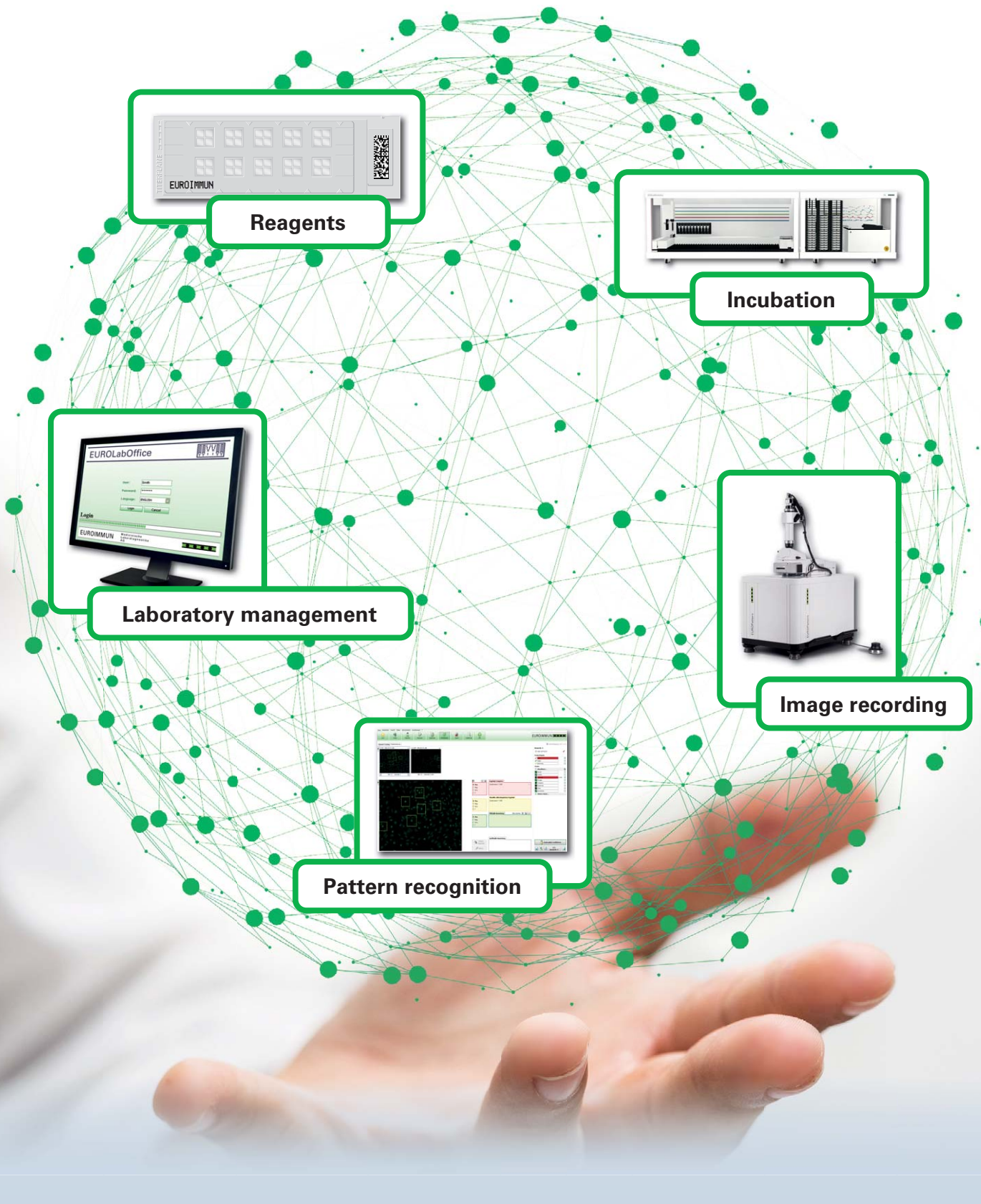




EUROIMMUN systems for full automation of IIFT





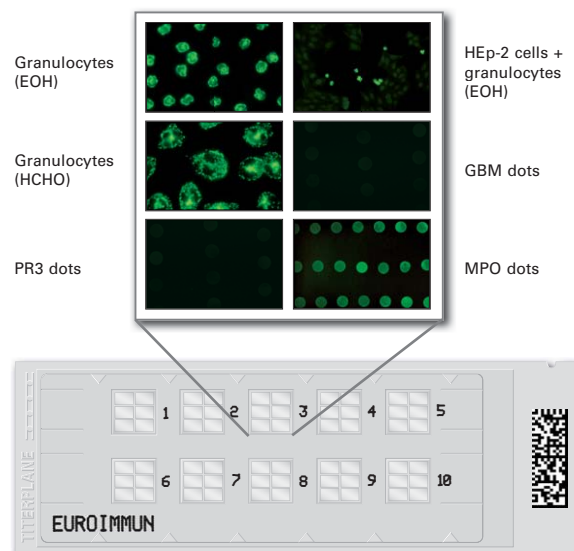
High quality meets functionality: EUROIMMUN reagents

- More than 30 years of expertise in the development and production of medical diagnostic products
- Innovative and highly modern technologies for unequalled test quality of the highest scientific standard
- All-in-one service: test systems, automated systems, software and excellent support

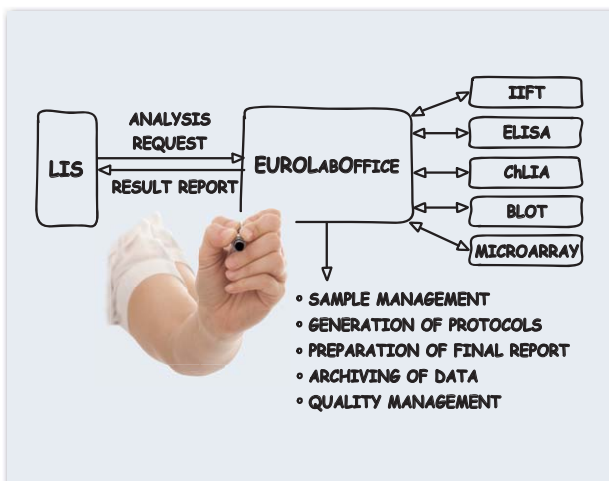


Multiparameter analytics in indirect immunofluorescence

- BIOCHIP technology enables the combination of different substrates on BIOCHIP mosaics for parallel analyses on one test field
- Matrix-coded slides for maximum safety and traceability in laboratory diagnostics.
- Example: "Granulocytes Mosaic 25": the perfect combination for your ANCA diagnostics
 - Combination of ethanol (EOH)- and formalin (HCHO)-fixed granulocytes for differentiation of vasculitides from chronic inflammatory bowel diseases
 - The combination of HEp cells and granulocytes on one BIOCHIP allows differentiation between ANA and ANCA
 - Monospecific confirmation of results by PR3/MPO antigen dots (EUROPLUS) and detection of anti-GBM antibodies by GBM antigen dots (EUROPLUS)



EUROLabOffice as control centre in the diagnostic laboratory



- Paperless working owing to automated data processing and communication
- High data and result integrity without transmission errors
- Automatic creation of electronic worklists
- Reporting support: current results for a patient, patient history, search function, documentation and archiving
- Optimisation of existing laboratory processes, various expansion modules available
- Interface to laboratory information software (LIS) for two-way data exchange and optimal connection to EUROIMMUN devices



Fully automated incubation for medium to high throughputs



Sprinter XL

- Up to 240 samples and 30 slides per run
- Barcode identification of samples and slides
- Parallel washing of all reaction fields by flooding of the slides
- Four washable needles

