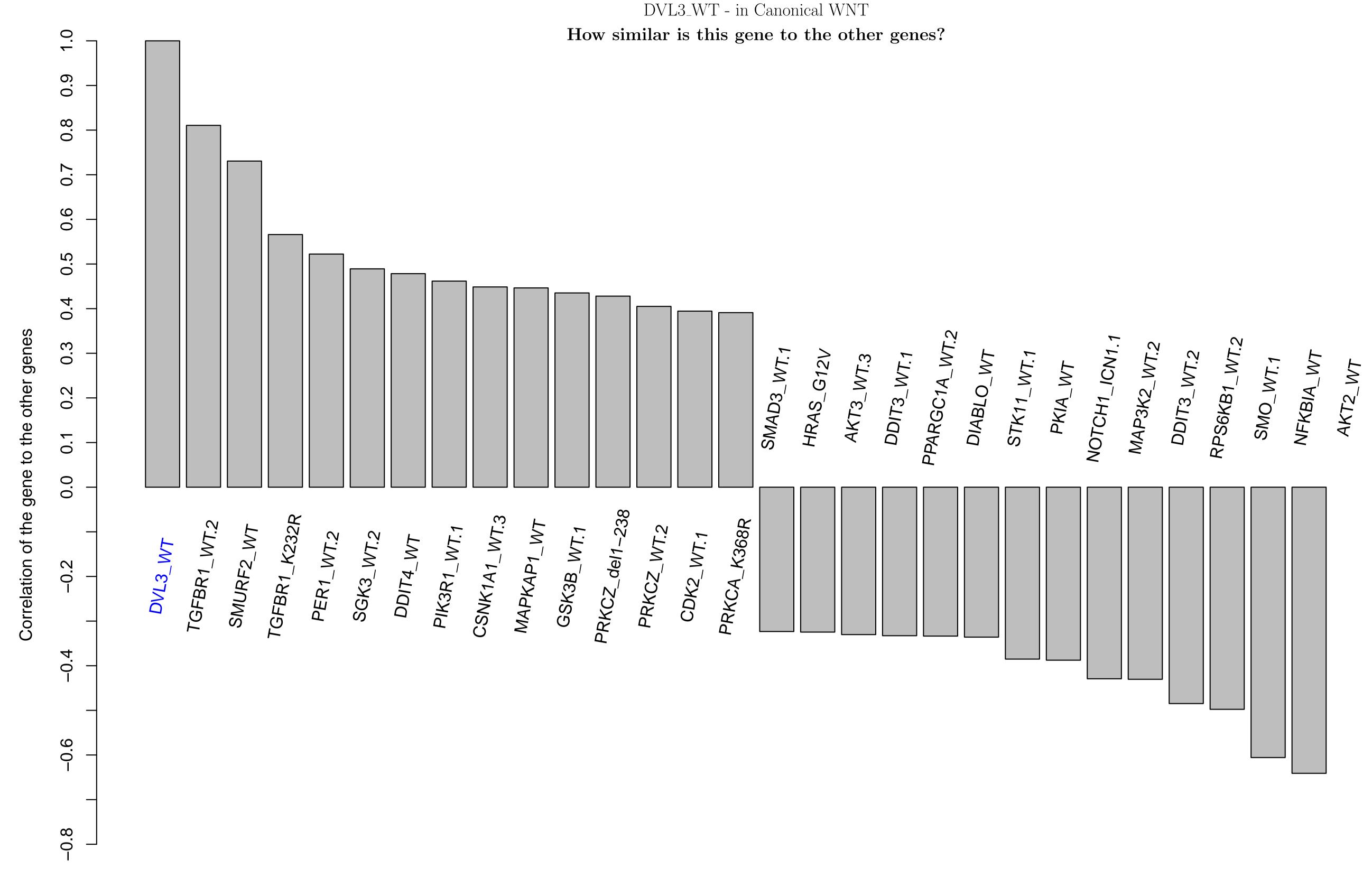
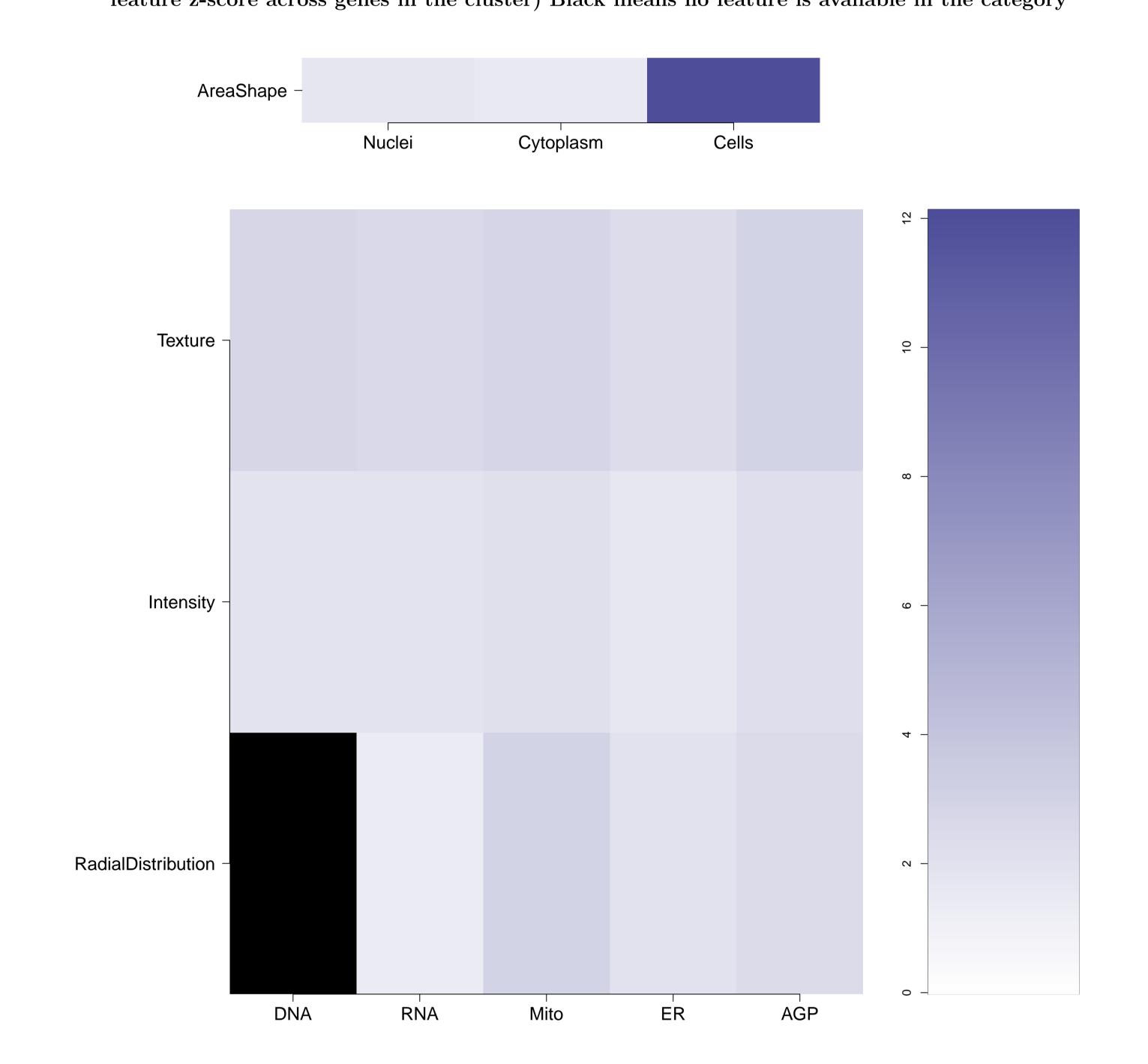
CONFIDENTIAL, contact the Imaging Platform to collaborate on the findings herein



