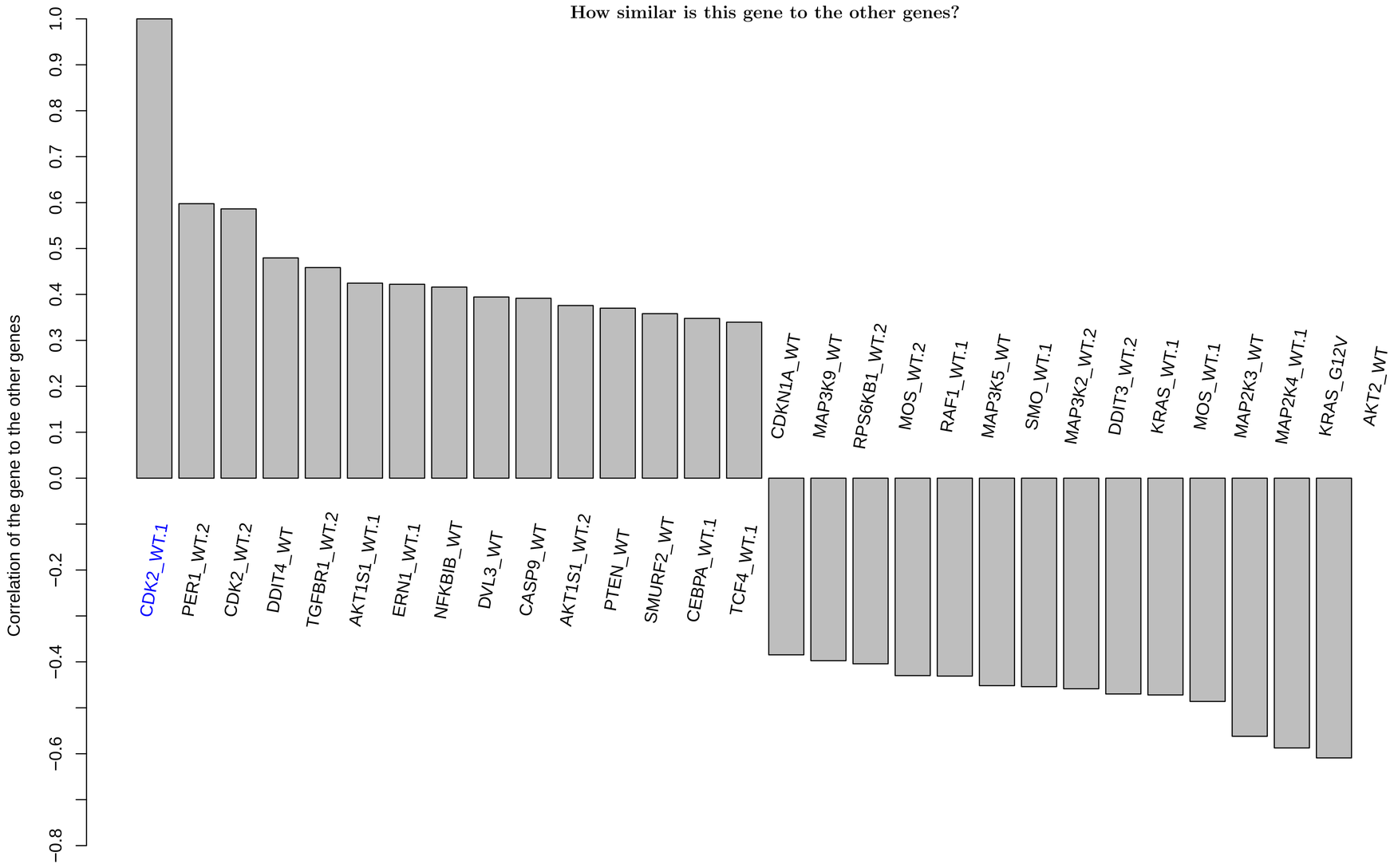
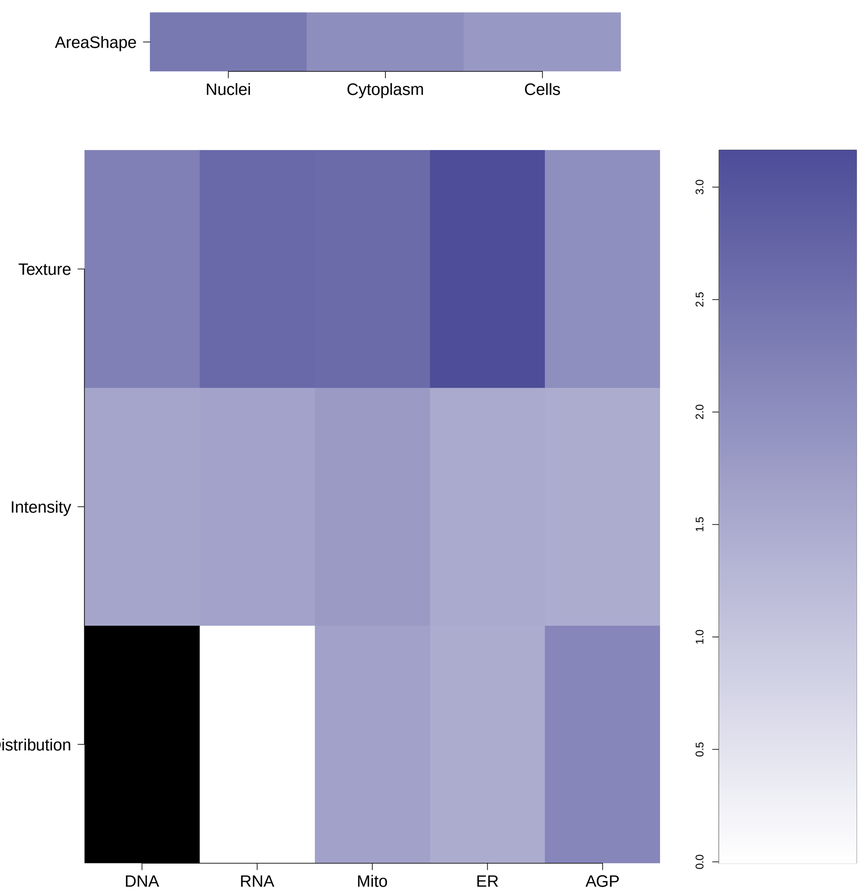
CDK2_WT.1 - in Canonical Cell Cycle

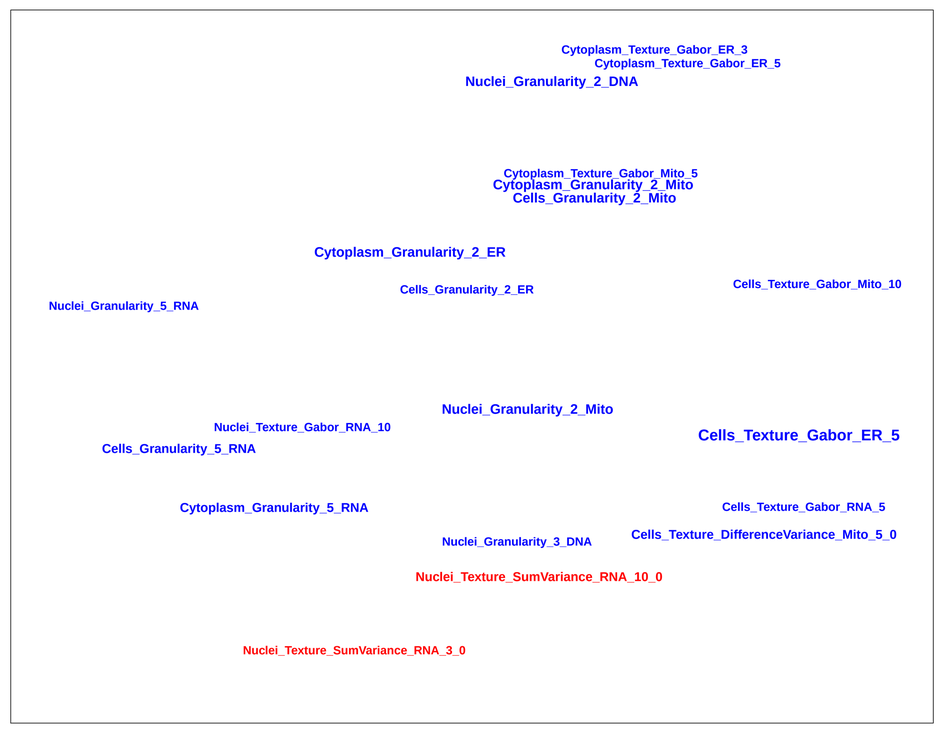
How similar is this gene to the other genes?



