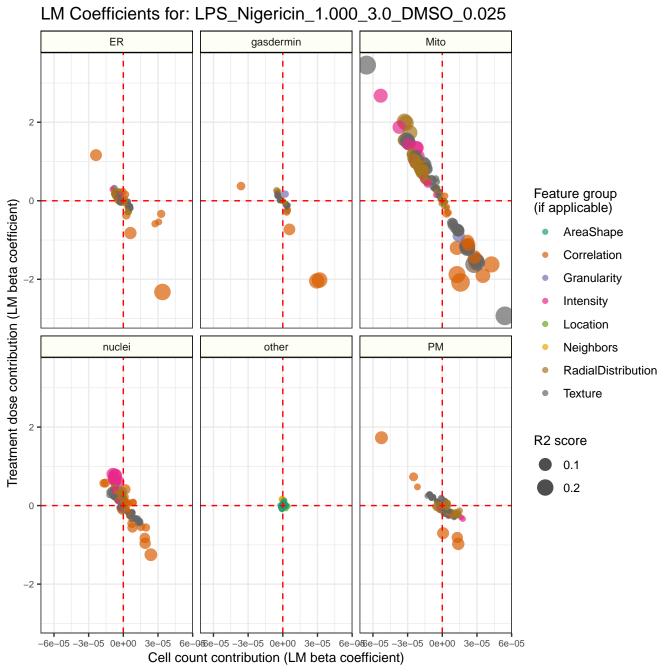
LM Coefficients for: LPS\_Nigericin\_100.000\_10.0\_DMSO\_0.025 ER gasdermin Mito 4 2 . Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors PM RadialDistribution nuclei other Texture R2 score 0.1 0.2 0.3 0.4 -2 -5e-05 0e+00 -5e-05 -5e-05 0e+00 0e+00 Cell count contribution (LM beta coefficient)



LM Coefficients for: LPS\_Nigericin\_1.000\_10.0\_DMSO\_0.025 ER gasdermin Mito 3 2 1 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location PM nuclei other Neighbors RadialDistribution **Texture** R2 score 0.1 0.2 -2 -7.5e - 95.0e - 92.5e - 050e + 022.5e - 05.0e - 925.5e - 050e + 022.5e - 050Cell count contribution (LM beta coefficient)

LM Coefficients for: LPS\_Nigericin\_100.000\_3.0\_DMSO\_0.025 ER gasdermin Mito 2 1 Feature group (if applicable) AreaShape Correlation Granularity Intensity Location Neighbors nuclei PM RadialDistribution other Texture R2 score 0.1 0.2 0.3 0 0.4 -2 -

0e+00

Cell count contribution (LM beta coefficient)

-3e-05

3e-05

-3e-05

0e+00

3e-05

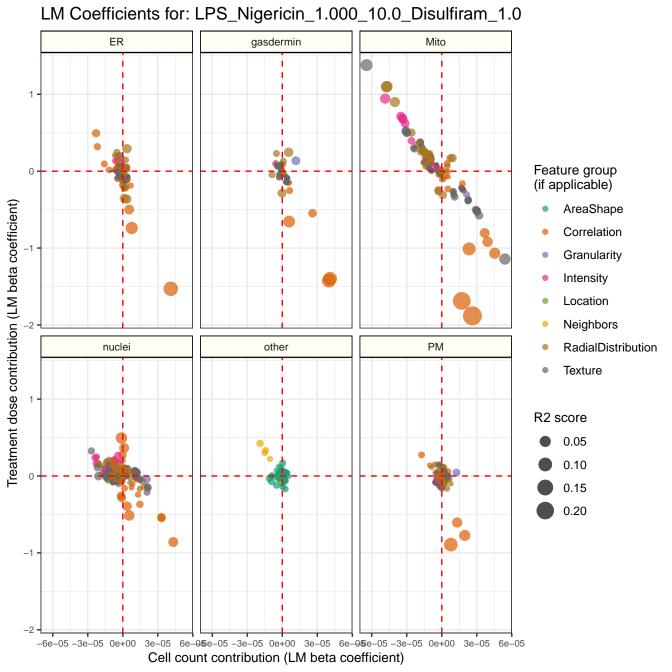
Treatment dose contribution (LM beta coefficient)

