



# UNIQO 160

## All-in-one IIFT automation

EASY. EFFICIENT. EXCEPTIONAL.



- Fully automated system for processing and evaluation of indirect immunofluorescence tests (IIFT) for up to 160 samples per run
- Brilliant fluorescence images due to the integrated high-quality microscope unit with automatic triple revolver
- Quick loading as well as correct assignment and traceability of samples, reagents and slides via barcode identification
- Excellent service from EUROIMMUN – your partner for everything from test systems to instruments and software

## Full automation from primary sample to result proposal

The **UNIQO 160** is a top-quality all-in-one automated solution for IIFT diagnostics, providing maximum efficiency with minimum hands-on time.

After the patient samples and reagents have been loaded, the UNIQO 160 fully automatically processes the tests, from sample preparation to image acquisition, thus combining the functions of several automated IIFT systems in one compact benchtop device.

Sample organisation, data archiving and computer-assisted evaluation are performed in a structured and convenient manner using the EUROIMMUN middleware **EUROLabOffice 4.0**. Manual intermediate steps are not required before final evaluation as the data exchange with EUROLabOffice 4.0 also takes place automatically.

Reliable IIFT results in just two steps:

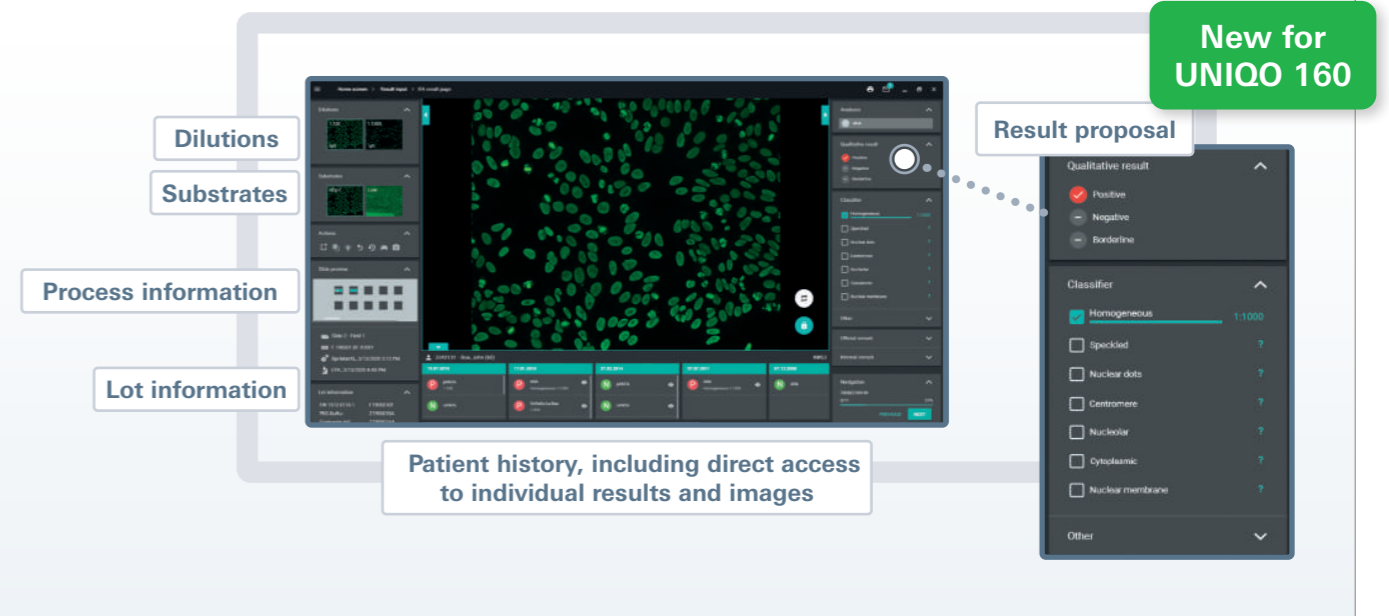
1. Sample loading
2. Computer-assisted IIFT evaluation



## All data at a glance with EUROLabOffice 4.0

EUROLabOffice 4.0 is the advanced control centre for your laboratory and is connected bidirectionally to the UNIQO 160. This allows you and your laboratory personnel to create worklists quickly and flexibly, even for changing analysis requests, and to store all information securely.

After the UNIQO 160 has completed IIFT processing, all data relevant for evaluation are displayed together in one window in the user interface. In addition, previous test results are visible at a glance in the patient history and stored data and archived images can be accessed directly with just one click.



