NED VD
NANO

NANO EYE DEVICE FOR
VIRUS DETECTION

The digital Revolution In Multiplexing

NTP
NANOTECHPROJECTS
DIGITAL IMAGING

Multiplex detection of HPV genotypes

With proprietary laser optical coupling in internal reflection, we generate evanescent-wave illumination of the surface able to discriminate sensing nanoparticles from the background. Our proprietary method of detection in scattering is three orders of magnitude more performant than fluorescence, so forget your worries about fluorescence detection of sub-diffractive molecules using microscopy and plan your multiplex assay up to +500 analytes.

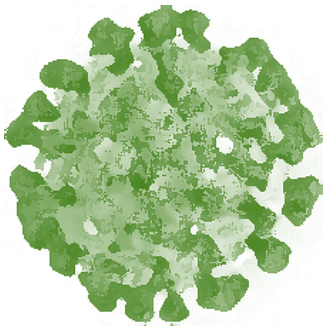
DNA Target | Custom Microarrays | Print Scheme | After Reaction

Example of detection of co-infection due to HPV 16 and 18

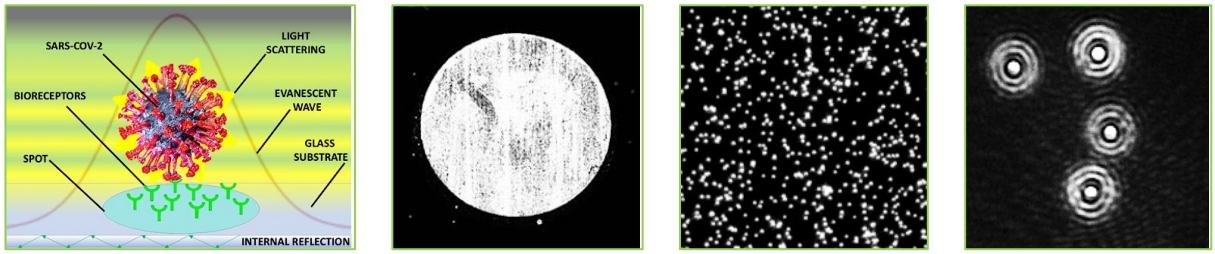
Go beyond usual 96-well PCR assays & expand your capabilities with multiplexing panels by exploiting the power of DNA microarray & bio conjugated nanoparticles.

Label-free detection of SARS-CoV2

NTP developed a new quantitative test on multiple patients (from 1 to 48 per glass slide) for specific capture of virions of Sars-CoV-2 without any use of biomarkers. With the experience gained on nanoparticles, NTP have developed a label-free test able to capture virus of Sars-CoV2, and to detect those by exploiting the scattering properties of the capsid when illuminated by evanescent wave.



Virus Detection | Spot Intensity | Particle count | Single Particles



Detection of viral particles of Sars-CoV-2 at 4X,20X,60X magnification

Go beyond usual antigenic assays & fasten the diagnosis with the direct capture of Sars-Cov2 virions and punctual quantification of the viral load at lower costs and less waste.

NED VD NANO

Micro-Nano Imaging full control

Real-time sharing of diagnostic images over local and geographical data networks is the new frontier of telemedicine. For molecular diagnostics NED-VD represents the last generation of instruments able to optimize and fasten the process of detection through direct imaging of sensing nanoparticles onto bio receipting areas printed on silica.

The skills of the instrument allow its use locally or from remote, with no delay lag, both for support & urgency and/or for training & education in the biosensing sector.

Designed for DNA & Virus Detection

- Dedicated management and control software
- Up to six objectives available:
  2X - 4X - 10X - 20X - 40X – 60X.
- Qualitative analysis of the results.
- Analyte count and quantitative analysis.
- Statistical processing of the results.
- Coverslip imaging with dry objectives .
- High-definition monitor DICOM ready.

Real-Time observations

- Real-Time full imaging.
- Ready for remote controlling.
- Control of all functions:
  magnification, focus, movement of the sample, zoom, options.

Virus Detection without boundaries

Thanks to the versatility of NED-VD, the access to high resolution laser optical imaging for molecular diagnostics becomes faster and more effective. Laser scattering of nanoparticles and evanescent wave open new prospective in multiplex biosensing and simplifies the medical consultancy and diagnosis by molecular counting of the analyte even to femtomolar level.

NTP NANOTECHPROJECTS DIGITAL IMAGING

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