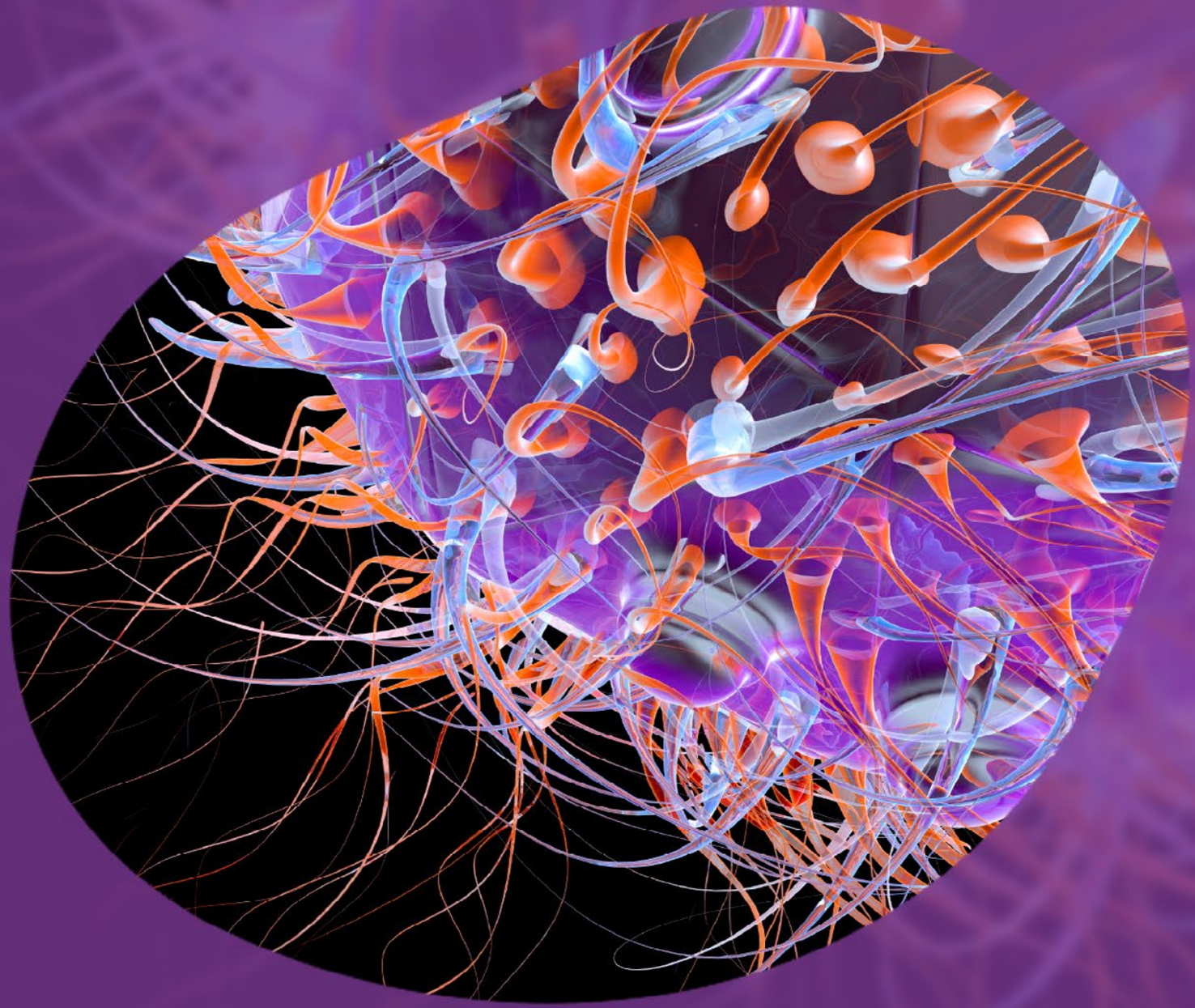
Stay one step ahead of infectious diseases.



revvity

Solutions for infectious disease research and discovery

For research use only. Not for use in diagnostic procedures.

revvity

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- Identifying and quantifying pathogens
- Host pathogen interactions
- Immune response and vaccines
- Drug resistance and discovery
- Understanding the microbiome
- Contact us

Insights that deliver treatments

Infectious diseases continue to impact human health all over the world. That's why the race is on to develop preventative vaccines and therapeutic treatments that can curb the global spread of infectious diseases caused by viral, bacterial, fungal, and parasitic pathogens.

Truly understanding infectious diseases is the first step toward containment and eradication. From biology to breakthrough, our diverse infectious disease product portfolio helps researchers make critical discoveries through genomic, protein, cell, and *in vivo* analysis.

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Identifying and quantifying pathogens

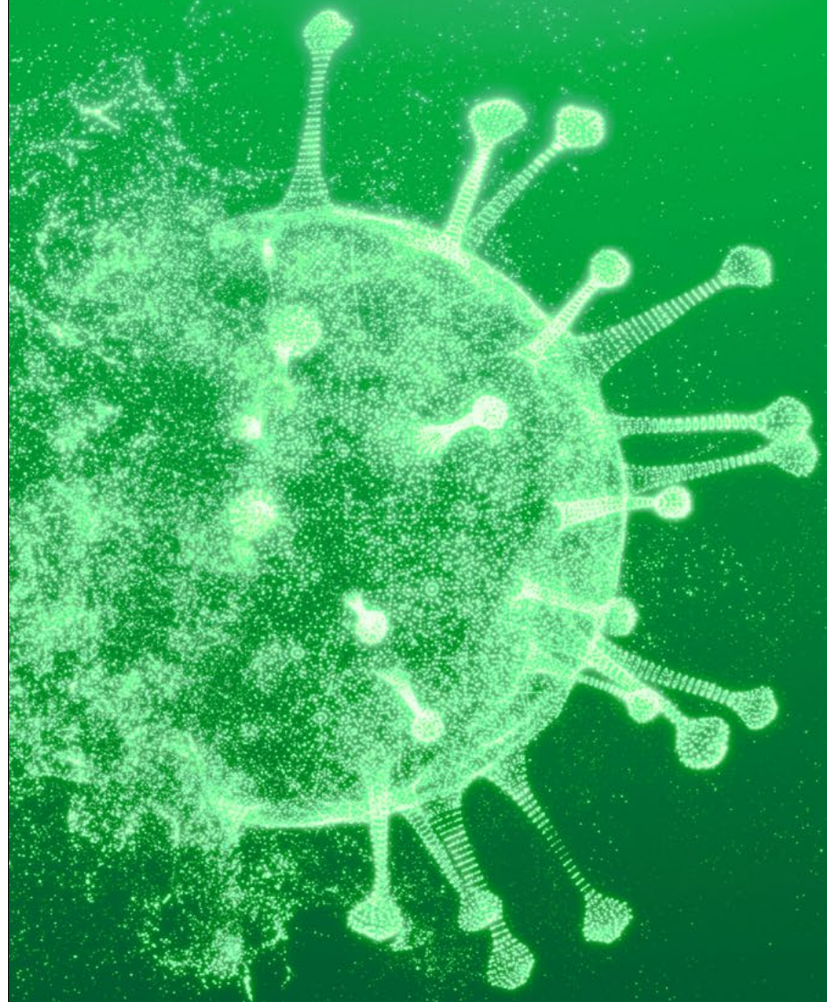
High mutation rates among pathogens and the existence of animal reservoirs can lead to emerging infectious diseases with endemic or pandemic potential. Identifying new strains or variants is vital for human health.

We also need to understand disease biology and pathogen life cycles to develop novel treatments and vaccines. That's why technologies and assays that provide reliable high-throughput pathogen identification and quantification are indispensable.

