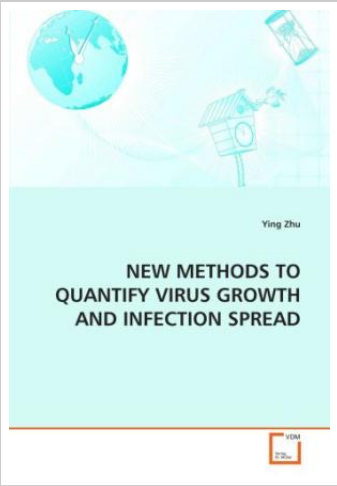

NEW METHODS TO QUANTIFY VIRUS GROWTH AND INFECTION SPREAD

By Zhu, Ying

Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | Virus production was studied at the single-cell levelby quantifying yields of vesicular stomatitis virusfrom infected baby hamster kidney cells. Single-cellyields spanned from 8000 to below the detection limitof 10 virus particles. Although viral geneticvariation contributed little to the diversity, cellsinfected at different phases of their growth cycleproduced from 1400 to 8700 virus particles,accounting for the middle-to-high range of the yielddistribution. In another study, fluid flows wasemployed to enhance virus spread, producing elongatedregions of cell death shaped like comets. Inhibitionof comet formation by 5-fluorouracil, combined withquantitative imaging, provided a measure of drugsusceptibility that was nearly 20-fold more sensitivethan the established assay. To better control theculture and flow conditions, we implemented thisassay in microscale channels, employing passivepumping to drive flows across infected cells. Thegreater sensitivity, reduction in scale, simplifiedfluid handling, and image-based quantification makethis flow-enhanced infection platform attractive forapplications in high-throughput drug screening. | Format: Paperback | Language/Sprache: english | 112 pp.

Reviews

An exceptional pdf and also the typeface applied was intriguing to read through. It is definitely simplified but excitement in the 50 % in the ebook. I discovered this ebook from my dad and i recommended this pdf to find out.

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