Fully automated incubation for high throughputs

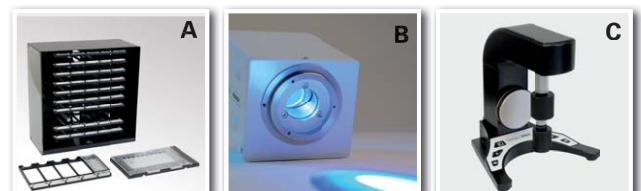


EUROLabWorkstation IFA

- More than 700 samples and 750 reaction fields per run
- Barcode identification of samples, reagents, labware and slides
- High throughput of >200 analyses per hour
- Standardised washing of 50 reaction fields owing to the novel MERGITE! wash technology
- 10 washable needles
- Automated mounting

Fully automated microscopy with EUROPattern

- Fully automated image recording for on-screen diagnostics for a large number of substrates
- Fastest system on the market: up to 500 reaction fields in less than 2 hours (13 seconds/image)
- Magazine for 500 fields (A) with automated slide supply enables a long walk-away time
- Automated slide registration by DataMatrix codes for error-free traceability
- cLED (B) for fluorescence microscopy with constant light intensity and documented quality control
- Comparable IIFT images on all EUROPattern microscopes due to calibration with the integrated fluorescence standard
- Different autofocus objectives (20x; optional 10x, 40x) for optimal image recording characteristics
- Optional RealDrive manual control (C) for manual microscopy, as convenient as at the normal microscope
- Ocular upon request

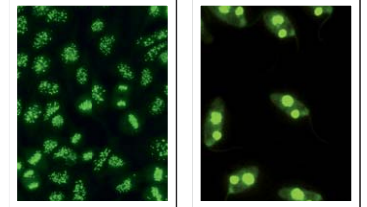




Computer-aided evaluation of IIFT images with EUROPattern Pattern recognition based on deep convolutional neural networks

ANA diagnostics

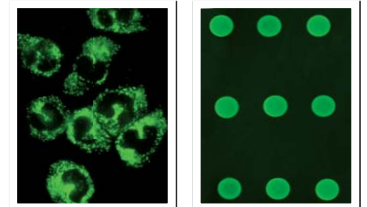
- **HEp-2/HEp-20-10 cells:** automated pattern and titer suggestions with confidence values for 8 fluorescence patterns according to ICAP* (homogeneous, speckled, dense fine speckled, nucleolar, nuclear dots, centromeres, nuclear membrane and cytoplasmic) and any combination thereof
- **Crithidia luciliae:** automated positive and negative classification and titer suggestions for flagellates by means of the specific kinetoplast fluorescence for the detection of anti-dsDNA antibodies



*International Consensus on Antinuclear Antibody (ANA) Pattern

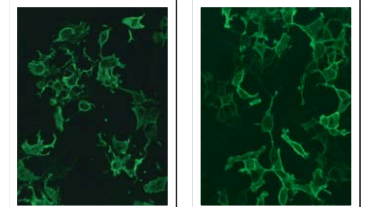
ANCA diagnostics

- **Granulocytes:** automated pattern and titer suggestions with confidence values for the fluorescence patterns pANCA, cANCA, atypical ANCA, and any combination thereof
- **EUROPLUS antigen dots:** automated evaluation of the monospecific antigen fluorescence for confirmation and differentiation from other diseases



Diagnostics by means of antigen-expressing cells

- **Neurology:** automated positive and negative classification and titer suggestions with confidence values for different antigens, e.g. AMPA 1/2, NMDAR, GABAR B1/B2, LGI1, CASPR2, DPPX, aquaporin-4 and MOG
- **Nephrology:** positive and negative classification and titer suggestions with confidence values for the antigen PLA2R
- **Infection diagnostics:** positive and negative classification and titer suggestions with confidence values for the antigens EBV-CA, EBV-EA und EBNA-1



Tissue diagnostics

- **On-screen diagnostics:** fully automated image recording of tissues and compilation of individual images to a complete image for fast and reliable on-screen diagnostics
- Example rat kidney: four images (A–D) are shown to the user as a combined total image (E)