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

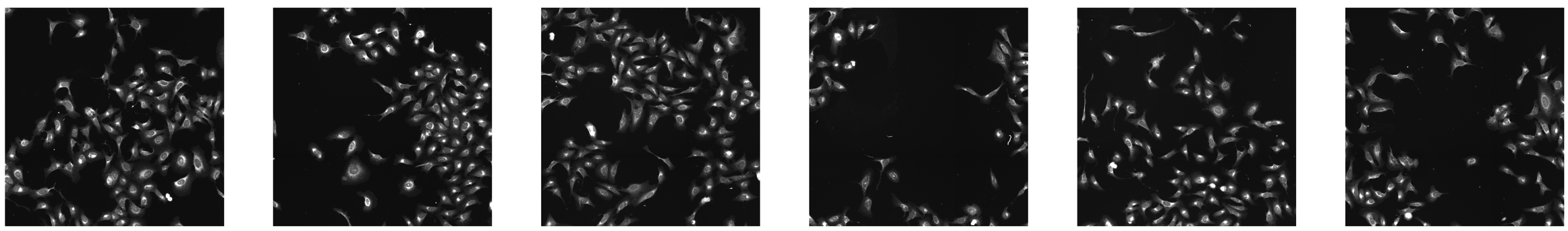


Which individual morphological features are distinguishing in the gene relative to the untreated samples? Blue/Red means the feature has a positive/negative z-score. Size is proportional to the z-score value.

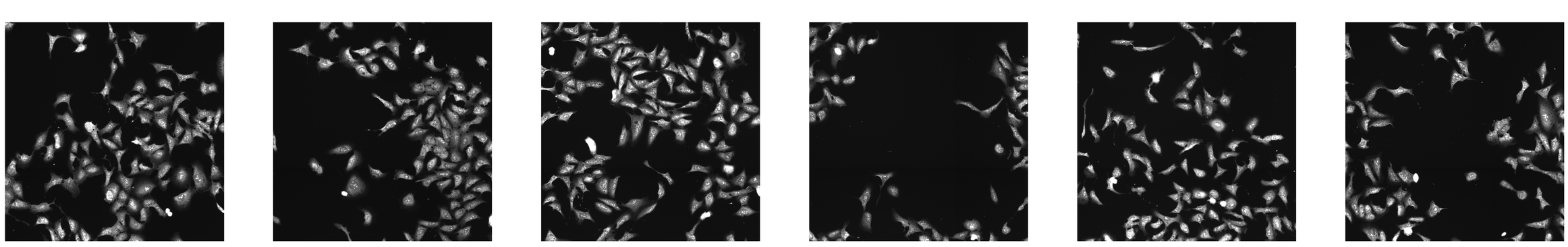


Empty | CDK2_WT.1 (41744) | CDK2_WT.1 (41755) | CDK2_WT.1 (41756) | CDK2_WT.1 (41757) | CDK2_WT.1 (41754)

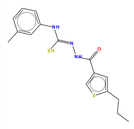
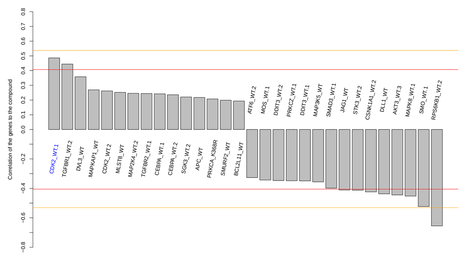
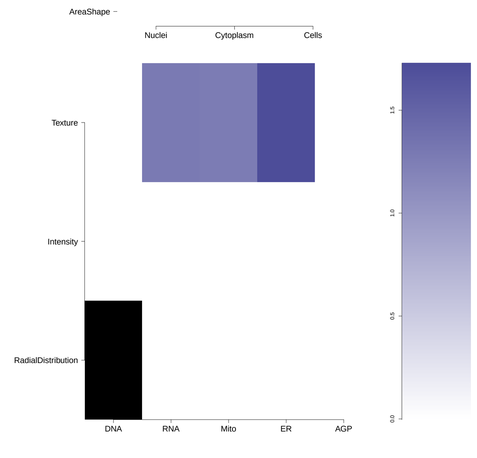
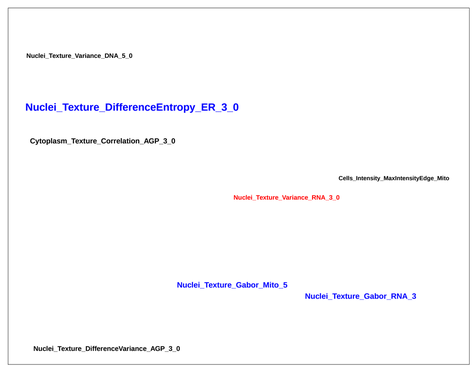
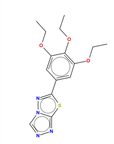
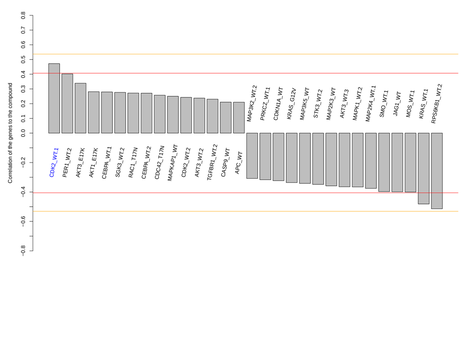
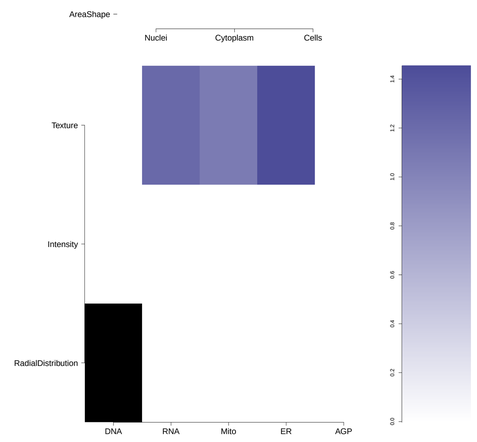
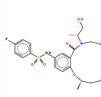
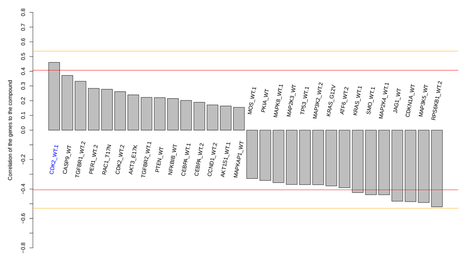
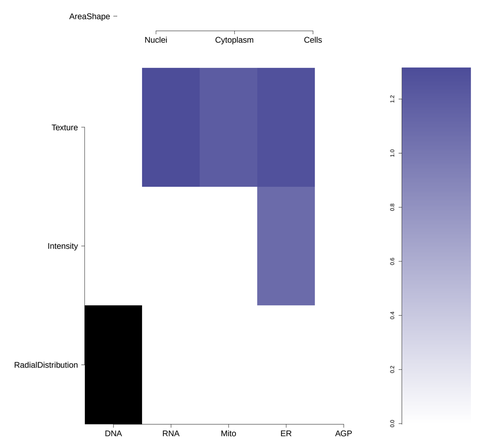
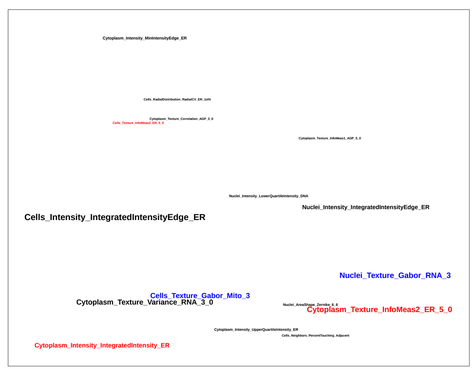
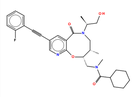
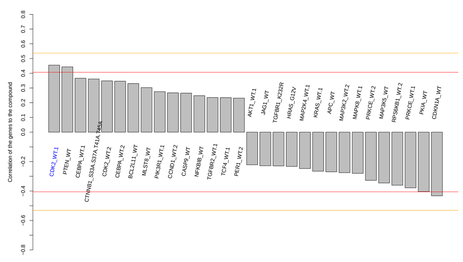
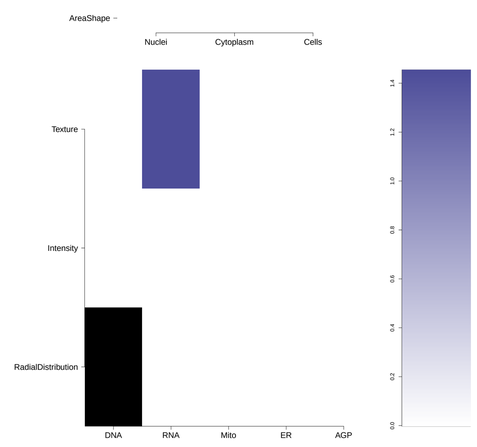
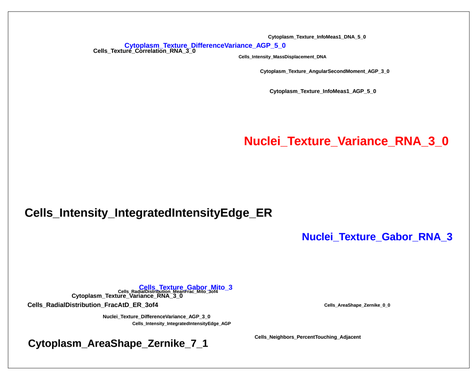
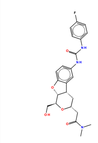
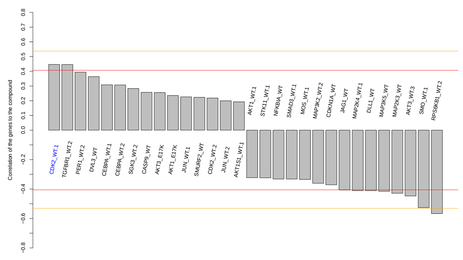
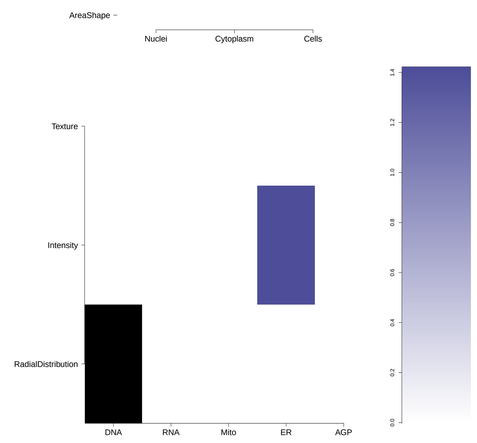
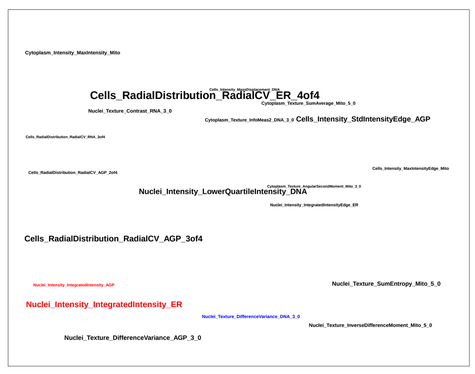
ER

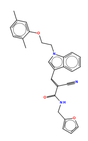
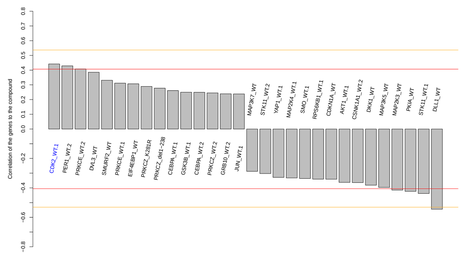
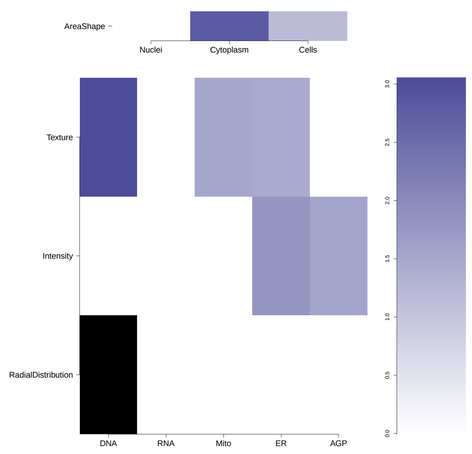
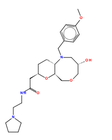