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



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)

Correlation

between

compound

the gene

replicates

correlation of the

compound signature

(95th DMSO

replicate correlation

is 0.51)

Chemical

structure

common names (where

available); blue/red colored

box means the matching

compound is

positively/negatively

correlated with the cluster

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.

Distinguishing individual features for the compound relative to Number of PubChem assays in which

the compound was tested; assays in

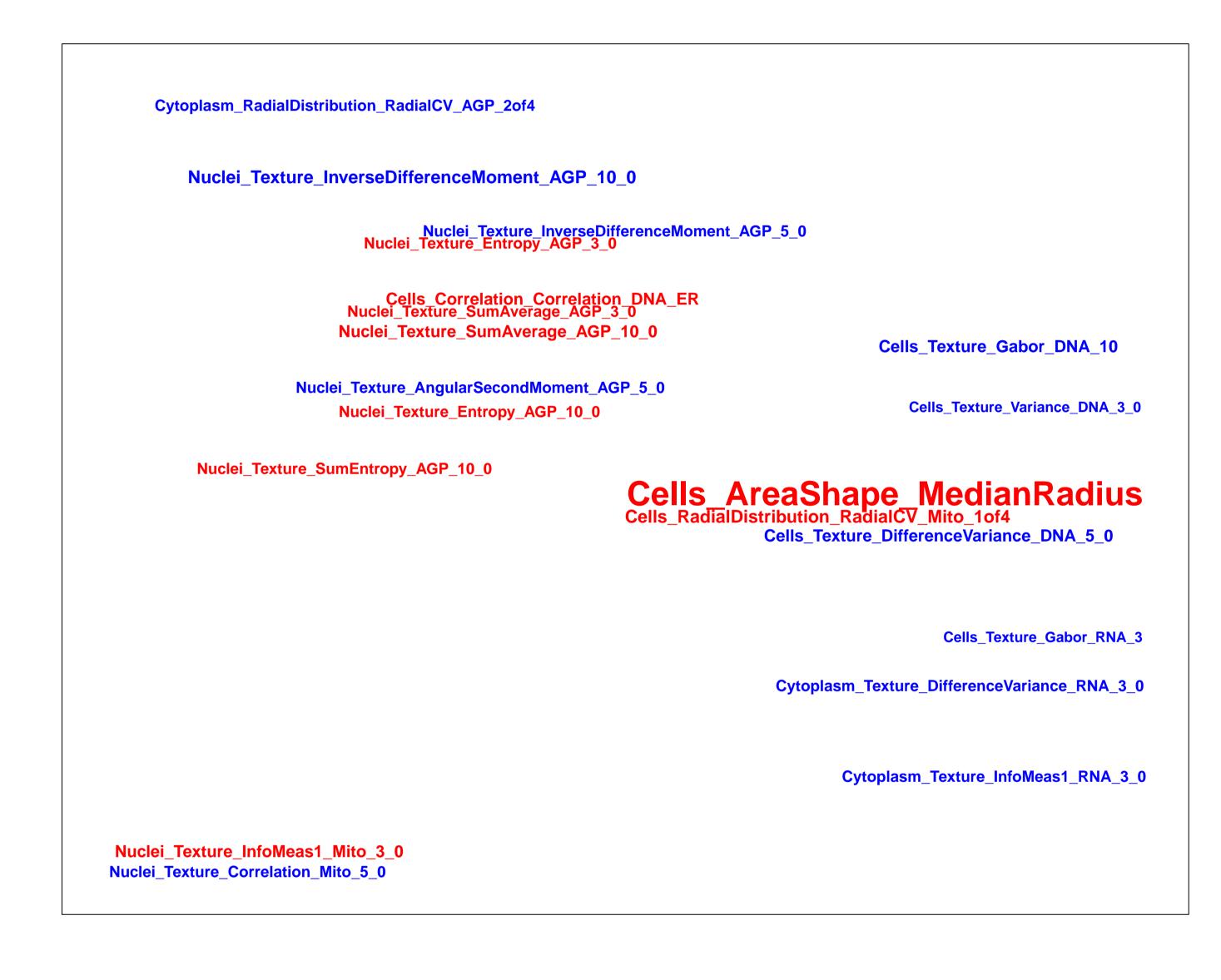
which the compound was active are

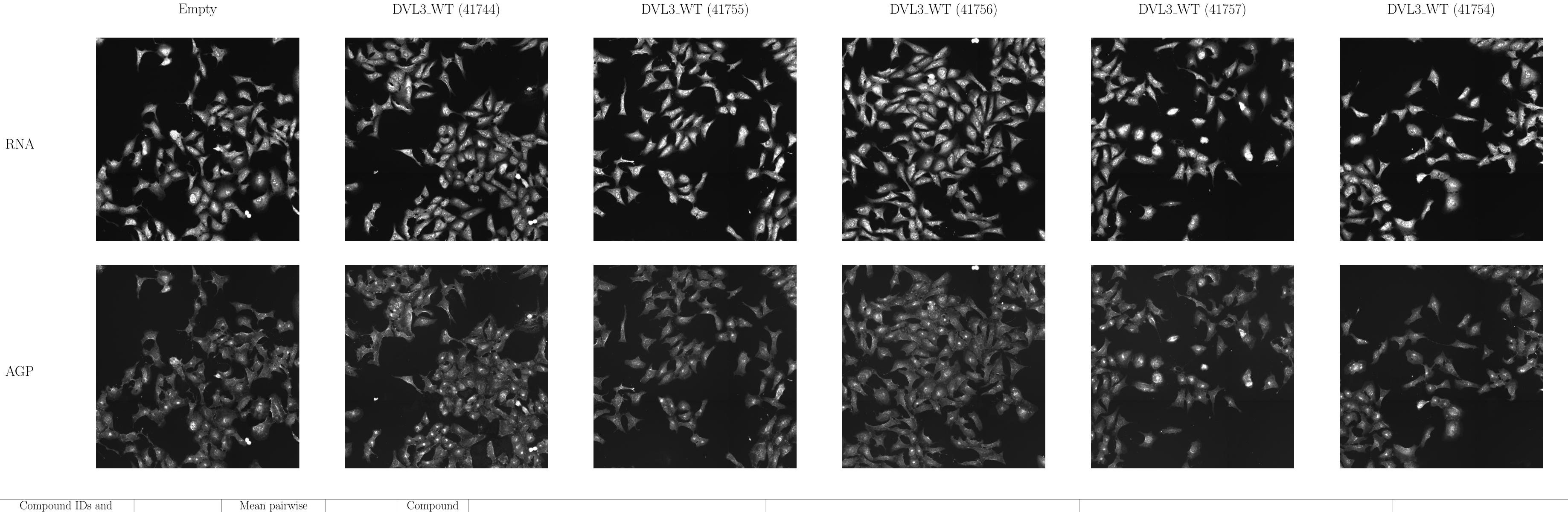
itemized

untreated samples. Black means a mismatch; i.e. active (= high

z-score in magnitude) in the compound, and either inactive (=