-3e-05

0e+00

3e-05

LM Coefficients for: LPS\_Nigericin\_1.000\_1.0\_DMSO\_0.025 ER gasdermin Mito 2 1 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei PM other RadialDistribution Texture R2 score 0.05 0.10 0.15 0 -2 0e+00 8e-05 -4e-05 0e+00 -4e-05 4e-05 -4e-05 0e+00 4e-05 8e-05 Cell count contribution (LM beta coefficient)



LM Coefficients for: LPS\_10.000\_Disulfiram\_1.0 ER gasdermin Mito Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei other PM RadialDistribution **Texture** R2 score 0.025 0.050 0.075 -5e-05 5e-05 0e+00 -5e-05 0e+00 5e-05 -5e-05 0e+00 5e-05

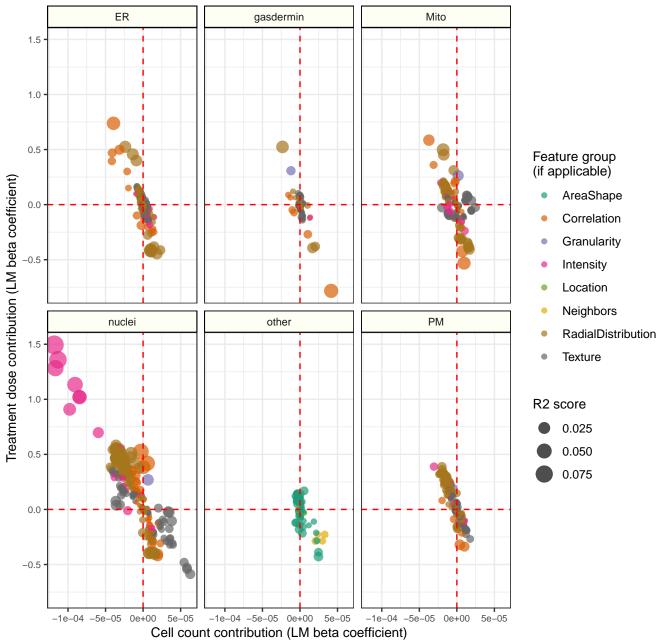
Cell count contribution (LM beta coefficient)

LM Coefficients for: LPS\_Nigericin\_100.000\_1.0\_DMSO\_0.025 ER gasdermin Mito Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors ΡМ RadialDistribution nuclei other Texture R2 score 0.05 0.10 0.15 0.20 -1 0e+00 -5e-05 0e+00 -5e-05 -5e-05 0e+00 Cell count contribution (LM beta coefficient)

LM Coefficients for: LPS\_10.000\_Disulfiram\_0.1 ER gasdermin Mito 1.5 1.0 0.5 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei other PM RadialDistribution 1.5 **Texture** R2 score 0.02 0.04 0.5 0.06 0.0 -0.5 -1.00e+00 -5e-05 0e+00 5e-05 -5e-05 5e-05 -5e-05 0e+00 5e-05

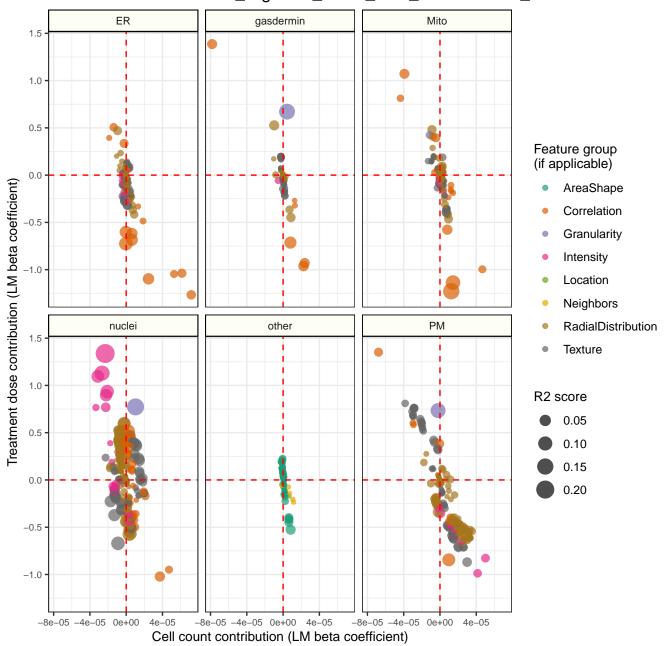
Cell count contribution (LM beta coefficient)

