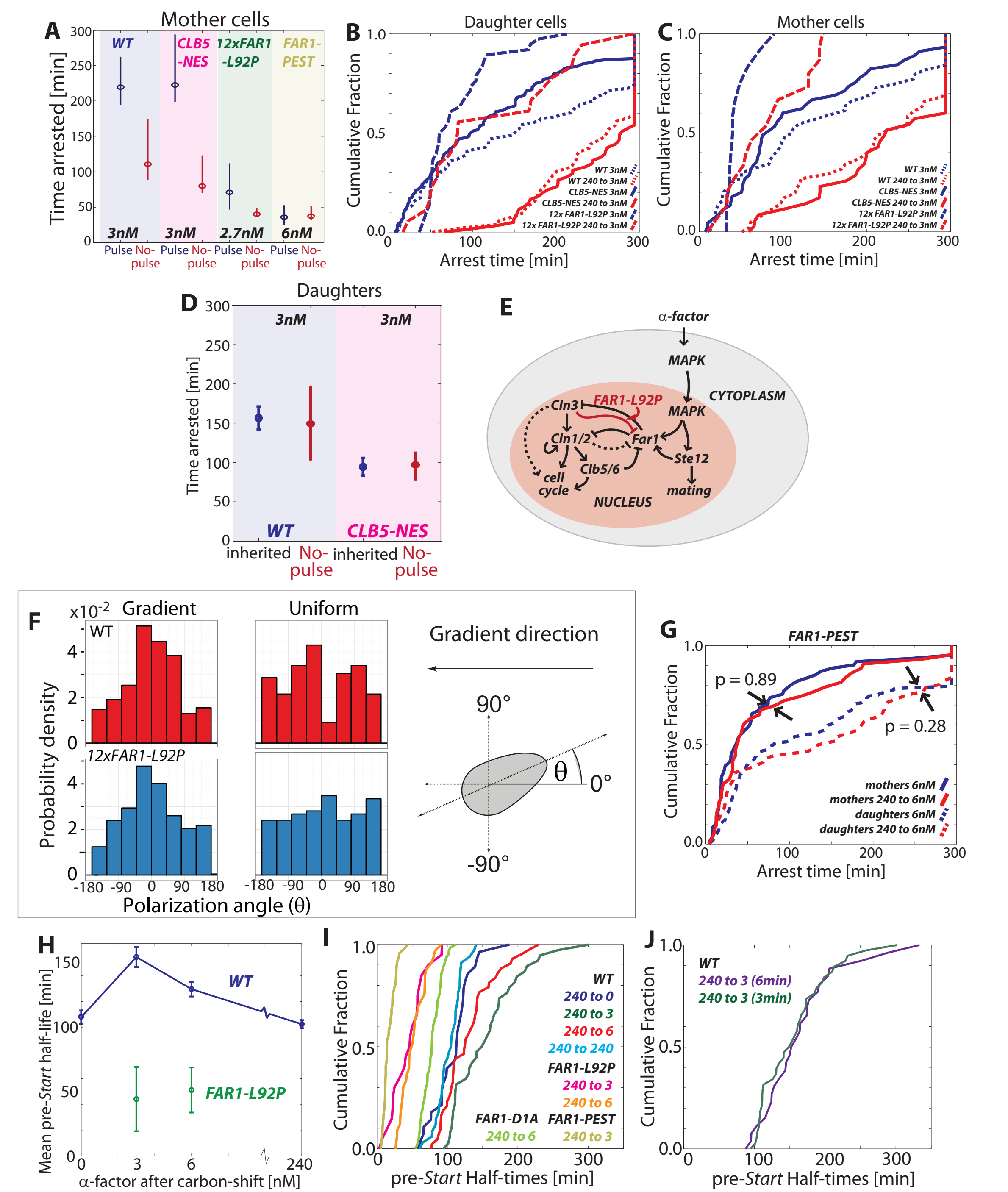
A
Mother cells
Time arrested [min]
WT
CLB5 -NES
12xFAR1 -L92P
FAR1- PEST
3nM
3nM
2.7nM
6nM
Pulse
No-pulse
B
Daughter cells
Cumulative Fraction
Arrest time [min]
WT 3nM
WT 240 to 3nM
CLB5-NES 3nM
CLB5-NES 240 to 3nM
12x FAR1-L92P 3nM
12x FAR1-L92P 240 to 3nM
C
Mother cells
D
Daughters
3nM
3nM
WT
CLB5-NES
inherited
No-pulse
E
α-factor
MAPK
CYTOPLASM
FAR1-L92P
Cln3
Cln1/2
Far1
Clb5/6
Ste12
cell cycle
mating
NUCLEUS
F
Gradient
Uniform
WT
12xFAR1-L92P
Probability density
Polarization angle (θ)
Gradient direction
90°
0°
-90°
θ
G
FAR1-PEST
p = 0.89
p = 0.28
mothers 6nM
mothers 240 to 6nM
daughters 6nM
daughters 240 to 6nM
H
Mean pre-Start half-life [min]
WT
FAR1-L92P
α-factor after carbon-shift [nM]
I
WT
240 to 0
240 to 3
240 to 6
240 to 240
FAR1-L92P
240 to 3
240 to 6
FAR1-D1A
240 to 6
FAR1-PEST
240 to 3
pre-Start Half-times [min]
J
WT
240 to 3 (6min)
240 to 3 (3min)
pre-Start Half-times [min]