**Finding Microbiome and Probiotic Applications for Arbitrium**

Principal Investigator: Prof. Rotem Sorek. Yeda ref. 1847

Summary of the technology taken from the Webpage:

The research group led by Prof. Rotem Sorek from the Weizmann Institute of Science (WIS) has discovered a novel family of expression systems. The basis of said expression systems is that a six (6) amino acid peptide binds a transcription factor (TF), inhibiting it. The peptide/TF system is shown to be sequence specific, such that a TF only responds to its corresponding peptide. Additionally, each peptide/TF pair only activates an explicit promoter. The Sorek group has discovered over 100 unique peptide/TF pairs, each with a specific TF that binds a specific peptide sequence. Consequently, this generates a large array of orthogonal transcription systems that have a standardized dynamic range and expression profile. This system could be used in the design and control of gene expression across both prokaryotic and eukaryotic systems, as well as applications in controlling genome editing.

Keywords:

Therapeutics microbes, therapeutic microbiomes,

Potential Investors in Therapeutic Microbiomics:

* Viking Global
* Y Combinator’s Continuity Fund
* Cascade Investment
* Bill Gates
* General Atlantic
* 8VS
* OS Fund
* Andreessen Horowitz
* Illumina Ventures
* Topspin Partners
* Seventure Partners
* Kholsa Ventures
* Quatris Fund
* Michael Berman
* Janssen Pharmaceuticals
* Nestle Health Science
* Lundbeckfond Ventures
* Rock Springs Capital
* Biocodex
* Digitalis Ventures
* Pfizer Venture Investments
* Roche Venture Fund
* Mayo Clinic
* Morgenthaler Ventures
* Indie.Bio
* Pontifax
* NCI

Potential Companies in Therapeutic Microbiomics:

* Ginkgo Bioworks
* Azitra (Skin related)
* Naked Biome (Skin related)
* Xycrobe (Skin related)
* Finch (Gut health and IBD)
* Enterome (IBD)
* Second Genome (NASH, IBD, and more)
* Intrexon
* Blue Turtle Bio (Gaucher and rare diseases)
* Synlogic (Gut related)
* Symbiotic Health (Gut related)
* Eligo Bioscience (Gut related)
* Rebiotix (Gut related)
* Vedanta Biosciences (Immune related)
* Ernest Pharmaceuticals
* Warp Drive Bio
* Epibiome
* MaaT Pharma
* TargEDys (manipulating hunger/fullness)
* Seres Therapeutics (Gut related)

Key Links:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5404185/>

<https://www.cbinsights.com/research/microbiome-startups-market-map-company-list/>

<https://techcrunch.com/2017/12/14/gingko-bioworks-secures-275-million-in-series-d-valuing-the-company-at-over-1-billion/>

<https://www.businesswire.com/news/home/20171208005111/en/Synlogic-Ginkgo-Bioworks-Announce-Collaboration-Step-Building>

Useful Images:

