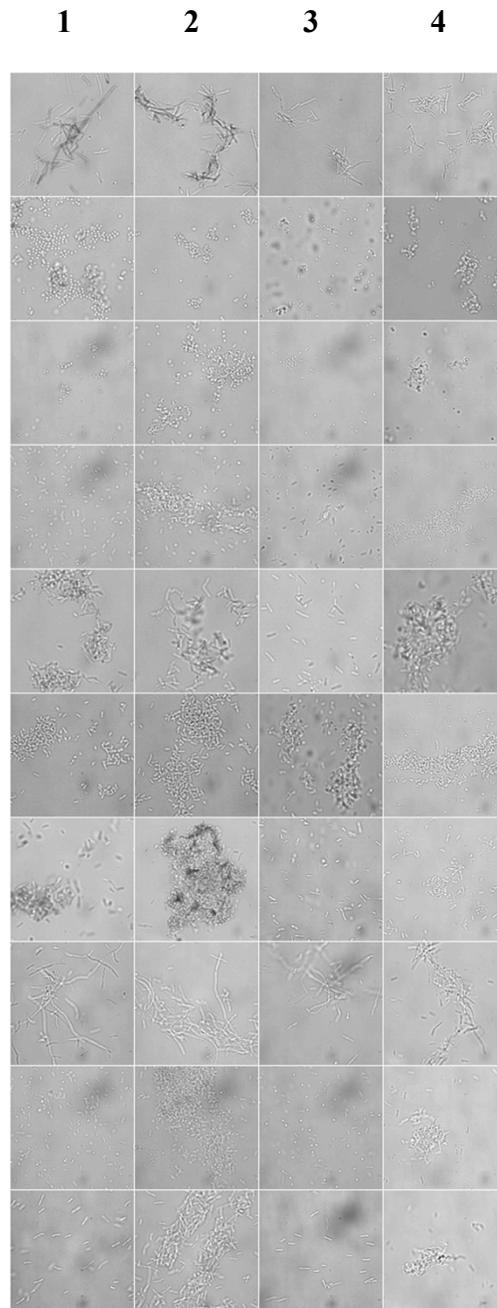*Supplementary Material for:*

Multivalent Dendritic Molecules as Broad Spectrum Bacteria Agglutination Agents

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Figure S1. Typical brightfield images of slide agglutination assays showing bacteria in HEPES buffer immediately after treatment with multivalent ZnDPA probes (10 µM). **Tetra-SR-mZnDPA** (column 1), **Tetra-SR-bZnDPA** (column 2), **Tetra-mZnDPA** (column 3), and **Tetra-bZnDPA** (column 4). *B. licheniformis* (top, row 1), *S. aureus* NRS11 (row 2), *S. epidermidis* (row 3), *E. aerogenes* (row 4), *E. coli* K12 (row 5), *E. coli* MC1655 (row 6), *E. coli* UTI89 (row 7), *K. pneumonia* (row 8), *P. aeruginosa* (row 9), *P. vulgaris* (bottom, row 10).
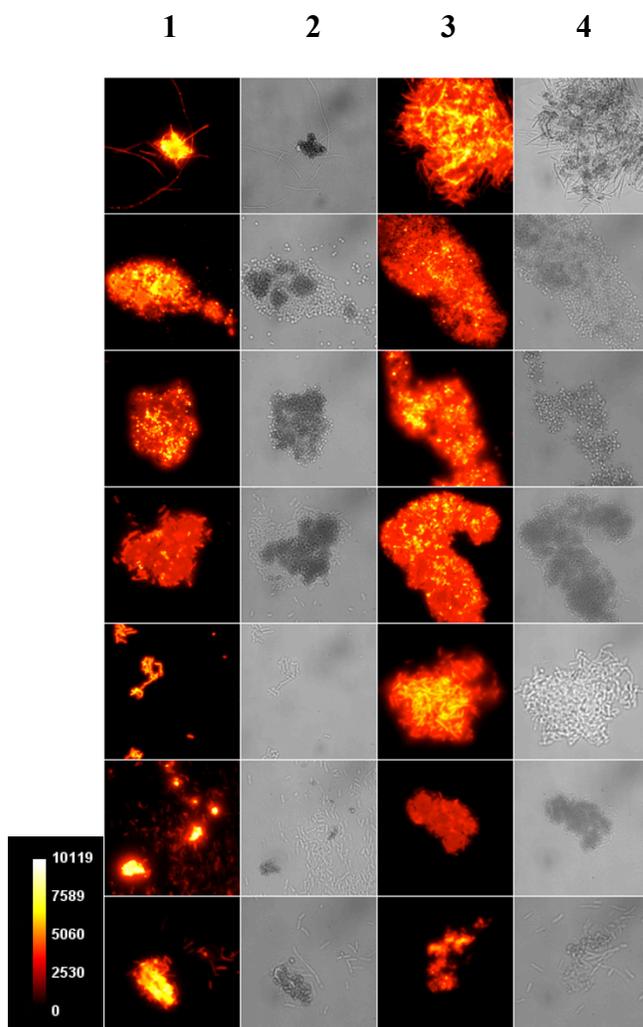
Figure S2. Column 1 and 2 shows the fluorescence and brightfield images of planktonic bacteria in HEPES buffer treated with **Tetra-SR-mZnDPA** (10 μM) for 15 minutes. Column 3 and 4 shows the fluorescence and brightfield images of planktonic bacteria treated with **Tetra-SR-bZnDPA** (10 μM) for 15 minutes. The bacterial strains were: *B. Licheniformis* (top, row 1), *S. aureus* NRS11 (row 2), *S. epidermidis* (row 3), *E. aerogenes* (row 4), *E. coli* K12 (row 5), P. aeruginosa (row 6), *P. vulgaris* (bottom, row 7).


