



Contents lists available at ScienceDirect

Autoimmunity Reviews

journal homepage: www.elsevier.com/locate/autrev



Review

ANCA in the diagnosis of neutrophil-mediated inflammation

Ivo Lochman^{a,*}, Vlastimil Král^b, Alexándera Lochmanová^c, Julius Lupač^d, Ladislav Cebecauer^e

^a Department of Immunology and Allergy, Institute of Public Health, Ostrava, Czech Republic

^b Centre of Immunology and Microbiology, Institute of Public Health, Ústí nad Labem, Czech Republic

^c Dept. Examination Methods and Medical Biology, Faculty of Medicine OU, Ostrava, Czech Republic

^d Dynex Ltd., Prague, Czech Republic

^e Laboratories Piešťany Ltd., Slovak Republic

ARTICLE INFO

Article history:

Received 25 October 2010

Accepted 13 November 2010

Available online 20 November 2010

Keywords:

ANCA terminology

NSA

Vasculitis and other neutrophil-mediated inflammatory diseases

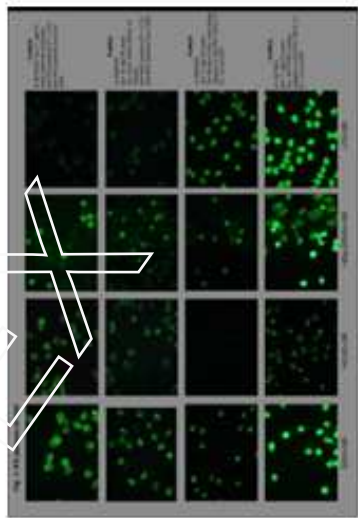
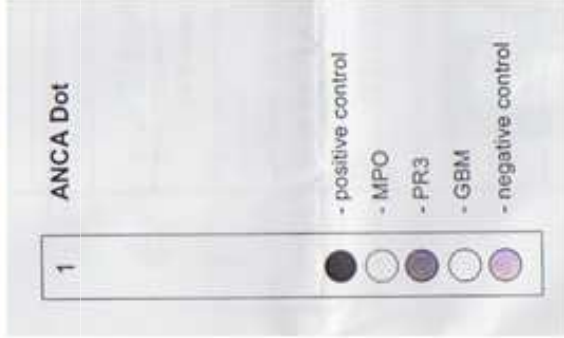
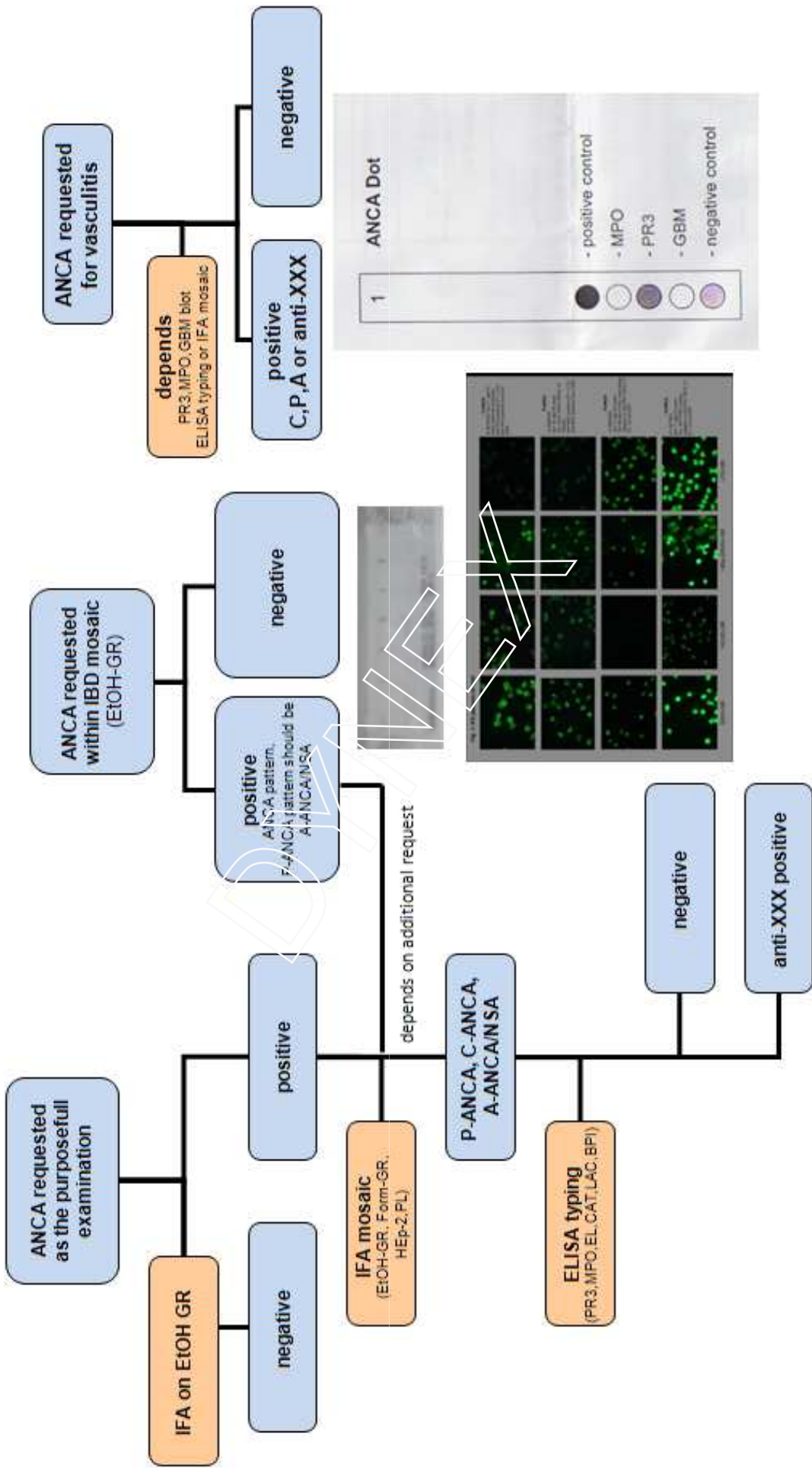
ABSTRACT