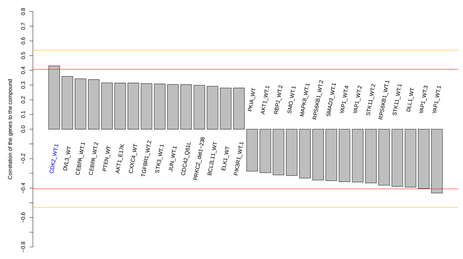
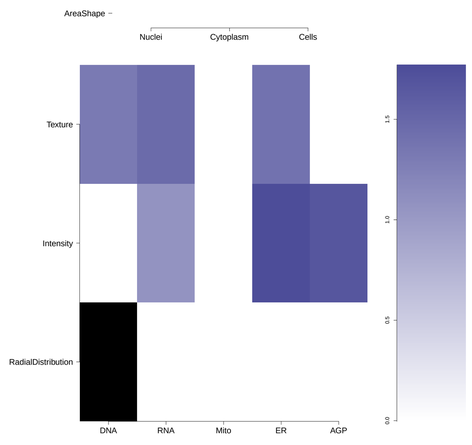
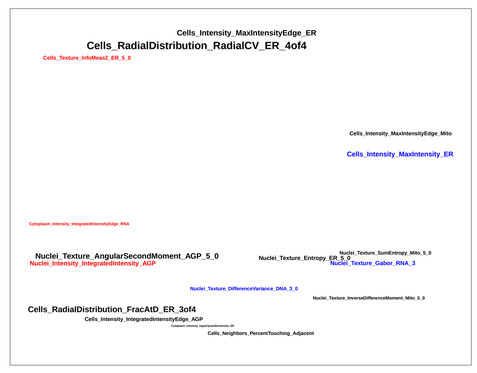
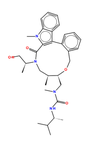
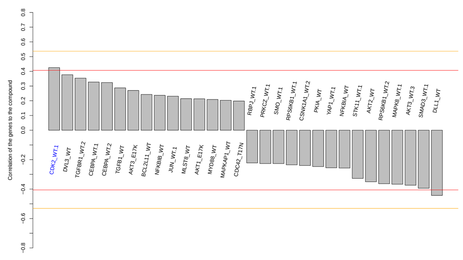
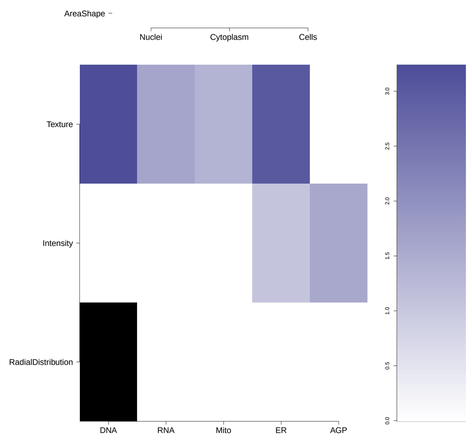
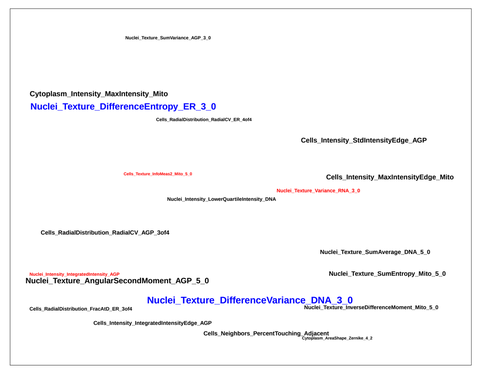
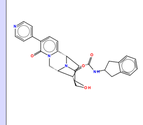
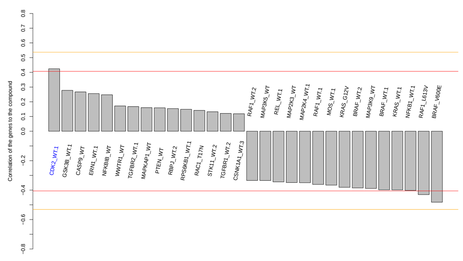
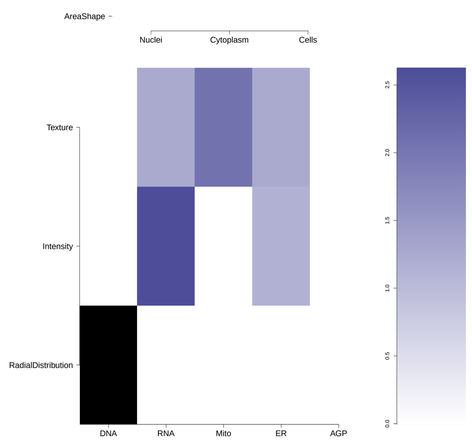
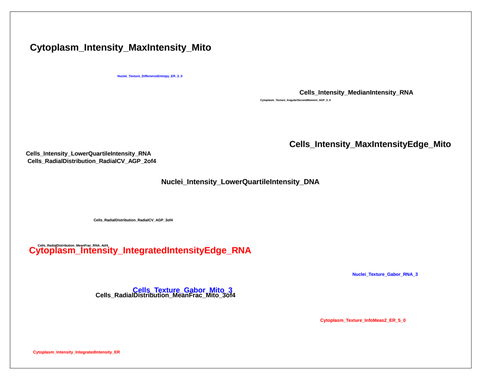
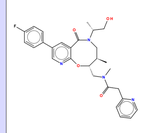
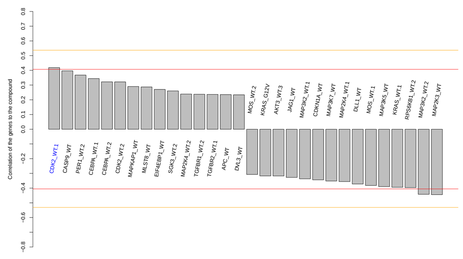
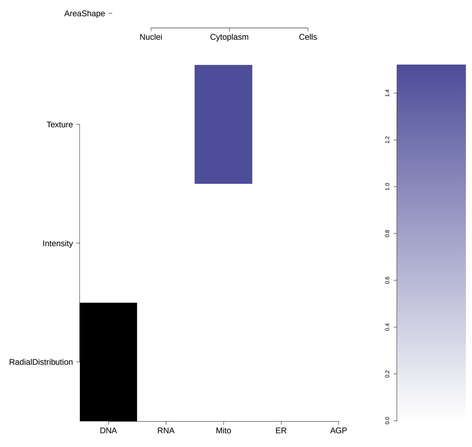
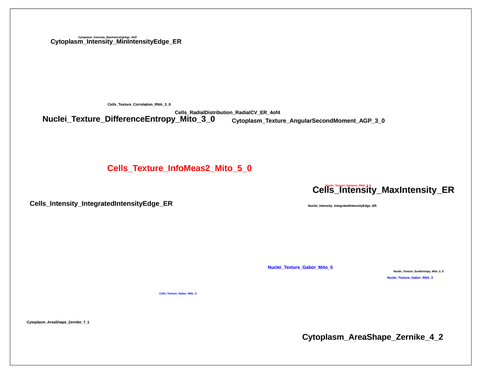
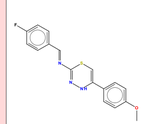
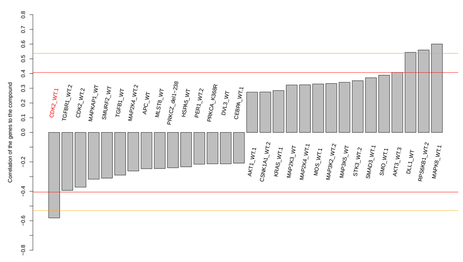
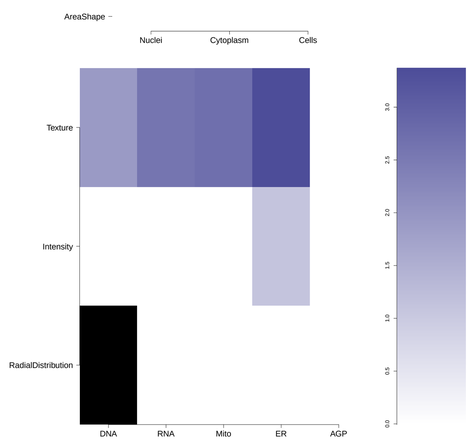
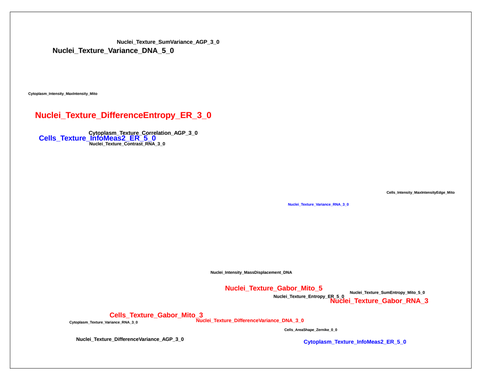


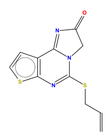
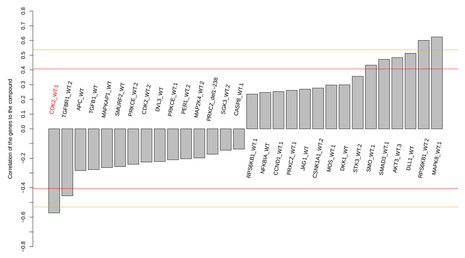
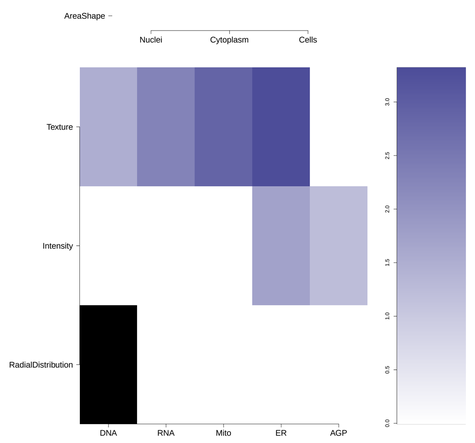
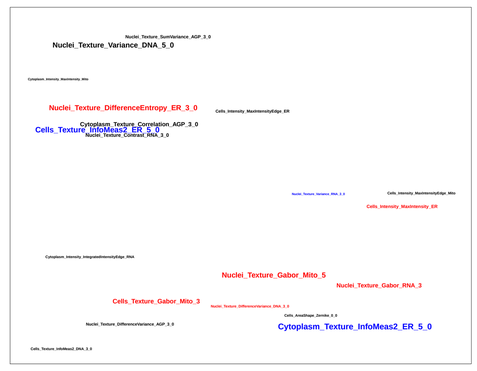
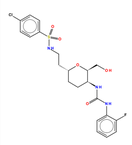
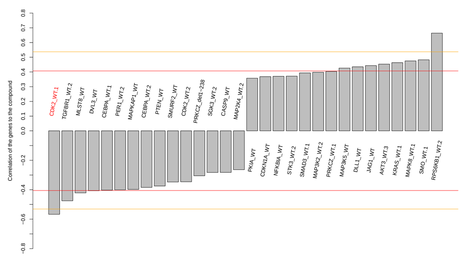
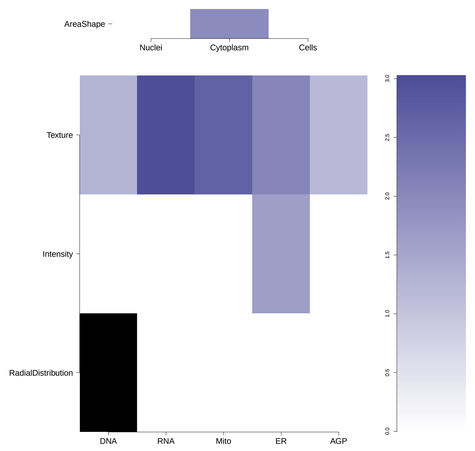
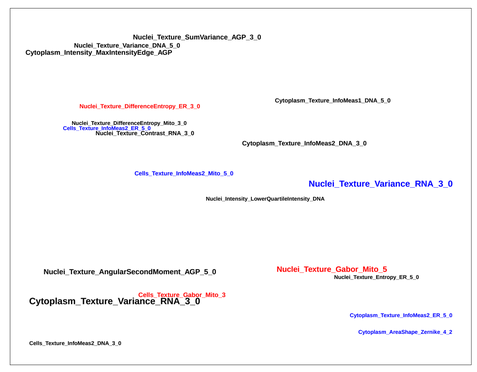
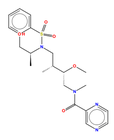
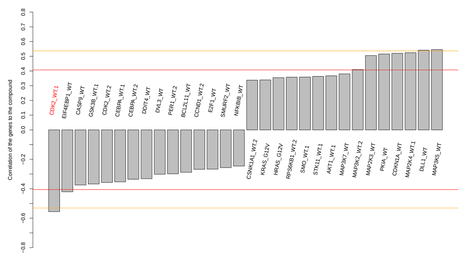
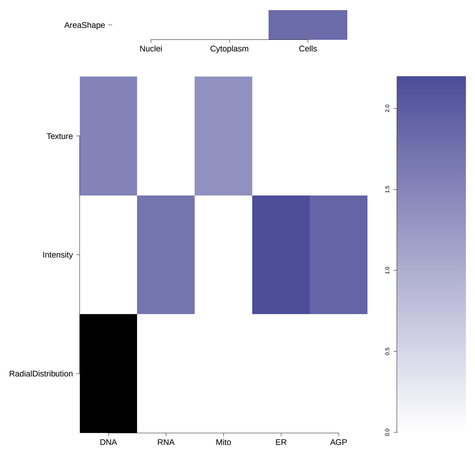
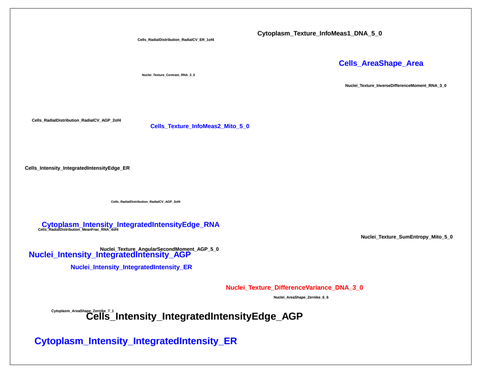
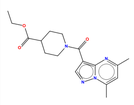
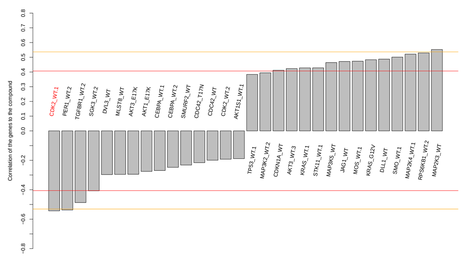
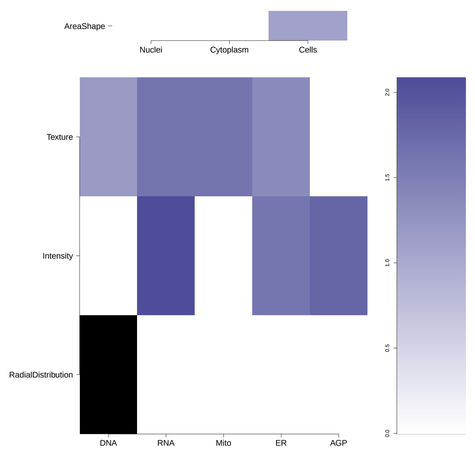
