**A**

Control ESC

DAPI  BAF250a

OHT 24 h

OHT 72 h

Circled nuclei are feeder MEFs

**B**

Chr15 EtoL (64.5-66.0 Mb)

Replication timing $\log_2$ (Early/Late)

Chromosomal position (Mb)

Mock 24 h

OHT 24 h

**C**

EtoL switching  LtoE switching

Replication timing $\log_2$ (Early/Late)

Mock 72 h (experiment-1)  Mock 72 h (experiment-2)

OHT 72 h (average)  OHT 72 h (experiment-2)

**D**

Chr15 EtoL (64.5-66.0 Mb)  Chr15 EtoL (64.5-66.0 Mb)

Mock 72 h (average)  OHT 72 h (average)

Mock 72 h (experiment-1)  OHT 72 h (experiment-1)

Mock 72 h (experiment-2)  OHT 72 h (experiment-2)

**E**

Replication timing $\log_2$ (Early/Late)

Probe index

Current probe index

Local distance

Within groups: 0.034
Between groups: 3.68
Local $p$-value: 9.6e-15
Global $p$-value: 2.3e-08

Current probe distance between groups

Distance