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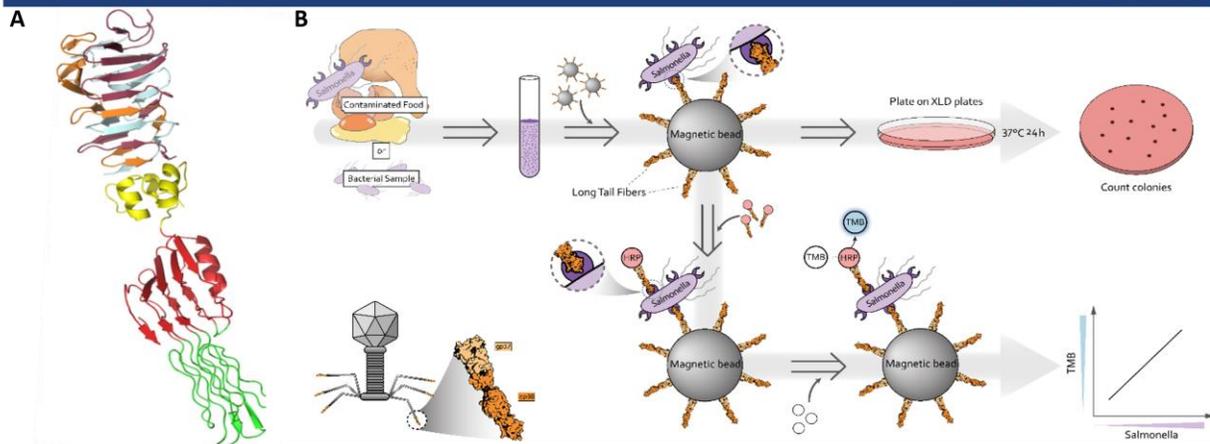
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## Bacteriophage-encoded tail fibers for improved detection of pathogenic bacteria

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A) Crystal structure of the *Salmonella* phage S16 long tail fiber (S16 LTF); colored green is the distal tip receptor-binding domain composed of rare polyglycine helices and hypervariable loops. B) The Enzyme-linked Long Tail Fiber Assay (ELLTA), which harnesses the extraordinary binding specificity of the S16 LTF as a recombinant bio-probe for rapid detection of *Salmonella* (Panel B credited to Clemens Bretscher).

Thanks to the financial support of the SSM, I had the opportunity to attend the FoodMicro Conference 2018 in Berlin. The conference theme “Biodiversity of Foodborne Microbes” involved talks spanning food safety, biotechnology, molecular techniques, and characterization of diverse microbial ecosystems. The variety of talks and posters presented by 430 delegates representing 57 countries truly emphasized the global importance of food microbiology in medicine, nutrition, food technology, economics, and other important

fields. Morning sessions involved three plenary lectures, followed by parallel sessions throughout the day of short talks from mostly young scientists interspersed with poster sessions over coffee. Of personal interest were talks discussing inter- and intra- species interactions in wine fermentation (Kalliopi Rantsiou, Italy); the molecular interactions of *E. coli* with myofibers and muscle matrices (Mickaël Desvaux, France); studying milk microbiota biodiversity and the impact methodology and library preparation has on introducing bias to amplicon sequencing analysis (Mareike Wenning, Germany); and the importance of source tracking to counter parasitic outbreaks of cryptosporidiosis and giardiasis (Una Ryan, Australia). During the last session on Thursday, Maria-Theresa Stergiou (Wädenswil, Switzerland) presented her PhD thesis on the spread of MDR bacteria in herbs by irrigation water. Finally, I closed the session with a talk on engineering bacteriophage tail fibers into bio-probes for improving bacterial detection. This concluded with an interesting discussion on the advantages of phage fibers compared to the frequently used, but often less suitable antibodies, in rapid bacterial detection assays.