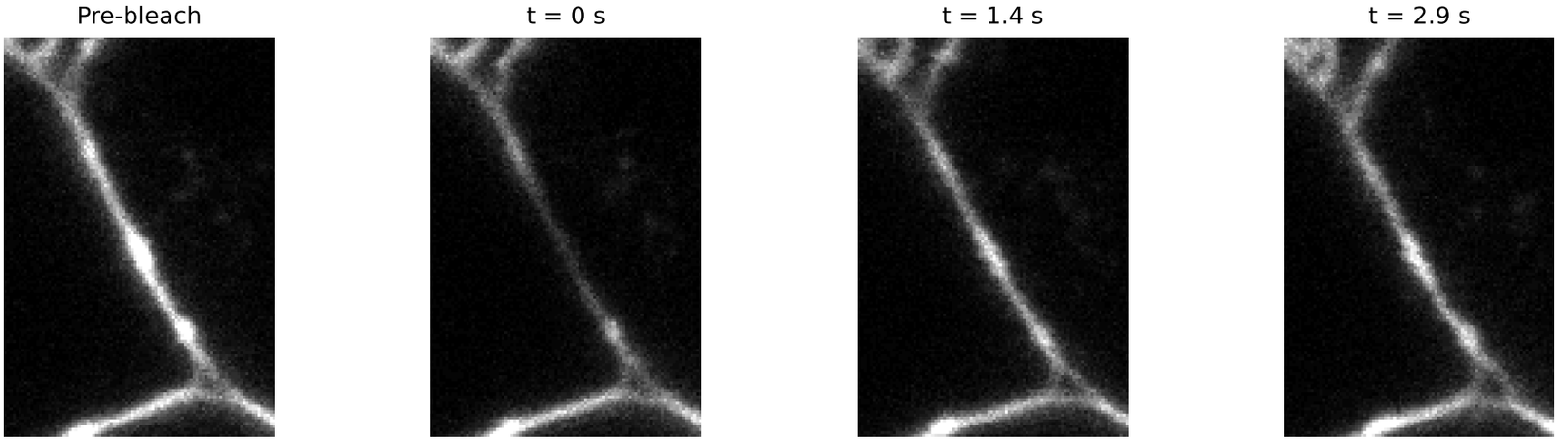
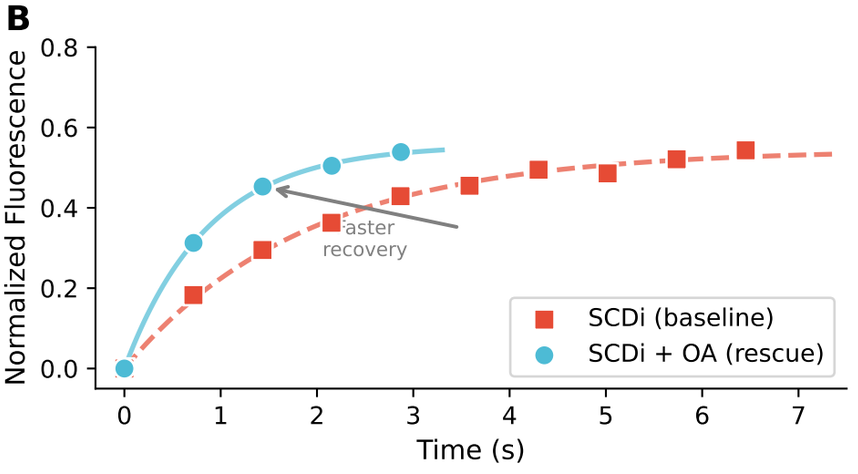
SCDi + 100 µM OA (Rescue)

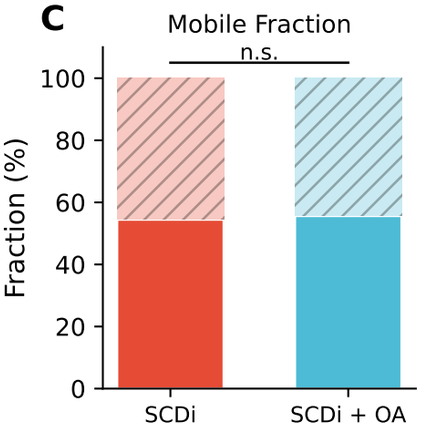
A



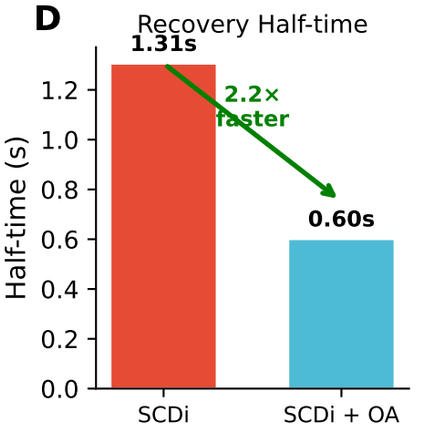
B



C



D



E

Summary: OA Rescue of SCDi Phenotype

Parameter	SCDi (Baseline)	SCDi + OA (Rescue)	Effect
Mobile Fraction (%)	54.5	55.6	No change
Half-time t½ (s)	1.306	0.601	**2.2× faster**
Time Constant τ (s)	1.884	0.867	**Rescued**
R^2	0.9962	0.9998	-

F

```
Biological Interpretation:

SCDi inhibits Stearoyl-CoA Desaturase (SCD),
blocking endogenous oleic acid synthesis.

Baseline (SCDi alone):
  → Depleted oleic acid
  → Slower molecular dynamics (t½ = 1.31s)

Rescue (SCDi + exogenous OA):
  → Oleic acid restored exogenously
  → Faster dynamics rescued (t½ = 0.60s)

Conclusion:
The slower dynamics in SCDi-treated cells
are specifically due to oleic acid depletion,
as adding exogenous OA reverses the phenotype.
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