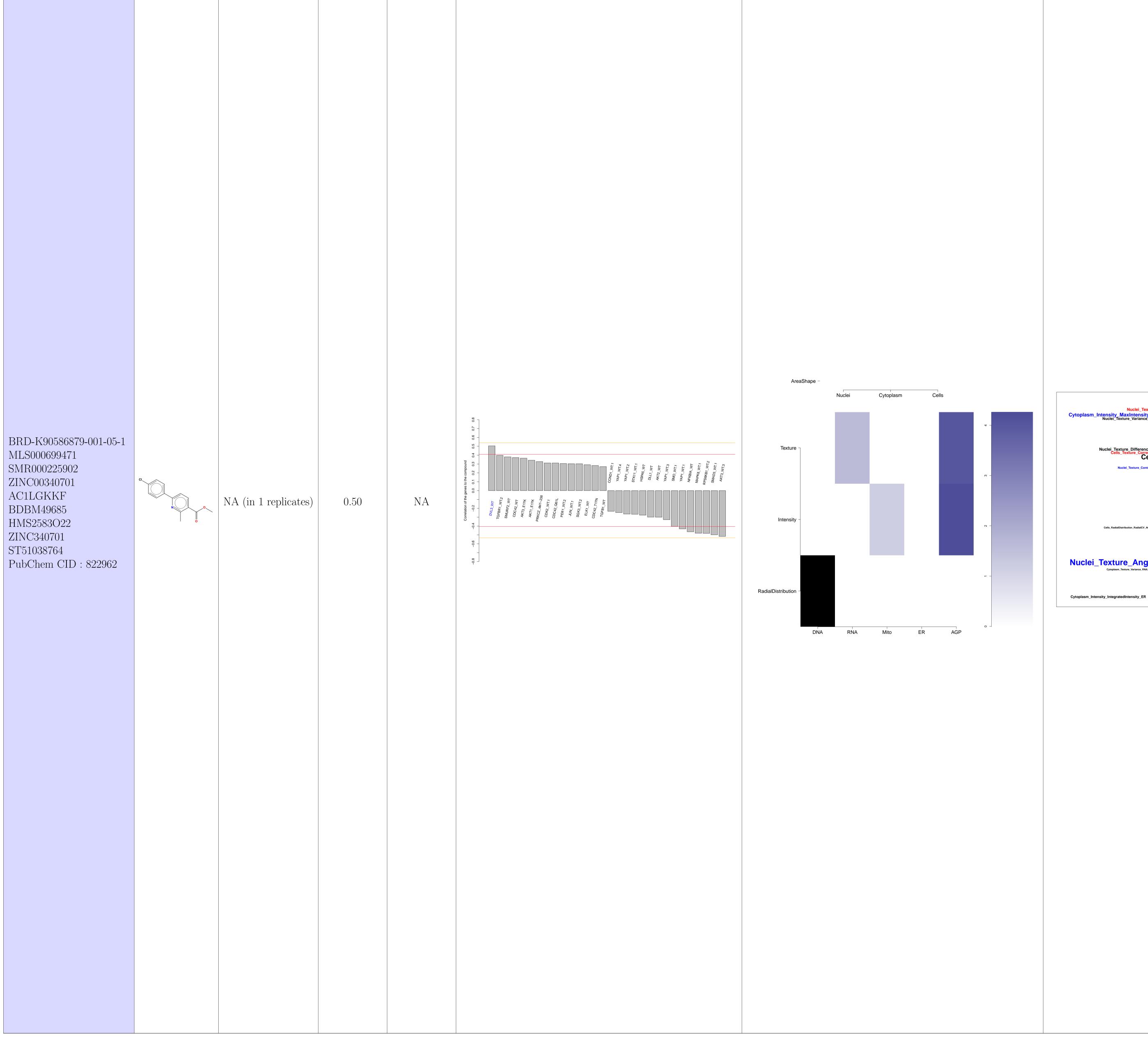
small z-score in magnitude) or oppositely active in the gene





Common distinguishing feature categories in the compound and

the gene relative to the untreated samples



Nuclei\_Texture\_SumVariance\_AGP\_3\_0

Cytoplasm\_Intensity\_MaxIntensity\_Edge\_AGP
Nuclei\_Texture\_Variance\_DNA\_5\_0

Nuclei\_Texture\_DifferenceEntropy\_ER\_3\_0
Cells\_Texture\_Correlation\_RMA\_3\_0

