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ASIA EDITION

“A blind spot currently exists on refrigeration systems that are not protected by predictive maintenance”

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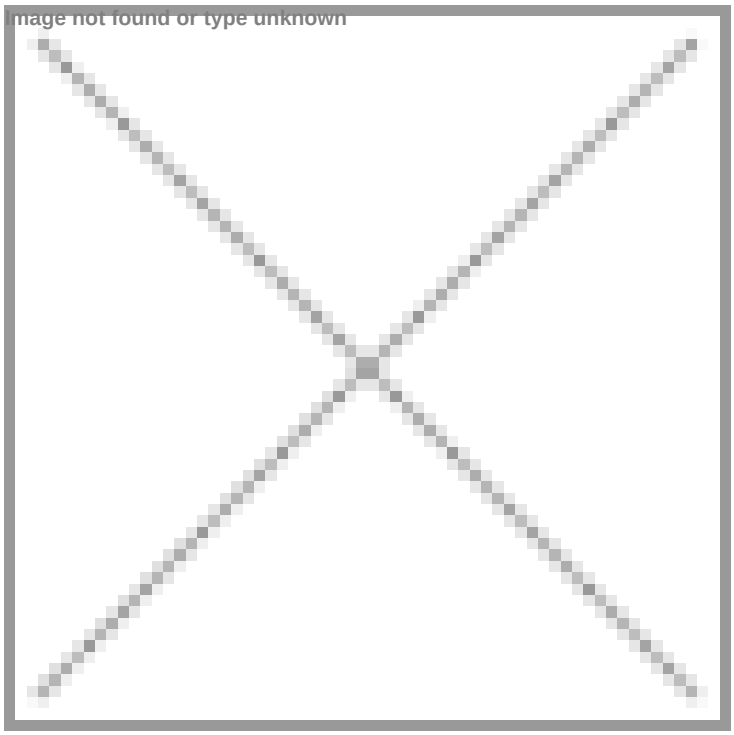
US-based Predictive Monitor has recently launched its OverShield technology, which is a first-of-its-kind predictive monitoring technology, that is improving chamber performance for pharmaceutical and life sciences companies so they can provide life-saving drugs for patients, without risking quality and safety. To find out more about this innovative technology, BioSpectrum Asia spoke to Laurie Masiello, Founder, Predictive Monitor.



Could you please provide details of your product pipeline, and upcoming launches?

We just launched OverShield v3.0, an innovative software product/service that allows biopharmaceutical companies to enact predictive maintenance on their environmental chambers and prevent costly failures. We are currently conducting pilots to expand our capabilities to several other high-value pharmaceutical types of equipment and infrastructure, including freeze dryers, plant-wide chillers, clean rooms, and more.

What are the major objectives being achieved at your end to support the growth of the life sciences sector globally?

One of our main goals is to allow our biopharma customers to focus on doing the work they do best, creating life-saving drugs and research (rather than responding to chamber emergencies, product moves, and product losses). OverShield gives our

customers an early-warning window spanning days, weeks, and even months before the onset of equipment malfunctions, allowing them to prioritise and schedule maintenance during regular business hours. It also provides them with the time to ensure they have the right parts in inventory and the right people with the required training to keep critical equipment up and running. Fewer disruptions mean our customers have the time to achieve their goals, work more efficiently, and foster sustainability practices.

What are the current challenges facing the pharma, biotech companies for maintaining the appropriate temperatures while developing, manufacturing drugs?

One challenge is the blind spot that currently exists on refrigeration systems that aren't protected by predictive maintenance. Chamber malfunctions often present themselves with months of early warnings, but without the sensors and analytics to detect them and notify response staff, these disruptors manifest into downstream issues and equipment downtime.

Another key challenge involves the people in the industry. There simply aren't that many trained maintenance people with the necessary skills to diagnose and effectively fix refrigeration issues. OverShield identifies the malfunctions and focuses support where it's needed, instead of performing time-based routine tasks on equipment that are not showing symptoms of stress.

How do we ensure the efficiency of temperature-controlled chambers for the pharma, biotech sectors?

Predictive Monitor has been analysing this type of equipment for over a decade, and we know how refrigerated systems are supposed to run. Combine that with OverShield's innovative capability to use AI-powered analytics to prescribe a dynamic operational baseline on a machine-to-machine basis, and we can easily detect when something isn't right. We use a variety of sensors to keep " eyes on" various chamber and refrigeration parameters so we can identify precisely where issues exist.

How is Predictive Monitor's OverShield technology transforming predictive chamber maintenance, safety, and quality for pharmaceutical & biotech companies through AI and IoT sensors?

These two technologies power our entire solution. Before IoT, it was cost-prohibitive to wire up a chamber that could span multiple floors and remote roof units. With advanced plug-and-play cellular IoT technologies, the hardware side is cost-effective. Similarly, before AI advancements, being able to monitor and analyse thousands of data points and billions of readings was unattainable. Now, OverShield's AI-powered analytics continuously analyses each piece of equipment prescriptively and with contextualised data, resulting in remarkable forewarnings and accurate maintenance insights.

How are you strengthening your presence in the Asian market to reach out to more pharma, biotech companies?

Metcal Technologies, with offices in Malaysia and Singapore, is our Asian partner. They generously invited us to attend the region's annual PDA and ISPE events, where we networked with attendees and visited customer sites.

Predictive Monitor is also expanding its footprint by forging strategic regional partnerships in the US and Europe with corporations that have a presence in Asia. Since many biopharma companies have a worldwide presence, we anticipate that they will roll out worldwide to other facilities as they see a return on their OverShield investment in localised regions.

Are you exploring new partnerships, collaborations in the future to build new technologies?

We believe that partnerships open the door to solving the unique critical needs in our industry (and perhaps others) that OverShield can help with. Predictive maintenance is an emerging area of technology, and by teaming up with forward-thinking people and organizations, we gain access to fresh perspectives that inspire new applications and impact our future service offerings.

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