



# **EUROFINS SAFER @SCHOOLS™**

**Returning to the Courts and Classrooms—  
Considerations for College Basketball in the  
Age of COVID-19**

**December 9th, 2020**

# Eurofins – Who We Are



**BS** (University of Pittsburgh)  
**MS** (Central Michigan)

**Retired Marine Colonel**  
**Over 20 years** global lab professional  
**SVP**, LabCorp  
**CEO**, Vantage Point, Inc.  
**CEO & Chair**, Beacon Bay  
**Advisor**, Bill and Melinda Gates Foundation  
**Board**, African Laboratory Network (iLEAD)  
**Co-Founder** of Marine Special Operations Command (MARSOC) Foundation

  
**PRESIDENT OF EUROFINS TRANSLATIONAL  
DIAGNOSTICS AND BIOPHARMA SERVICES**



**BS** (University of Florida)  
**MS** (University of Florida)

Across his career, Troy has worked in consumer goods and food safety with a focus on R&D, Business Development, and Sales & Marketing team leadership in international businesses, including:  
**Georgia-Pacific**  
**DuPont Nutrition & Health**  
**SGS International**

  
**VICE PRESIDENT -  
EUROFINS MICROBIOLOGY,  
EDUCATION CHANNEL MANAGER -  
SAFER@WORK**

# ABOUT EUROFINS



Eurofins is a world leader in the provision of clinical diagnostics including infectious diseases, forensics, pharmaceuticals, food, environmental and agrosience laboratory testing services.

The Eurofins SAFER@SCHOOL™ program is designed to help you **limit the impact of COVID-19 in your schools.**

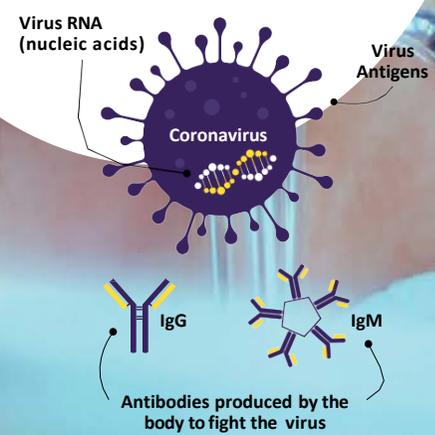
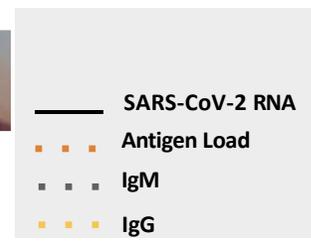
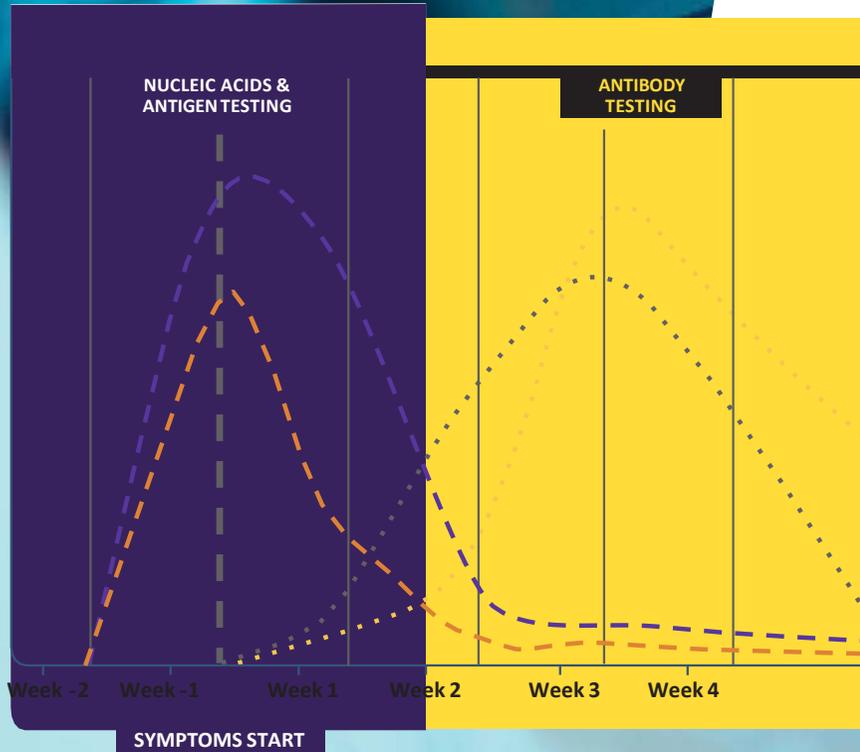
Programs are comprehensive - with services including COVID-19 PCR, antigen, serology, environmental surface, mask, air and wastewater testing and associated solutions.

