

## **Connected** The fully integrated autoimmune laboratory.



- Complete automation lowers cost and improves productivity
- Creates a transcription free, paperless environment
- Provides positive patient identification from processing to reporting
- Centralized data management improves
  workflow efficiencies



## The Integrated Lab

## What is the Integrated Lab?

A portfolio of Inova Diagnostics instruments seamlessly networked to improve turnaround time, increase productivity, optimize quality control, and deliver workflow efficiencies.



## The portfolio of Inova Diagnostics instruments

- BIO-FLASH, random access chemiluminescent benchtop analyzer
- QUANTA-Lyser, automated EIA/IFA processor
- NOVA View, automated digital IFA microscope
- QUANTA Link, data management system
- AUTOLoader, automated slide transfer for NOVA View
- QUANTA-Lyser 4000, high volume IFA processor
- IFA darkroom, electronic data entry for IFA in a darkroom setting

## QUANTA-Lyser is the most flexible automated EIA/IFA processing platform to meet the volume requirements of any laboratory.

- Available in four models, with options for standalone EIA or IFA, or combination EIA/IFA processing
- Ceramic coated washable probes deliver cost saving over disposable tip instruments
- Reads NOVA Lite IFA slide barcodes for positive patient identification





## QUANTA-Lyser<sup>®</sup> 2

- QUANTA-Lyser 2 has a sample deck capacity for 96 EIA samples or 64 IFA samples per run
- Holds up to 2 EIA plates or 15 IFA slides
- Single ceramic coated probe
- Ideal for esoteric assays or in settings that require maximum flexibility and efficiency

## QUANTA-Lyser®

## QUANTA-Lyser® 160/240

- Independent 4 probe system is up to 40% faster when compared to single or dual probe instruments
- QUANTA-Lyser 160 has a 160 sample capacity deck that is configured to maximize the number of analytes processed
- QUANTA-Lyser 240 has a 240 sample capacity deck that is configured to maximize the number of samples processed
- Flexibility: Holds up to 6 EIA plates or 30 IFA slides

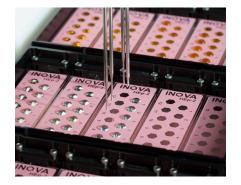


## QUANTA-Lyser<sup>®</sup> 4000

## QUANTA-Lyser 4000 is a high throughput IFA slide processor to accelerate workflow in the high-volume laboratory.

A 480 sample capacity deck with 4 ceramic coated washable probes ensures fast and accurate turnaround.





- Dual probes wash each individual well to improve accuracy
- Pipettes mounting media to eliminate cover slips when used with NOVA View



Icon driven software and touch screen monitor facilitates software navigation



On-board diluent and wash containers support high volume operation

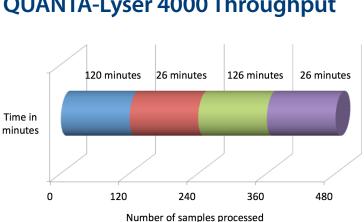


Scans IFA slide and reagent barcodes to ensure positive patient identification and assay integrity



Four ceramic coated washable probes work independently to allow faster processing

## **QUANTA-Lyser 4000 Throughput**





Holds up to 480 primary samples to minimize handson time



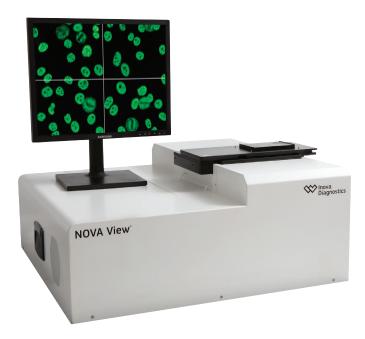
Slide carrier can be transferred directly to NOVA View to reduce slide handling

QUANTA-Lyser 4000 is a high throughput IFA processor. Slides are handled in groups of 120 samples. Each group of 120 samples can be removed for reading as soon as processing is completed.

- The first 120 samples can be removed for reading in 2 hours
- Additional sets of 120 samples can be removed as soon as processing is completed
- 480 samples are completed in 5 hours

## NOVA View<sup>®</sup>

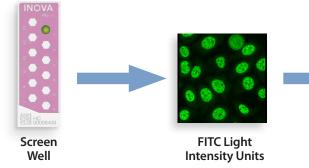
## NOVA View is an automated digital IFA microscope for the detection of autoantibodies with IFA technology.