**All-in-one**

## One instrument – seven functions

### 1 Barcode recognition

Simple loading as well as **secure assignment and traceability** of samples, reagents and slides throughout the whole process with the integrated barcode scanner



### 2 Sample preparation

Optimal preparation of the test processing due to **flexible loading** with up to

- 20 controls
- 4 dilution buffers
- 9 bottles of conjugate and mounting medium



### 3 Incubation

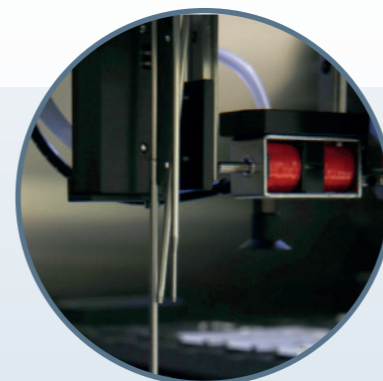
**Simultaneous incubation of different test systems** with a capacity for up to

- 160 IIFT samples
- 288 dilutions
- 18 slides



### 4 Washing

Efficient and **carryover-free washing** using three washable stainless-steel needles



### 5 Mounting

**Fully automated slide mounting** prevents sample material drying, creating the ideal conditions for the acquisition of excellent fluorescence images – even with long worklists.



### 6 Microscopy

Fast image acquisition with the **high-quality microscope unit with three automatically changing objectives** (4x, 10x, 20x)

### 7 Image acquisition

Brilliant fluorescence images due to the **high-resolution camera with autofocus**  
Automatic data transmission to EUROLabOffice 4.0 for final evaluation



## Computer-assisted IIFT evaluation with deep learning technology

New for  
UNIQO 160

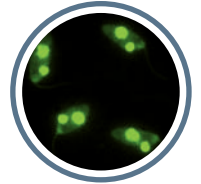
### Pattern recognition based on deep convolutional neural networks

The EUROPattern Classifier, which can be integrated into EUROLabOffice 4.0, automatically generates a result proposal (including titer calculation) for a constantly growing number of substrates.

This involves classification of the detected fluorescence patterns by means of deep convolutional neural networks, an artificial intelligence method. All the individual findings obtained with the substrates and dilutions are then consolidated into one result proposal for each patient.

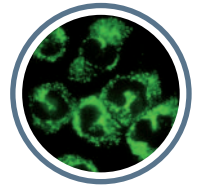
#### ANA diagnostics

- **HEp-2/HEp-20-10 cells:** Automatically generated pattern and titer proposals with confidence values for nine fluorescence patterns according to the ICAP\* (homogeneous, speckled, dense fine-speckled, nucleolar, nuclear dots, centromeres, nuclear membrane, AMA and cytoplasmic) and any combinations thereof  
\*ICAP: International Consensus on Antinuclear Antibody (ANA) Patterns
- **Crithidia luciliae:** Automated positive/negative classification and titer proposals based on the specific kinetoplast fluorescence for the detection of anti-dsDNA antibodies



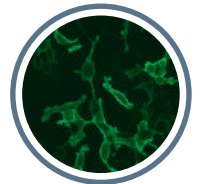
#### ANCA diagnostics

- **Granulocytes:** Automatically generated pattern and titer proposals with confidence values for the fluorescence patterns pANCA, cANCA and atypical ANCA
- **HEp-2 cells + granulocytes (EOH):** The combination BIOCHIP is used for the targeted differentiation of ANA and cytoplasmic antibodies (result is issued as ANA interference)



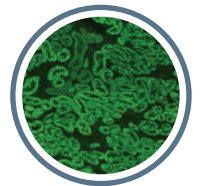
#### Diagnostics based on antigen-expressing cells

- **Nephrology:** Automated positive/negative classification and titer proposal with confidence values for the antigens PLA2R and THSD7A



#### Diagnostics of autoimmune liver diseases

- **Liver (rat):** Automated positive/negative classification for relevant ANA and identification of anti-LKM-like patterns ("LKM-like", is given as "anti-LKM" pattern after a confirmatory result on kidney tissue) to support the diagnosis of autoimmune hepatitis types 1 and 2
- **Kidney (rat):** Automated positive/negative classification for AMA, specific for primary biliary cholangitis, and identification of anti-LKM-like patterns ("LKM-like", is given as "anti-LKM" pattern after a confirmatory result on liver tissue; suspected autoimmune hepatitis type 2)
- **Stomach (rat):** Automated positive/negative classification for ASMA



#### Diagnostics of autoimmune gluten-sensitive enteropathy (coeliac disease)

- **Liver (monkey) IgA:** Automated positive/negative classification for antibodies against endomysium (filamentous linings of the intralobular sinusoids) to support the diagnosis of gluten-sensitive enteropathy
- **Oesophagus (monkey) IgA:** Automated positive/negative classification for antibodies against endomysium (lamina muscularis) to support the diagnosis of gluten-sensitive enteropathy

