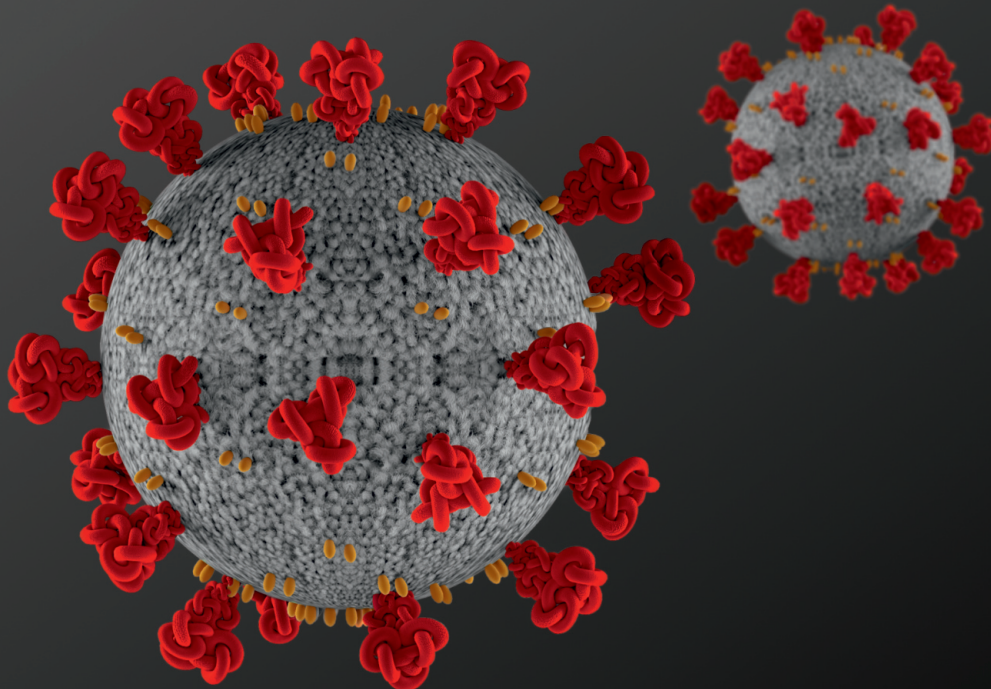


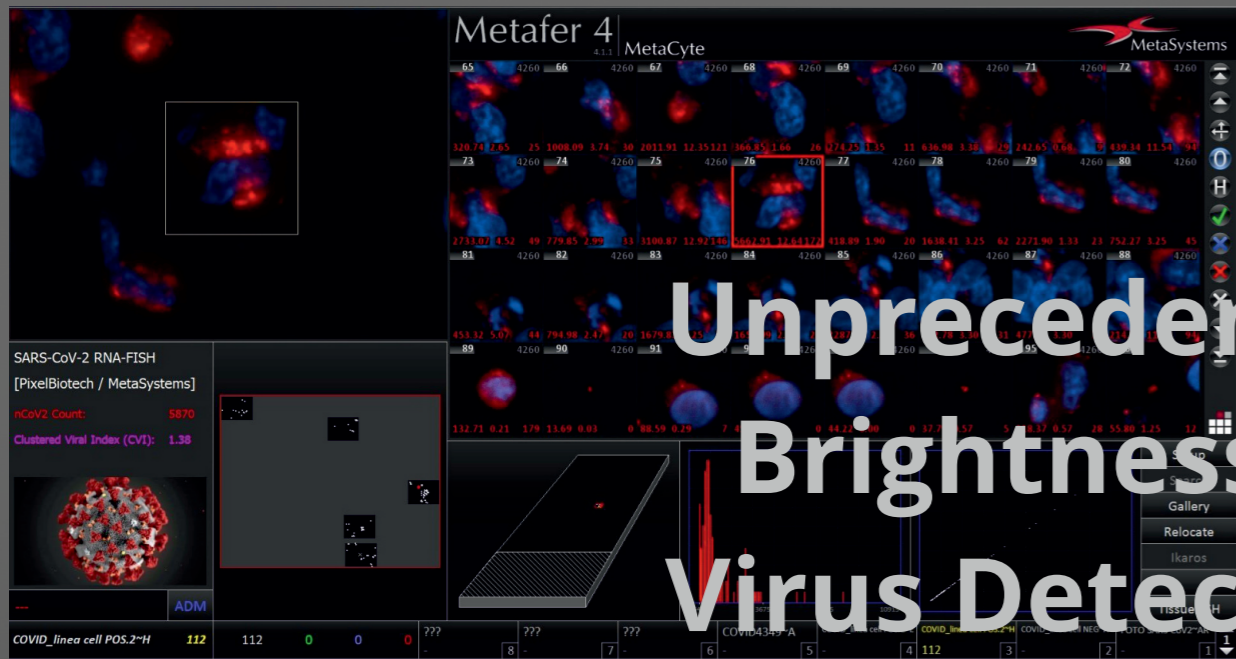
MetaSystems RNA FISH

An Integrated Solution
for Covid-19 Research

MetaSystems is proud to present a high-performance solution to detecting SARS-CoV-2 RNA in cell and tissue samples, in partnership with PixelBiotech GmbH. Our solution provides you with a unique, precise, and comprehensive combination of RNA FISH (fluorescence in situ hybridization) probes and automated analysis equipment, allowing for the detection and quantification of the virus.



XRNA SARS-COV-2



Unprecedented Brightness for Virus Detection

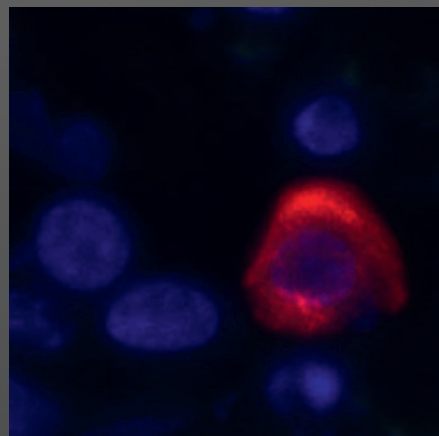


Image Descriptions

Upper Image

Metafer scanning and automated evaluation of SARS-CoV-2 in FFPE in vitro cultured cell line. The number of SARS-CoV-2 molecules (nCoV2 Count, in red) and their clustered forms (CVI, in magenta) detected in the whole sample are displayed.

Lower Image

XRNA SARS-CoV-2, orange on formalin-fixed paraffin-embedded (FFPE) lung tissue sections of a SARS-CoV-2 positive patient.

Courtesy of Dr. Bräsen (MHH, Hannover)

Enhanced Single Molecule FISH

Our high performance RNA FISH probes (XRNA) use PixelBiotech's HuluFISH technique for enzymatically labeling oligonucleotide probes. Here, the proprietary labeling approach is being used to enhance the fluorochrome density and thus fluorescence intensity of the XRNA probes.

The assay is fast and easy, and does not require subsequent amplification or signal detection steps. XRNA probes can be used for analysis of many different sample types including cellular samples from swabs, sputum, bronchoalveolar lavage and tissue sections.

The XRNA SARS-CoV-2 probe comprises a set of 96 oligos detecting the spike glycoprotein mRNA of SARS-CoV-2 and a portion of the viral ORF1 mRNA. The probe can be used to specifically detect SARS-CoV-2 in tissue samples, infected host cells, or spike-protein-expressing cell lines. XRNA ACE2 and XRNA TMPRSS2 allow assessment of

transcription levels of the human ACE2 receptor, which facilitates viral attachment to the host cell, and TMPRSS2, a cellular protease enabling viral host cell entry via priming of the S protein. They can also be used for simultaneous detection with the SARS-CoV-2 spike glycoprotein mRNA.

Automated Imaging by MetaSystems

MetaSystems' automatic scanning platform Metafer provides all the flexibility needed for your RNA FISH research. It performs image acquisition and analysis of your RNA FISH cell and tissue samples, yielding an unbiased, quantitative result. For high workload scenarios, an automated slide loader is available.