Click to read more about:

Genomics | Viral titer

Bacterial growth | Our solutions



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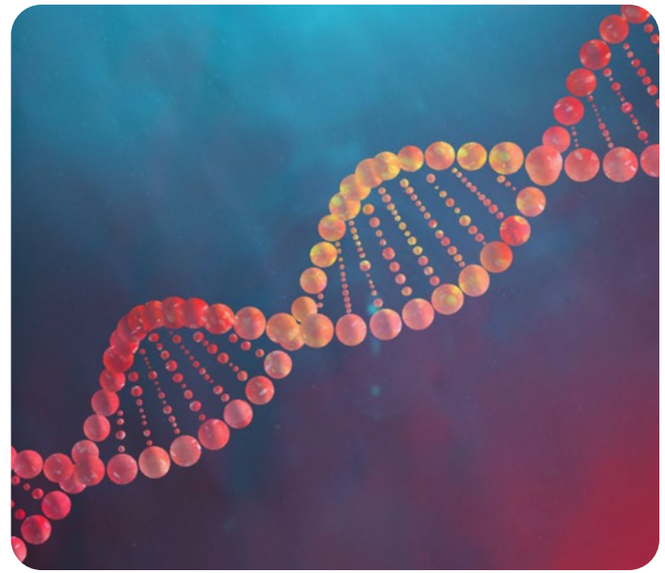
Genomics



Genomic testing methods such as PCR or next-generation sequencing (NGS) play a pivotal role in pathogen diagnostics and help us understand pathogen biology and evolution.

Pathogens naturally accumulate mutations in their genomes, and these mutations can be used as a transmission marker in which related genomes indicate related infections. Epidemiologists can use this information to build phylogenetic trees and analyze epidemic growth rates and spatial strain distributions.

Sequencing and PCR are also central to developing new treatments and vaccines, providing key information to scientists about pathogen antigens or proteins and how they vary over time.

On the web

Discover automated workflows for isolating DNA and RNA from pathogens for a range of downstream applications.

Read more

Application note

Achieve consistent high-throughput DNA quantification using the VICTOR™ Nivo™ plate reader in conjunction with our automated NGS workstations.

Read more

Application note

Explore viral detection methods off swabs via mechanical lysis to shorten prep time.

Read more

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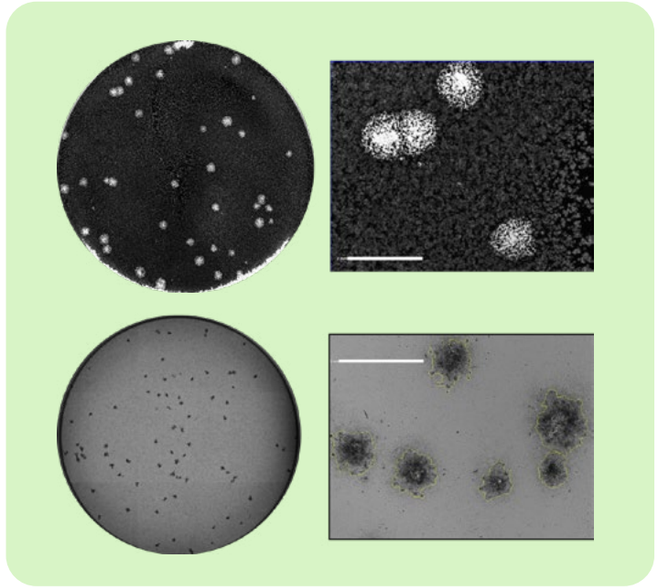
Viral titer

Measuring the infectivity of a virus against appropriate host cells is the most reliable way to determine the titer of a viral stock solution. The most common viral titer assays are plaque formation, focus formation and $TCID_{50}$ (50% tissue culture infectious dose).

Lytic viruses that lyse host cells upon infection create an opening in the host cell monolayer called plaque. Nonlytic viruses form clusters of infected cells called foci. Both plaques and foci can be reliably quantified with image cytometry.

The $TCID_{50}$ assay measures the cytopathic effect of various virus dilutions on a host cell culture. $TCID_{50}$ can be measured by image cytometry or by absorbance (MTT), ATP-based luminescence (ATPlite™), or reporter gene luminescence (britelite™) on a multimode plate reader.



Lytic plaque assay (top) and focus formation assay (bottom)

Technical note

See how image cytometry provides high-throughput, whole-well quantitative data from single cells, plaques, or foci for antiviral drug and vaccine candidate screening.

Read more

White paper

Learn more about an automated method for determination of infectious dose ($TCID_{50}$).

Read more

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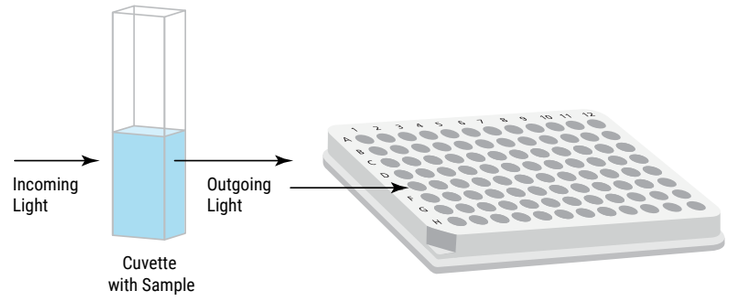
Bacterial growth

Measuring optical density at 600 nm (OD600) is the most common method for quantifying bacterial growth in a solution.

Typically, a sample is taken from the bacterial culture, placed into a cuvette, and measured manually on a photometer. However, this process can be tedious when several culture conditions or antimicrobial treatments are being evaluated at the same time and replicates are required.

An alternative approach involves detecting bacterial growth continuously in 96-well microplates using a microplate reader in absorbance mode. This dramatically increases the number of samples that can be measured and reduces reagent and consumable costs.



Application note

Read more about automated detection of bacterial growth using a microplate-based assay on our multimode plate reader.

Read more

Application note

Review sample disruption techniques that expedite pathogen detection in food supply.

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IDENTIFYING AND QUANTIFYING PATHOGENS

Genomics | Viral titer | Bacterial growth | Our solutions

Our solutions

Sample homogenization

Use performance-verified bead mixes when identifying and quantifying your pathogen of choice from tough and complex matrices.

Read more

Ribodepletion solutions

Transcriptome analysis of viral and bacteria populations powered by CRISPR-based depletion.

Read more

Nucleic acid purification

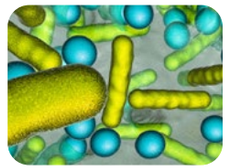
Explore our automated extraction workflows for isolating DNA and RNA from viruses, bacteria, fungi, and other microorganisms.

Read more

RT-PCR workflows

Our quantitative PCR (qPCR) solutions enable microbial screening of a large number of samples simultaneously.

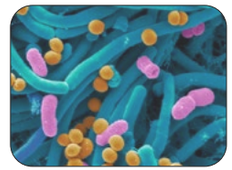
Read more



16S rRNA sequencing for microbial community profiling

Which 16S rRNA region should you use for microbial community profiling?

Read more



Shotgun/whole genome sequencing

Simplify your whole genome sequencing to enable full characterization of the microorganisms present in the community.

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IDENTIFYING AND QUANTIFYING PATHOGENS

Genomics | Viral titer | Bacterial growth | Our solutions

Our solutions

Image cytometers

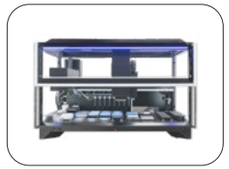
Regardless of the viruses you work with, image cytometry provides accurate and fast quantification of viral titer and infectivity.

Read more

Microplate readers

Whether you are quantifying bacterial growth or virus infectivity, our range of plate readers provide reliable quantification for your assay of choice.

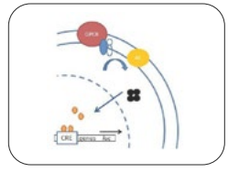
Read more



Liquid handlers and automated NGS methods

More than 120 standardized and tested methods automated on our liquid handling workstations optimized for NGS applications offers flexibility in your choice of kits.

Read more



Reporter gene assays

Our reporter gene assays are ideal for quantifying luminescence from pseudotyped viruses or host cells expressing the luciferase reporter gene.

Read more

Cytotoxicity and cell proliferation assays

Our ATP luminescence assays are ideal tools to quantify virus cytopathic effects or assess host cell viability in general.