LM Coefficients for: LPS\_0.010\_DMSO\_0.025



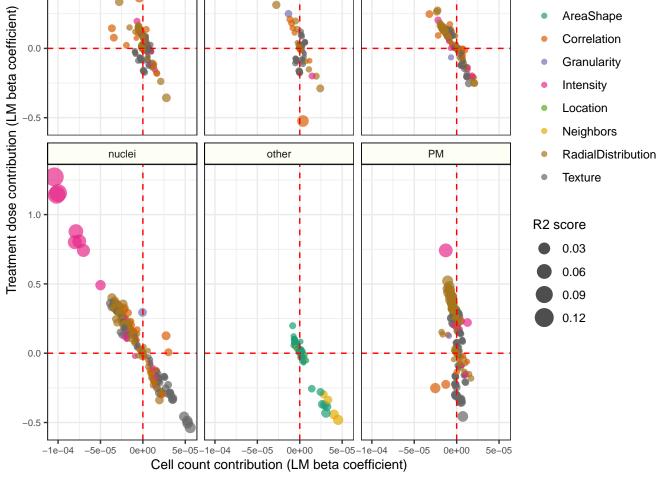
LM Coefficients for: LPS\_10.000\_DMSO\_0.025 ER gasdermin Mito 1.5 1.0 0.5 Feature group 0.0 (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape -0.5 Correlation Granularity Intensity Location Neighbors nuclei other PM 1.5 RadialDistribution Texture 1.0 R2 score 0.5 0.02 0.04 0.0 0.06 -0.5 -1.0-1.5 0e+00 5e-05 -5e-05 0e+00 5e-05 -5e-05 -5e-05 0e+00 5e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: LPS\_Nigericin\_1.000\_10.0\_Z-VAD-FMK\_100.0



LM Coefficients for: DMSO\_0.100\_Z-VAD-FMK\_30.0 ER gasdermin Mito 1.0 0.5 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location PM nuclei other Neighbors RadialDistribution **Texture** R2 score 0.05 0.5 0.10 0.0 -0.5  $-5.0 \\ e - 05 - 2.5 \\ e - 050.0 \\ e + 00 \\ 2.5 \\ e - 05 \\ -5.0 \\ e - 05 - 2.5 \\ e - 050.0 \\ e + 00 \\ 2.5 \\ e - 05 \\ -5.0 \\ e - 05 - 2.5 \\ e - 050.0 \\ e + 00 \\ 2.5 \\ e - 05 \\ -5.0 \\ e - 05 - 2.5 \\ e - 050.0 \\ e + 00 \\ 2.5 \\ e - 05 \\ -5.0 \\ e - 05 \\$ Cell count contribution (LM beta coefficient)

### LM Coefficients for: Disulfiram\_2.5\_DMSO\_0.025 ER gasdermin Mito 1.0 Feature group 0.5 (if applicable) AreaShape Correlation Granularity Intensity Location Neighbors nuclei PM RadialDistribution other Texture R2 score 0.03 0.06 0.5 0.09 0.12



LM Coefficients for: LPS\_10.000\_Disulfiram\_2.5 ER gasdermin Mito 0.5 0.0 Feature group (if applicable) AreaShape Treatment dose contribution (LM beta coefficient) -0.5 Correlation Granularity Intensity Location Neighbors RadialDistribution PM nuclei other Texture 0.5 R2 score 0.025 0.050 0.075 0.100 0.125 -0.5-1.0

5e-05 Cell count contribution (LM beta coefficient)

-5e-05

0e+00

5e-05

-5e-05

0e+00

5e-05

-5e-05

0e+00

# LM Coefficients for: Flagellin\_1.000\_DMSO\_0.00025 ER gasdermin Mito 1.0 Feature group 0.5 (if applicable) AreaShape Correlation Granularity Intensity Location -0.5 Neighbors RadialDistribution PM nuclei other Texture R2 score 0.01 0.02 0.5 0.03 0.04 0.05 0.0 -0.5

Cell count contribution (LM beta coefficient)