Inconsistencies in ANCA (anti-neutrophil cytoplasm autoantibodies) and other NSA (neutrophil-specific autoantibodies) terminology frequently cause incorrect indications, choices, applications and interpretations of ANCA diagnostics in routine practice, except for ANCA-associated vasculitis. A review of the current knowledge and the authors' personal experiences based on routine assessments of ANCA and other NSA are documented and presented. A better understanding of the principles and mechanisms of ANCA and other NSA responses and determination, as well as unification of their terminology could result in improvements in indications, applications and the interpretation of ANCA diagnostics in diseases other than vasculitis, especially in IBD (inflammatory bowel diseases), AILD (autoimmune liver diseases), CTD (connective tissue diseases) and other chronic neutrophil-mediated inflammatory diseases.

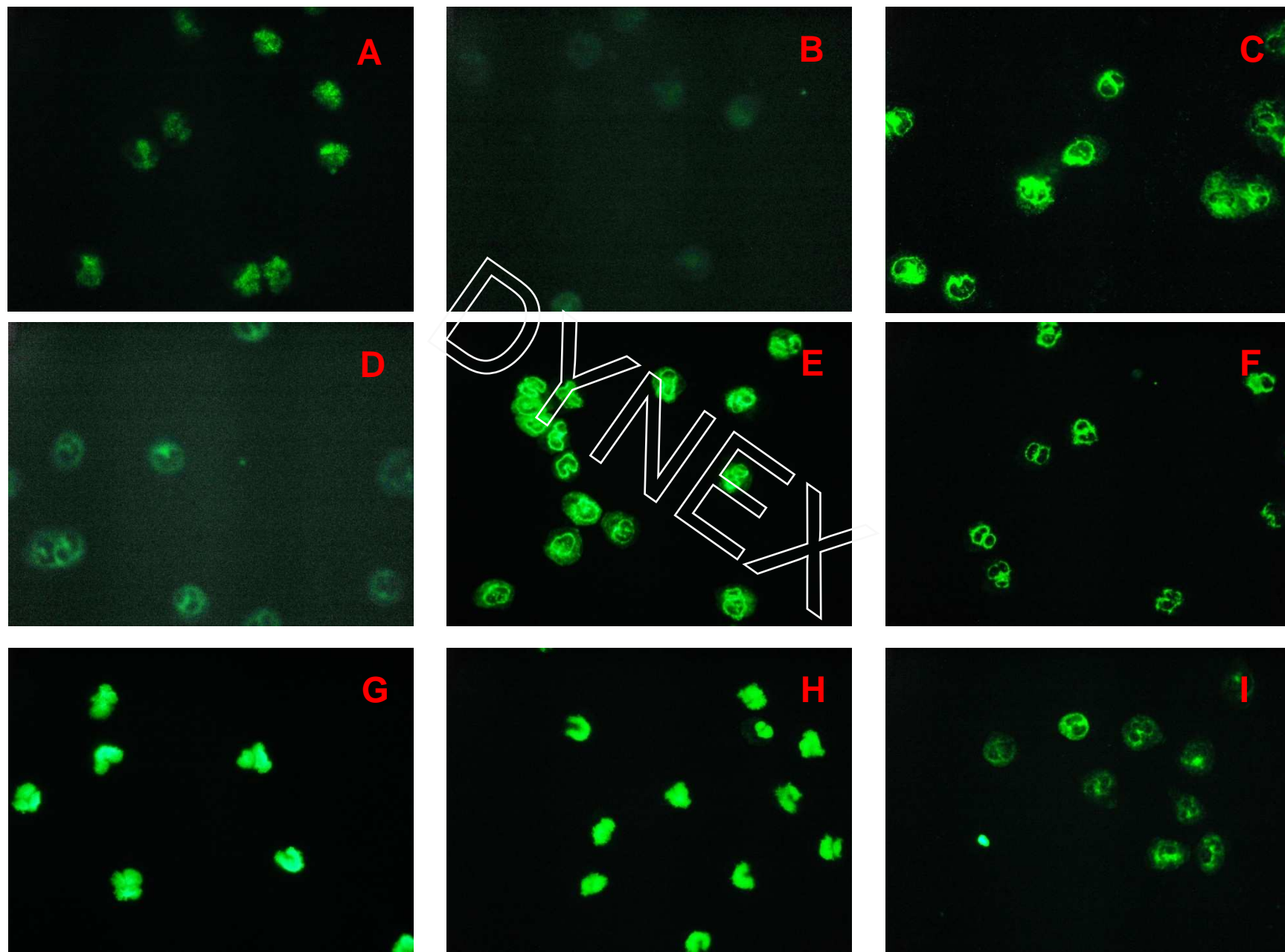
© 2010 Elsevier B.V. All rights reserved.