Read more

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Host pathogen interactions

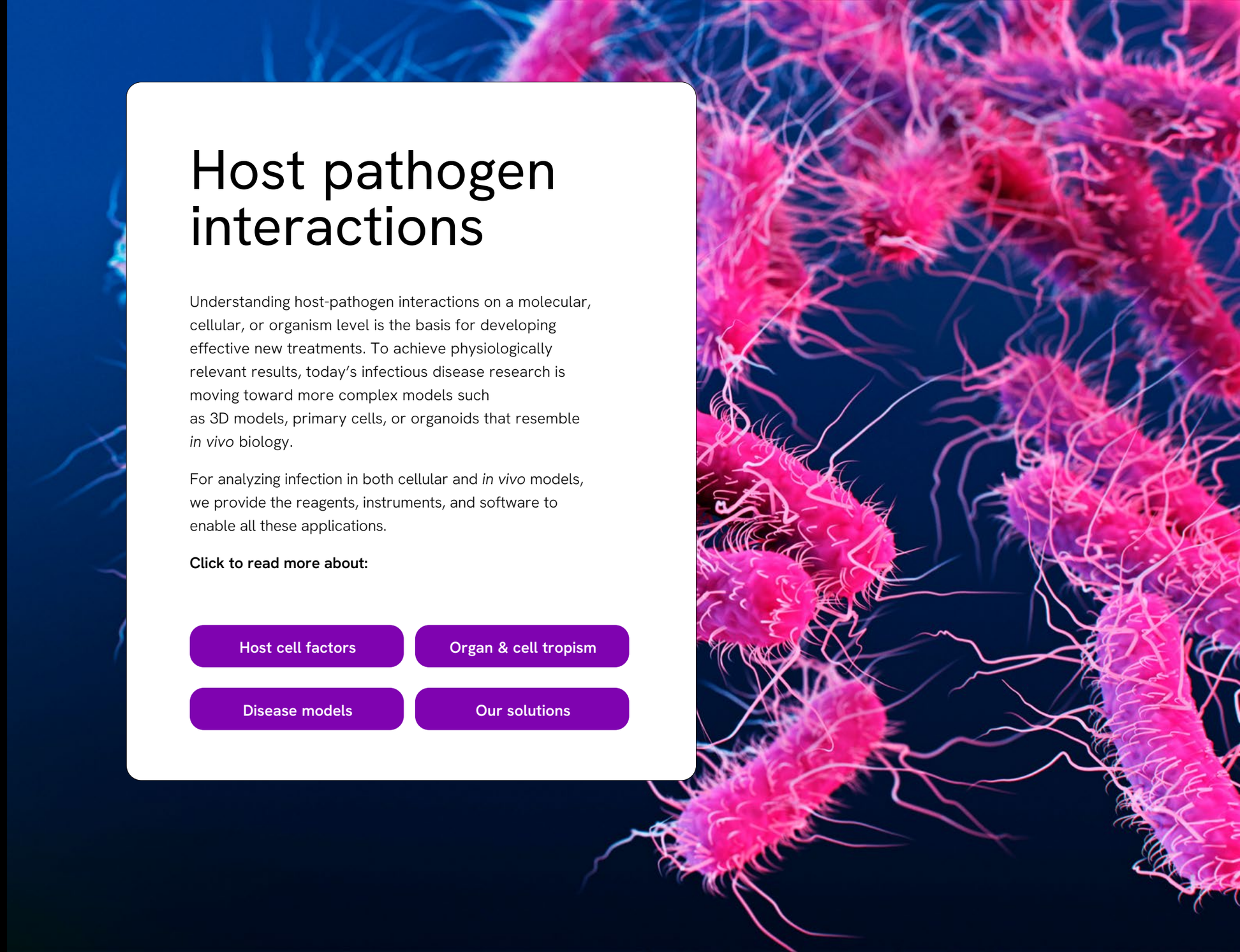
Understanding host-pathogen interactions on a molecular, cellular, or organism level is the basis for developing effective new treatments. To achieve physiologically relevant results, today's infectious disease research is moving toward more complex models such as 3D models, primary cells, or organoids that resemble *in vivo* biology.

For analyzing infection in both cellular and *in vivo* models, we provide the reagents, instruments, and software to enable all these applications.

Click to read more about:

Host cell factors | Organ & cell tropism

Disease models | Our solutions



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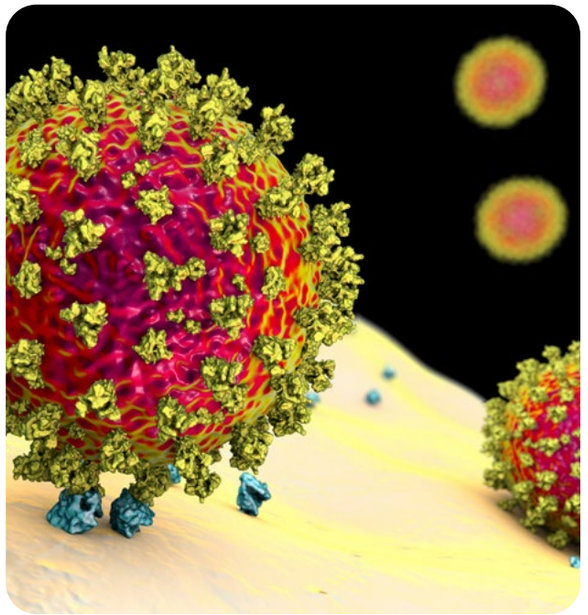
Host cell factors



Viruses, parasites, and bacteria need certain proteins to establish infection and replicate within the human host. These host cell factors represent attractive drug targets, as they are genetically more stable than pathogen targets and might be shared among related pathogens.

High-content small interfering RNA (siRNA) screening has been used for decades to study infectious diseases and identify essential host cell proteins and functions. Supporting genome-wide screening approaches, siRNA technology is simple and effective; however, challenges remain around knockdown specificity.

With the advent of CRISPR technology, genome editing is more specific, and CRISPR arrayed screening represents an additional tool for pathogen research. Focused or custom arrayed libraries allow you to efficiently validate essential host cell factors, pathways, or drug targets identified through siRNA screening or other means.

Blog

Learn how high-content imaging, combined with siRNA, can help guide researchers to possible targets for future pharmacologic interventions.

Read more

White paper

Discover best-practice guidelines to tackle challenges in functional genomic screening using the cell painting assay.

Read more

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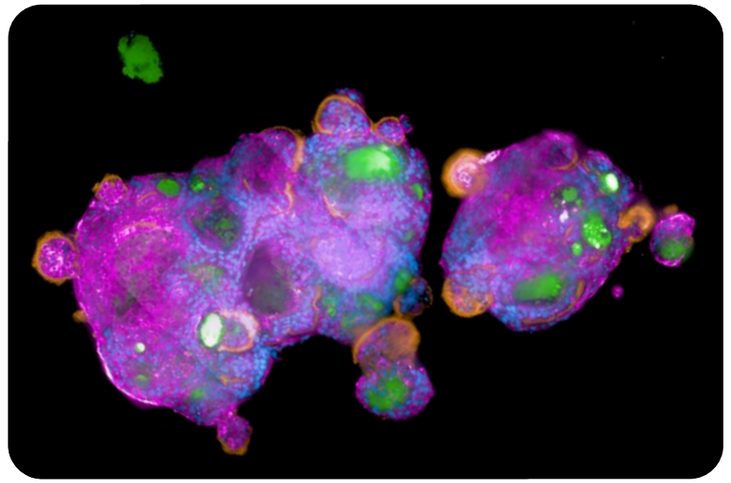
Disease models

Physiologically relevant disease models must be cultured under human tissue-level conditions and need to represent the multicellular composition of the target organ and extracellular matrix, as well as the right genomic context. This can be achieved using primary cells, patient-derived cell samples, induced pluripotent stem cells, complex sample carriers and organ-on-chip systems.

Disease models can provide insights from a multitude of assays, including the analysis of markers from the supernatant, quantitative imaging at the single-cell level by high-content analysis, and genomic or transcriptomic analysis. To best understand immune responses to pathogens, mouse models are often the preferred choice.