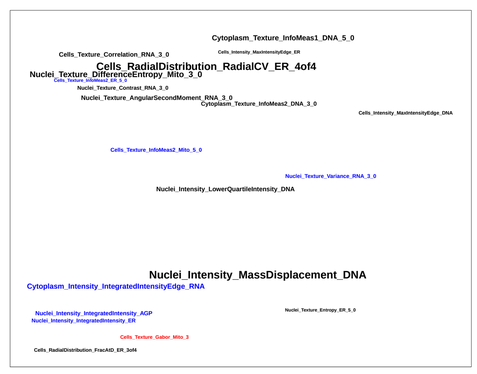
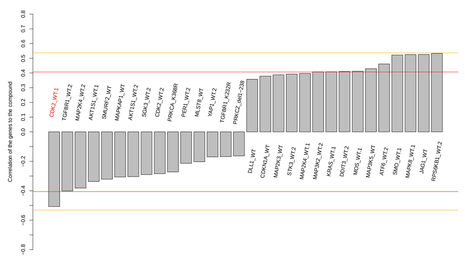
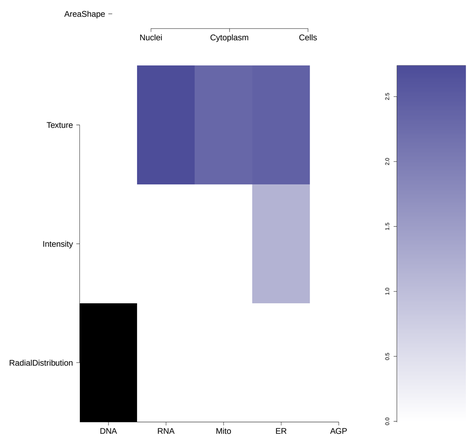
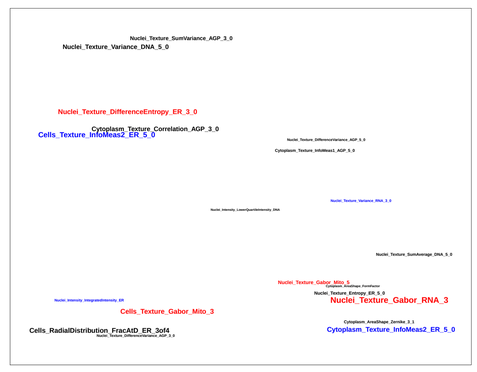
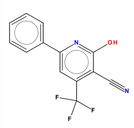
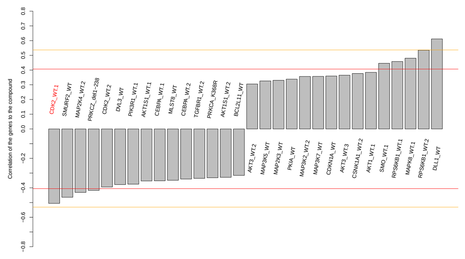
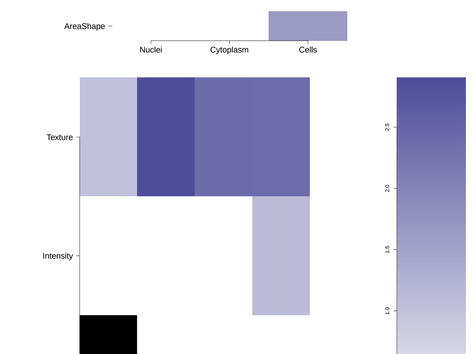
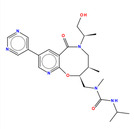
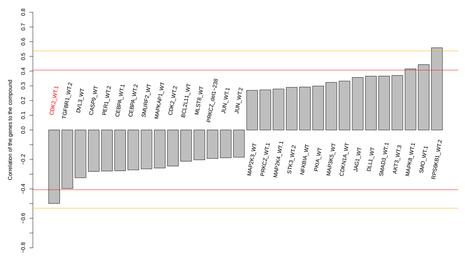
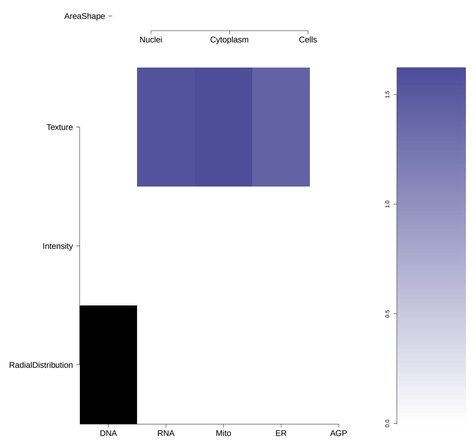
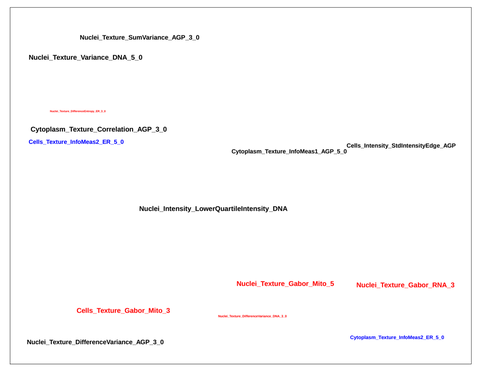
RNA

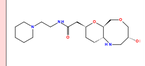
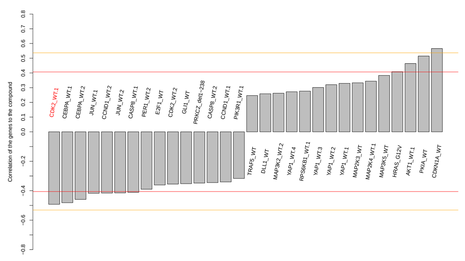
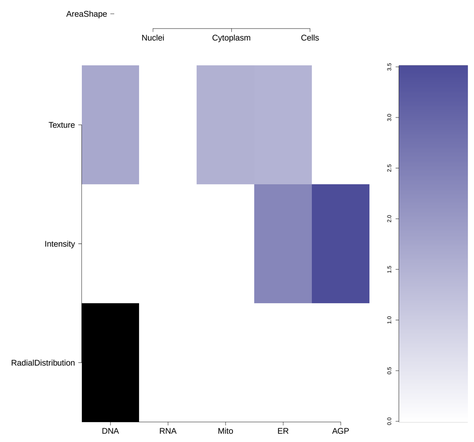
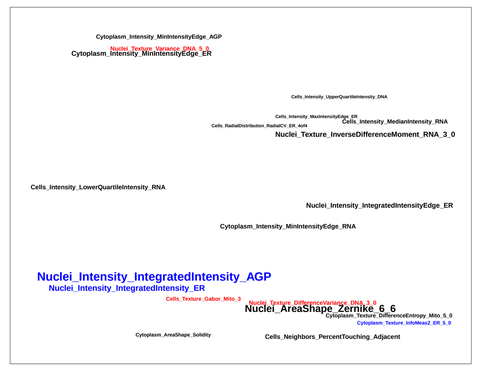
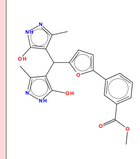
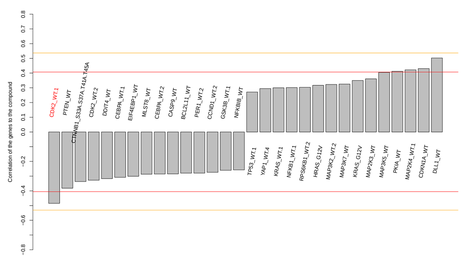
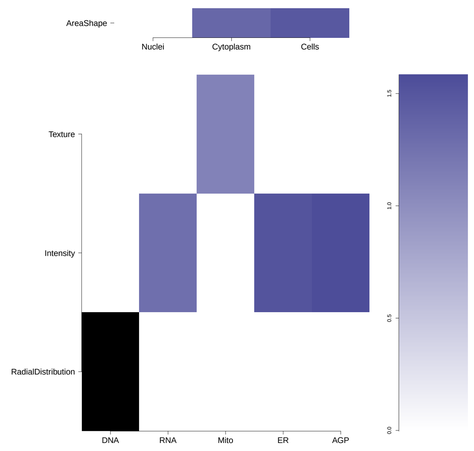


Compound IDs and common names (where available); blue/red colored box means the matching compound is positively/negatively correlated with the cluster	Chemical structure	Mean pairwise replicates correlation of the compound signature (95th DMSO replicate correlation is 0.52)	Correlation between compound 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-K43872124-001-05-6 AC1LHTYO MLS000700458 HMS2547F24 ZINC8684209 STK450089 ZINC08684209 SMR000228225 ST50832082 PubChem CID : 843841		NA (in 1 replicates)	0.49	NA				Total number of assays tested in: 650. Active in the following assays: • Primary cell-based high throughput