SUPPLEMENTAL FIGURES

The FRET signatures of non-interacting proteins in membranes: simulations and experiments

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Figure S1. A random configuration of acceptors (red) surrounding a donor (blue), for acceptor concentration of 0.00071 fluorophores/nm^2. 40000 such configurations are created, and their FRET efficiency is averaged to create a prediction for "proximity FRET" at this concentration. The fluorophore radius is 1.4 nm; figure not to scale.

Figure S2. (A) A configuration of dimers composed of randomly distributed donors and acceptors, for acceptor concentration of 0.00071 fluorophores/nm^2 and donor to acceptor ratio of 0.125. The central dimer in the middle is highlighted with thicker lines; figure not to scale. **(B)** Parameters of the dimer structure. D = 50 Å and r = 1.4 nm. The value of d = 50 Å corresponds to an intrinsic FRET efficiency of 0.6 for a dimer labeled with a donor and an acceptor. The angle ϕ is assigned randomly for each dimer.

Figure S3. (A) A random configuration of trimers composed of randomly distributed donors and acceptors, for acceptor concentration of 0.0008 fluorophores/nm^2 and donor to acceptor ratio of 0.1667. The central trimer in the middle is highlighted with thicker lines; figure not to scale. **(B)** Parameters that define the trimer structure. In the simulation, d = 50Å and r = 1.4nm. The angle ϕ is assigned randomly for each trimer.

Figure S4. (A) A random configuration of tetramers composed of randomly distributed donors and acceptors, for acceptor concentration of 0.0008 fluorophores/nm^2 and donor to acceptor ratio of 0.111. The central tetramer in the middle is highlighted; figure not to scale. **(B)** Tetramer structural parameters. For the simulations, d = 50Å and r = 1.4 nm. The angle ϕ is random for each tetramer.

Figure S5. A configuration of randomly distributed dimers and monomers, composed of randomly distributed donors and acceptors, for acceptor concentration of 0.00071 fluorophores/nm^2 and donor to acceptor ratio of 0.125. FRET is calculated for the donors placed in the central region. In the simulation, d = 50Å and r=1.4 nm.