-5e-05

0e+00

5e-05-1e-04

-5e-05

0e+00

5e-05

5e-05-1e-04

Treatment dose contribution (LM beta coefficient)

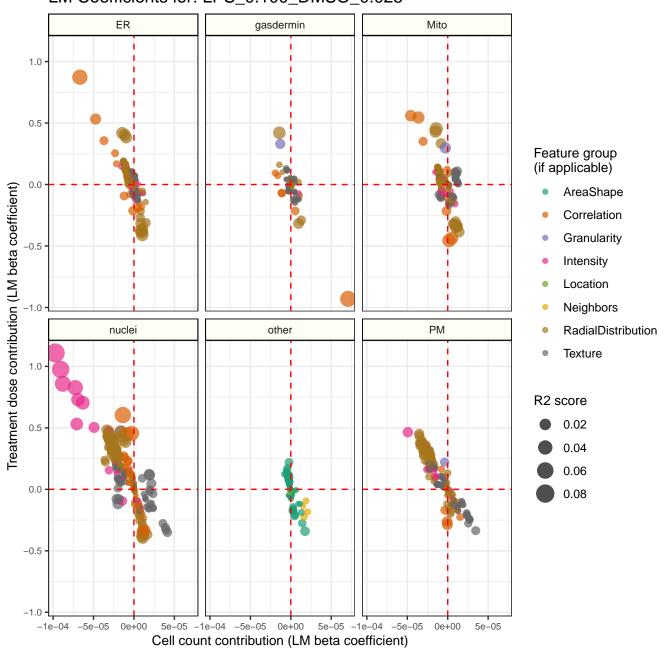
-1e-04

-5e-05

0e+00

LM Coefficients for: H2O2\_100.000\_Z-VAD-FMK\_100.0 ER gasdermin Mito 1.0 0.5 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors PM nuclei other RadialDistribution Texture 1.0 R2 score 0.05 0.5 0.10 0.15 0.0 -0.5 2.5e-650e-05 -2.5e-05 0.0e+00 -5.0e-05 -2.5e-05 0.0e+00 2.5e-650e-05 -2.5e-05 0.0e+00 Cell count contribution (LM beta coefficient)

LM Coefficients for: LPS\_0.100\_DMSO\_0.025



LM Coefficients for: LPS\_100.000\_DMSO\_0.025 ER gasdermin Mito 1.0 0.5 Feature group (if applicable) 0.0 AreaShape Correlation Granularity Intensity Location Neighbors nuclei PM other RadialDistribution Texture R2 score 0.5 0.02 0.04 0.06 0.0 -0.5

0e+00

4e-05

4e-05 -4e-05 0e+00 4e-05 -4e-05

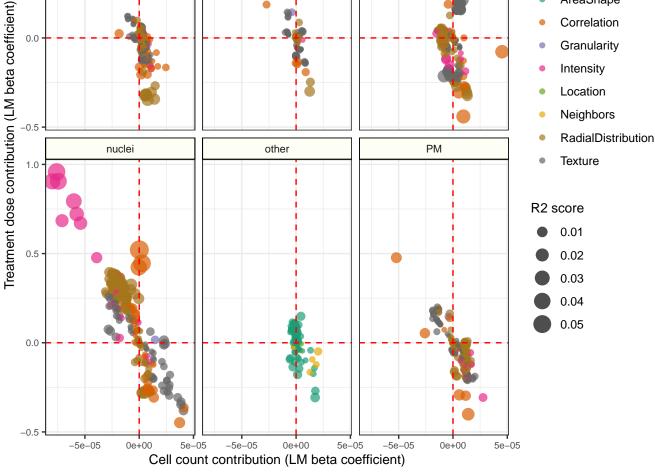
Cell count contribution (LM beta coefficient)

Treatment dose contribution (LM beta coefficient)