# The majority of Sars-CoV-2's spread occurs silently, but testing can enable suppression

4 major categories of SARS-CoV-2 transmission exist...	...and many believe most viral transmission... <sup>1</sup>	...comes from silent sources that are hidden from view.	Today, testing is focused on POC, not these silent sources
<b>Symptomatic (not silent)</b>	<ul style="list-style-type: none"> <li>• 38% of transmission</li> <li>• Sars-CoV-2 Ro ~ 2.0<sup>1</sup></li> <li>• Ro ~ 1.2 w/o symptomatic spread</li> </ul>	Cough, sneeze, talk around family, healthcare staff, etc.	Incredible scale at hospital, doctor's offices, drive ups, etc.
<b>Pre-symptomatic (silent)</b>	<ul style="list-style-type: none"> <li>• 46%<sup>1</sup></li> </ul>	Close talking with unknown high viral load just before illness	<b>CURRENT GAP:</b> -62% of viral transmission  -Small % of testing done outside POC  -If you can quarantine ½ of symp + pre-symp can suppress virus!
<b>Asymptomatic (silent)</b>	<ul style="list-style-type: none"> <li>• 10%<sup>1</sup></li> </ul>	Never express a symptom. Many shed little, but some do	
<b>Environmental (silent)</b>	<ul style="list-style-type: none"> <li>• 6%<sup>1</sup></li> </ul>	Fomite transmission via surfaces	

1. Science, Ferretti et al <https://dx.doi.org/10.1126/science.abb6936>

## SARS-CoV-2 Viral RNA vs Viral Antigens



Antigen tests are not as sensitive as PCR tests that detect the genetic material of the virus. PCR tests can pick up minuscule amounts of the SARS-CoV-2 virus that causes COVID-19. Whereas a typical PCR test can detect a single molecule of RNA in a microlitre of solution, antigen tests need a sample to contain thousands — probably tens of thousands — of virus particles per microlitre to produce a positive result. So, if a person has low amounts of virus in their body, the test might give a false-negative result.

PCR is therefore the gold standard for COVID-19 testing and should be the test of choice as long as it is available (i.e. TAT\* of less than 48h).

\*TAT or turnaround time: time needed to deliver results from sample reception at the lab.

## Organize testing: waivers, sample taking, test execution, logistics

Waiver are need to collect samples and share data, kits can be mailed or dropped off to any location. New technology will enable massive increases in testing and reductions in cost by this fall.



### Budget tips:

- Use environmental "sentinel" testing where very high negative rate is expected
- Use pooling where high negative rate expected (FDA guidance as of June 16<sup>3</sup>)
- Train cleaning staff for enviro swabs, school nurse for clinical & waivers

1. This test has not been FDA cleared or approved. This test has been authorized by FDA under an EUA for use by authorized labs. This test has been authorized only for the detection of nucleic acid from SARS-CoV-2, not for any other viruses or pathogens. This test is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostic tests for detection and/or diagnosis or COVID-19 under section 564(b)(1) of the Act, 21 U.S.C. §360bbb-3(b)(1), unless the authorization is terminated or revoked sooner

2. Negative results do not rule out SARS-CoV-2 infection, particularly in those who have been in contact with the virus. Follow-up testing with a molecular diagnostic assay should be considered to rule out infection in these individuals. Results from antibody testing should not be used as the sole basis to diagnose or exclude SARS-CoV-2 infection or to inform infection status.

3. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-facilitating-diagnostic-test-availability-asymptomatic-testing-and>

# SAFER@WORK Built for all applications

Food  
Production



Factories  
(Hard & Soft Goods)



Schools



Transportation



Long-Term  
Care/Living



Healthcare  
Facility



Pharmaceutical  
Production



Restaurants



Distribution  
Centers

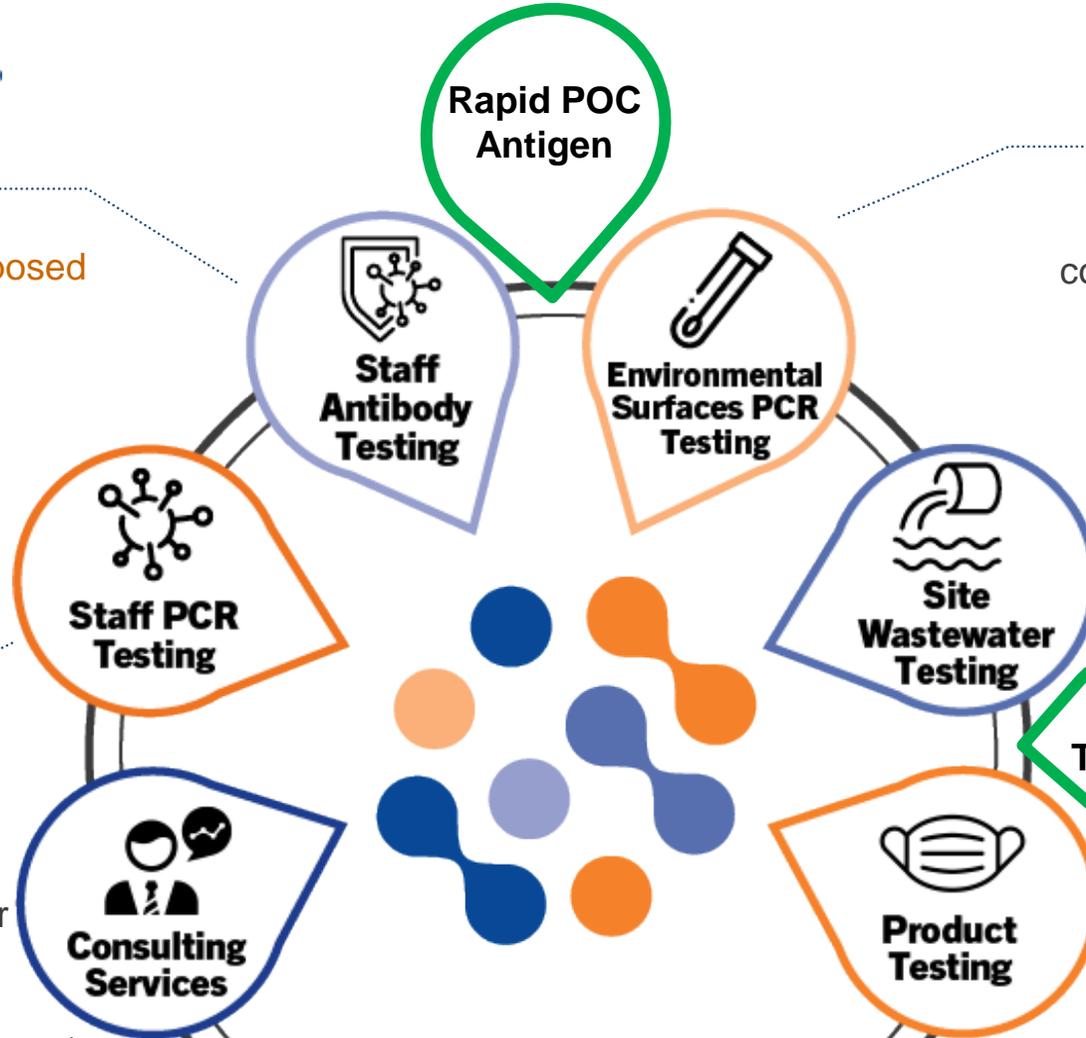


Recreation

Determine if your faculty, students or staff were exposed to COVID-19.

Detect the virus early on in your population. Determine whether it is safe for an individual to remain at or come back to school.

Tick all the boxes when it comes to your monitoring programs. With the assistance of our consulting partners, we can help design the most appropriate sampling protocols and action plans.



Detect the virus on all types of environmental surfaces. Gain confidence in your cleaning and decontamination methods.

Add another indicator related to potential presence of the virus within residents at your sites through regular waste water testing.

Comply with stringent and ever-changing international and local regulations with product testing, inspection and regulatory services focused on medical and protective equipment.

**SAFER@WORK**<sup>TM</sup>  
Comprehensive solutions to keep your staff and customers **safer during the COVID-19 pandemic**

- **FACULTY, STUDENT AND STUDENT ATHLETE PCR TESTING**

*\* Onsite collection services with testing available through any of our US-based locations*

*\*\*Self-collection from home*

**PCR testing** will detect the virus before it has been cleared by the immune system. Essentially it tests whether someone has significant virus present in their throat (also called nasopharyngeal tract) or sinus at the time of sampling.

**PCR testing of your faculty and students will assist in determining whether a person is contaminated, infectious, and whether it is safe for this individual to remain at or return to work/school (as decided by a doctor according to locally applicable health guidelines.)**

The specimen is collected via deep or anterior nasal swab, and sent to the laboratory where a technique called Reverse Transcription Quantitative Polymerase Chain Reaction (RT-PCR or sometimes shortened to PCR) is used to confirm the presence of the virus.



