Reversible binding tests:

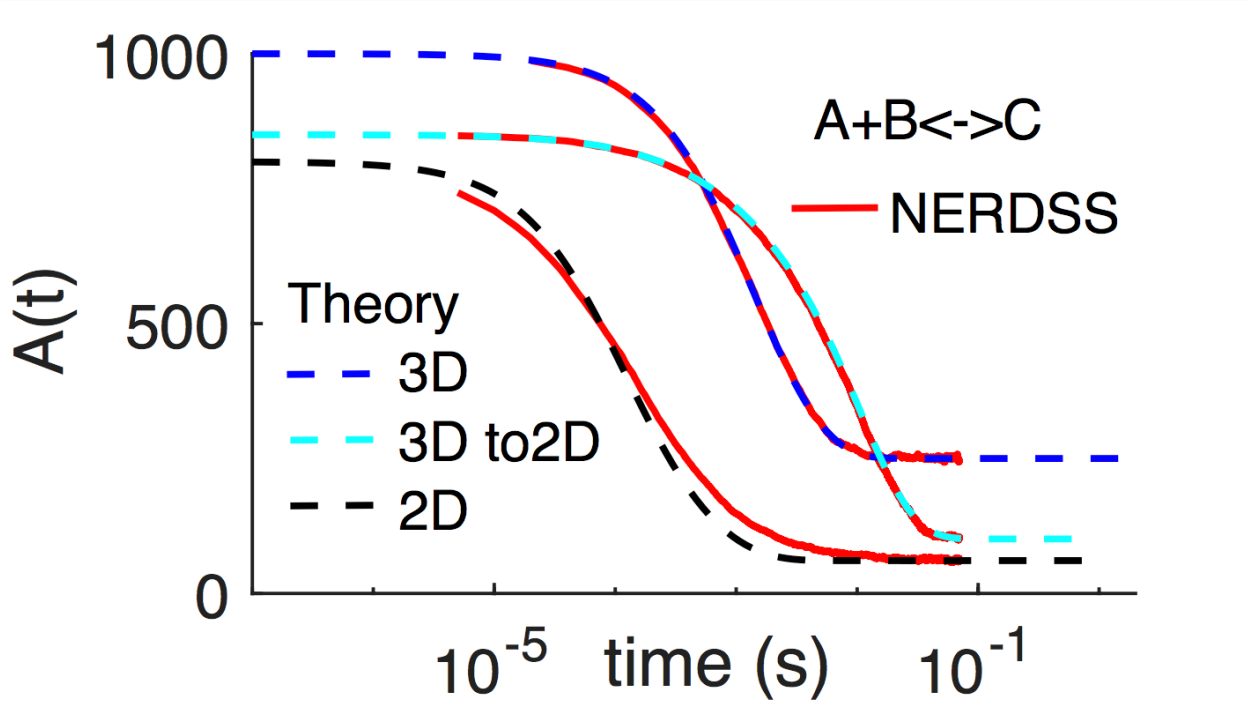

Fig 1. Reversible binding A+B⇌C. Theory is for ODEs with fixed rates, except 3D to 2D is for PDE numerically solved using Virtual Cell. ODE solution for the diffusion limited binding to surface has significantly faster binding kinetics.

	3D	**3Dto2D**	**2D**
kon (uM-1s-1)	300	100	10 um2/s
koff (s-1)	50	50	50
Kd (uM)	0.167	0.5	5 um-2
NA0	1000	850	800
NB0	1000	3000	800
ka3D (nm3/us)	988.19	242.406713	400
kb (s-1)	99.15	72.9644206	500
DA (nm2/us)	20	40	2
DB (nm2/us)	20	2	2
sigma (nm)	2	2	2
V (um3)	0.83056478	1	-
A (um2)	-	1	1
dt	0.1	0.1	0.1
Aeq	250	100.28	60.79
Beq	250	2250.28288	60.79

Reaction parameters.
Ka2D=ka3D/(2*sigma).