Thermo Fisher Scientific site controls breakthrough cases with environmental surveillance

**Safety protocols**
Since the start of the COVID-19 pandemic, Thermo Fisher Scientific has proactively implemented several safety protocols across its facilities to help provide safer work environments for employees. As vaccines rolled out and local mask mandates began to lift, one of the sites put in place additional safety measures to further protect its employees and their families.

- Weekly voluntary onsite testing with Polymerase Chain Reaction (PCR) analysis.
- Disinfecting and contact tracing.
- Environmental surveillance using the Thermo Scientific™ AerosolSense™ Sampler, a solution designed to deliver timely and highly reliable insight into in-air pathogen presence, including SARS-CoV-2, Flu A/B and/or RSV. Air samples of high-risk areas were taken daily and PCR tested for results within twenty-four hours.

**Taking action**
Per local and national health guidelines (CDC) in May, those who were vaccinated had the option of wearing masks and those unvaccinated were required to wear masks indoors. In early August, the results from the onsite testing showed that some, mostly vaccinated, Thermo Fisher Scientific employees were positive for COVID-19. Quickly actions were taken by the following:

- Leveraged a total of five AerosolSense Samplers throughout the facility covering ~120,000 sq. ft. to pinpoint high risk areas.
- Mask mandate onsite for two weeks regardless of vaccination or not. The data driven mask mandate had high compliance and the voluntary testing had increased participation.
- Increased disinfecting
- Continued contact tracing

By implementing a robust safety protocol with individual onsite testing, environmental surveillance using the AerosolSense Sampler paired with PCR and cleaning – employees were provided a peace of mind and confidence in knowing that efforts were being made to help keep their workspace safer.

Seeing positive cases onsite decrease supported the response effectiveness and helped to minimize virus transmission onsite. It is essential to implement a risk mitigation strategy that utilizes several tools of protection.
Key learnings
The insight from the onsite testing and AerosolSense Sampler paired with PCR helped to:

- Ensure that there is not a time gap in testing/monitoring coverage. Asymptomatic testing 1-2 times a week must be supplemented by daily air sampling paired with PCR for stronger risk responses.

- Trust in the data. The initial assumptions of high risk areas (those with high populations) were incorrect. In-air surveillance helped pinpoint the high-risk areas not previously identified. These new high risk areas had vaccinated employees with breakthrough cases.

- To pinpoint high risk areas it is necessary to have more than one AerosolSense Sampler placed throughout a facility. Several AerosolSense Samplers can help identify containment of virus and confirm protocol measures are effective.
Implemented two week mask mandate. Incomplete compliance on 8/16. Full compliance starting 8/17.

Positive tested individuals were wearing masks; however, in close contact with those positive on 8/12.

Received testing results. Increased in-air surveillance to help confirm risk areas.

Negative results from onsite testing and in-air surveillance from 8/23-8/31.