Figure S3. Fluorescence microscopy showing staining of planktonic *E. coli K12* after treatment with **Bis-SR-bZnDPA** (10 µM) for 15 min.
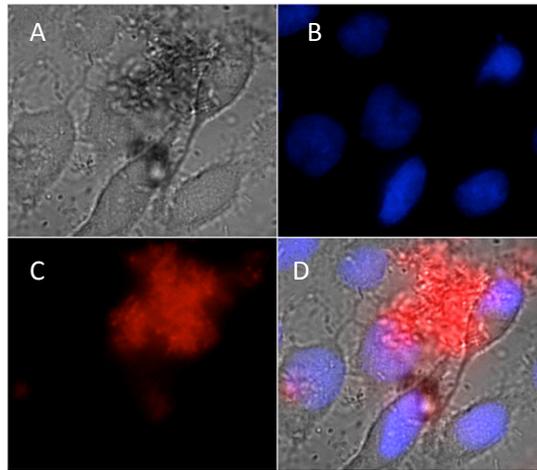
Figure S4. Microscopy images (60X magnification) of HeLa cells after they were treated with **Tetra-SR-bZnDPA** (10 µM) for 15 minutes followed by rapid sequential addition of DAPI (1 µg/mL) and *E. coli* K12 cells. Brightfield image (A); blue fluorescence image of HeLa nuclei stained with DAPI (B); deep-red fluorescence image of bacteria selectively stained and agglutinated by **Tetra-SR-bZnDPA** (C); composite image (D).
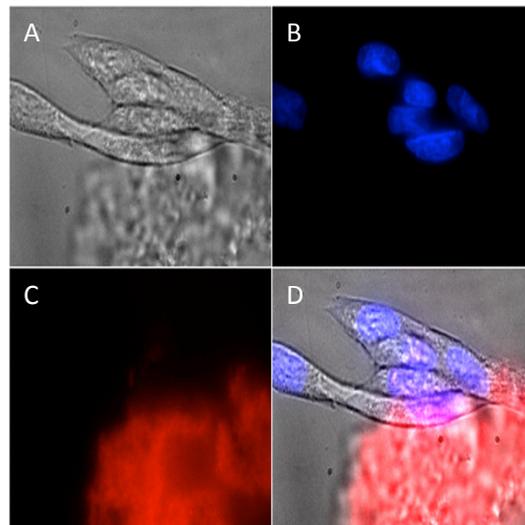

Figure S5. Microscopy images (60X magnification) of V79 cells after they were treated with **Tetra-SR-bZnDPA** (10 µM) for 15 minutes followed by rapid sequential addition of DAPI (1 µg/mL) and *E. coli* K12 cells. Brightfield image (A); blue fluorescence image of V79 nuclei stained with DAPI (B); deep-red fluorescence image of bacteria selectively stained and agglutinated by **Tetra-SR-bZnDPA** (C); composite image (D).
