4th Global Conference on Cancer Science and therapy

9th World Summit on Virology, Microbiology & Infectious Disease

6th International Conference on Biomedical Biopharma and Clinical Research

October 11, 2022 | Webinar

Intelligence strategy: Identifying molecular signatures and network dynamics of pathogenic microbes and complex host interactions

George Pell

Thirty-Six, USA

Microbes play a complex integral role in every major disease, yet are largely unrepresented in traditional models, where the focus relies on narrowly focused symptoms-based markers, rather than the fully articulated microbial pathophysiologies that ultimately give rise to each individual's condition in real life.

We need to go beyond the classical definition of infection, and instead appreciate the complex role that each microbe plays in shaping every human condition, whether disordered or optimal, especially through the full array of proteins that each organism encodes for with the very purpose of interacting with or acting upon its host.
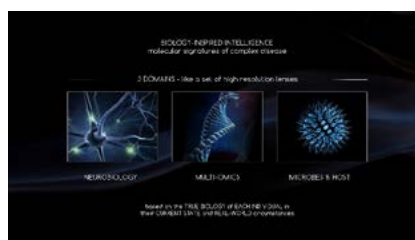
Microbes are neither restricted to designate body parts, or the short list of symptoms we have classically deemed relevant. What's more is that the full array of proteins that microbes encode for have not only the ability to migrate throughout the brain and body, they by their very design remodel their host's biology, beginning with alterations of genetic expression and transcription, with considerable metabolic, cellular, systemic, and cascaded network effects.

This yields intelligence of incredible value, by portraying highly detailed molecular signatures of microbes known to play causal roles in pathophysiologies of a range of diseases such as Alzheimer's and other forms of dementia, multiple sclerosis and other forms of autoimmunity, psychiatric conditions ranging from PANS/PANDAS to schizophrenia, diabetes, cardiovascular diseases, and host of others.

Finally, a considerable body of high-quality literature exists today, making this intelligence not only relevant, but also actionable.

This presentation is to introduce an intelligence model that can be used to identify microbial signatures pertinent to a range of high impact disease states, with applications for precision medicine, especially drug discovery, clinical intelligence, and advanced diagnostics.