screening assay to measure STAT1 activation (AID 932) • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • Identification of Novel Modulators of Cl- dependent Transport Process via HTS: Primary Screen (AID 1456) • qHTS Assay for Enhancers of SMN2 Splice Variant Expression (AID 1458) • Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 MEK Kinase3 Wildtype (AID 1529) • Identification of Novel Modulators of Cl- dependent Transport Process via HTS: Secondary Assay 3 with KCC2 cells (AID 1714) • Identification of Novel Modulators of Cl- dependent Transport Process via HTS: Secondary Assay 2 with KCC2 cells (AID 1715) • Identification of Novel Modulators of Cl- dependent Transport Process via HTS: Counterscreen with HEK cells (AID 1716) • Identification of Novel Modulators of Cl- dependent Transport Process via HTS: Retesting of KCC2 cells with Ouabain (AID 1717) • Identification of Novel Modulators of Cl- dependent Transport Process via HTS: Counterscreen 2 with HEK cells (AID 1718) • MLPCN Alpha-Synuclein 5'UTR - 5'-UTR binding - activators (AID 1814) • qHTS Assay for Modulators of miRNAs and/or Inhibitors of miR-21 (AID 2289) • 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) • qHTS for inhibitors of ROR gamma transcriptional activity (AID 2551) • uHTS Luminescent assay for identification of inhibitors of Sentrin-specific protease 6 (SENP6) (AID 2599) • uHTS