



Inspired Life Science Technology

Going Viral

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Welcome to the inaugural issue of *Going Viral - News from InDevR!*

Our continued growth as a life science company and manufacturer of the Virus Counter® technology provides us with an opportunity to share our interest in viruses, news from the field and some fun insight into the faces of InDevR on a bi-monthly basis. We're proud to be part of the fascinating research community currently

working on important advancements in vaccine development and viral vector protein expression and hope that you find the topics featured in *Going Viral* helpful. We're especially excited to highlight the survey included in each newsletter and plan to post the results.

We welcome your feedback and contributions!

Kathy Rowlen, Ph.D.
Chief Executive Officer and Co-Founder

Virus of the Month: *Baculovirus*

Baculoviruses are a family of large viruses with double-stranded DNA genomes packaged in rod-shaped nucleocapsids. The name baculovirus is derived from the Latin *baculum*, meaning cane, walking stick or staff to describe its shape. The baculovirus strain used most frequently in modern research is named for the alfalfa looper (*Autographa californica* (*Ac*)), the host that it first infected. This strain is typically referred to as Ac multiple nuclear polyhedrosis virus (*AcMNPV*) and is used extensively for protein expression. *AcMNPV* is most commonly grown in one of three insect cell lines, Sf9 and Sf21, both derived from the fall army worm (*Spodoptera frugiperda*) and HighFive™ cells, which are derived from the cabbage looper (*Trichoplusia ni*). One obvious benefit to working with baculovirus is that it does not infect humans so it is safe to work with in a laboratory environment.

Recombinant proteins produced through baculovirus expression have been utilized in many medical products including viral vaccines (influenza virus, SARS, Ebola virus), therapeutics for prostate and breast cancers and diabetes. gene therapy agents (muscular dystrophy, Alzheimer's) and biologics (wound healing).

Hepatitis C and anti-inflammatory diseases).

Interestingly, baculovirus can also be used as a natural pesticide against the gypsy moth, a very devastating insect that causes recurring problems in America's forests. The gypsy moth wasn't always found in North America, though. Etienne Leopold Trouvelot, a French portrait artist and amateur entomologist, settled in Massachusetts in 1852. His primary interest was in the silkworm industry. In the 1860's, he strangely brought some gypsy moth egg masses from France to the US and began culturing them on trees in his backyard. The larvae spread and the problem became so severe that in 1889, the Massachusetts Board of Agriculture had to institute an eradication program, which was ultimately unsuccessful.

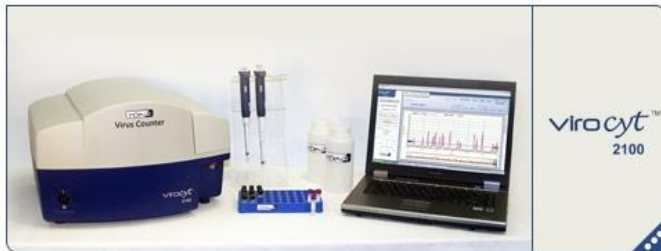
Why did Trouvelot start growing gypsy moth larvae in his yard? It turns out that the gypsy moth and silkworm were classified taxonomically in the same genus (*Bombyx*) at the time. Although we now know that the two are not related, we have Trouvelot's silk ambitions to blame for the gypsy moth's accidental North American introduction.

The following online sources were utilized for content for the baculovirus *Virus of the Month* section above:
[Gypsy Moth In North America](#)
[Species Description](#)

InDevR in Brief

InDevR Signs New Global Distributors

InDevR has now signed six agreements with leading life science instrument distributors for US and international territories to market the company's



Virus Counter®

ViroCyt® 2100 Virus Counter®.

The Virus Counter® represents a significant technology shift that will dramatically streamline research and development efforts for vaccine manufacturers, pharmaceutical and biotechnology companies and researchers worldwide. Distribution agreements have been executed with AR Brown Co., Ltd., to

market the Virus Counter® in Japan; Pharmatech Inc., in Korea; Applikon Biotechnology Inc.-US, for the United States of America; Applikon Biotechnology B.V., for the countries of Belgium, Luxemburg, Netherlands and the UK; Automed Systems Pvt. Ltd., for the nation of India; and HuaYue Enterprise Holdings Ltd., for the country of China.

According to Bhanu Prakash, CEO of Automed Group of Companies, India, "The Virus Counter® provides a proven, reliable and simple method to quantify viruses in a fraction of the time required to conduct a traditional plaque assay. India has a very important and active vaccine research community, which will benefit from this exciting technology. We're very pleased to offer the Virus Counter® to scientists in India."

[Click here](#) to learn more about InDevR's new global distribution agreements.

InDevR Inspirations

InDevR stands for **I**nstrument **D**evelopment and **R**esearch. You may not be able to spell it when you hear it

the first time, but with all of the growth we've been experiencing recently, we hope you'll hear our name and know who we are - a passionate life sciences company dedicated to introducing new analytical instruments to solve interesting microbiological problems.

Our CEO's goal was to build a type of environment that made her want to come to work every day - and we know she's succeeded. We've built a unique team of incredibly bright scientists and engineers who are proud to have commercialized our first instrument, the ViroCyt® Virus Counter®, and accomplished it entirely in-house. From conception to launch, all of the hardware, software and everything in between were designed and developed at our Boulder, Colorado facility. Plus we continue to do cutting-edge research. And we are lucky enough to get to do all of this in an incredibly beautiful city that has a reputation for innovation and no shortage of talent.

We may be small, but we're nimble. And we're growing the Boulder way - organically and sustainably. We think you'll like the way we do business.

Seeking Your Feedback: A Survey from InDevR

We'd like to learn more about how scientists are using traditional virus quantification methods and any challenges they encounter in their daily practice. Please take a moment to fill out the InDevR Virus Quantification Methods and Challenges survey - [click here](#).

Your feedback is greatly appreciated! The results of this survey will be highlighted in the next issue of *Going Viral*.

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. In 2008, we took our first "green" focused step by initiating an extensive, company-wide recycling/composting program.

InDevR rewards our employees for going above and beyond in their efforts to conserve resources with our Eco Lunch Awards. Recent winners have been honored for creating a company-wide Styrofoam recycling program and riding a bike 14-miles roundtrip

to InDevR instead of driving a car.

Here is one idea that might help your company become a little greener, courtesy of Global Stewards:

Whenever possible, choose [environmentally friendly packaging material](#). If your company uses pallets to ship boxes stabilized with stretch wrap, strapping or corner boards, look into switching to more environmentally friendly unitizing systems.

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.

ISBioTech Annual Meeting

April 4 - 6, 2011

Norfolk, Virginia

Visit InDevR at booth seven where we will be exhibiting with our partners at Applikon Biotechnology!

[Click here](#) to schedule a meeting with us during the ISBio Tech Annual Meeting.