Designing effective flu vaccines against a broad-spectrum of influenza viruses

The low efficacy of current vaccines, highlighted by this year’s flu season where the vaccine barely worked, underscores the need for vaccines that provide broader protection. Current vaccines (live or inactivated) do not adequately provide protection. A vaccine with greater efficacy that also provides heterosubtypic protection, i.e., a universal vaccine, would present a transformative achievement for public health. However, a core challenge to development of improved flu vaccines lies in the animal models and surrogate tests available to predict efficacy in humans. There is no guidance on what the correlates of protection would be for any flu vaccine that induces an immune response other than a hemagglutinating antibody. The current understanding of the immune parameters needed to protect against influenza will be explored.

Biography
Pamuk Bilsel completed her PhD and is a Chief Scientific Officer at FluGen, Inc., USA. Prior to joining FluGen in 2008, she was at Pharmexa-Epimmune where she developed DNA vaccines against influenza and malaria. At Pentamer Pharmaceuticals, a San Diego start-up, she worked on subunit vaccines using virus-like particle technology.

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