Docket #: S10-206

A diagnostic method for identifying immune system decline

A team of Stanford researchers have identified a set of biomarkers that could be used to recognize patients with age-related declines in their immune function. This Immune Senescence Signature (ISS) was characterized by analyzing peripheral blood cells from young and old adults and measuring cell subset frequencies, serum cytokines, gene expression, and response to cytokine stimulation. This data was then used to construct an immune network and characterize a cytokine non-responsive phenotype (CNR) based on the relationship between multiple factors in single individuals. ISS screening to identify patients with sub-functional immune system could be used to introduce measures for reducing their risk of morbidity or mortality from infectious diseases.

Applications

- **Diagnostic screening** for immune function of healthy individuals, especially elderly

Advantages

- **Comprehensive range of biomarkers** - the combination of several biomarkers yields more accurate assessment of immune function than assays focused on a single marker

Patents

- Published Application: 20120021414

Innovators

- Atul Butte
- Mark Davis
- Shai Shen-Orr
- Brian Kidd
- David Furman

Licensing Contact

Imelda Oropeza

Senior Licensing Manager, Physical Sciences

Email