RNA FISH promotes COVID-19 Research

With our integrated solution of XRNA probes and the Metafer imaging platform, we aim to accelerate the understanding of the pathology of COVID-19 and the development of drugs and vaccines by enabling the detection of SARS-CoV-2 (and mRNA of ACE2 and TMPRSS2) at the single-cell, single-molecule level.

XRNA SARS-CoV-2 opens up manifold possibilities for COVID-19 research:

- Semi-quantitative virus identification on a cellular level
- Analysis of cell-, tissue-, and organ-tropism
- Inflammatory response in cells / tissues
- Analysis of cell response to infection
- Analysis of sub-cellular RNA distribution
- Analysis of the end of infectivity
- Application in pre-clinical studies for vaccines and therapeutics
- ...

Our high-throughput XRNA/Metafer solution provides:

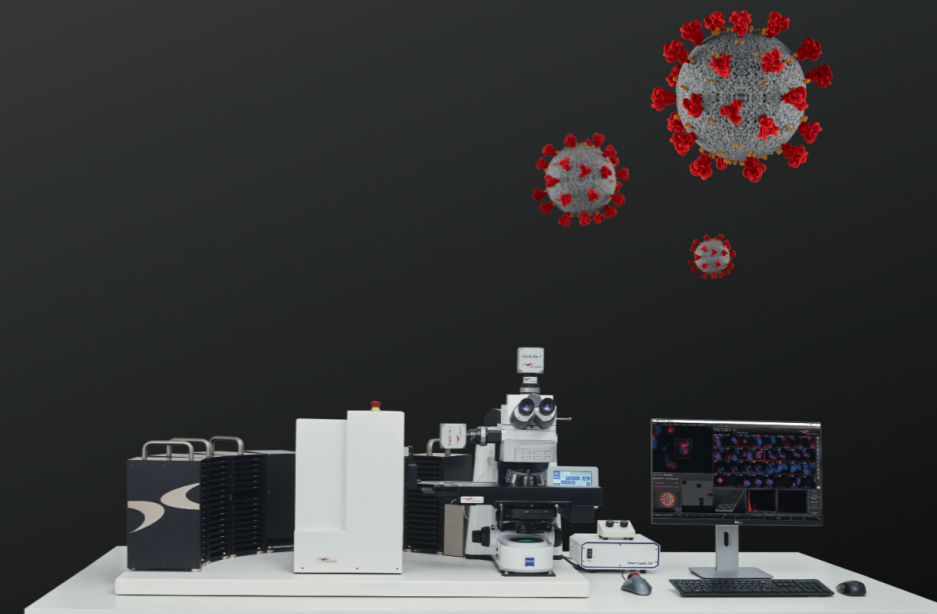
- Fast and reliable automated image acquisition
- Powerful automated data management
- Unbiased quantitative analysis of RNA expression levels
- Automated assessment of viral load, including Clustered Viral Index (CVI) and number of SARS-CoV-2 molecules in the sample

XRNA

Probe	Label	Size	Order No.
XRNA SARS-CoV-2, orange	●	200µl	R-0101-020-OR
XRNA ACE2, green	●	200µl	R-0201-020-FI
XRNA TMPRSS2, aqua	●	200µl	R-0202-020-BL
XRNA PD-L1, green	●	200µl	R-0203-020-FI
XRNA PGK1, near infrared	●	200µl	R-0204-020-IR
Accessories			
MetaSystems Liquillizer® (Ready-to-use mucolytic agent)		125ml	P-7510-001-IG
MetaSystems Tissue FISH Pretreatment Kit			D-0925-025-TF

Note

For Research Use Only (RUO). Not for diagnostic procedures. Metafer and Liquillizer are trademarks of MetaSystems; XRNA is powered by HuluFISH technology from PixelBiotech



XRNA SARS-COV-2

MetaSystems Probes

Combining Expertise and
Innovation

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