Steven E Pincus, J Vaccines Vaccin 2016, 7:8(Suppl)
http://dx.doi.org/10.4172/2157-7560.C1.051



## Understanding the multiple platforms available for production of virus vaccines and therapeutics

**Steven E Pincus**
Fujifilm Diosynth Biotechnologies, USA

Multiple virus vectors are being developed as vaccines, therapeutic deliverly systems and as oncolytic treatments for cancers. Classical approaches to produce viruses have included a limited number of cell lines (CEF, Vero) grown in roller bottles or in suspension attached to microcarriers. To produce high dose bulk drug substance for the newer vectors alternative cell lines (duck cells, retina cells, kidney cells) are being developed that can be grown in suspension culture. Since many cell lines are difficult to adopt to suspension culture alternative ways of growing large numbers of adherent cells are being developed which allow cultivation of large numbers of cells in a reduced footprint compared to that required with tissue culture flasks or roller bottles. Fujifilm Diosynth Biotechnologies Texas is a contract development and manufacturing organization speciallizing in production of viral therapeutics and vaccines. To meet the needs of clients we are evaluating several adherent cell production technologies for their ability to support the growth of cell lines and production of virus. We are evaluating suspension cell lines from alternative sources for their growth and ability to produce virus and to examine whether the use of alternative media can improve the productivity of a less favorable suspension cell line. Virus infectious titer is determined by TCID50, plaque assay, immuno staining and FACS titration.Total virus particles can be determined by HPLC methods FACS and immunostain can evaluate the titer based on expression of an inserted gene to maintain a potent virus population.

### Biography

Steven Pincus obtained his Ph.D.in Biochemistry from the State University of NY at Buffalo. He obtained post-doctoral training in the microbiology department at the State University of NY at Stony Brook. Over his career he has held multiple positions at Virogenetics, Elusys Therapeutics and Novavax where he has developed vaccines and monoclonal antibody therapeutics against viral and microbial targets and supporting these projects with the development of appropriate analytical methods. At Fujifilm Diosynth Biotechnologies Texas ( a CDMO) he is AVP Virology and Analytical Development. He leads teams working with tissue culture, virus propagation and methods transfer/development for multiple clients.

steve.pincus@fujifilm.com

**Notes:**