Luminescent assay for identification of inhibitors of Sentrin-specific protease 7 (SENP7) (AID 434973) • uHTS identification of small molecule inhibitors of tim10-1 yeast via a luminescent assay (AID 463190) • qHTS Assay for Rab9 Promoter Activators (AID 485297) • qHTS Assay for Inhibitors of Histone Lysine Methyltransferase G9a (AID 504332) • 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 TDP-43 Inhibitors (AID 652104) • Luminescence-based cell-based primary high throughput screening assay to identify agonists of the DAF-12 from the parasite H. glycines (hgDAF-12). (AID 687014)
BRD-K48356852-001-05-3 MLS000042714 AC1LDF6E HMS2354K16 ZINC2431605 STK824405 ZINC02431605 BAS 11413363 SMR000047319 PubChem CID : 666065		0.60 (in 2 replicates)	0.47	NA				Total number of assays tested in: 774. Active in the following assays: • Modulators of the EP2 prostaglandin E2 receptor - Primary Screening (AID 940) • Fluorescence polarization-based primary biochemical high throughput screening assay to identify inhibitors of the plasma platelet activating factor acetylhydrolase (pPAFAH) (AID 463082) • qHTS Assay for Inhibitors of JMJD2A-Tudor Domain (AID 504339) • qHTS for Inhibitors of PLK1-PDB (polo-like kinase 1 - polo-box domain): Primary Screen (AID 720504)
BRD-K25942808-001-01-1 PubChem CID : 44504566		0.63 (in 4 replicates)	0.46	0.598				Total number of assays tested in: 51.