-4e-05

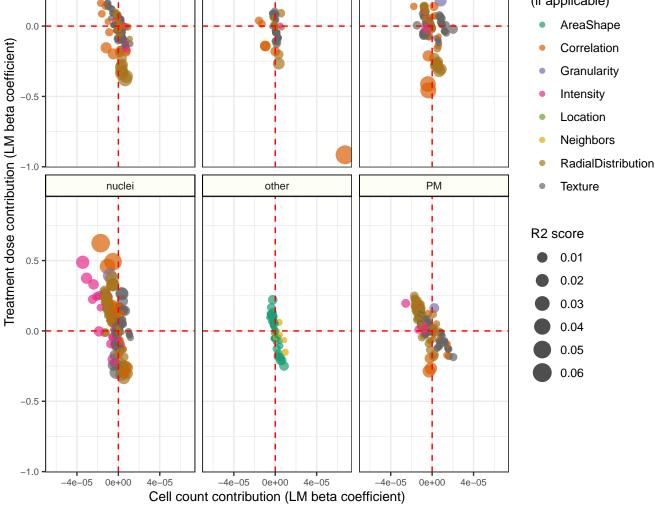
0e+00

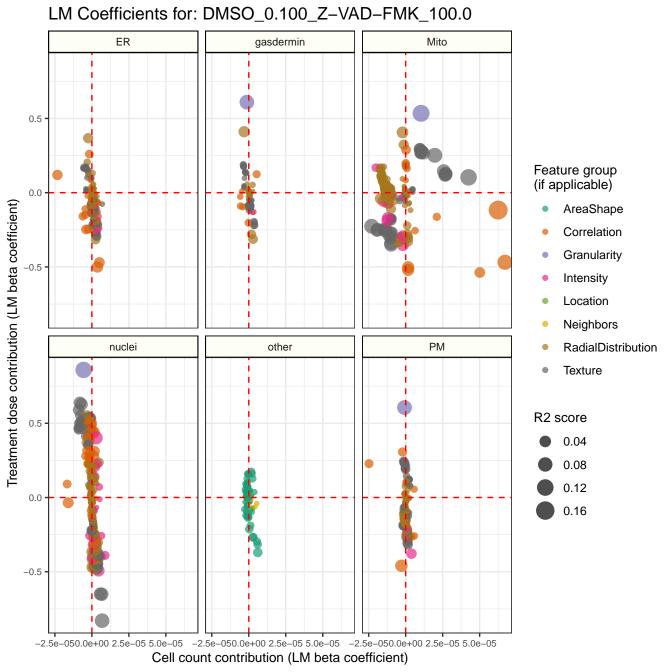
LM Coefficients for: Flagellin\_1.000\_DMSO\_0.025 ER gasdermin Mito 1.0 0.5 Feature group (if applicable) AreaShape Correlation Granularity Intensity Location Neighbors RadialDistribution nuclei PM other Texture R2 score 0.01 0.5 0.02 0.03 0.04 0.05 0.0



LM Coefficients for: Flagellin\_1.000\_Disulfiram\_1.0 ER gasdermin Mito 1.0 0.5 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei РМ RadialDistribution other **Texture** R2 score 0.5 0.03 0.06 0.09 0.12 0.0 -0.52e-05 4e-04e-05 -2e-05 0e+00 2e-05 4e-04e-05 -2e-05 0e+00 2e-05 4e-05 -4e-05 -2e-05 0e+00 Cell count contribution (LM beta coefficient)

#### LM Coefficients for: LPS\_1.000\_DMSO\_0.025 ER gasdermin Mito 0.5 Feature group (if applicable) AreaShape 0.0 Correlation Granularity Intensity Location Neighbors RadialDistribution PM nuclei other Texture R2 score 0.01 0.5 0.02 0.03 0.04 0.0 0.05





LM Coefficients for: Thapsigargin\_10.000\_DMSO\_0.025 ER gasdermin Mito 0.5 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors PM nuclei other RadialDistribution **Texture** R2 score 0.5 0.025 0.050 0.075 0.100 0.0 -0.5-3e - 052e - 051e - 050e + 001e - 052e - 05 - 3e - 052e - 051e - 050e + 001e - 052e - 05 - 3e - 052e - 051e - 050e + 001e - 00Cell count contribution (LM beta coefficient)