SARS-CoV-2-infected apical-out polarized lung organoids. Image taken using the Operetta CLS™ system and generously provided by Doris Wilflingseder, Institute for Hygiene and Medical Microbiology of the Medical University of Innsbruck

On the web

Learn how our solutions empower you to culture, treat, and analyze 3D cell cultures to generate more physiological relevant data.

Read more

Application note

Discover the ability to modify the genome and create functional knockout models within a human iPSC line with Edit-R CRISPR reagents.

Read more

Expert interview *(image above)*

Learn how researchers are exploring 3D airway cell models via high-content analysis to study the first interaction of SARS-CoV-2 with host respiratory tissues.

Read more

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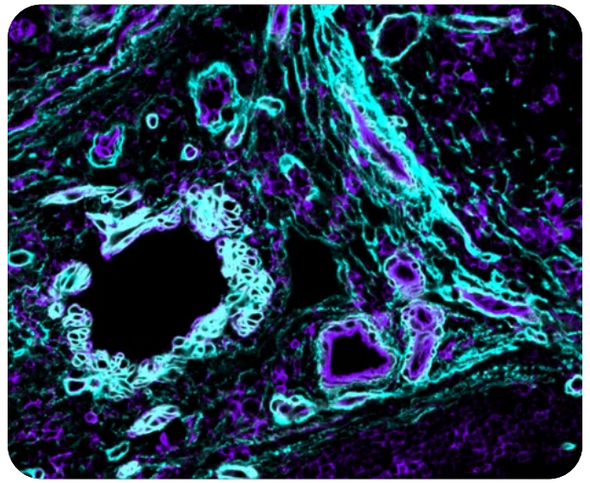
HOST PATHOGEN INTERACTIONS

Organ and cell tropism

An active area of research for both novel viruses such as SARS-CoV-2 and established pathogens is organ and cell tropism. Knowing which cells in which organs carry receptor proteins for successful infection is key to developing treatments that circumvent infection. Using single-cell genomics and spatial imaging, we can learn more about different cell types and the organization of tissues. This enables us to understand diseases in greater detail than ever before.

In addition to genomic methods, *in vivo* models contribute significantly to understanding disease at an organism level. Visualizing bacteria, viruses, or parasites *in vivo* using bioluminescence is a powerful tool for studying organ tropism and disease progression.



*IBEX utilized to acquire this image generously provided by Dr. Andrea Radtke and Dr. Hiroshi Ichise of the Lymphocyte Biology Section in the National Institute of Allergy and Infectious Diseases (NIAID, NIH).**

Publication review

Learn about a new method for the *in vivo* imaging of bacteria using laser-induced aggregation of a gold nanoprobe for improved visualization and sensitivity.

Read more

Application note

Review a robust ChIP-seq analysis workflow combining bead milling with multi-sample sonication method.

Read more

Blog *(image above)*

Read about IBEX, a highly multiplexed antibody-based imaging application for 65+ color microscopy using repeated cycles of staining, imaging, and bleaching.

Read more

* The use of information and images from Dr. Radtke and Germain lab colleagues does not imply any endorsement of BioLegend/Revvity or its products by the US Government.

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HOST PATHOGEN INTERACTIONS

Our solutions

Sample dissociation solution

Streamline your workflows to access the cellular and biological analytes you need.

Read more

Gene editing & modulation reagents

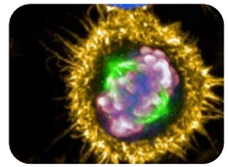
Advance your understanding of host cell factors and relevant cellular functions with our gene editing and modulation technologies.

Read more

Hydrogels

With GrowDex® animal-free hydrogel you can create reproducible 3D cell cultures with tunable stiffness and optional functionalization.

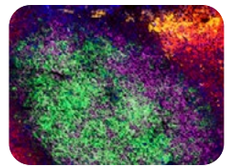
Read more



High-content analysis

Analyze disease phenotypes at the single-cell level, quantify infection, and identify essential host cell factors through RNAi or CRISPR phenotypic screening.

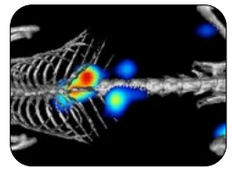
Read more



Spatial biology reagents

With highly-multiplexed cell and tissue imaging you can characterize your pathogen's target tissue and confirm presence of these cell types within your disease model.

Read more



In vivo imaging

Regardless of the type of pathogen, our *in vivo* imaging solutions provide insights into disease progression, immune response, and tropism at the organism level.

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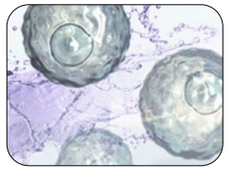
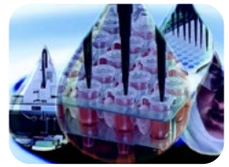
Our solutions



Flow cytometry

Characterize infected cells and identify cell types of target organs or tissues using flow cytometry.

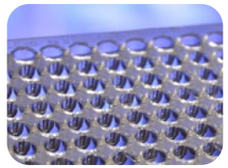
Read more



Application specific workstations

Benefit from our automated flow cytometry antibody cocktail preparation workstation.

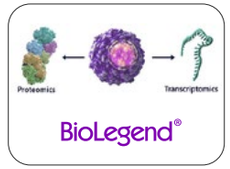
Read more



Immunoassays

Our range of no-wash immunoassays are best for measuring analytes from the supernatant of your disease models.

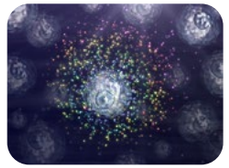
Read more



Single-cell multiomics analysis

Enhance the physiological relevance of your disease models or analyze patient-derived samples with our single-cell RNA/DNA and protein detection reagents.

Read more



Multiplex immunoassays

With LEGENDplex™ immunoassays you can quantify up to 14 secreted analytes from your disease models or biological samples using a flow cytometer.

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Immune response and vaccines

When a pathogen infects the human body, a battle ensues between the pathogen's virulence mechanisms and the host's innate and adaptive immune system. Proteins such as Toll-like receptors, STING, inflammasomes, MAP kinase, JAK/STAT, and NFκB play a central role in the immune response to different pathogens, along with ligands such as IL-6, TNFα, and the INFs (-γ, -α, -β, and -λ).

We offer a wide range of antibodies, reagents, and detection and imaging instruments to examine the immune response both *in vitro* and *in vivo*.

Click to read more about:

Innate immunity

Heterogeneity in response

Adaptive immunity & vaccines

Our solutions

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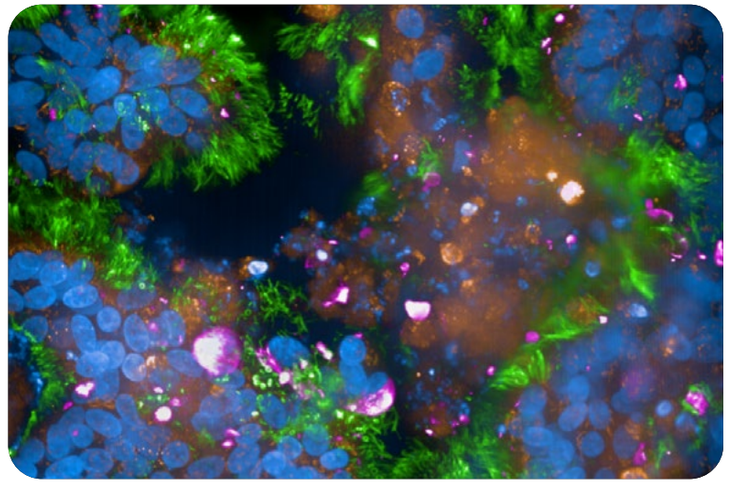
Innate immunity

The innate immune system is the body's first line of defense against pathogens. It comprises anatomical barriers, immune cells and soluble factors. To advance our knowledge of innate immunity, *in vitro* cell models, complex disease models, *in vivo* mouse models, and human samples such as blood, serum, or tissue biopsies are used. Our range of immunoassays for cytokine detection, flow cytometry and multiplex cytokine reagents, high-content and *in vivo* imaging technologies are ready to support your research and can help you understand the complex interactions of the immune system.



