7 MLS000858711 SMR000458790 AC1MDPY6 BDBM45738 HMS2811A04 ZINC1034543 ZINC01034543 PubChem CID : 2814981		NA (in 1 replicates)	0.59	NA				Total number of assays tested in: 545. Active in the following assays: • Factor XIIa 1536 HTS (AID 800) • 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) • Confirmation screen for delayed death inhibitors of the malarial parasite plastid, 96 hour incubation (AID 504848) • Confirmation screen for delayed death inhibitors of the malarial parasite plastid, 48 hour incubation (AID 504850) • qHTS for induction of synthetic lethality in tumor cells producing 2HG: qHTS for the HT-1080-IDH1KD cell line (AID 686971)
BRD-K55011281-001-01-4 PubChem CID : 54641249		NA (in 1 replicates)	0.54	NA				Total number of assays tested in: 37.
BRD-K80439500-001-01-1 PubCID : 44493522		0.82 (in 4 replicates)	0.52	0.730				Total number of assays tested in: 54.
BRD-K26273696-001-01-5 PubCID : 44486963		0.59 (in 3 replicates)	0.52	0.730				Total number of assays tested in: 34.
BRD-K56011618-001-01-7 PubCID : 54619120		0.62 (in 4 replicates)	0.49	0.918				Total number of assays tested in: 24.
BRD-K78659179-001-05-9 MLS000100927 F0526-1205 AC1MMH9E HMS2246H03 ZINC3007081 SMR000017019 F0539-0397 PubCID : 3285954		0.65 (in 2 replicates)	0.47	NA				Total number of assays tested in: 764. Active in the following assays: • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • Primary cell-based screen for identification of compounds that allosterically activate the Choline Transporter (CHT) (AID 488977) • qHTS Assay for Inhibitors of Histone Lysine Methyltransferase G9a (AID 504332) • Confirmatory screen for compounds that activate the Choline Transporter (CHT) (AID 504833) • Counter screen assay of the parental HEK293 cells for compounds that activate the Choline Transporter (CHT) (AID 623908) • uHTS identification of small molecule activators of alpha dystroglycan glycosylation (AID 624168)
BRD-K86728684-001-01-9 PubCID : 44618166		0.64 (in 4 replicates)	0.44	NA				Total number of assays tested in: 36.

BRD-K84625203-001-01-1 PubChem CID : 54646078		NA (in 1 replicates)	0.41	0.085				Total number of assays tested in: 40.
BRD-K42453497-001-05-5 SMR000126834 MLS000529835 STK617505 AC1LFNQU CHEMBL511499 BDBM41026 HMS2253C09 ZINC8623072 CCG-26899 ZINC08623072 EU-0022202 ST50032201 T6031538 PubChem CID : 756692		0.53 (in 4 replicates)	-0.56	0.112				Total number of assays tested in: 711. Active in the following assays: • Fluorescence polarization assay for PLK1 inhibitors (AID 619) • LYP Activators-an Autoimmunity Target - Primary screen (AID 697) • Primary biochemical high-throughput screening assay for inhibitors of Focal Adhesion Kinase (FAK) (AID 727) • Fluorescence polarization assay for PLK1 confirmation assay (AID 744) • Fluorescence Polarization assay for Plk1: IC50 Dose Response Assay (AID 785) • Confirmation biochemical assay for inhibitors of Focal Adhesion Kinase (FAK) (AID 794) • Dose-response biochemical assay for inhibitors of Focal Adhesion Kinase (FAK) (AID 810) • TR-FRET counterscreen for FAK inhibitors: dose-response biochemical high throughput screening assay to identify inhibitors of Proline-rich tyrosine kinase 2 (Pyk2) (AID 1641) • Dyrk1 A HTS Measured in Biochemical System Using Plate Reader - 2124-01_Inhibitor_SinglePoint_HTS_Activity (AID 504441) • Luminescence-based cell-based primary high throughput screening assay to identify agonists of the mouse 5-hydroxytryptamine (serotonin) receptor 2A (HTR2A) (AID 624169)