- NOVA View automatically acquires and presents digital images of HEp-2, ANCA\* and Crithidia\* cells for operator review
- Single well titer determination for HEp-2, ANCA ethanol and Crithidia can reduce IFA workload and lower material costs
- DAPI stain provides built-in control to visualize cells in a negative well
- System calibration facilitates standardization

## Single well titer (SWT) reduces the overall number of IFA wells used to determine an endpoint titer.



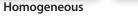


Computer simulated images



NOVA View uses computer algorithms to provide consistent results.

NOVA View measures pixel intensity and light distribution, in a manner similar to the



measure the nuclear light intensity within individual cells

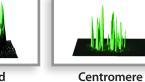
three-dimensional histograms below

**NOVA View data base modules** 

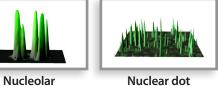
Pattern interpretation with

## Speckled

• NOVA View uses digital technology to create images of stained IFA wells and computer algorithms to







Crithidia lucillae

Positive/negative results with single well titer

In this example, NOVA View SWT can reduce the total number of wells by up to 48% compared to manual IFA methods

### Example assumptions:

- 100 samples processed each day
- 25% positive rate
- 4 dilution wells
- 5 day workweek

Speckled

HEp-2 ANA

single well titer

• Homogeneous

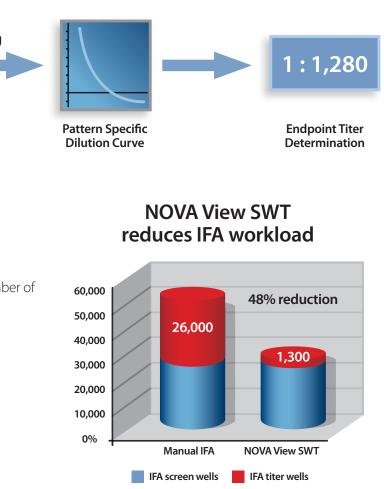
- Centromere
- Nucleolar
- Nuclear dot

- **ANCA** ethanol
- Pattern interpretation with single well titer
- c-ANCA • p-ANCA

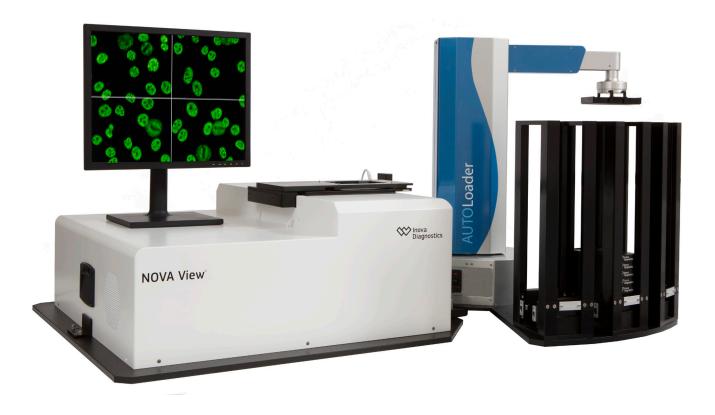
## **ANCA** formalin

- Pattern interpretation
- Nuclear
- Cytoplasmic

NOVA View uses pattern specific dilution curves to determine the endpoint titer of a sample using light intensity units (LIU) captured from the screening well. SWT endpoint determination is available for HEp-2, ANCA ethanol and Crithidia assays.



## AUTOLoader



- AUTOLoader automatically transfers slide carriers to and from NOVA View for interpretation
- Automated barcode scanner ensures positive patient identification
- AUTOLoader allows for continuous loading in random order without interrupting NOVA View interpretation
- Holds up to 100 slides or 1,200 wells



5-Slide Carrier



Slide Stack



**Robotic Arm** 







## **Paperless Interpretation QUANTA Link transforms**

your darkroom into a paperless, transcription free environment.



## **Optimize Quality Control**

All quality control information centralized in a single location using Levey-Jennings and employing Westgard rules.