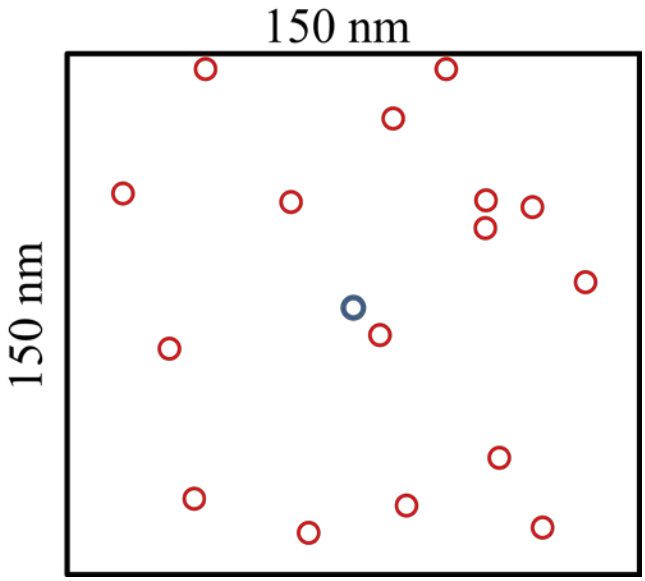

Figure S1

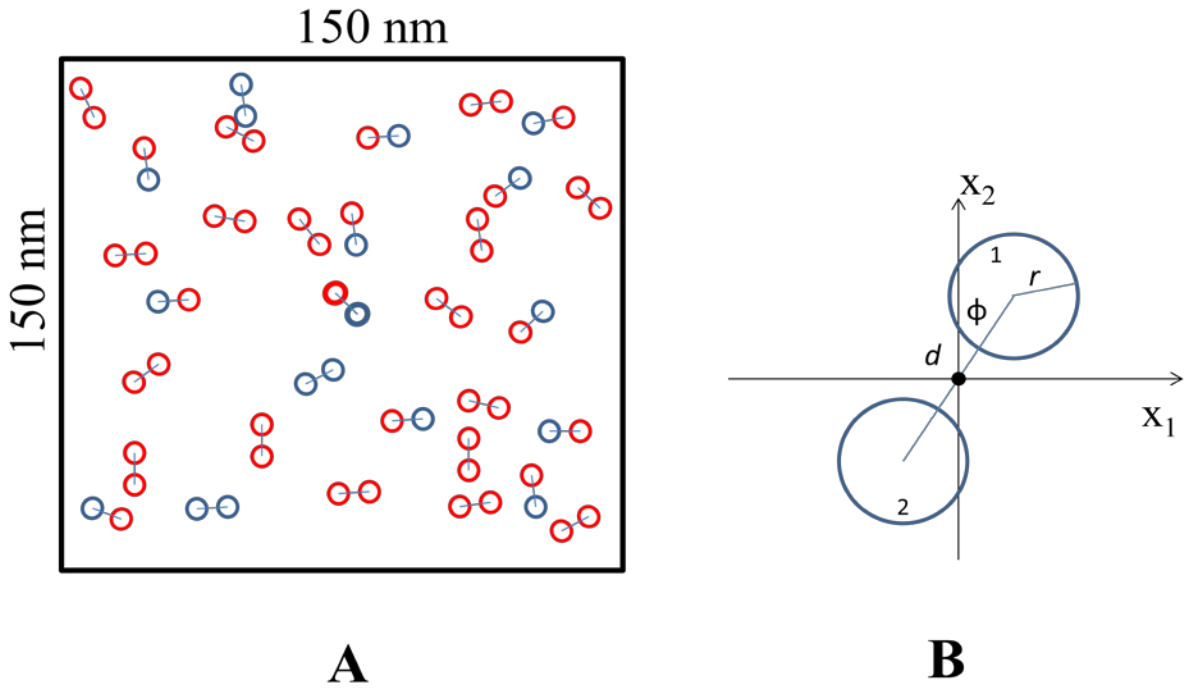

Figure S2

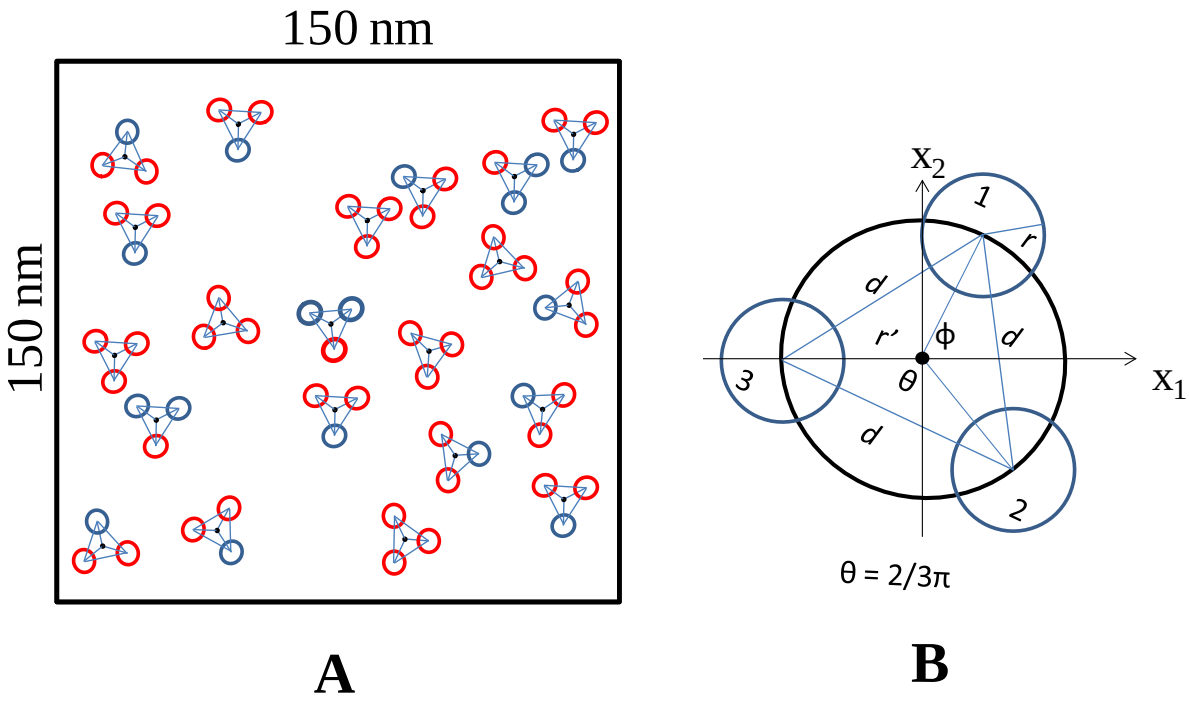

