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New BD Reagents Enable Researchers to Break Through Resolution Boundaries in Flow Cytometry

Developed with novel dye technology and AI guidance, new BD Horizon RealYellow™ 586 Reagents have potential to accelerate discovery and drug development in oncology, autoimmune disorders and infectious diseases

FRANKLIN LAKES, N.J., April 25, 2022 /PRNewswire/ -- BD (Becton, Dickinson and Company) (NYSE: BDX), a leading global medical technology company, today announced the launch of a new family of reagents that enables researchers to gain improved data resolution and greater insights from samples compared to traditional fluorochromes, made possible by their innovative development using novel dye technology and artificial intelligence (AI) guidance.



The launch of BD Horizon RealYellow™ 586 Reagents marks the first fluorochrome in a series from the new BD Horizon RealYellow™ and RealBlue™ Reagents product family. These reagents are a significant breakthrough in flow cytometry and have the potential to accelerate discovery and drug development in many diseases.

"One of the main challenges researchers face today is the limited number of markers that can be analyzed in a single sample due to the lack of specific fluorochromes excited at a single wavelength," said Cyrille Mionnet, Researcher at Centre d'Immunologie de Marseille-Luminy (CIML). "This hinders our ability to identify and analyze distinct populations with confidence. BD Horizon RealYellow™ 586 Reagents offer an effective solution for both conventional and spectral cytometry, expanding what is possible and opening the door to greater and deeper biological insights by facilitating panel design."

BD Horizon RealYellow™ and RealBlue™ Reagents were developed using novel BD dye technology and an AI-guided approach to selecting the optimal fluorochrome positions. The AI analyzed existing data from excitation and emission profiles of current commercially available fluorochromes, then identified the optimal positions in laser lines for new dyes to be developed. The BD Research and Development team then developed dyes to fit these

profiles using a novel BD dye technology. This combination of next-generation dye technology and AI guidance makes the BD Horizon RealYellow™ and RealBlue™ Reagents the first of their kind.

Flow cytometry is a popular technique in biomedical research that allows scientists to identify and analyze single cells based on their characteristics, letting scientists study them in more detail to better understand the immune system, discover new biomarkers, and help develop treatments for disease. A key component of flow cytometry experiments are fluorochromes, or fluorescent dyes, photoreactive chemical compounds excited by laser light to enable the detection of features of interest on a cell. BD Horizon RealYellow™ and RealBlue™ Reagents are laser-specific fluorochromes optimally positioned to minimize the cross-laser excitation and background experienced with traditional fluorochromes.

BD Horizon RealYellow™ 586 Reagents are optimized for not only conventional flow cytometry, but spectral flow cytometry, a rapidly growing field that allows for even more characteristics to be measured from a single sample. Combined with spectral flow cytometry, BD Horizon RealYellow™ 586 Reagents help researchers perform high-dimensional research to address highly complex questions.

"By overcoming this long-standing limitation in flow cytometry, scientists will now be able to more accurately and confidently study cells of interest, which can streamline discovery research and help unlock potential therapies for disease in a broad range of fields including virology and oncology," said Steve Conly, vice president and general manager of Research and Clinical Solutions for BD Biosciences. "With BD Horizon RealYellow™ and RealBlue™ Reagents, BD demonstrates its continued leadership in the exciting field of spectral flow cytometry. The new reagents will complement future products that leverage BD CellView™ Image Technology, our new technology that adds fluorescence imaging and image-based decisioning to sort individual cells at high speed based on the visual details of each cell, to empower researchers with a truly unique solution for cutting-edge flow cytometry."

BD Horizon RealYellow™ 586 Reagents are now available globally online and through local sales representatives. Additional BD Horizon RealYellow™ and RealBlue™ Reagents will be made available soon. More information is available at **bdbiosciences.com/real**.

About BD

BD is one of the largest global medical technology companies in the world and is *advancing the world of health™* by improving medical discovery, diagnostics and the delivery of care. The company supports the heroes on the frontlines of health care by developing innovative technology, services and solutions that help advance both clinical therapy for patients and clinical process for health care providers. BD and its 75,000 employees have a passion and commitment to help enhance the safety and efficiency of clinicians' care delivery process, enable laboratory scientists to accurately detect disease and advance researchers' capabilities to develop the next generation of diagnostics and therapeutics. BD has a presence in virtually every country and partners with organizations around the world to address some of the most challenging global health issues. By working in close collaboration with customers, BD can help enhance outcomes, lower costs, increase efficiencies, improve safety and expand access to health care. For more information on BD, please visit bd.com or connect with us on LinkedIn at www.linkedin.com/company/bd1/ and Twitter [@BDandCo](https://twitter.com/BDandCo).

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