SARS-CoV-2-infected fully differentiated primary airway epithelia. Image taken on the Operetta CLS™ system and generously provided by Doris Wilflingseder, Institute for Hygiene and Medical Microbiology of the Medical University of Innsbruck.

Blog

Read about constructing multicolor flow cytometry panels for measuring multiple markers simultaneously in immunophenotyping flow cytometry analysis.

Read more

White paper

Read about quantifying neutrophil degranulation *in vivo* in mouse models.

Read more

Application note

Streamlined method for inflammatory cytokine detection from pre-clinical tissues.

Read more

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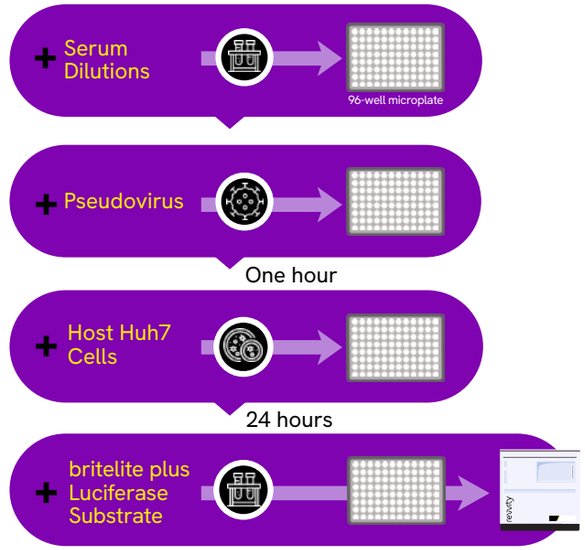
Adaptive immunity & vaccines

If a pathogen overcomes innate immunity, the adaptive immune system is activated to respond to specific antigens, establishing long-lasting resistance. The adaptive immune response is based on cells such as dendritic cells, T cells, and B cells, with the latter producing antibodies.

Vaccines resemble disease-causing pathogens and stimulate an adaptive immune response to protect against infection. To develop a successful vaccine, you need two key parameters: neutralizing antibodies that prevent pathogens from binding to host-cell receptors and a strong cellular response that limits virus replication and spread.



Workflow for a pseudovirus neutralization assay.

Blog

Introducing Flex-T™ MHC Tetramers to detect antigen specific T cells from patient samples on your flow cytometer.

Read more

White paper

Read how noninvasive optical *in vivo* imaging enables visualization of immune responses and vaccine efficiency in preclinical disease models.

Read more

Blog *(image above)*

Learn how scientists employ pseudovirus-based neutralization assays by measuring luminescence on a multimode plate reader.

Read more

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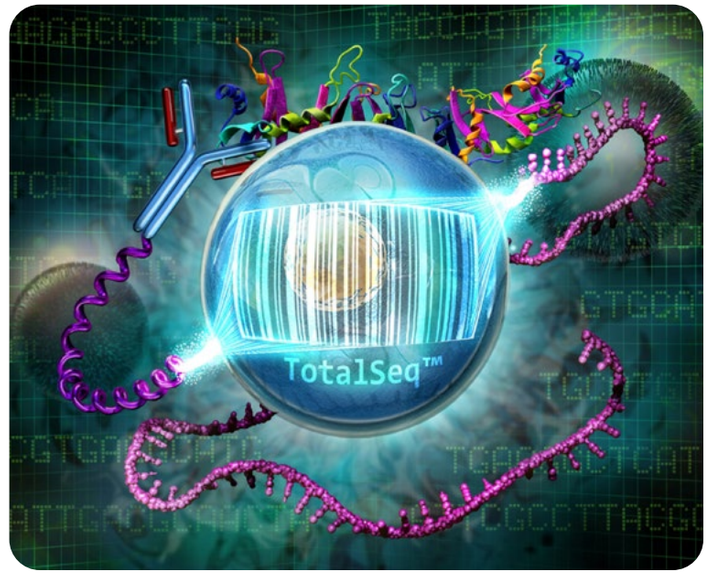
Heterogeneity in response

Immune responses can be extremely heterogeneous and lead to different outcomes for individual patients.

To decipher this heterogeneity, it's important to analyze samples at the single-cell level using flow cytometry, single-cell RNA sequencing and single-cell multiomics analysis. Understanding patient immune cell subsets, individual cell transcriptomes, and surface proteins allows you to identify the links between phenotype and genotype and helps to understand the molecular basis of heterogeneity.



Blog

Review the basics of proteogenomics, how it has expanded, and how our TotalSeq™ reagents enable these applications.

Read more

Blog

Read how scientists used multiomics to simultaneously analyze the single-cell transcriptome, surface proteome, and T and B antigen receptor profile from COVID-19 patients.

Read more

Application note

Learn how you can multiplex different samples together with TotalSeq™ hashtag antibodies to increase throughput and reduce costs of your CITE-seq experiments.

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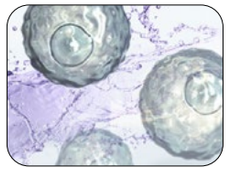
Our solutions

Sample dissociation solution

Leverage our automation-enabled technology to gently dissociate relevant tissue into cell suspension for further analysis.

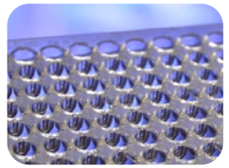
Read more



Flow cytometry

Our range of antibodies and flow cytometry reagents are ideal to isolate, immunophenotype, and characterize target cell populations.

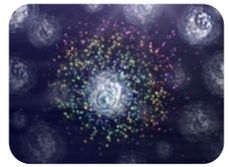
Read more



Immunoassays

Our no-wash immunoassays are perfect for measuring analytes including cytokines and other biomarkers from serum or cell culture supernatant.

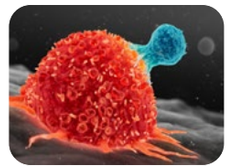
Read more



Multiplex immunoassays

Identify and quantify antigen-specific T cells or identify immunodominant T-cell epitopes from complex antigens.

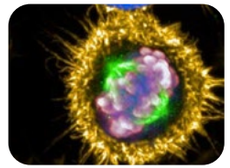
Read more



Flex-T™ MHC tetramers

With highly-multiplexed cell and tissue imaging you can characterize your pathogen's target tissue and confirm presence of these cell types within your disease model.

Read more



High-content analysis

Analyze disease phenotypes at the single-cell level and quantify infection and efficacy of your treatment candidates.

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- Understanding the microbiome
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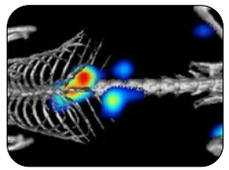
IMMUNE RESPONSE AND VACCINES

Our solutions



In vivo imaging

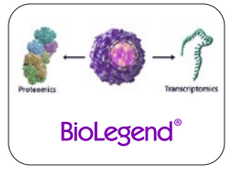
Regardless of pathogen type, our *in vivo* imaging solutions provide insights into disease progression, immune response, and tropism at the organism level.

Read more

Liquid handling workstations

Dedicated workstations designed for a diverse variety of applications. with flexibility in throughput and walkaway time.

Read more



Single-cell multiomics analysis

Analyze samples with our single-cell RNA/DNA and protein detection reagents that seamlessly integrate into existing single-cell workflows.

Read more

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Drug resistance and discovery

Discovering novel antiviral, antimicrobial, and antiparasitic treatments is critical for global human health, especially as new pathogens emerge and drug resistance is on the rise.

Phenotypic approaches that measure the extent of infection in the presence of candidate compounds are effective methods for infectious disease drug discovery, as they can identify drugs targeting both pathogen and host cell targets. Drug repurposing represents another efficient strategy to accelerate traditional drug discovery approaches.

Click to read more about:

Bacterial disease
Viral disease
Parasitic disease
Our solutions

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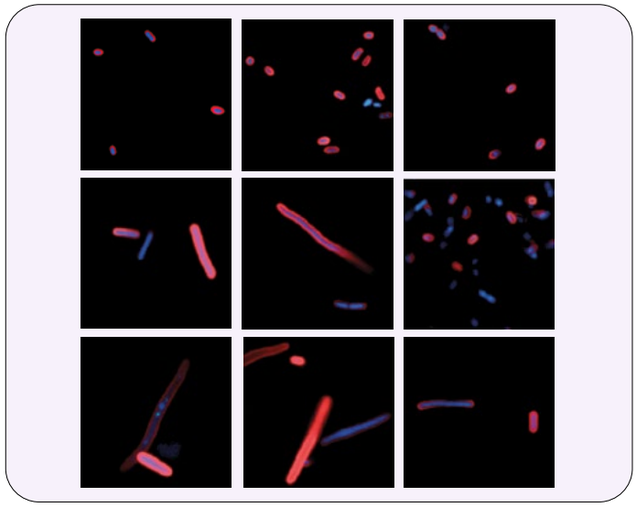
Bacterial disease

Antibiotic resistance is rapidly rising in all parts of the world and the list of infections that are becoming harder and sometimes impossible to treat is growing. In addition to preventing misuse and implementing measures to control the spread of antibiotic resistance, there is an urgent need for new treatment options to target resistant bacteria.

Traditional bacteriology methods – for example, plating bacteria on agar plates – can be labor intensive and inadequate for evaluating large numbers of treatments. Researchers are now turning toward high-content imaging and high-throughput screening on plate readers to interrogate bacterial growth, bacterial phenotypes, and biofilms in response to novel antimicrobials. Investigating bacterial infections *in vivo* in mouse models is another method to track bacterial growth in the context of an animal.



Salmonella Typhimurium Strain D23580 phenotypic response to Ciprofloxacin. Images taken on the Opera Phenix™ system and generously provided Dr. Stephen Baker, University of Cambridge

White paper

Read about novel high-content assays to measure antibody function and predict antimicrobial resistance of *Salmonella* strains.

Read more

White paper

Explore the use of high-content imaging of *Klebsiella pneumoniae* clinical isolates and the implications for antimicrobial resistance research.

Read more

Literature review

Get an overview of novel approaches to improve our understanding of biofilms, and enhance the diagnosis and treatment of bacterial implant infections.

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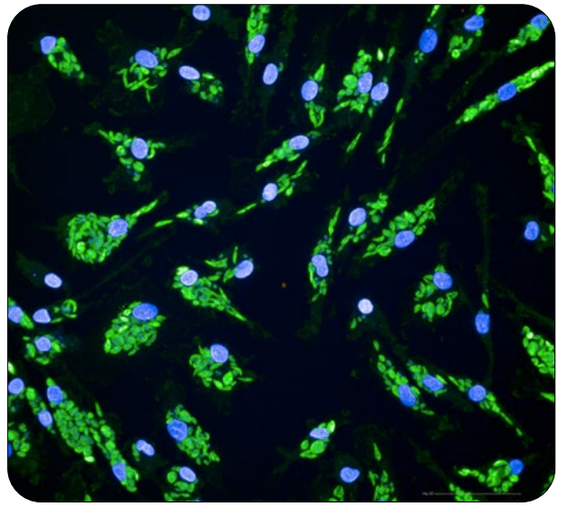
Parasitic disease

With more than 400,000 annual deaths, malaria is the most significant parasitic disease globally. Despite WHO's Global Malaria Programme, treatment progress has started to plateau, and antimalarial drug resistance is on the rise.

In addition, Chagas disease and leishmaniasis are also prevalent. They're considered neglected tropical diseases that need more attention from the public health community.

A commonality of many parasitic diseases is a complex lifecycle that often includes a secondary host such as an insect or pet. In the case of malaria, it can involve two sites within the human body, for example, the liver and red blood cells. This makes identifying effective new treatments complicated. Researchers are now exploring approaches that target multiple stages of the parasitic lifecycle to either treat the infection or stimulate the immune system to attack parasites and parasite-infected cells.



High-content imaging of Leishmania parasites. Image taken on the Opera Phenix™ system and generously provided by Dr. Helena Fehling, Bernhard Nocht Institute for Tropical Medicine, Hamburg

Literature review

Learn more about the emerging challenge of antimalarial drug resistance and the need to analyze all stages of the malaria parasite lifecycle to help develop the next generation of therapeutics.

Read more

White paper

Discover how high-content screening helps advance immune-therapeutics against both cutaneous and visceral Leishmania species.

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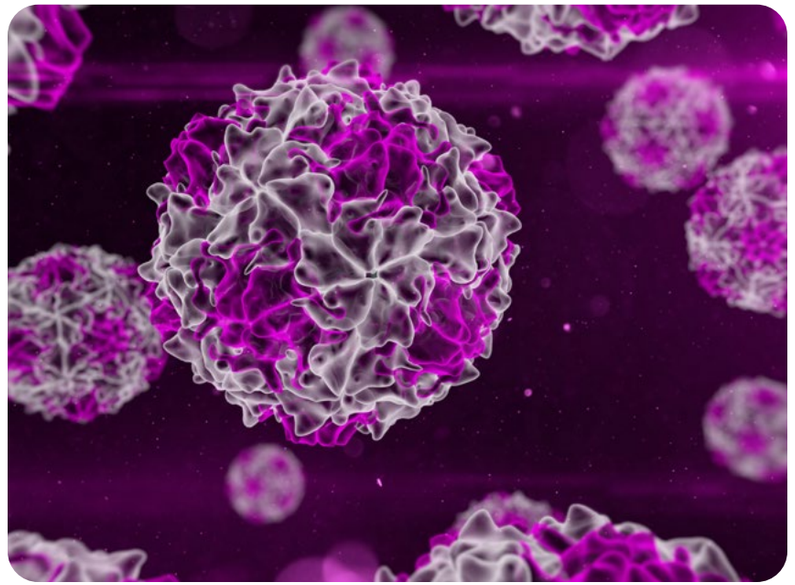
Viral disease



Today, viral vaccines can be developed quickly; however, there are still major challenges to overcome. Not every patient is eligible for vaccination, antibody titers decrease over time, and vaccinated individuals can still get infected. Therapeutic strategies that complement vaccination efforts are needed to protect against viral threats.

Therapeutics broadly fall into four categories: small molecule antivirals, antibodies, protein-protein interaction inhibitors, and treatments that inhibit the symptoms of the infection rather than the infection itself. Regardless of the modality, researchers need reliable assays and measurement technologies to screen huge numbers of treatments, fast.

Blog

Read about recent studies that used high-content screening to identify antivirals and vaccines targeting SARS-CoV-2 and other deadly viruses.

Read more

Case study

Read about how researchers quickly discovered 25 quality hits capable of disrupting SARS-CoV-2 S1 protein:ACE2 receptor binding.

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Literature review

Get an overview of current homogeneous protein-protein interaction assays for antiviral drug discovery.

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Our solutions

Microplate readers

Whether you are quantifying bacterial growth or virus infectivity, or screening a large compound library, our range of microplate readers provide reliable quantification.

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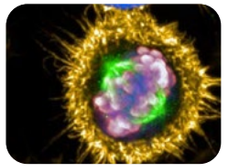

High-content analysis

Gain more insights about your antiviral compound using phenotypic screening on Opera Phenix or Operetta CLS systems.

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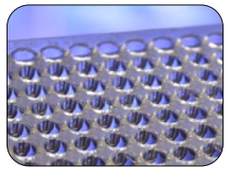
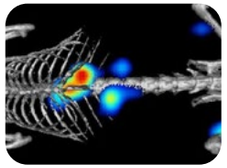


Immunoassays

Our range of immunoassays are suitable for quantifying viral proteins or particles and can screen for inhibitors of relevant host pathogen protein-protein interactions.

Read more



In vivo preclinical imaging solutions

Our small animal imaging solutions help accelerate preclinical development of therapeutics in a noninvasive manner and in real-time.

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Image cytometers

Regardless of the virus you work with, image cytometry provides fast quantification of viral titer and infectivity.

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Integrated laboratory automation

Explorer™ G3 integrated workstations provide innovative application-focused laboratory automation solutions that simplify microplate handling, liquid handling, and detection.

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DRUG RESISTANCE AND DISCOVERY

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Our solutions

Lab data management & analysis

See how Signals Research Suite™ can help manage and analyze assay and screening data from multiple sources in a single software platform.

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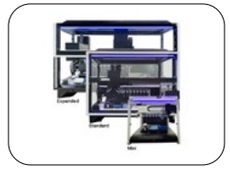

Fontus workstations

Easy-to-use software, optimized deck access, verified protocols, and reformatting capabilities to simplify your workflows and improve turnaround times.

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For research use only.
Not for use in diagnostic procedures.

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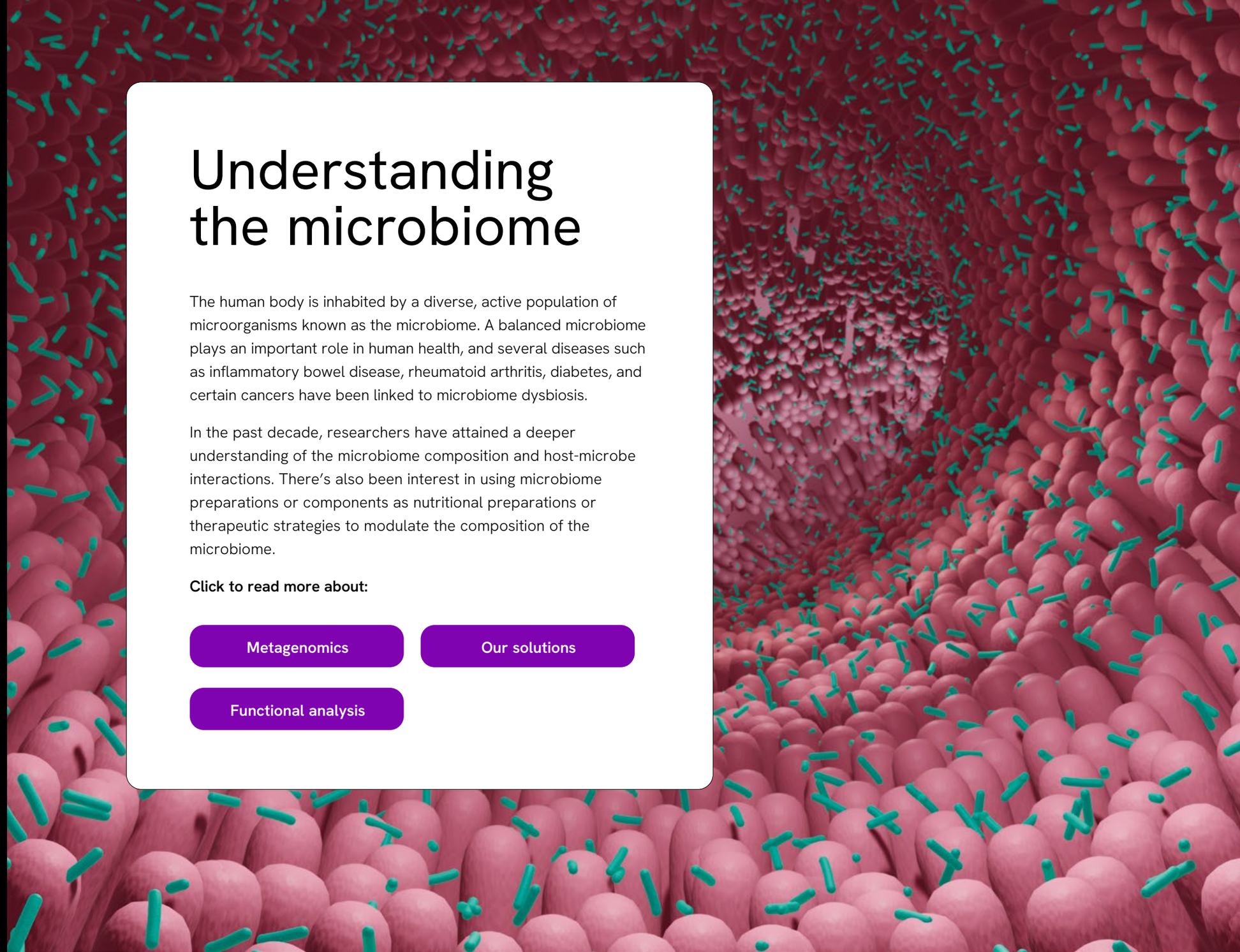

Understanding the microbiome

The human body is inhabited by a diverse, active population of microorganisms known as the microbiome. A balanced microbiome plays an important role in human health, and several diseases such as inflammatory bowel disease, rheumatoid arthritis, diabetes, and certain cancers have been linked to microbiome dysbiosis.

In the past decade, researchers have attained a deeper understanding of the microbiome composition and host-microbe interactions. There's also been interest in using microbiome preparations or components as nutritional preparations or therapeutic strategies to modulate the composition of the microbiome.

Click to read more about:

Metagenomics
Our solutions
Functional analysis

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- Immune response and vaccines
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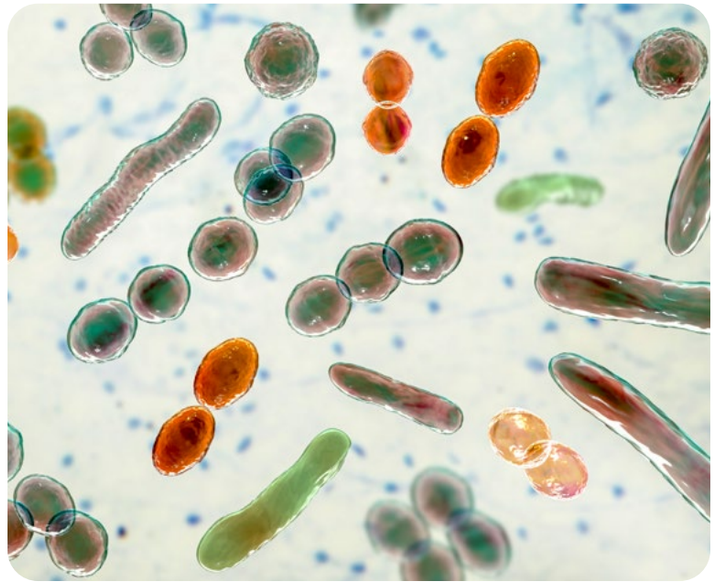
Metagenomics



Understanding the diversity of microorganisms that populate the human body is the first step toward advancing our understanding of the microbiome and how it affects health and disease. Early research revealed that many microbial species cannot be cultured in the laboratory and would therefore be missed with cultivation-based sequencing approaches.

Metagenomics seeks to study genetic material isolated directly from human or environmental samples and is therefore appreciative of the species diversity within different environments. Sequencing of the 16S ribosomal RNA (16S rRNA) – the RNA component of the 30S subunit of the procaryotic ribosome – is a popular method for identifying species, as these genes show slow levels of evolution but differ between species.

On the web

Discover how you can improve the efficiency of your metagenomic workflow.

Read more

Application note

Explore an end-to-end automated metagenomic workflow from sample extraction through library prep, plus analysis.

Read more

Application note

Find out how we collaborated with Illumina® to create a streamlined automated workflow, from DNA extraction to sequence-ready libraries, for species identification.

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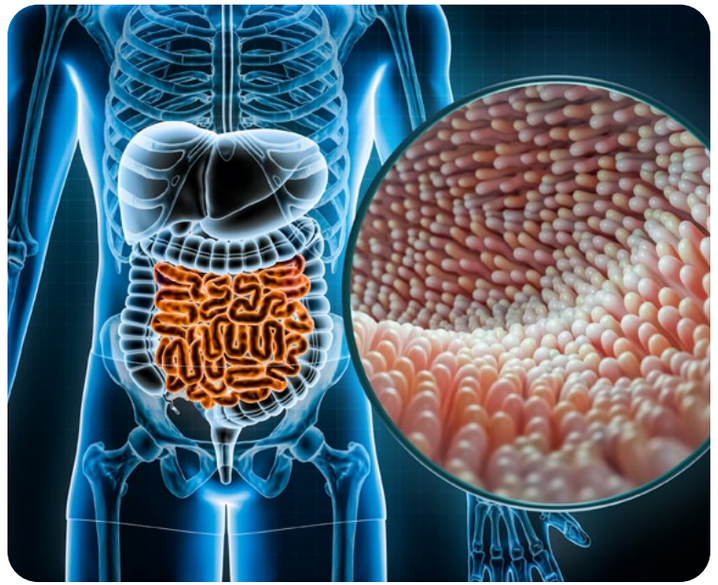
Functional analysis



Identifying the link between an imbalanced microbiome and disease holds the potential to revolutionize how we think about certain diseases. Researchers are exploring ways to modulate the microbiome through direct fecal microbiota transplants, administering healthy or engineered microorganisms (probiotics), or ingesting nutrients used by host microbes (prebiotics).

Recently, attention has also shifted toward the gut microbiota's production of bioactive metabolites (postbiotics). Microbiota can perform a variety of chemical modifications on natural products present in our diet, generating compounds that have many beneficial properties such as enhancing epithelial barrier functions.

White paper

See how researchers use high-content imaging and AlphaLISA immunoassays to understand the modulatory effects of postbiotics on inflammation.

Read more

White paper

Learn how to develop an AlphaLISA assay to screen microbial supernatants for engineered probiotic biologics.

Read more

Blog

Learn about how the effects of aging and gut microbiota contribute to neuroinflammation and why researchers are using CITE-seq to map brain cell plasticity following systemic perturbations.

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UNDERSTANDING THE MICROBIOME

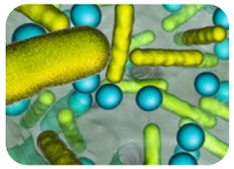
Metagenomics | Functional analysis | Our solutions

Our solutions

Sample homogenization

Explore our suite of homogenizers that enable a more efficient extraction of DNA/RNA, proteins, or metabolites from difficult-to-lyse tissues or complex sample types.

Read more



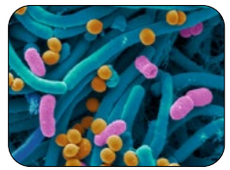
16S rRNA library prep kits

These kits offer robust, fast and easy library prep protocols with access to the CosmosID-Hub® solution to simplify 16S analysis.

Read more

Microplate readers

Regardless of the assay you are running, our range of microplate readers provide reliable quantification – time after time.



Shotgun metagenomics sequencing

Simplify your shotgun metagenomic sequencing to enable the evaluation of bacterial diversity and detection of abundance of microbes.

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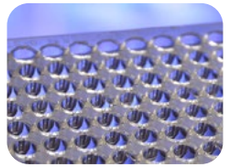

Immunoassays

Our immunoassays can screen bacterial libraries for effective protein production or desired protein-protein interactions, uncovering the effects of microbiota on cells, such as induction of anti-inflammatory signaling.

Read more

Ribodepletion solution

CRISPR-Cas9 based ribodepletion solutions remove uninformative molecules prior to sequencing to improve the detection of biologically relevant transcripts in complex communities containing host and bacteria RNA.

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UNDERSTANDING THE MICROBIOME

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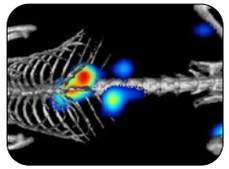
Our solutions



In vivo preclinical imaging solutions

Our small animal imaging solutions help accelerate preclinical development of therapeutics in a noninvasive manner and in real-time.

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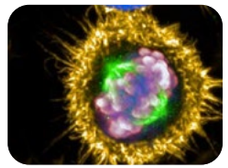

High-content analysis

Gain more insights about your antiviral compound using phenotypic screening on Opera Phenix or Operetta CLS systems.

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Automated DNA/RNA extraction

Our unique and efficient method for isolating nucleic acids is based on proprietary M-PVA Magnetic Beads and separation technology.

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Integrated laboratory automation

Explore how our team of experts designed automated laboratory solutions for genomic applications like DNA/RNA extraction and NGS library synthesis.

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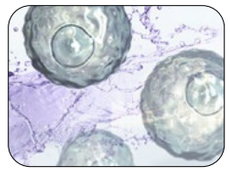

Flow cytometry

Analyze mouse gut samples to understand immune regulation by the microbiome.

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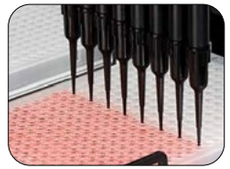
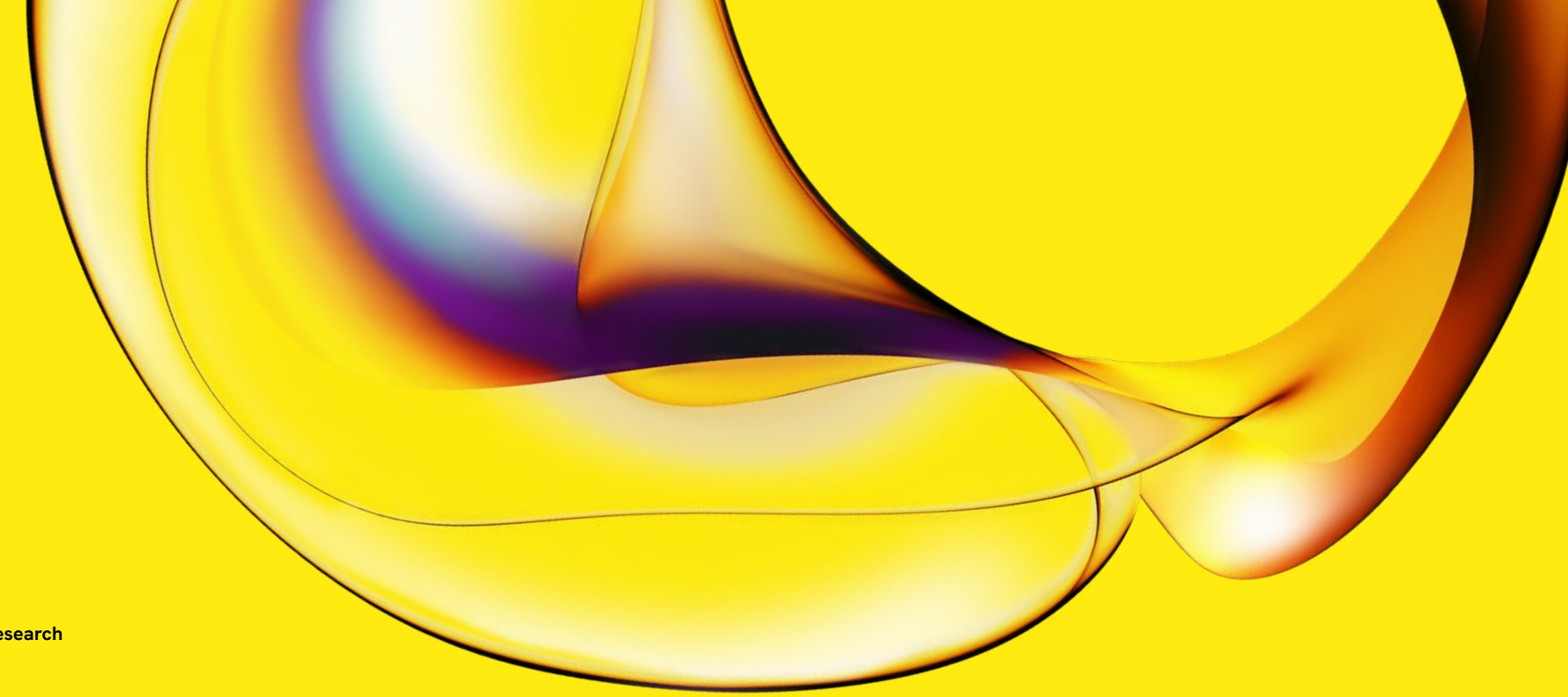


Automated library prep

From benchtop application-specific workstations to complex customized integrated solutions, our liquid handing portfolio can help accelerate your science.

Read more



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