## QUANTA Link<sup>®</sup>

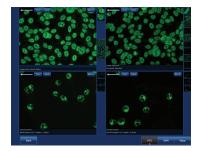
## QUANTA Link is a powerful, easy-to-use data management system that

- Generate work lists and report results for all Inova Diagnostics instruments from a single location
- Connect multiple workstations within a single facility
- Levey Jennings analysis for EIA and chemiluminescent QC results
- Simplifies IFA reporting using NOVA View or in the IFA darkroom
- IFA Atlas with images to support training and proficiency testing
- Connect to multiple external locations using an intranet



## Multi-Analyte Screen

View ANCA ethanol, ANCA formalin and HEp-2 results from the same patient simultaneously.



## Atlas

User defined atlas for immediate reference and training.

## **BIO-FLASH®**

## **BIO-FLASH** is a full menu, random access analyzer that eliminates batching and has excellent throughput with up to 450 results in a single shift.

#### Eliminates isotype batching and reagent waste

• Stable on-board reagents allow for samples to be run as they arrive

#### Improves turn-around time

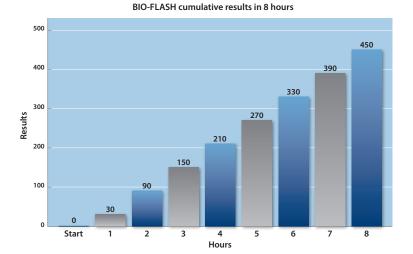
- Simultaneous random access processing of all isotypes and assays on a single sample
- Delivers results, including STAT orders, in as little as 30 minutes
- BIO-FLASH can generate up to 450 results in a single shift

#### Helps reduce test send outs

• Makes even the most specialized assays efficient to perform with stable calibration curves

#### Frees up floor space

• Small benchtop analyzer achieves excellent throughput



## Advanced automation delivers simplicity and efficiency.

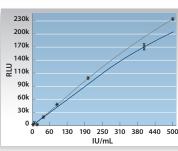


#### **QUANTA Flash reagents**

- Chemiluminescent technology delivers precise quantification and a broad analytical measuring range
- Cartridge barcode is internally scanned to import the master calibration curve, lot number, expiration date and assay type

# **Reagent carousel**







• Dedicated reagent probe

#### Sample carousel

- reader
- STAT orders can be run at any time
- Dedicated sample probe

### **Calibration curves**

- Master calibration curve uploaded through the reagent pack barcode
- Calibrators are processed in the sample carousel

## Intuitive software and touchscreen



- Stores 20 reagent packs (up to 2000 tests) with on-board refrigeration
- Monitors reagent use and reports inventory

• Primary samples placed directly onto the rack and scanned by internal barcode

- Samples processed in random access with continuous load capability
- BIO-FLASH determines a stable working calibration curve
- Simplifies training and day-to-day operation
- Status screen allows immediate access to system information

## The Integrated Lab

## Seamless control from processing to reporting







QUANTA-Lyser<sup>®</sup>





Rapid-Response Chemiluminescent Analyzer

Full menu, random has excellent throughput

- Eliminates the need for batching
- loading
- Stable calibration curve



## **AUTOLoader**

Efficiently automates slide transfer with NOVA View

Fully automated robotic system that transfers NOVA Lite IFA slides to and from NOVA View and reduces hands-on time for the high volume laboratory.

- Automatically transfers slide carriers to and from NOVA View for interpretation
- Automated barcode scanner ensures positive patient identification
- Allows for continuous loading in random order without interrupting NOVA View interpretation
- Holds up to 100 slides or 1,200 wells

## QUANTA Link<sup>®</sup>

Workflow management made easy

Powerful, easy-to-use data management system that consolidates information from Inova Diagnostics instruments.

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- Connect multiple workstations within a single facility
- Levey Jennings analysis for EIA and chemiluminescent QC results
- Simplifies IFA reporting using NOVA View or in the IFA darkroom
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Digital IFA

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Flexibility and efficiency

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- **Reads NOVA Lite** IFA slide barcodes for positive patient identification

access analyzer that eliminates batching and with up to 450 results in a single shift.

- Faster turnaround time with continuous

#### www.inovadx.com

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