# ANTIBODY TESTING

**Staff antibody testing** (also called serological test) detects infections after the immune system has produced antibodies which recognize the virus. These antibodies (eg. IgGs) may remain in the bloodstream long after someone has recovered from the virus.

**Antibody testing indicates the person has been exposed to the virus, which combined with other dimensions (such as medical history, PCR testing, national or state guidelines) can help a health care professional decide if this person should be present at work. It can, therefore, help expedite a doctor's decision to support staff getting back to work.**

A blood sample is taken and sent to the laboratory for antibody analysis. Laboratory (ELISA) analysis is generally more sensitive than self-testing lateral flow devices. If antibodies to the SARS- CoV-2 virus are present, it indicates the person tested has previously been exposed to the virus.



# PRODUCT TESTING

Eurofins provides **product testing**, inspection and regulatory services focused on medical and protective equipment such as **masks\***, gloves, gowns, drapes, respiratory protective devices and equipment, its materials and components, as well as disinfectants and hand sanitizers worldwide.

**\*MASK TESTING** – A key component of Eurofins Sentinel program - designed to detect COVID-19 and minimize the risk of exposure, testing disposable worn masks can trigger contact tracing, quarantine initiatives, and individual PCR testing that identify infected individuals and keep others safe.

- Up to 10 masks can be pooled into 1 test, providing a cost-effective solution to detect COVID-19 in your teams reducing the expense of individual PCR testing
- Turn around times available in 24 hours from receipt at the lab
- Positive results do not require reporting into local health authorities



# ENVIRONMENTAL SURFACE PCR TESTING

**Environmental surfaces PCR testing** is designed to detect the SARS-CoV-2 virus on all types of surfaces to give you an indicator of presence of the virus in your workplace (which can trigger additional measures listed in your risk management plans) and to provide confidence that the cleaning and decontamination methods used in your working environment are effective.