BRD-K21786986-001-05-1 MLS001163353 SMR000497279 ZINC00306713 AC1LFBC9 Ambcb6914459 BDBM76621 HMS2823C13 ZINC306713 STL420213 PubChem CID : 800252		0.68 (in 4 replicates)	-0.53	0.270				Total number of assays tested in: 504. Active in the following assays: • MLPCN Alpha-Synuclein 5'UTR - 5'-UTR binding - activators (AID 1814) • Cycloheximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314) • A qHTS for Small Molecule Inhibitors of Shiga Toxin (AID 2315) • HTS Luminescent assay for identification of inhibitors of Sentrin-specific protease 8 (SENP8) (AID 2540) • uHTS Luminescent assay for identification of inhibitors of Sentrin-specific protease 6 (SENP6) (AID 2599) • A yeast HTS for caloric restriction mimetics that inhibit age-related superoxide (AID 2690) • Dose Response confirmation of inhibitors of Sentrin-specific proteases (SENPs) using a Caspase-3 Selectivity assay (AID 488901) • Dose Response confirmation of uHTS for inhibitors of Sentrin-specific protease 8 (SENP8) using a Luminescent assay (AID 488903) • Dose Response confirmation of uHTS for inhibitors of Sentrin-specific protease 7 (SENP7) using a Luminescent assay (AID 488904) • Single concentration confirmation of uHTS for inhibitors of Sentrin-specific protease 7 (SENP7) using a Luminescent assay (AID 488917) • Dose Response confirmation of uHTS for inhibitors of Sentrin-specific protease 6 (SENP6) using a Luminescent assay (AID 488921) • SAR Analysis of small molecule inhibitors of Sentrin-specific proteases (SENPs) using a Caspase-3 Selectivity assay (AID 504488) • SAR Analysis of small molecule inhibitors of Sentrin-specific protease 6 (SENP6) using a Luminescent assay (AID 504492) • SAR Analysis of small molecule inhibitors of Sentrin-specific protease 7 (SENP7) using a Luminescent assay (AID 504497) • SAR Analysis of small molecule inhibitors of Sentrin-specific protease 8 (SENP8) using a Luminescent assay (AID 504501) • MITF Measured in Cell-Based System Using Plate Reader - 2084-01_Activator_Dose_CherryPick_Activity (AID 540258) • MITF Act Counter Assay: HeLa CTG Assay Measured in Cell-Based System Using Plate Reader - 2084-08_Activator_Dose_CherryPick_Activity (AID 540259) • qHTS profiling assay for firefly luciferase inhibitor/activator using purifed enzyme and Km concentrations of substrates (counterscreen for miR-21 project) (AID 588342) • qHTS Assay to Identify Small Molecule Activators of BRCA1 Expression (AID 624202) • MITF Measured in Cell-Based System Using Plate Reader - 2084-01_Activator_Dose_DryPowder_Activity (AID 651775)
BRD-K19196783-001-07-8 MLS000948280 SMR000620637 MLS003878864 STK674032 ZINC15989422 ST4035914 PubChem CID : 9600276		0.63 (in 4 replicates)	-0.49	0.270				Total number of assays tested in: 489. Active in the following assays: • Luminescence Cell-Free Homogeneous Dose Retest to Identify Inhibitors of Glycogen Synthase Kinase-3 beta Activity (AID 434954) • uHTS identification of UBC13 Polyubiquitin Inhibitors via a TR-FRET Assay (AID 485273)