LM Coefficients for: Thapsigargin\_1.000\_DMSO\_0.025 ER gasdermin Mito 0.8 0.4 Feature group (if applicable) AreaShape Treatment dose contribution (LM beta coefficient) Correlation Granularity Intensity Location Neighbors RadialDistribution nuclei PM other Texture 8.0 R2 score 0.005 0.4 0.010 0.015 0.020 0.025 0.0 -0.46e-66e-05 -3e-05 0e+00 3e-05 6e-66e-05 -3e-05 0e+00 -6e-05 -3e-05 0e+00 3e-05 6e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: DMSO\_0.100\_DMSO\_1.0 ER gasdermin Mito 0.5 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location -0.5 Neighbors PM RadialDistribution nuclei other **Texture** R2 score 0.5 0.025 0.050 0.075 0.100 0.0 -0.5-5.0e-052.5e-05.0e+002.5e-05 -5.0e-052.5e-05.0e+002.5e-05 -5.0e-052.5e-05.0e+002.5e-05 Cell count contribution (LM beta coefficient)

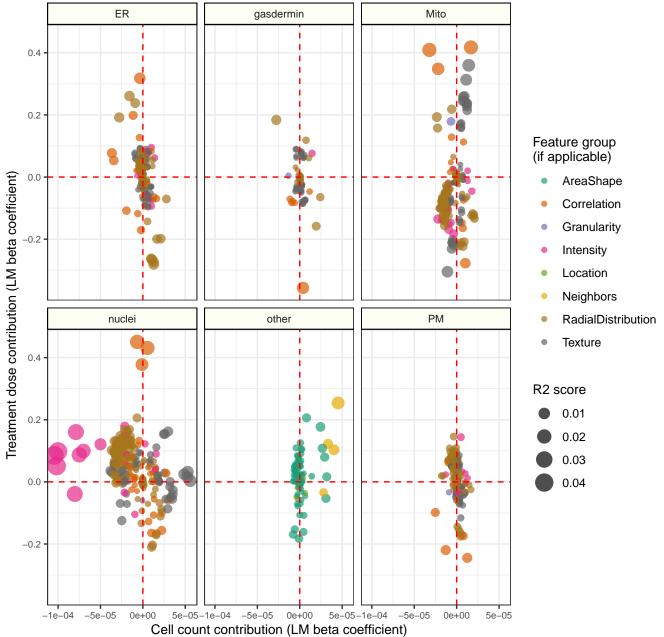
LM Coefficients for: LPS\_10.000\_Z-VAD-FMK\_100.0 ER gasdermin Mito 0.8 0.4 Feature group (if applicable) 0.0 Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei other PM RadialDistribution 0.8 **Texture** R2 score 0.4 0.05 0.10 0.15 0.0 0.20 -0.4-0.8-5e-05 -5e-05 0e+00 5e-05 1e-04 -5e-05 0e+00 5e-05 0e+00 5e-05 1e-04 Cell count contribution (LM beta coefficient)

LM Coefficients for: Topotecan\_10.000\_DMSO\_0.025 ER gasdermin Mito 0.4 Feature group 0.2 (if applicable) AreaShape Treatment dose contribution (LM beta coefficient) Correlation Granularity Intensity -0.2 Location Neighbors RadialDistribution PM nuclei other Texture R2 score 0.4 0.01 0.02 0.2 0.03 0.04 0.05 0.0 -0.2 -5.0e-052.5e-050.0e+002.5e-05 -5.0e-0<del>5</del>2.5e-0<del>5</del>0.0e+002.5e-05 -5.0e-052.5e-050.0e+002.5e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: Topotecan\_20.000\_DMSO\_0.025 ER gasdermin Mito 0.4 0.2 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location 0.2 Neighbors nuclei other PM RadialDistribution Texture 0.4 R2 score 0.01 0.02 0.2 0.03 0.0 -0.2  $-7.5 \\ e-055.0 \\ e-052.5 \\ e-05.0 \\ e+002.5 \\ e-055.0 \\ e-052.5 \\ e-052.5$ Cell count contribution (LM beta coefficient)

LM Coefficients for: Flagellin\_0.100\_DMSO\_0.025 ER gasdermin Mito 0.4 0.2 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity -0.2 Intensity Location Neighbors PM nuclei other RadialDistribution Texture R2 score 0.2 0.01 0.02 0.03 0.0 -0.2 -7.5e - 95.0e - 92.5e - 0250e + 02.5e - 05 - 7.5e - 95.0e - 92.5e - 0250e + 02.5e - 05 - 7.5e - 95.0e - 92.5e - 0250e + 02.5e - 02.5e - 02.5e - 02.5e - 02.5e - 02.5e - 02.5Cell count contribution (LM beta coefficient)

