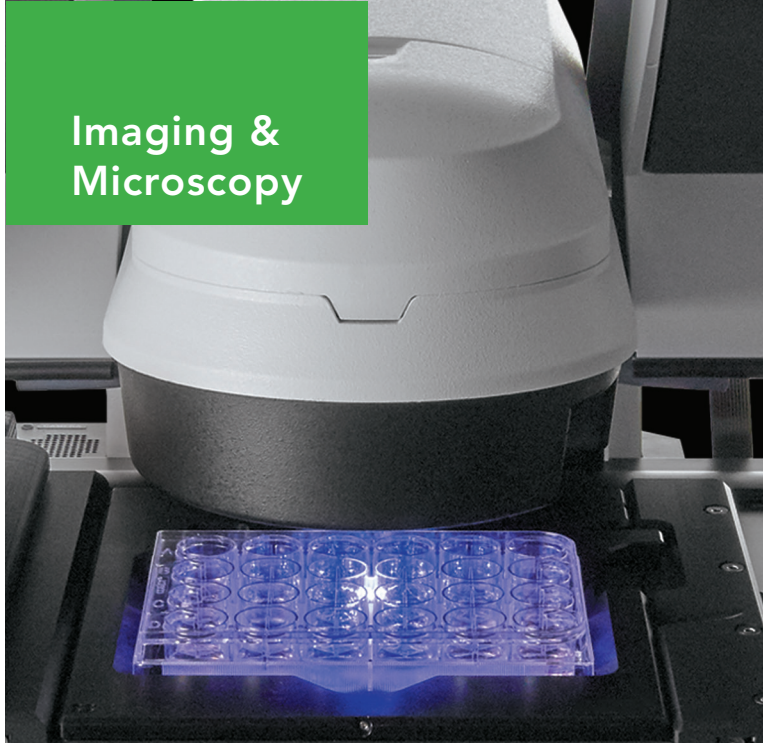
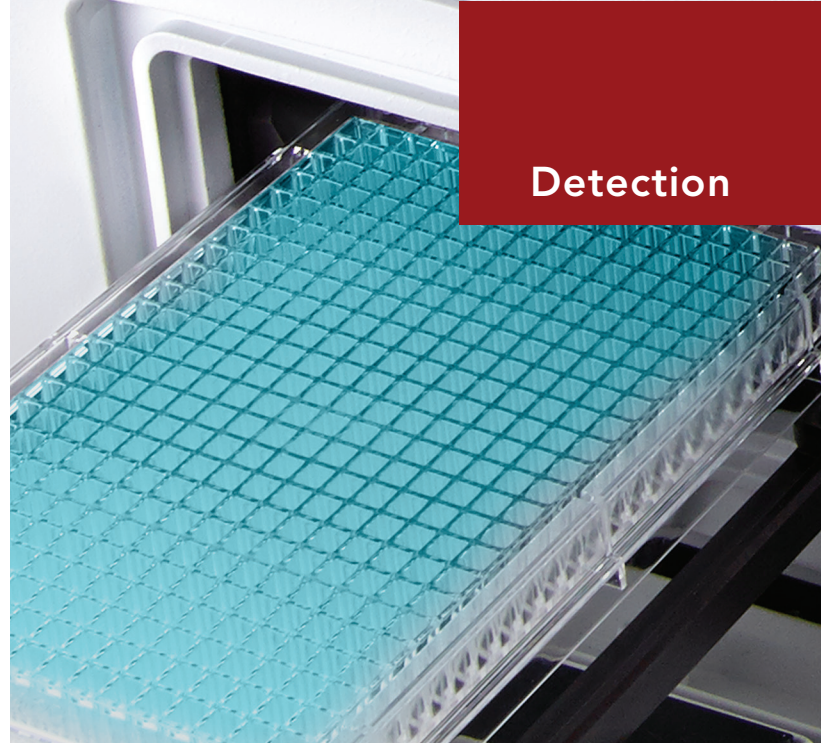