**Swabs provided are used to sample exposed surface areas in office spaces, communal areas (e.g. canteens, toilets, vending machines), production lines, medical facilities, vehicles and general public areas.**

The method targets two specific genes for the SARS-CoV-2 virus to produce a fast and very sensitive RT-PCR test.



# SITE WASTEWATER TESTING

Studies have demonstrated that the presence of viruses in wastewater can be a strong indicator of the presence of virus in a given facility (dormitories) prior to the onset of symptoms.

**Regular wastewater testing of your site's effluents and on-going monitoring of your facility or departments can provide an indicator of the potential presence of the virus within your resident population, and steer your additional testing programs.**



# SITE AIR TESTING

Eurofins is the leading commercial laboratory to offer quantitative air testing for SARS-CoV-2

Eurofins EMLab P&K is on the forefront of developing quantitative air analysis for SARS-CoV-2. The quantification of virus particles is crucial for a meaningful air monitoring program to assess the risk of potential exposure and transmission. Other factors are exposure time, susceptibility of the individual and the (hitherto unknown) infectious dose. As more data about infectious dose becomes available the monitoring of indoor air environments by quantitative analysis will be an important tool to provide feedback for risk assessments of indoor environments.

## Indoor air monitoring can benefit many industries

Industries that are hardest hit by the pandemic such as air travel, hospitality, theaters, convention centers and other businesses may benefit from aerosol testing for COVID-19 to re-assure the customers and audience. Aerosol testing does not address transmission caused by direct contact or when in close proximity to an infected individual. It does, however, enable us to address aerosol transmission and air quality as it relates to SARS-CoV-2.

## Easy sampling and fast results

The sampling procedures are straightforward and easy to follow. Our sampling kits contain clear instructions on how to take samples and provide materials for safe packaging as well as labels for return shipping overnight. Make sure to send samples immediately after a sampling project is completed.

<sup>1</sup> <https://www.cdc.gov/media/releases/2020/s1005-how-spread-covid.html>

<sup>2</sup> <https://www.who.int/news-room/commentaries/detail/transmission-of-sars-cov-2-implications-for-infection-prevention-precautions>



# CONSULTING SERVICES

Available for Clinical testing and Sentinel monitoring programs

Our consulting teams and partners can help you design the most appropriate **SAFER@SCHOOL** protocols, including testing frequency and mix, testing regime plan and design, sampling techniques, site selection, corrective action plans and adverse result investigations.



