



Supplemental Figure S5. The Receptor Swarm Hypothesis

A) Players in MAMP perception and signal transduction. The RLKs FLS2 and EFR are known to bind to conserved proteins derived from biotic agents, or MAMPs. RLCKs (in the cytoplasm) and Receptor-like Proteins (RLP; at the membrane) may also be MAMP receptors. RLPs lack a kinase domain (blue hexagon), but may transduce signals via association with cytosolic kinases. B) MAMPs (colored triangles) are perceived by the extracellular domain (green hexagons) of RLKs that are constitutively expressed. MAMP binding triggers a signal transduction cascade (colored circles) resulting in the activation of transcriptional regulators (colored pentagons) that induce the expression of effectors or surveillance genes (colored squares). C) These surveillance genes detect specific pathogens/parasites. D) When the biotic agent is a pathogen, binding of pathogen components results in a strong defense response.