IBBR Researchers Publish New Bioengineering Findings in Nature Communications

September 16, 2019 - Bacteria have been metabolically engineered to carry out a multitude of useful functions, including in processes such as manufacturing, water decontamination, and drug delivery. However, this reprogramming can overburden the cells, leading to slow growth. Microbial consortia are cell subpopulations engineered to work together to circumvent this issue. For this "sharing the load" approach to be effective, however, relative cell subpopulations in the consortia must be regulated.

IBBR Fellow Dr. William E. Bentley (Professor, UMCP Fischell Department of Bioengineering and Director, Robert E. Fischell Institute for Biomedical Devices) and his team recently addressed this challenge by exploiting quorum sensing, a bacterial form of cell-to-cell communication. The group's findings were published in the September 11 issue of Nature Communications and highlighted in this Monday's Maryland Today.

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