### LM Coefficients for: Flagellin\_0.100\_DMSO\_0.00025 ER gasdermin Mito



## LM Coefficients for: H2O2\_100.000\_Disulfiram\_1.0 ER gasdermin Mito 0.4 0.2 Feature group (if applicable) AreaShape Correlation Granularity Intensity Location Neighbors RadialDistribution PM nuclei other Texture R2 score 0.005 0.010 0.2 0.015 0.020 0.025 0.0 -0.2 -2.5e-05 0.0e+00 2.5e-05 -2.5e-05 0.0e+00 2.5e-05 -2.5e-05 0.0e+00 2.5e-05

Cell count contribution (LM beta coefficient)

Treatment dose contribution (LM beta coefficient)

LM Coefficients for: media ctr\_0\_Media\_0.0 ER gasdermin Mito 0.4 0.2 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei other PM RadialDistribution **Texture** 0.4 R2 score 0.01 0.2 0.02 0.03 0.04 0.0 -0.25e-05-1e-04 -5e-05 0e+00 -1e-04 -5e-05 0e+00 5e-05-1e-04 -5e-05 0e+00 5e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: Disulfiram\_2.500\_DMSO\_0.025 ER gasdermin Mito 0.4 0.2 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location -0.2 Neighbors PM nuclei other RadialDistribution 0.4 **Texture** R2 score 0.005 0.2 0.010 0.015 0.020 0.0 -0.2-6e-054e-052e-050e+002e-05 -6e-054e-052e-050e+002e-05 -6e-054e-052e-050e+002e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: Disulfiram\_0.100\_DMSO\_0.025 ER gasdermin Mito 0.3 0.2 Feature group (if applicable) 0.1 Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity -0.1 Location Neighbors PM RadialDistribution nuclei other **Texture** 0.3 R2 score 0.01 0.2 0.02 0.03 0.1 0.04 0.0 -0.15e-05 -1e-04 -5e-05 0e+00 5e-05 -1e-04 -5e-05 0e+00 -5e-05 0e+00 5e-05 Cell count contribution (LM beta coefficient)

## LM Coefficients for: H2O2\_100.000\_DMSO\_0.025 ER gasdermin Mito 0.2 0.1 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location other PM nuclei Neighbors RadialDistribution **Texture** 0.2 R2 score 0.005 0.1 0.010 0.0 -0.1-4e-05 -2e-05 0e+00 -4e-05 -2e-05 0e+00 2e-05 -4e-05 -2e-05 0e+00 2e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: media ctr\_0\_Media ctr\_0.0 ER gasdermin Mito 0.2 Feature group (if applicable) 0.1 AreaShape Treatment dose contribution (LM beta coefficient) Correlation Granularity Intensity Location Neighbors RadialDistribution other PM nuclei Texture 0.2 R2 score 0.01 0.02 0.03 0.04 0.05 0.0 -0.1-5e-05 0e+00 -5e-05 -5e-05 0e+00 0e+00 Cell count contribution (LM beta coefficient)

LM Coefficients for: Topotecan\_5.000\_DMSO\_0.025 ER gasdermin Mito 0.1 Feature group (if applicable) Treatment dose contribution (LM beta coefficient) AreaShape Correlation Granularity Intensity Location Neighbors nuclei PM other RadialDistribution Texture 0.1 R2 score 0.01 0.02 0.03 0.0 -0.1-6e-05-4e-05-2e-050e+00 2e-05 -6e-05-4e-05-2e-050e+00 2e-05 -6e-05-4e-05-2e-050e+00 2e-05 Cell count contribution (LM beta coefficient)

LM Coefficients for: Disulfiram\_1.000\_DMSO\_0.025 ER gasdermin Mito 0.10 -0.05 Feature group (if applicable) 0.00 Treatment dose contribution (LM beta coefficient) AreaShape Correlation -0.05 Granularity Intensity -0.10 Location Neighbors РМ nuclei other RadialDistribution **Texture** 0.10 R2 score 0.05 0.005 0.010 0.015 0.020 -0.05-0.10-5.0e-0<del>5</del>2.5e-0<del>5</del>0.0e+002.5e-05 -5.0e-052.5e-050.0e+002.5e-05 -5.0e-052.5e-050.0e+002.5e-05 Cell count contribution (LM beta coefficient)