# ANCILLARY SERVICES

## Identify Testing Candidates



Employee risk profiling  
Epidemiologists available



Employee screening,  
consent and symptom  
tracking



MEDABLE 

## Contact Tracing



Blue tooth hardware and  
real time reporting for  
contact tracing



 GUARDHAT

## Healthcare Provider

On-site sample collection

Flexible hours, nationwide  
coverage

Streamlined test  
ordering

Agile  
ramp-up

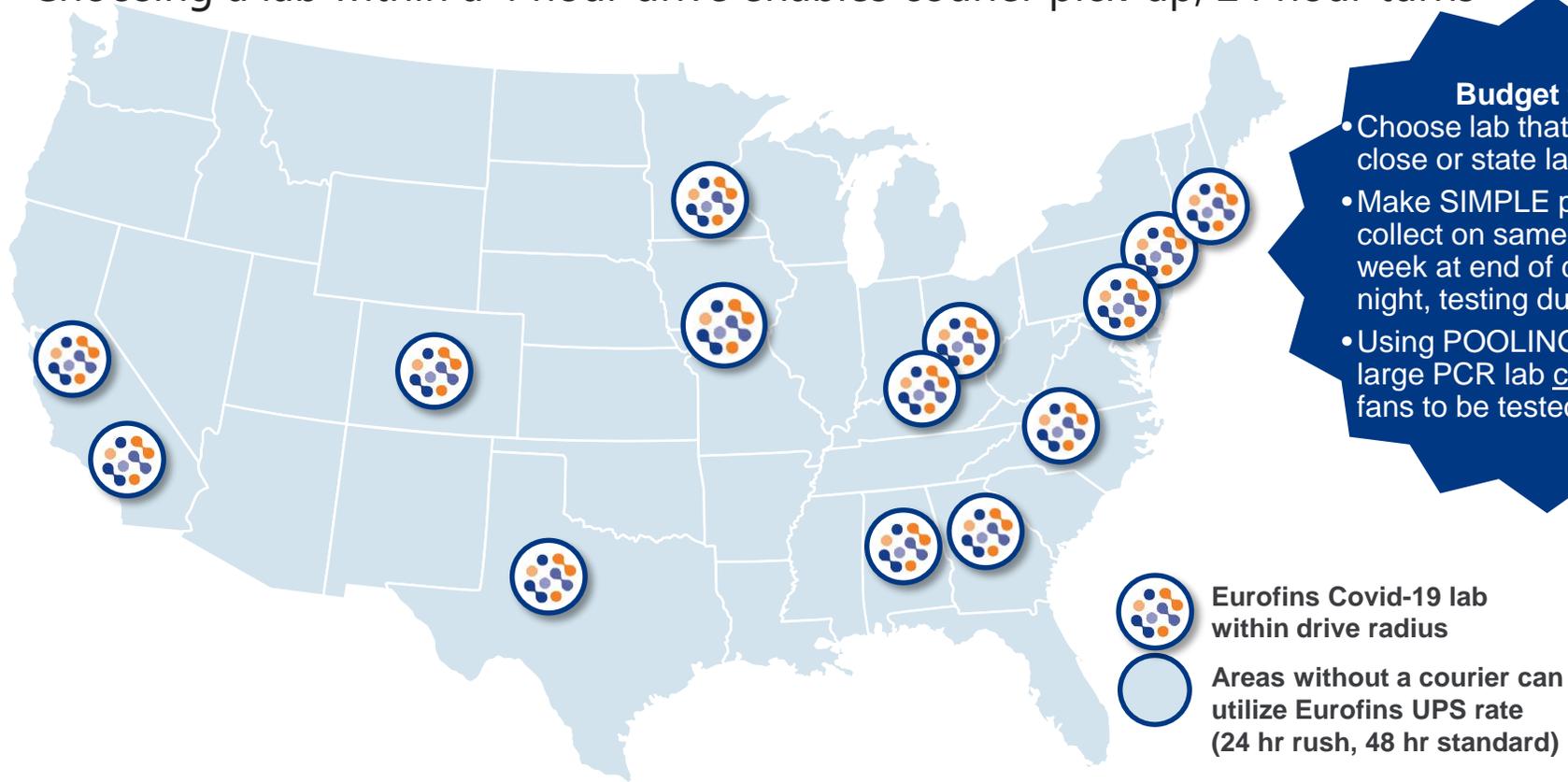


Phoenix Medical Staffing



# For regular surveillance testing, a good logistics plan enables effective risk reduction AND can save significant cost

Choosing a lab within a 4 hour drive enables courier pick-up, 24 hour turns



**Budget tips:**

- Choose lab that is physically close or state lab if feasible
- Make SIMPLE protocol: collect on same day(s) or the week at end of day (drive at night, testing during day)
- Using POOLING + nearby large PCR lab could enable fans to be tested

## Eurofins Scientific – How to Contact Us

David Morgan: [DavidMorgan@eurofinsUS.com](mailto:DavidMorgan@eurofinsUS.com)

Troy Ayers: [TroyAyers@eurofinsUS.com](mailto:TroyAyers@eurofinsUS.com)

<https://www.eurofins.com/covid-19-response/safer-work/>