Cells\_Intensity\_MassDisplacement\_DNA

Nuclei\_Texture\_Contrast\_RNA\_3\_0

Cells\_Intensity\_StdIntensityEdge\_AGP

Cells\_Intensity\_StdIntensityEdge\_AGP

Cells\_RedaiDistribution\_RedaiCv\_AGP\_364

Nuclei\_Texture\_AngularSecondMoment\_AGP\_5\_0

Nuclei\_Texture\_Gabor\_RNA\_3

Cytoplasm\_Texture\_InfoMeas2\_ER\_5\_0

- Total number of assays tested in: 651. Active in the following assays:

   Primary cell-based high throughput screening
  - assay to measure STAT1 activation (AID 932)
    Counter Screen for Luciferase-based Primary Inhibition Assays (AID 1006)
  - High Throughput Screen to Identify Compounds that increase expression of NF-kB in Human Neuronal Cells Primary Screen (AID 1239)

• Name: High Throughput Screen to Identify

- Compounds that increase expression of NF-kB in Human Neuronal Cells Dose Response (AID 1241)
- Confirmation cell-based high throughput screening assay to measure STAT1 activation (AID 1262)
- Primary screen for compounds that activate Alzheimer's amyloid precursor (AID 1276)
- Counterscreen assay for STAT1 activators: Cell-based high throughput assay to measure NF-kappaB activation (AID 1306)
- Counterscreen assay for STAT1 activators: Cell-based high throughput assay to measure STAT3 activation (AID 1316)
- qHTS Assay for Enhancers of SMN2 Splice Variant Expression (AID 1458)
- 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
- Cycloneximide Counterscreen for Small Molecule Inhibitors of Shiga Toxin (AID 2314)
   A qHTS for Small Molecule Inhibitors of Shiga
- A qHTS for Small Molecule Inhibitors of Shiga Toxin (AID 2315)
  HTS Luminescent assay for identification of in-
- 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)
- uHTS Luminescent assay for identification of inhibitors of Sentrin-specific protease 7
- (SENP7) (AID 434973)
   qHTS Assay for Rab9 Promoter Activators
- (AID 485297)
- qHTS Assay for NPC1 Promoter Activators
- (AID 485313)
   Single concentration confirmation of uHTS
- Single concentration confirmation of uHTS for inhibitors of Sentrin-specific protease 6 (SENP6) using a Luminescent assay (AID 488915)
- Single concentration confirmation of uHTS for inhibitors of Sentrin-specific protease 7 (SENP7) using a Luminescent assay (AID 488017)
- of Sentrin-specific proteases (SENPs) using a Caspase-3 Selectivity assay (AID 488918)

   qHTS screen for small molecules that induce genotoxicity in human embryonic kidney

• Single concentration confirmation of inhibitors

- (HEK293T) cells expressing luciferase-tagged ELG1 (AID 504466)
  MITF Measured in Cell-Based System Using Plate Reader 2084-
- 01\_Activator\_Dose\_CherryPick\_Activity
  (AID 540258)

   MITF Measured in Cell-Based System Using Plate Reader 2084-
- qHTS profiling assay for firefly luciferase inhibitor/activator using purified enzyme and Km concentrations of substrates (counterscreen for

 $01\_Activator\_SinglePoint\_HTS\_Activity$ 

(AID 588334)

- miR-21 project) (AID 588342)

   qHTS Assay to Identify Small Molecule Acti-
- vators of BRCA1 Expression (AID 624202)

   uHTS identification of SKN-1 Inhibitors in a fluoresence assay (AID 624304)
- Luminescence-based cell-based primary high throughput screening assay for inhibitors of the orphan nuclear receptor subfamily 0, group B, member 1 (DAX1; NR0B1): repression of SF-
- length DAX-1 (AID 652010)
  Luminescence-based cell-based primary high throughput screening assay to identify agonists of the DAF-12 from the parasite H. glycines

1 (NR5A1) activated StAR promoter by full-

- (hgDAF-12). (AID 687014)
  Luminescence-based cell-based high throughput confirmation assay to identify agonists
- Luminescence-based cell-based high throughput confirmation assay to identify agonists of the DAF-12 from the parasite H. glycines (hgDAF-12). (AID 743050)