BRD-K40959498-001-01-1 PubChem CID : 54618519		0.61 (in 4 replicates)	0.46	0.598				Total number of assays tested in: 28. Active in the following assays: • Small molecule inhibitors of miR122 Measured in Cell-Based System Using Plate Reader - 2144-01_Activator_Dose_DryPowder_Activity (AID 743399)
BRD-K51126488-001-01-5 PubChem CID : 54645892		0.58 (in 2 replicates)	0.45	0.091				Total number of assays tested in: 41.

BRD-K00882705-001-06-1 AC1LLURU SMR000177368 MLS000568738 HMS2560D18 ZINC781529 ZINC00781529 BAS 02104915 PubChem CID : 1073683		NA (in 1 replicates)	0.44	NA				Total number of assays tested in: 645. Active in the following assays: • Leishmania major promastigote HTS (AID 1063) • 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) • 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 Response HTS to Identify Inhibitors of 5'UTR Stem-Loop Driven Prion Protein mRNA Translation in H4 Neuroglioblastoma Cells (AID 1994) • High Content Assay for Compounds that inhibit the Assembly of the Perinucleolar Compartment (AID 2417) • Primary qHTS for delayed death inhibitors of the malarial parasite plastid, 48 hour incubation (AID 504832) • qHTS Assay for Inhibitors of RanGTP induced Rango (Ran-regulated importin-beta cargo) - Importin beta complex dissociation (AID 540253) • Luminescence-based cell-based primary high throughput screening assay to identify biased ligands of the melanocortin 4 receptor (MC4R): agonists of MC4R (AID 540308) • uHTS identification of cystic fibrosis induced NFkb Inhibitors in a fluoresence assay (AID 588850) • uHTS determination of small molecule cytotoxicity in a fluorescence assay to identify cystic fibrosis induced NFkb Inhibitors (AID 602141) • Luminescence-based cell-based high throughput confirmation assay for biased ligands (agonists) of the melanocortin 4 receptor (MC4R) (AID 602192)
BRD-K63072081-001-01-8 PubChem CID : 54657564		0.75 (in 4 replicates)	0.43	0.598				Total number of assays tested in: 26.
BRD-K19693607-001-01-1 PubCh em CID : 54638076		0.86 (in 3 replicates)	0.43	0.833				Total number of assays tested in: 38. Active in the following assays: • MLPCN SirT-5 Measured in Biochemical System Using Imaging - 7044-01_Inhibitor_SinglePoint_HTS_Activity_Set5 (AID 652115)
BRD-K42614769-001-01-2 PubChem CID : 54661005		0.60 (in 4 replicates)	0.42	0.305				Total number of assays tested in: 29. Active in the following assays: • S100A4: HTS Measured in Biochemical System Using Plate Reader - 7045-01_Inhibitor_SinglePoint_HTS_Activity (AID 652163)
BRD-K81859633-001-01-9 PubChem CID : 54618664		0.68 (in 4 replicates)	0.42	0.734				Total number of assays tested in: 38. Active in the following assays: • MLPCN SirT-5 Measured in Biochemical System Using Imaging - 7044-01_Inhibitor_SinglePoint_HTS_Activity_Set5 (AID 652115)
BRD-K07723125-004-05-8 MLS000518985 SMR000129405 PubChem CID : 56642830		NA (in 1 replicates)	-0.58	NA				Total number of assays tested in: 681. Active in the following assays: • qHTS for Inhibitors of Tau Fibril Formation, Thioflavin T Binding (AID 1460) • qHTS Assay for Promiscuous and Specific Inhibitors of Cruzain (without detergent) (AID 1476) • qHTS Assay for Inhibitors of Bacillus subtilis Sfp phosphopantetheinyl transferase (PPTase) (AID 1490) • Cytochrome panel assay with activity outcomes (AID 1851) • Cycloheximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314) • Luminescence-based primary cell-based high throughput screening assay to identify activators of the Aryl Hydrocarbon Receptor (AHR) (AID 2796) • HTS using DiI-HDL to assay lipid transfer in ldlA[SR-BI] cells Measured in Cell-Based System Using Plate Reader - 2085-01_Inhibitor_SinglePoint_HTS_Activity (AID 488896) • qHTS Assay for Inhibitors of Histone Lysine Methyltransferase G9a (AID 504332) • Primary biochemical fluorescence polarization-based high throughput screening assay to identify inhibitors of protein arginine methyltransferase 1 (PRMT1) (AID 652257)

BRD-K15954169-001-06-0 SMR000179996 MLS000546598 3R-0050 AC1MXZ4M BDBM59282 HMS2279H18 ZINC5517730 PubChem CID : 3773687		NA (in 1 replicates)	-0.57	NA				Total number of assays tested in: 658. Active in the following assays: • uHTS of Mcl-1/Noxa interaction inhibitors (AID 1022) • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • Primary biochemical High Throughput Screening assay for agonists of the steroid receptor coactivator 2 (SRC-2) recruitment by the peroxisome proliferator-activated receptor gamma (PPARgamma) (AID 1032) • Cytochrome panel assay with activity outcomes (AID 1851) • Luminescence Cell-Based Primary HTS to Identify Inhibitors of Heat Shock Factor 1 (HSF1). (AID 2098) • Luminescence Cell-Based Dose Confimation HTS to Identify Inhibitors of Heat Shock Factor 1 (HSF1) (AID 2382) • qHTS for Agonist of gsp, the Etiologic Mutation Responsible for Fibrous Dysplasia/McCune-Albright Syndrome: qHTS (AID 624287)
BRD-K65895220-001-01-2 PubChem CID : 54641123		NA (in 1 replicates)	-0.57	NA				Total number of assays tested in: 37.
BRD-K38678832-001-01-6 PubCID : 54649109		0.69 (in 2 replicates)	-0.56	0.125				Total number of assays tested in: 36.
BRD-K50920395-001-05-5 SMR000021483 AC1MMTM0 MLS000044072 HMS2321D17 CCG-26113 EU-0053628 PubChem CID : 3244226		NA (in 1 replicates)	-0.54	NA				Total number of assays tested in: 790. Active in the following assays: • Profiling the NIH Molecular Libraries Small Molecule Repository: Autofluorescence at 339/460 nm (AID 709) • 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) • 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)
BRD-U48977771-000-01-3 MLS000738181 NSC127458 AC1Q4WYI AC1L5NH4 CTK4E3563 HMS2785L13 ZINC369656 AR-1C5187 ZINC00369656 NSC-127458 SMR000448516 PubChem CID : 278156		NA (in 1 replicates)	-0.51	NA				Total number of assays tested in: 556.
