PerkinElmer Launches the EnSpire® Multimode Plate Reader with Label-Free Detection Technology for Drug Discovery Research

WALTHAM, MA –PerkinElmer, Inc., a global leader focused on improving the health and safety of people and the environment, today announced the introduction of the EnSpire® Multimode Plate Reader with Corning® Epic® label-free technology. This is the first and only benchtop detection platform to combine optical label-free technology and traditional labeled assays to accurately identify and characterize potential new therapeutic targets. The new EnSpire label-free platform is the result of a strategic collaboration established between PerkinElmer and Corning Life Sciences.

The EnSpire Label-Free platform can identify novel molecules and characterize important cellular and biochemical mechanisms of action that otherwise might have gone undetected by conventional labeled approaches. Label-free detection is shown to be applicable to all major classes of drug targets, including GPCRs, kinases, enzymes, ion channels, protein:protein and protein:ligand interactions, enabling broader research applicability.

Richard M. Eglen, PhD, president, Bio-discovery, PerkinElmer, said, “Label-free technology represents a potential game-changer in drug discovery innovation, by offering researchers a universal platform to observe cellular interactions and the effects of possible new drug compounds on cells. This is a major improvement over the use of traditional labeled assay methods alone, which rely on more indirect and time-consuming methods of observation.”

Achim von Leoprechting, PhD, vice president, Imaging and Detection Technologies, Bio-discovery, PerkinElmer, added, “The new EnSpire platform allows simultaneous measurement of multiple signaling pathways over time, to provide researchers with a more complete and insightful view of both cellular and biochemical interactions. Label-free approaches are sensitive enough to work with sub-confluent cells and non-recombinant cell types. This approach can yield more biologically relevant data, allowing for more predictive and faster decisions to be made, as well as improving the quality of research.”

The EnSpire Label-free platform combines Corning‘s Epic® optical label-free technology with a range of classical labeled technologies, including quad monochromator-based absorbance and fluorescence intensity, ultra-sensitive luminescence and patented Alpha technology in multi-well plate formats. The ability to offer these complementary detection technologies on a single platform allows PerkinElmer to better serve the needs of academic research, as well as assay development, secondary screening and structural activity relationship (SAR) studies in drug discovery.

Features of the EnSpire Label-Free platform include:

• Flexibility to support both optical label-free and labeled assays on a single benchtop platform enabling confirmatory results and the generation of more biologically-relevant analysis (e.g., luminescence for cell viability and toxicity) with an orthogonal approach.

• Developed using Corning’s industry-leading Epic® technology.

• All methods and assay protocols are based on the proven methods of Corning’s established Epic® system.

• Integrated software to allow users to initiate assay development and data analysis, more easily and simply.

• Automated calculation of dose response curves and data (IC50 and EC50).

• A compact benchtop design.

Additional products to support the Label-free solution from PerkinElmer include:

EnSpire Label- free Microplates

• The portfolio of EnSpire label-free microplates includes 384-well cellular and biochemical microplates, and 96-well cellular microplates.

• These high performance microplates with proprietary coatings for label-free detection enable a wide range of biochemical and

cellular assays.

• High sensitivity is achieved from the integration of Corning's Epic® optical biosensor technology within each well.

• The 96 and 384 cellular label-free microplates offer flexibility for many cell types including adherent and suspension cells, mammalian and primary cells.

Automation & Liquid Handling

• As a complement to the EnSpire Multimode Plate Reader, automated liquid handling ensures the accuracy and consistency of results throughout the assay development process.

• With pre-defined and validated templates for label-free assays, any user can perform the required protocols with ease and confidence.

• JANUS® Automated Workstations from PerkinElmer support assay development needs as a standalone instrument, or by integration with other devices to achieve the desired level of 'walk away' automation.

Cell Lines & Frozen Cells

• PerkinElmer has the largest portfolio of GPCR cell lines and ready-to-use frozen cells validated for biochemical and functional assays, including label-free technology.

• Using frozen cells with label-free technology saves time and resources by providing optimal and standardized culture conditions, even for very sensitive GPCRs, to reduce variability in sensitivity and size of response between different batches of cells.

For more information regarding PerkinElmer's Label-Free technologies, please visit www.perkinelmer.com/labelfree.

About PerkinElmer, Inc.

PerkinElmer, Inc. is a global leader focused on improving the health and safety of people and the environment. The Company has approximately 6,000 employees serving customers in more than 150 countries, and is a component of the S&P 500 Index. Additional information is available through www.perkinelmer.com or at 1-877-PKI-NYSE.

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