Figure S3

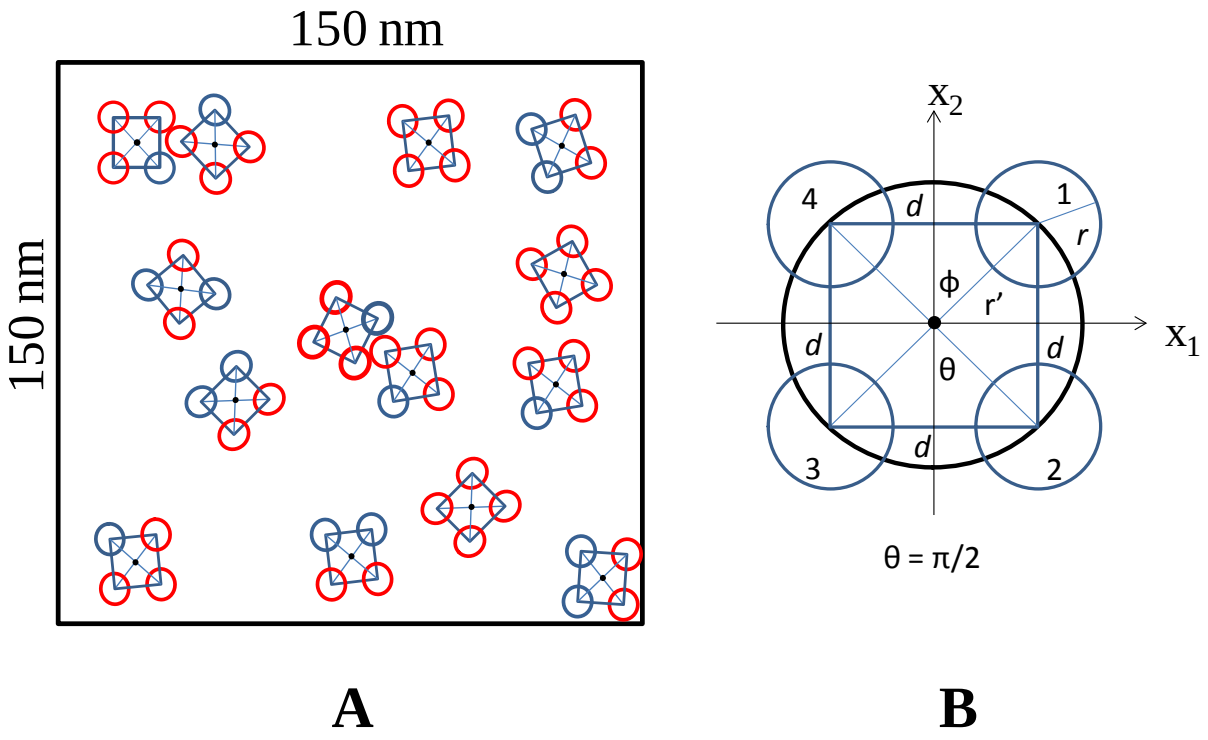

Figure S4

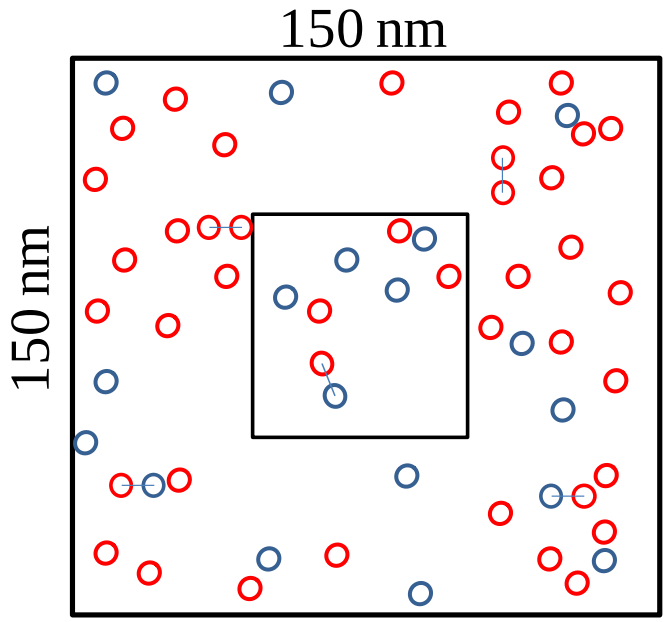

Figure S5