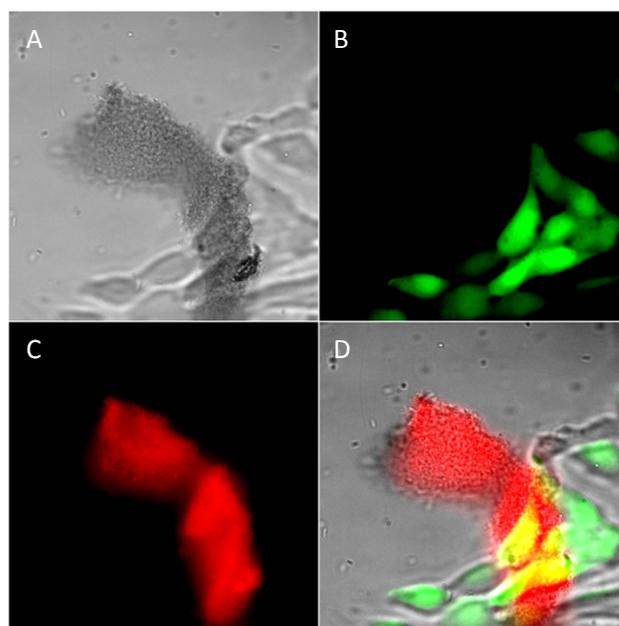
Figure S6. Microscopy images (60X magnification) of HeLa cells after they were treated with **Tetra-SR-bZnDPA** (10 µM) for 15 minutes followed by rapid sequential addition of Calcein AM (1 µg/mL) and *E. coli* K12 cells. Brightfield image (A); green fluorescence image of viable cells hydrolyzing Calcein AM to Calcein (B); deep-red fluorescence image of bacteria selectively stained and agglutinated by **Tetra-SR-bZnDPA** (C); composite image (D).
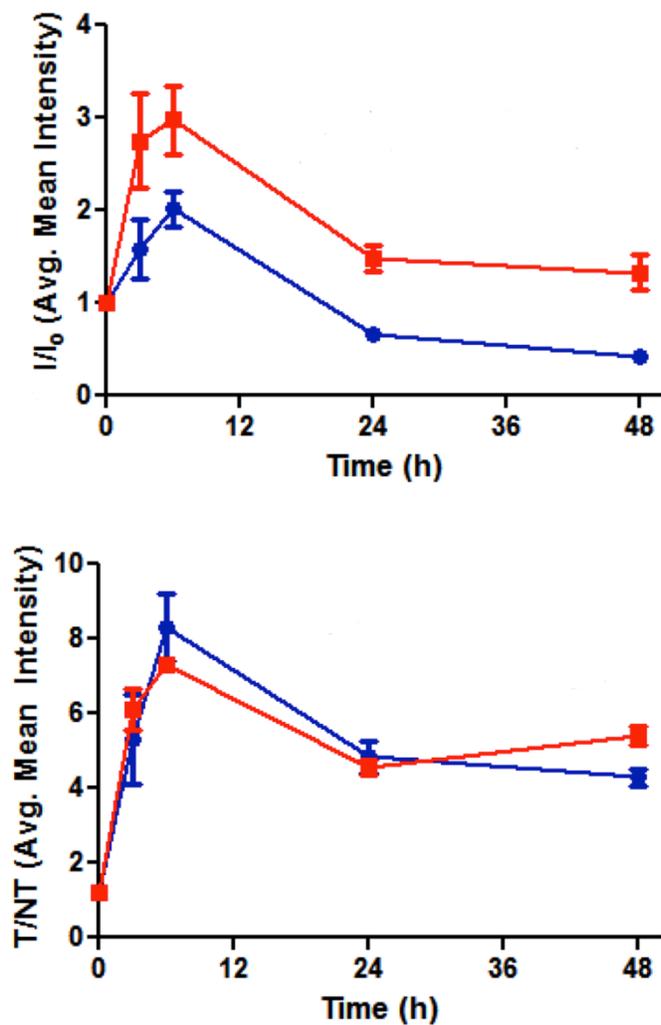
Figure S7. Region-of-interest analysis of the living mice described in Figure 7 that were infected with *S. aureus* and dosed with **Bis-SR-bZnDPA** (blue) or **Tetra-SR-bZnDPA** (red). (*top graph*) Change in mean pixel intensity for infected target leg. (*bottom graph*) Ratio of mean pixel intensities for infected target leg (T) to uninfected non-target leg (NT). N = 3 for both groups.