Imaging &  
Microscopy



Detection



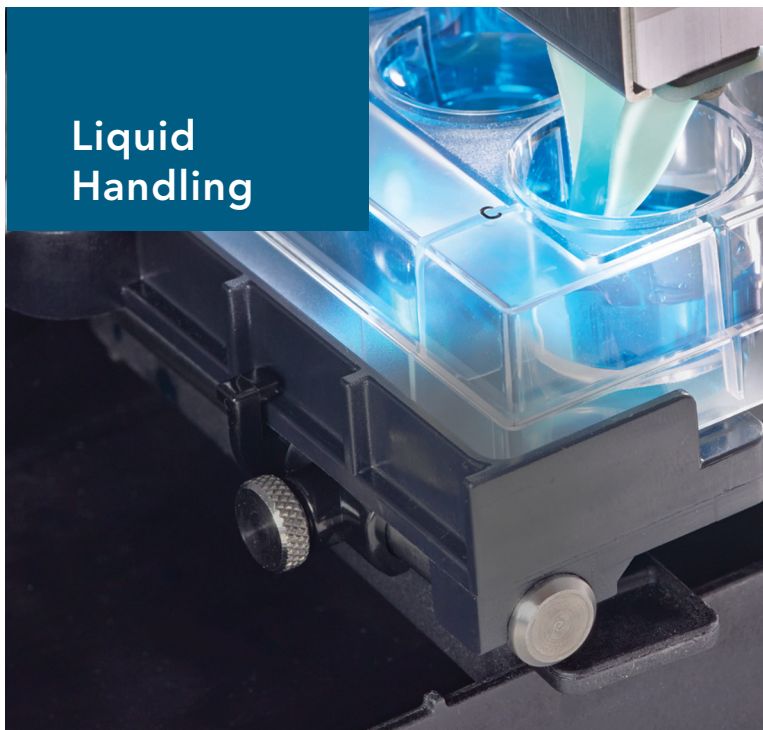
## Life Science Instrumentation & Software

Think Possible

 **BioTek**<sup>®</sup>

CELEBRATING  
**50**  
YEARS  
OF PASSION AND  
INNOVATION

Liquid  
Handling



Robotics





## Lionheart™ Automated Microscopes

- ▶ Automated image capture, processing, and analysis on a single platform
- ▶ Up to 100x oil immersion; brightfield, color brightfield, and fluorescence; phase contrast (Lionheart FX)
- ▶ Z-stacking and z-projection, montage and stitching, automated videos from time lapse sequences
- ▶ Image-based and patented laser autofocus, auto LED intensity, auto exposure
- ▶ Live cell assay support: incubation to 40 °C and CO<sub>2</sub>/O<sub>2</sub> control (Lionheart FX)



## Cytation™ Cell Imaging Multi-Mode Readers

- ▶ Fluorescence and brightfield imaging up to 60x, phase contrast and color brightfield (Cytation 5)
- ▶ Single and multi-color, montage, time lapse, z-stacking methods and z-projection
- ▶ Patented Hybrid Technology™ combines filter-based and monochromator-based optics (Cytation 5)
- ▶ Variable bandwidth monochromators for fluorescence and laser-based Alpha (Cytation 5)
- ▶ Live cell assay support: CO<sub>2</sub>/O<sub>2</sub> control, incubation and shaking
- ▶ Peltier Cooling Module maintains ambient environmental stability



## AutoScratch™ Wound Making Tool

- ▶ Automatically creates wounds with high consistency from plate to plate
- ▶ Easy-to-use design setup in minutes with no training required
- ▶ 24- and 96-well plates supported with simple manifold change and no tools required
- ▶ Unattended multi-step cleaning and decontamination
- ▶ Easily replaceable pins minimize downtime between assays

# Detection



## Synergy™ Neo2 Multi-Mode Reader

- ▶ Patented Hybrid Technology™ combines filter-based and monochromator-based optics
- ▶ Scientific quad-monochromators with 3 – 50 nm continuously variable bandwidth
- ▶ High performance filter system uses multiple PMT detectors
- ▶ Ultra-fast plate processing speeds
- ▶ Live cell options: temperature and CO<sub>2</sub>/O<sub>2</sub> control, direct bottom illumination



## Synergy™ H1 Multi-Mode Reader

- ▶ Patented Hybrid Technology™ combines filter-based and monochromator-based optics
- ▶ Top/Bottom fluorescence, UV-Visible absorbance, luminescence, FP, TRF and TR-FRET
- ▶ Gas Controller available for Synergy H1: Controls and monitors CO<sub>2</sub> and O<sub>2</sub> in the system



## Synergy™ HTX Multi-Mode Reader

- ▶ Fluorescence, UV-Vis absorbance and luminescence in 6- to 384-well plates, Alpha detection
- ▶ Linear and orbital shaking, incubation; available dual reagent dispenser
- ▶ Take3 Micro-Volume Plate compatible



## Synergy™ LX Multi-Mode Reader

- ▶ Affordable, easy-to-use multi-mode reader
- ▶ UV-Vis absorbance, 200 to 999 nm
- ▶ Filter-based fluorescence and luminescence
- ▶ Take3 Micro-Volume Plate compatible



## PowerWave™ HT Microplate Spectrophotometer

- ▶ Continuous wavelength selection from 200 – 999 nm, without filters
- ▶ Reads 96- and 384-well plates in as little as 5 seconds (96 wells)
- ▶ Incubation to 50 °C and user programmable shaking



### Epoch™ 2 Microplate Spectrophotometer

- ▶ Large color touch screen interface with onboard software
- ▶ Filter-free 200 – 999 nm wavelength range
- ▶ Reads 6- to 384-well plates and 2  $\mu$ L samples with Take3 Plate
- ▶ Shaking and incubation to 65 °C with Condensation Control™



