Communication of quorum sensing peptides with breast cancer cells.

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The role of the microbiome on cancer is being increasingly recognized [1]. However, the underlying factors of this communication remain elusive. Following our initial findings that certain quorum sensing peptides selectively interact with colon cancer cells [2,3], the interaction of quorum sensing peptides with MCF-7/AZ (breast adenocarcinoma) cells was investigated. By using microscopy, transcriptome profiling, Chick Chorioallantoic Membrane (CAM) analyses, cytokine and protein profiling, some quorum sensing peptides were found to selectively promote invasion and angiogenesis of these cancer cells in vitro [4]. Awaiting further in vivo studies, our in vitro results can thus possibly explain, at least partly, the influence the microbiome may have on breast cancer outcome.

References: