

NOVACYT  
GROUP

# TESTING AT SPEED: COVID-19 AND BEYOND

NOVACYT GROUP: SIMPLIFYING  
DIAGNOSTICS SOLUTIONS IN HEALTHCARE



## INTRODUCTION

The need for rapid, accurate, and affordable testing has driven innovation in the diagnostics industry at breakneck speed. By enabling essential businesses, schools, and healthcare settings to remain open throughout the SARS-CoV-2 pandemic, rapid diagnostics has played a vital part in enabling people to live their lives as normally as possible.

While the combination of wide vaccine rollout, rapid testing and contact tracing have been vital in bringing down both the fatalities and infection rates from SARS-CoV-2 across Europe, the pandemic continues to require creative solutions to enable communities to stay safe.

Novacyt Group's contribution to the molecular diagnostics industry has proven that we can quickly respond to any global health needs. This has meant providing fast, gold-standard testing solutions when it matters most.

**“ OUR GOAL IS TO DELIVER PRODUCTS THAT SUPPORT HEALTHCARE, SAVE LIVES, AND HELP IN THE FIGHT AGAINST INFECTIOUS DISEASE AROUND THE WORLD.”**

Achilleas Neophytou, Group Marketing Director



This e-book will explore the ways in which Novacyt Group's comprehensive portfolio of testing solutions can provide your organisation with the means to keep your workforce and patients as safe as possible.

Firstly, we will outline the advantages of our two-step testing pathway to aid with population health management amid the continuing COVID-19 outbreak. This will include an in-depth guide to the strengths of our PathFlow® lateral flow solutions for first line tests.

We will then outline the options offered by our real-time PROmate® and genesig® PCR testing capabilities, which can offer test results in as fast as 80 minutes.

Secondly, we will detail the ways in which our proprietary testing products will help in the detection of dynamic mutations of COVID-19. Today, our bioinformaticians (genomics data scientists) are diligently combing through real-time data to track over two million distinct SARS-CoV-2 mutations via genome sequencing. Read on to learn how your healthcare organisation can harness this surveillance expertise.

Thirdly, we will look beyond COVID-19 to detail the ways in which our testing technologies can be used by care providers to identify other hard-to-detect viruses and pathogens.

Finally, we will explain how you can request samples to help you determine the ways in which our solutions can meet your needs.



**“ AS THE FIRST COMPANY IN THE WORLD TO DEVELOP A COMMERCIALY AVAILABLE COVID-19 RAPID TEST, OUR RESEARCH AND DEVELOPMENT TEAMS HAVE BEEN ABLE TO RESPOND TO NEWLY IDENTIFIED VARIANTS AT SPEED AND ADAPT OUR TESTING SOLUTIONS ACCORDINGLY.”**

Paul Oladimeji, Director of Product Development

## OUR REAL-TIME TESTING CAPABILITIES

With many parts of Europe still subject to restrictions on public gathering, the ever-present risk of new outbreaks and novel Variants of Concern mean that the need for rapid testing capabilities is arguably more urgent than ever before.

Novacyt's testing capabilities are critical tools to aid fast decision-making within a clinical setting. Our lateral flow solutions (encompassing both antigen and antibody tests) and PCR assays allow as fast a return to normalcy as possible.



### PATHFLOW® TESTING SOLUTIONS

#### PathFlow® COVID-19 Rapid Antigen Pro assay

The COVID-19 Rapid Antigen Pro is a professional use-only test designed for ease of use and speed for professional results. The test is optimised for the rapid detection of the presence of SARS-CoV-2, providing results within 15 minutes.

The assay is compatible with commonly used nasal and nasopharyngeal swab types and has an in-built procedural control.

#### PathFlow® SARS-CoV-2 IgG antibody test assays

With SARS-CoV-2 IgG a user simply drops a small blood sample onto the appropriate section of the rapid testing cassette. The user-friendly device will then rapidly produce a positive or negative result within 10-20 minutes.

The tests themselves consist only of the cassettes, with no need for the additional components commonly required with other lateral flow testing solutions.



## YOUR PCR LAB ON THE GO

### Speed, capacity, and sensitivity

Near-patient PCR testing is a vital tool in the race to identify infections to inform clinicians' decisions around the need for specialised care and to ensure new localised outbreaks can be avoided.

Novacyt Group enables near-patient PCR testing through its range of PROmate® and genesig® Real-Time PCR instruments.

Our highly portable genesig® q16 and q32 testing instruments provide the capacity for up to 30 tests to be analysed simultaneously. These devices can be used in within healthcare settings without the need for transportation to a dedicated testing lab, to ensure test results can be issued in as quickly as 80 minutes.

For those in need of a rapid, lightweight test kit on the move, Novacyt also offers VersaLab® Portable. This eight-piece standard kit works with both PROmate® and genesig® q16 workflows and packs neatly into a lightweight carry case, saving clinicians time and money.

All you need is a table and a power outlet.



## ADAPTING TO NEW VARIANTS OF CONCERN

Each new SARS-CoV-2 sequence presents a risk to any COVID-19 kit detection and false negatives without surveillance programmes in place. That's why Novacyt Group's team of bioinformatics experts continually monitor available data to identify new COVID-19 variants and adapt our diagnostic products accordingly.

Our ongoing surveillance programme tracks the mutation of the virus every day by our expert bioinformatics scientists who know that every virus sequence published is detected by our kits.

Novacyt' Group's SNPsig® testing kits use the company's proprietary genotyping method to identify SARS-CoV-2 variants. The assays can be used on our selected genesig® family of instruments or on any real-time PCR machine with the ability to test across fluorescence channels. This provides a rapid on-site alternative to next generation sequencing or off-site analysis.



“ WITH DAILY MEETINGS AND UPDATES THREE TIMES A WEEK BASED ON GLOBAL PUBLICATION TRACKING, NOVACYT'S BIOINFORMATICS SURVEILLANCE GROUP REMAINS HIGHLY VIGILANT.”

“ AS SIGNIFICANT NEW MUTATIONS ARE IDENTIFIED, THE DYNAMIC AGILITY BEHIND THE SNPsig® INNOVATION PROGRAMME WILL DEVELOP NEW ASSAYS FOR THE SNPsig® PORTFOLIO.”

Gemma Stokes, Principal Scientist (Bioinformatics)

## BEYOND COVID-19

Our molecular diagnostics expertise is not only effective in detecting SARS-CoV-2.

Novacyt Group's comprehensive range of quantitative (specific) PCR assays, combined with our testing instruments, enable us to offer personalised testing solutions to individual customers.

Building on the heritage of our well-established genesig® portfolio of qPCR kits, we're able to develop bespoke products in swift response to specific customer requests. These on-demand real-time PCR assay kits can be designed and developed to assess 'hotspot' target organisms of particular interest to the customer.

Our specific qPCR assay development includes personally-designed primers to match a customer's exact needs, PCR mix optimization, and assay development to ensure a very effective qPCR reaction. In-house laboratory testing and evaluation ensure high levels of sensitivity and specificity.

Our genesig® range of qPCR kits are the ideal solution for pathogen detection (as well as food and water testing), due to their stable design and the group's exhaustive database of more than 200 pathogens.

This means we can direct our knowledge, skills and capabilities to the changing needs of healthcare providers.

### COVID-19 OR FLU? TRUST WINTERPLEX™ TO KNOW THE DIFFERENCE

A key new area of focus for genesig® testing has been its ability to diagnose and distinguish the difference between types of flu and COVID-19, which can present with similar symptoms, especially during winter months.

genesig® SARS-CoV-2 Winterplex™ is one of the world's first approved respiratory test panels that can differentiate between SARS-CoV-2 and other common respiratory viruses. The Winterplex™ test panel includes three gene targets specific to SARS-CoV-2, as well as gene targets for influenza A and B, and respiratory syncytial virus (RSV).

Novacyt Group's continuing foresight and global surveillance will enable genesig® to evolve its product portfolio and maintain its leading position in helping healthcare professionals around the world tackle new and existing diseases.



## YOUR JOURNEY TOWARDS RAPID, ACCURATE TESTING BEGINS HERE

For more information and to get hold of free samples, whatever your testing need, visit [testandyou.org](https://testandyou.org).

Alternatively, to let us know about your testing needs by emailing [enquiries@primerdesign.co.uk](mailto:enquiries@primerdesign.co.uk).

### Contact

Novacyt Group (UK)  
Unit 1, Watchmoor Point, Watchmoor  
Road, Camberley, Surrey GU15 3AD

T +44 (0) 1276 600 081  
F +44 (0) 1276 600 151  
E [Monique.olima@novacyt.com](mailto:Monique.olima@novacyt.com)

[www.novacyt.com](https://www.novacyt.com)

