# Supporting Information

## Visualization of Diffusion Limited Antimicrobial Peptide Attack on

## Supported Lipid Membranes

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### **Supplementary Movie 1:**

#### Disruption of DOPC/DOPG 1:1 lipid bilayers by Smp43

HS-AFM observations of a DOPC/DOPG 1:1 supported lipid bilayer during the addition of 1 μM Smp43 at frame 6 (53 s). Movie parameters: full movie length 1174 s; AFM imaging frame rate 10.7 s per image; full image size 1 x 1 μm; z-color scale 3.2 nm.

### **Supplementary Movie 2:**

#### Disruption of DOPC/DOPE 1:1 lipid bilayers by Smp43

HS-AFM observations of a DOPC/DOPE 1:1 supported lipid bilayer during the addition of 1 μM Smp43 at frame 6 (68 s). Movie parameters: full movie length 2373 s; AFM imaging frame rate 11.3 s per image; full image size 1 x 1 μm; z-color scale 2.0 nm.



Supporting Figure S1: Liposome leakage assay results for 1:1 DOPC/DOPG vesicles (red) and 1:1 DOPC/DOPE vesicles (blue) at varying concentrations of Smp43.



Supporting Figure S2: AFM images of a PC/PG (A) and PC/PE (B) supported lipid bilayer 1hr after incubation with 1  $\mu$ M Smp43.