BRD-K09450441-001-06-7 MLS001242663 SMR000673930 PubChem CID : 24792599		0.56 (in 4 replicates)	-0.49	0.961				Total number of assays tested in: 513. Active in the following assays: • Primary biochemical high throughput screening assay to identify inhibitors of VIM-2 metallo-beta-lactamase (AID 1527) • Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 binding to MEK Kinase 2 Wildtype (AID 1531) • Epi-absorbance-based confirmation assay for common VIM-2 and IMP-1 inhibitors: biochemical high throughput screening assay to identify inhibitors of VIM-2 metallo-beta-lactamase. (AID 2187) • An HTS Cytotoxicity Screen to evaluate New Inhibitors of Respiratory Syncytial Virus (RSV) (AID 2410) • Luminescence Cell-Based Primary HTS to Identify Inhibitors of Cancer Stem Cells (AID 2717) • 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 for identification of Inhibitors of Mdm2/MdmX interaction in luminescent format. (AID 485346) • Single concentration confirmation of uHTS for Inhibitors of Mdm2/MdmX interaction in luminescent format. (AID 489028) • Single concentration confirmation of uHTS for Inhibitors of Mdm2/MdmX interaction in luminescent format - Set 2 (AID 504601) • Single concentration confirmation of inhibitors of Mdm2/MdmX interaction using a Full-Length Luciferase Counterscreen assay (AID 504607) • Single concentration confirmation of inhibitors of Mdm2/MdmX interaction using a Brca1/Bard1 BiLC Counterscreen assay. (AID 504668) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 96 hour incubation (AID 504834) • qHTS for Inhibitors of Cell Surface uPA Generation (AID 540303) • HTS Assay for Peg3 Promoter Inhibitors (AID 588405) • HTS to identify compounds that promote myeloid differentiation with MLPCN compound set (AID 624256) • qHTS for Inhibitors of ATXN expression (AID 651635) • Luminescence Cell-Based Primary HTS to identify inhibitors of the oncoprotein EWS/Fli transcriptional activity Measured in Cell-Based System Using Plate Reader - 7014-01_Inhibitor_SinglePoint_HTS_Activity (AID 651661) • qHTS of D3 Dopamine Receptor Antagonist: qHTS (AID 652054) • HTS for PAX8 inhibitors using PAX8 luciferase reporter gene assay in RMG-I cells Measured in Cell-Based System Using Plate Reader - 7054-01_Inhibitor_SinglePoint_HTS_Activity (AID 652154) • Luminescence Cell-Based Primary HTS to identify inhibitors of the oncoprotein EWS/Fli transcriptional activity Measured in Cell-Based System Using Plate Reader - 7014-01_Inhibitor_Dose_CherryPick_Activity (AID 686920) • 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) • qHTS for Stage-Specific Inhibitors of Vaccinia Orthopoxvirus: Venus Reporter Primary qHTS (AID 720580) • Luminescence cell-based Retest at Dose assay to determine EWS/Fli1 dependent A673 mammalian cell cytotoxity Measured in Cell-Based System Using Plate Reader - 7014-03_Inhibitor_Dose_CherryPick_Activity (AID 720587) • HEK293 Cytotoxicity Assay Measured in Cell-Based System Using Plate Reader - 7071-01_Inhibitor_Dose_CherryPick_Activity_Set3 (AID 720588) • HepG2 Cytotoxicity Assay Measured in Cell-Based System Using Plate Reader - 7071-02_Inhibitor_Dose_CherryPick_Activity_Set3 (AID 720589) • qHTS for Inhibitors of Inflammasome Signaling: IL-1-beta AlphaLISA Primary Screen (AID 743279)
BRD-K43786699-001-01-2 PubChem CID : 54646106		NA (in 1 replicates)	-0.49	0.270				Total number of assays tested in: 41.
BRD-K69565703-001-02-1 MLS003129137 SMR001833583 PubChem CID : 44505995		0.68 (in 2 replicates)	-0.47	0.899				Total number of assays tested in: 227.