### Epoch™ Microplate Spectrophotometer

- ▶ Select individual wavelengths from 200 – 999 nm without filters
- ▶ Perform spectral scans, end point, kinetic, or well area scans
- ▶ Take3 Micro-Volume Plate compatible



### ELx808™ Absorbance Reader

- ▶ 380 – 900 nm (340 – 900 nm option)
- ▶ 96-well plate reading of fast kinetics or end point assays
- ▶ Incubation to 50 °C (option) and shaking



### 800™ TS Absorbance Reader

- ▶ Reads plate types from 6- to 384-well
- ▶ Wavelength range from 400 – 750 nm (340 – 750 nm option)
- ▶ Temperature control and shaking (option)



### Take3™ and Take3 Trio Micro-Volume Plates

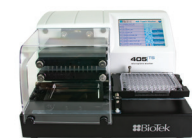
- ▶ Up to 16 or 48 2  $\mu$ L samples for nucleic acid and protein quantification, without dilution
- ▶ Use with Epoch, Epoch 2, Synergy and Cytation readers (with absorbance detection module)
- ▶ Pre-programmed protocols in Gen5 software for easy multi-sample measurements

## Liquid Handling



### EL406™ Washer Dispenser

- ▶ 96-, 384- and 1536-well microplates
- ▶ Combines fast microplate washing with up to three reagent dispensers in one, compact instrument
- ▶ Optional buffer switching for up to 4 buffers, biomagnetic separation and vacuum filtration modules
- ▶ Typical applications: ELISAs, cell-based assays, MSD automation, magnetic/polystyrene bead assays



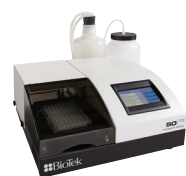
### 405™ TS and 405 LS Washer

- ▶ 96- and 384-well microplates
- ▶ USB flash drive ports enable file transfer and storage (405 TS)
- ▶ Patented Verify™ clog detection technology for dispense and aspiration tubes
- ▶ Gentle dispense for non-disruptive cell washing
- ▶ Magnetic and polystyrene bead assays, along with conventional ELISAs



### ELx405™ Select Deep Well Washer

- ▶ 96- and 384-well deep well and standard height microplates
- ▶ Built-in ultrasonic cleaner option for effortless maintenance
- ▶ Wash cell assays with extra low flow option



### 50™ TS Washer

- ▶ Washer with 4-, 8-, 8s-, 2 x 8- and 12-well manifold options for 24-, 96- and 384-well microplates
- ▶ Syringe pump provides precise and accurate dispensing
- ▶ Optional buffer switching for up to 3 buffers
- ▶ Biomagnetic separation and vacuum filtration modules



### MultiFlo™ FX Multi-Mode Dispenser

- ▶ 6- to 1536-well microplates in low profile, standard height and deep well formats
- ▶ 500 nL to 3 mL dispensing; from 1 to 4 reagents
- ▶ Dispense to custom-mapped individual wells with available RAD™ module
- ▶ Available wash module for 6- to 384-well plates
- ▶ Unique combination peristaltic pump and syringe drive technologies, fully modular and upgradable
- ▶ Automated gentle media exchange for 3D cell structures with AMX™ module



### MicroFill™ Dispenser

- ▶ 24-, 96- and 384-well microplates; 5 µL to 6 mL dispense volume
- ▶ No re-calibration required
- ▶ Completely autoclavable fluid path for guaranteed sterility

## Software



### Gen5™ Microplate Reader and Imager Software

- ▶ Control of all BioTek microplate readers and imagers
- ▶ Intuitive interface for protocol and data reduction and results output
- ▶ Powerful analysis of absorbance, fluorescence, luminescence and image data
- ▶ 21 CFR Part 11 compliance available with Gen5 Secure
- ▶ Advanced image analysis with Gen5 Image+ and Image Prime



### Liquid Handling Control™ (LHC) Software

- ▶ Full control for EL406, 405 TS, 405 LS, ELx405 and MultiFlo FX
- ▶ Intuitive StepWise™ protocol creation with an unlimited number of methods included
- ▶ Custom maintenance reminders for continued instrument performance in busy laboratories
- ▶ 21 CFR Part 11 compliance and additional security with LHC™ Secure

## Robotics



### BioSpa™ 8 Automated Incubator

- ▶ Complete workflow automation, sample prep to detection
- ▶ Temperature, CO<sub>2</sub>/O<sub>2</sub> control; humidity monitoring
- ▶ Records environment conditions; automated alerts
- ▶ Compact for biosafety cabinet use
- ▶ Uncomplicated software and simple integration



### BioStack™ Microplate Stacker

- ▶ <10 seconds plate exchange time
- ▶ De-lidding capability with BioStack4
- ▶ 24-, 48-, 96-, 384- and 1536-well plate compatible (BioStack model dependent)
- ▶ Direct control through washer and dispenser interface or via LHC or Gen5 software
- ▶ Compatible with BioTek readers and liquid handlers (except 50 TS, 800 TS, ELx808)

## Contact Information

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