BRD-K96330759-001-05-3 3335-44-2 ST50974802 ACMC-20anob AC1MBIPX SMR000168626 MLS000331162 CTK4H0448 CTK7C6775 HMS560D19 HMS1444H18 HMS2383J14 ZINC8577839 SBB102781 STK208991 1K-340S RH02143 RP14866 VP11521 IDI1 016135 AJ-57639 AK123783 HE003955 KB-69499 DB-021471 KB-117969 FT-0613255 A-8056 I02-5051 3B3-003233 PubChem CID : 2726227		NA (in 1 replicates)	-0.51	NA				Total number of assays tested in: 656. Active in the following assays: • CYP2C9 Assay (AID 777) • Multiplex HTS Assay for Inhibitors of MEK Kinase PB1 Domains, specifically MEK5 MEK Kinase3 Wildtype (AID 1529) • qHTS Assay for Activators of Human alpha-Glucosidase as a Potential Chaperone Treatment of Pompe Disease (AID 2242) • Fluorescence-based biochemical primary high throughput screening assay to identify inhibitors of the fructose-bisphosphate aldolase (FBA) of M. tuberculosis (AID 588726) • Fluorescence Polarization with CAL-PDZ Measured in Biochemical System Using Plate Reader - 2109-02_Inhibitor_SinglePoint_HTS_Activity (AID 602252) • Fluorescence Intensity-based biochemical primary high throughput screening assay to identify activators of kallikrein-7 (K7) zymogen (AID 652039)
BRD-K06444139-001-01-1 PubChem CID : 54619953		0.58 (in 4 replicates)	-0.50	NA				Total number of assays tested in: 36.

BRD-K75633187-001-01-6 PubChem CID : 54657723		0.79 (in 4 replicates)	-0.49	0.052				Total number of assays tested in: 39.
BRD-K70551979-001-08-2 MLS000715976 SMR000277493 BAS 05901102 AC1MK7KA BDBM61200 HMS2627O24 STK263897 ZINC19974282 PubChem CID : 3152845		NA (in 1 replicates)	-0.49	NA				Total number of assays tested in: 661. Active in the following assays: • qHTS Assay for Inhibitors of Aldehyde Dehydrogenase 1 (ALDH1A1) (AID 1030) • Leishmania major promastigote HTS (AID 1063) • qHTS for Inhibitors of Tau Fibril Formation, Thioflavin T Binding (AID 1460) • qHTS Assay for Inhibitors of Bacillus subtilis Sfp phosphopantetheinyl transferase (PPTase) (AID 1490) • Fluorescence polarization-based counterscreen for RBBP9 inhibitors: primary biochemical high throughput screening assay to identify inhibitors of the oxidoreductase glutathione S-transferase omega 1(GSTO1). (AID 1974) • AlphaScreen confirmatory assay for validation of inhibitors of SUMOylation (AID 2018) • Fluorescence polarization-based biochemical high throughput confirmation assay for inhibitors of the oxidoreductase glutathione S-transferase omega 1(GSTO1). (AID 2176) • Fluorescence Cell-Free Homogenous Primary HTS to Identify Inhibitors of RecA Intein Splicing Activity (AID 2221) • qHTS Assay for Inhibitors of Fructose-1,6-bisphosphate Aldolase from Giardia Lamblia (AID 2451) • qHTS Assay for Inhibitors of Fructose-1,6-bisphosphate Aldolase from Giardia Lamblia: Coupling assay counterscreen (AID 2472) • qHTS for inhibitors of ROR gamma transcriptional activity (AID 2551) • Fluorescence Cell-Free Homogeneous Counter Screen to Identify Inhibitors of GFP Chromophore Formation (AID 434968) • Fluorescence Cell-Free Homogeneous Dose Retest to Identify Inhibitors of RecA-Intein Splicing Activity (AID 435010) • Fluorescence Cell-Free Homogeneous Secondary Screen to Identify Inhibitors of DnaB-Intein Splicing Activity (AID 449749) • Fluorescence Cell-Free Homogeneous Secondary Screen to Identify Non-Covalent Inhibitors of RecA-Intein Splicing Activity (AID 449750) • uHTS identification of small molecule inhibitors of tim23-1 yeast via a luminescent assay (AID 463212) • Single concentration confirmation of small molecule inhibitors of tim23-1 yeast via a luminescent assay (AID 463218) • qHTS Assay for the Inhibitors of Schistosoma Mansoni Peroxiredoxins (AID 485364) • uHTS Fluorescent assay for identification of inhibitors of Apaf-1 (AID 489030) • Dose Response confirmation of uHTS small molecule inhibitors of tim23-1 yeast via a luminescent assay (AID 493002) • qHTS Assay for Inhibitors of Histone Lysine Methyltransferase G9a (AID 504332) • qHTS Assay for Inhibitors of BAZ2B (AID 504333) • qHTS Assay for Inhibitors of JMJD2A-Tudor Domain (AID 504339) • A screen for small molecule inhibitors of the human deubiquitinating enzyme, UCH37 (AID 588478) • qHTS for Inhibitors of Polymerase Iota (AID 588590) • Primary cell-based high-throughput screening for identification of compounds that activate MrgX1 receptor signaling (AID 588627) • Re-confirmation screening for identification of compounds that activate MrgX1 receptor signaling (AID 602412) • ARNT-TAC3: AlphaScreen HTS to detect disruption of ARNT/TAC3 interactions Measured in Biochemical System Using Plate Reader - 2158-01_Inhibitor_SinglePoint_HTS_Activity (AID 623870) • A reconfirmation screen for small molecule inhibitors of the human deubiquitinating enzyme, UCH37 (AID 624100) • Counter-screen against parental HEK293 cells for identification of compounds that activate MrgX1 receptor signaling (AID 624115) • Fluorescence polarization-based biochemical primary high throughput screening assay to identify inhibitors of ArfGAP with SH3 domain, ankyrin repeat and PH domain 1 (ASAP1) (AID 624377) • Fluorescence polarization-based biochemical primary high throughput screening assay to identify inhibitors of ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1) (AID 651572) • ARNT-TAC3: AlphaScreen HTS to detect disruption of ARNT/TAC3 interactions Measured in Biochemical System Using Plate Reader - 2158-01_Inhibitor_Dose_CherryPick_Activity (AID 651703) • ARNT-TACC3: counter AlphaScreen Measured in Biochemical System Using Plate Reader - 2158-02_Inhibitor_Dose_CherryPick_Activity (AID 651705) • Fluorescence-based biochemical high throughput screening primary assay to identify inhibitors of Crimean-Congo Hemorrhagic Fever (CCHF) viral ovarian tumor domain protease (vOTU): Pep-AMC substrate (AID 651958) • Primary biochemical fluorescence polarization-based high throughput screening assay to identify inhibitors of protein arginine methyltransferase 1 (PRMT1) (AID 652257) • 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 Inhibitors of PLK1-PDB (polo-like kinase 1 - polo-box domain): Primary Screen (AID 720504) • Epi Absorbance-based biochemical primary high throughput screening assay to identify inhibitors of human tyrosyl-DNA phosphodiesterase 2 (TDP2) (AID 720702) • Epi Absorbance-based biochemical high throughput confirmation assay to identify inhibitors of human tyrosyl-DNA phosphodiesterase 2 (TDP2) (AID 743263) • TRFRET-based biochemical primary high throughput screening assay to identify inhibitors of HIV-1 LEDGF/p75 DNA Integration (AID 743269) • Development of Small Molecule Probes of the Histone Methyltransferase, NSD2 Measured in Biochemical System Using Plate Reader - 7053-01_Inhibitor_SinglePoint_HTS_Activity_Set2 (AID 743445) • Fluorescence-based biochemical high throughput primary assay to identify inhibitors of Trypanosoma brucei RNA editing ligase 1 (TbREL1) (AID 1117264)