BRD-K71554049-001-05-7 SMR000040587 MLS000038692 MLS002581479 AC1LD134 HMS2185N19 STK373260 ZINC17028721 ST50908384 PubChem CID : 659529		0.57 (in 4 replicates)	-0.47	0.270				Total number of assays tested in: 790. Active in the following assays: • Human A549 Lung Tumor Cell Growth Inhibition Assay (AID 371) • Human H69AR Lung Tumor Cell Growth Inhibition Assay - 86K Screen (AID 598) • Modulators of Post-Golgi Transport - 1536-well pilot screen (AID 637) • CYP2C9 Assay (AID 777) • Primary cell-based high-throughput screening assay to identify antagonists of Galanin Receptor 2 (GALR2) (AID 828) • qHTS Assay for Identification of Small Molecule Antagonists for Hypoxia Response Element Signaling Pathway (AID 915) • VP16 counterscreen qHTS for inhibitors of ROR gamma transcriptional activity (AID 2546) • qHTS for inhibitors of ROR gamma transcriptional activity (AID 2551) • Primary cell-based screen for identification of compounds that inhibit the Choline Transporter (CHT) (AID 488975) • qHTS Assay for Inhibitors of Histone Lysine Methyltransferase G9a (AID 504332) • Nrf2 qHTS screen for inhibitors (AID 504444) • qHTS for Inhibitors of binding or entry into cells for Lassa Virus (AID 540256) • uHTS identification of antagonists of the CRF-binding protein and CRF-R2 receptor complex (AID 588475) • Primary cell-based high-throughput screening for identification of compounds that inhibit/block calcium-activated chloride channels (TMEM16A) (AID 588511) • uHTS identification of small molecule inhibitors of the mitochondrial permeability transition pore via an absorbance assay (AID 602449) • Single concentration confirmation of uHTS inhibitor hits of the mitochondrial permeability transition pore via a fluorescent based assay (AID 624504) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in absence of CPT (AID 686978)
BRD-K11527755-001-05-0 MLS000041852 AC1LDAZY HMS2472P10 ZINC540366 STK876139 ZINC00540366 SMR000044996 PubChem CID : 664138		NA (in 1 replicates)	-0.47	NA				Total number of assays tested in: 786. 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) • Cell signaling CRE-BLA (Fsk stim) (AID 662) • Profiling the NIH Molecular Libraries Small Molecule Repository: Autofluorescence at 339/460 nm (AID 709) • Screening for Modulators of Post-Golgi Transport, Control Strain (AID 738) • CYP2C9 Assay (AID 777) • qHTS Assay for Inhibitors of HSD17B4, hydroxysteroid (17-beta) dehydrogenase 4 (AID 893) • Luminescence Microorganism Primary HTS to Identify Inhibitors of the SUMOylation Pathway Using a Temperature Sensitive Growth Reversal Mutant Mot1-301 (AID 2716) • qHTS Assay for Inhibitors of BAZ2B (AID 504333) • Counterscreen for inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis: Absorbance-based biochemical high throughput Glycerophosphate Dehydrogenase-Triosephosphate Isomerase (GDH-TPI) full deck assay to identify assay artifacts (AID 588335) • Fluorescence-based biochemical primary high throughput screening assay to identify inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 588726) • Inhibition of the MLL-AF4-AF9 Interaction in Pediatric Leukemia Measured in Biochemical System Using Plate Reader - 2160-01_Inhibitor_SinglePoint_HTS_Activity (AID 651704) • qHTS Assay for Inhibitors of Hepatitis C Virus (HCV) (AID 651820) • 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) • HTS for Bacterial rRNA inhibitors Measured in Microorganism-Based System Using Plate Reader - 7056-01_Inhibitor_SinglePoint_HTS_Activity (AID 720706)
BRD-K36208388-001-05-3 SMR000194094 MLS000572596 HMS2544H14 PubChem CID : 9586318		0.54 (in 4 replicates)	-0.42	0.077				Total number of assays tested in: 633. Active in the following assays: • qHTS for Small Molecule Agonists and Allosteric Enhancers of Human TRH Receptor: Primary Screen for Enhancers (AID 493056) • 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) • qHTS for Inhibitors of human tyrosyl-DNA phosphodiesterase 1 (TDP1): qHTS in cells in presence of CPT (AID 686979)
BRD-K76215709-001-06-9 T0519-8303 ZINC06251621 AC1MMB8P MLS001018163 HMS2639B04 HMS3364M12 ZINC6251621 SMR000354439 PubChem CID : 3283243		0.56 (in 4 replicates)	-0.42	0.254				Total number of assays tested in: 632. Active in the following assays: • Primary Cell-based High Throughput Screening Assay for Inhibitors of Wee1 Degradation (AID 1321) • Plate Read Microorganism-Based Primary HTS to Identify Modulators of the AI-2 Quorum Sensing System (AID 2094) • Cycloheximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314) • Luminescence Microorganism Retest to Identify Inhibitors of the AI-2 Quorum Sensing System (AID 2727) • Luminescence Microorganism-Based Retest to Identify Modulators of the AI-2 Quorum Sensing System (AID 2736)