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Inspired Life Science Technology

Going ***Viral***

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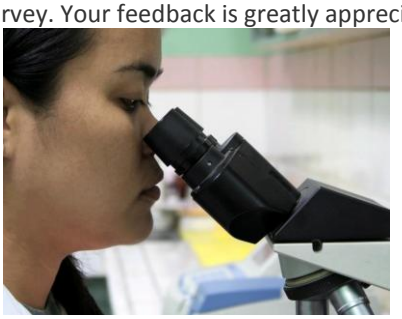
*Seeking Your Feedback - **A Survey from InDevR***

Each issue of *Going Viral* includes a brief survey for our readers. Please take a few minutes to fill out the first InDevR Virus Quantification Methods and Challenges survey. Click here to complete the survey. Your feedback is greatly appreciated!



*News in **Life Science Technology***

Flu infection needed to spread pneumonia

According to a study presented on April 10th at a meeting of the Society for General Microbiology, new animal research suggests that diseases like pneumonia or meningitis are only able to spread among people who already have the flu. In this particular study, infant mice only contracted Streptococcus pneumoniae if they had already been infected with the flu. In mice where the influenza infection was blocked, the pneumococcal bacteria did not spread. Researchers believe that a flu diagnosis may increase the shedding of pneumococcal bacteria through sneezing and coughing and that due to a weakened immune system associated with the flu, a person may be more susceptible to bacterial infection.

This research study was led by Dimitri Diavatopoulo of the Radboud University Nijmegen Medical Centre located in the Netherlands. The authors of the study now plan to research how the influenza virus affects specific parts of the immune system and how this may increase the risk of bacterial infection.

Read more

US influenza activity continues to decline

As flu season winds down, the number of states reporting widespread flu activity at the end of March declined from 18 to 10. However, there were twice as many flu-related pediatric deaths the week of March

28 - April 3 in comparison to the week prior and the percentage of deaths from pneumonia and flu remained above the epidemic level for the ninth week in a row. Twelve influenza-related deaths were reported during this week, including four with the 2009 H1N1 virus, four with influenza B, one with H3N2 and three with un-subtyped influenza A viruses. These statistics were reported by the Centers for Disease Control and Prevention (CDC).

Read more

Virologists in the mist

Each week, Vincent Racaniello, Ph.D., professor of microbiology at Columbia University Medical Center, hosts a podcast focused on viruses, viral disease, emerging infectious diseases and advancements in research and technology. Vincent's April 8, 2011 podcast - TWiV 128, Virologists in the mist - detailed how a virus regulates the severity of mucocutaneous leishmaniasis, virophage control of antarctic algal host-virus dynamics and human metapneumovirus infection in gorillas. Check out his engaging, informative show!

Download podcast

Virus of the Month: ***Baculovirus***

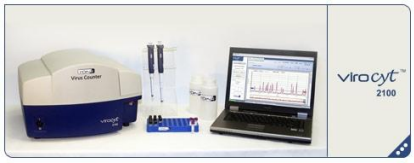
In the first issue of *Going Viral* we provided a brief overview of baculovirus, how it can be used for recombinant protein expression and some interesting facts about the virus. Historically, viral plaque assay has been the standard method used to quantify baculovirus stock. However, this method often provides inconsistent results and can take weeks to complete. In comparison, InDevR's ViroCyt® Virus Counter® is able to provide accurate and quantitative results in less than 10 minutes and greatly improves the technology available for baculovirus quantification.

In January 2011, a double blind study comparing the effectiveness of the Virus Counter to standard viral plaque assay for the quantification of baculovirus stock was published in the *Journal of Virological Methods.* For a series of dilutions prepared from a baculovirus stock, the Virus Counter measurement made by InDevR was linearly correlated to the plaque assay measurements conducted by both Protein Sciences Corporation - a privately held biopharmaceutical company - and Baylor College of Medicine. The specific results of this study showed the following for the Virus Counter in comparison to plaque assay:

Improved precision

· Inter-lab variation observed for plaque assays.

· Calculated standard errors of the mean:
Virus Counter: 0.09 ± 0.03 vp/mL
Plaque assay: 0.14 ± 0.06 pfu/mL



ViroCyt® Virus Counter®

Faster time to result

· Virus Counter analysis time is less than 10 minutes per sample.
· All Virus Counter analyses (124 independent measurements) completed in less than three days.
· Plaque assay results by both institutions had a time to result of at least two weeks.

Click here to download the Virus Counter study published in the *Journal of Virological Methods.*

Recently, the InDevR team attended the inaugural International Society for BioProcess Technology

conference in Norfolk, Virginia, where we participated in the Baculovirus Expression and Viral Vectors and Vaccines Tracks. There, we learned that there is clearly a lot of interesting baculovirus-related research taking place worldwide. It was exciting to be able to attend presentations given by a few of the thought leaders in the field. Some of the featured presentations focused on:

· Baculovirus nucleocapsid transport to the nucleus.
· Multiple presentations detailing the development of baculovirus-generated monovalent and trivalent influenza vlps for seasonal and pandemic vaccines.
· The utilization of lentiviral vectors for a variety of gene therapy applications.
· Development of Ebola and Marburg virus vlps using baculovirus to improve and create new diagnostics, therapeutics and vaccines.

Click here for more information on the International Society for BioProcess Technology.

InDevR ***in Brief***

InDevR receives $3 million, three-year grant from the National Institutes of Health

InDevR recently received a $3 million Phase II Small Business Innovation grant from the National Institutes of Health that will be distributed over the next three years. The Simultaneous Screening for A/H3N2, A/H1N1, A/H5N1 and B Influenza Viruses grant will fund the development of an integrated sample-to-result molecular diagnostic platform for which influenza screening is the first targeted test.

This particular grant was issued by the National Institute of Allergy and Infectious Diseases and comes at the completion of InDevR's successful $600,000 two-year Phase I award to refine a low-density microarray assay for influenza virus identification. Phase II efforts will focus on combining InDevR's FluChip low-density microarray with a colorimetric detection method (ampliPHOX) and integrating the entire assay into a cost-effective, cartridge-based instrument platform targeted for eventual clinical diagnosis.

Click here to learn more about InDevR's new grant.

Green ***Ideas***

As a Boulder-based biotechnology company, InDevR is committed to protecting the environment through our daily business practices and by encouraging our employees to make small, environmentally friendly changes in their own lives. There are many things you can do to make your own company a little greener. Here is a tip from the Johnson Controls, Make Your Buildings Work campaign:

Work with green suppliers. Green your supply chain by giving preference to suppliers and vendors who follow specific environmental practices. Purchase ENERGY STAR copiers, fax machines, computers and printers that power down when not in use. Consider remanufactured office supplies such as recharged toner cartridges.

What are you currently doing to improve the environmental efficiency of your business? Feel free to send

any tips or solutions to info@indevr.com. They may be featured in the next issue of *Going Viral*!

Upcoming ***Events***

Interested in learning more about the virus quantification and pathogen detection technologies being developed at InDevR? Sign up for one of our Webinars or connect with an InDevR team member at an upcoming biotechnology conference.

ESACT Cell-Based Technologies Meeting
May 15-18, 2011
Vienna, Austria
InDevR will be presenting a poster detailing the Virus Counter® technology as well as supporting our distributors, Applikon Biotechnology B.V. and IUL Instruments GmbH, at this 22nd annual meeting.

Click here to learn more.