Take-home messages

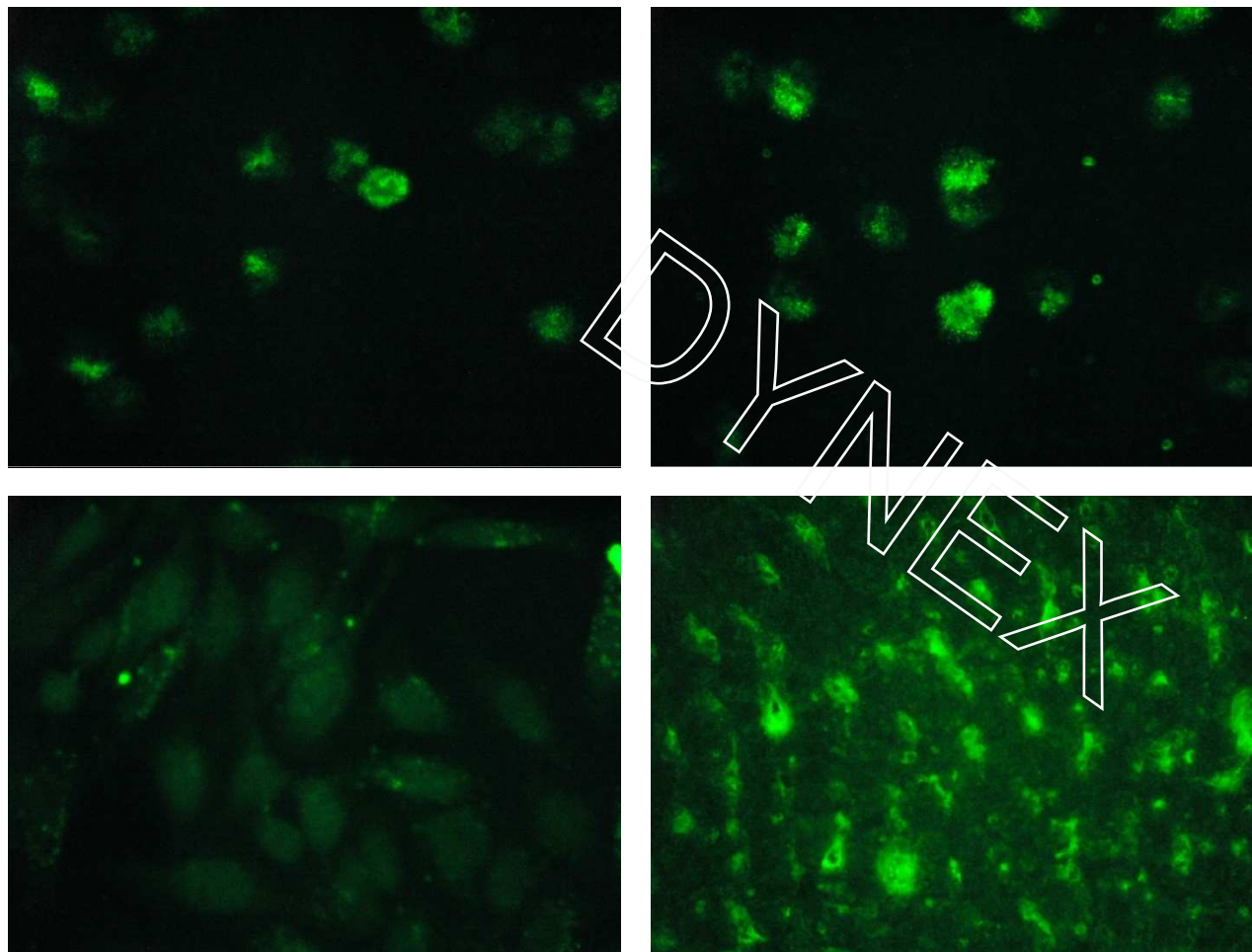
- Terms C-ANCA and P-ANCA and A-ANCA should be used for IIFA only.
- ANCA belong among NSA. NSA showing P-ANCA or ANA homogenous patterns on ethanol-fixed granulocytes can have cytoplasmic and/or nuclear targets.
- Terms anti-specific target antibodies (anti-PR3, anti-MPO etc) should be used for ANCA determined by other immunoanalytical techniques than IIFA.
- Most frequent ANCA/NSA occurring in the serum samples in clinical laboratories that are not specialized for vasculitis diagnostics is A-ANCA.



Kontrolní vzorky ČASOMIL 2011. 708296 NOVA-Lite™ ANCA, ředění 1:10



Kontrolní vzorek 1/A, ČASOMIL 2011

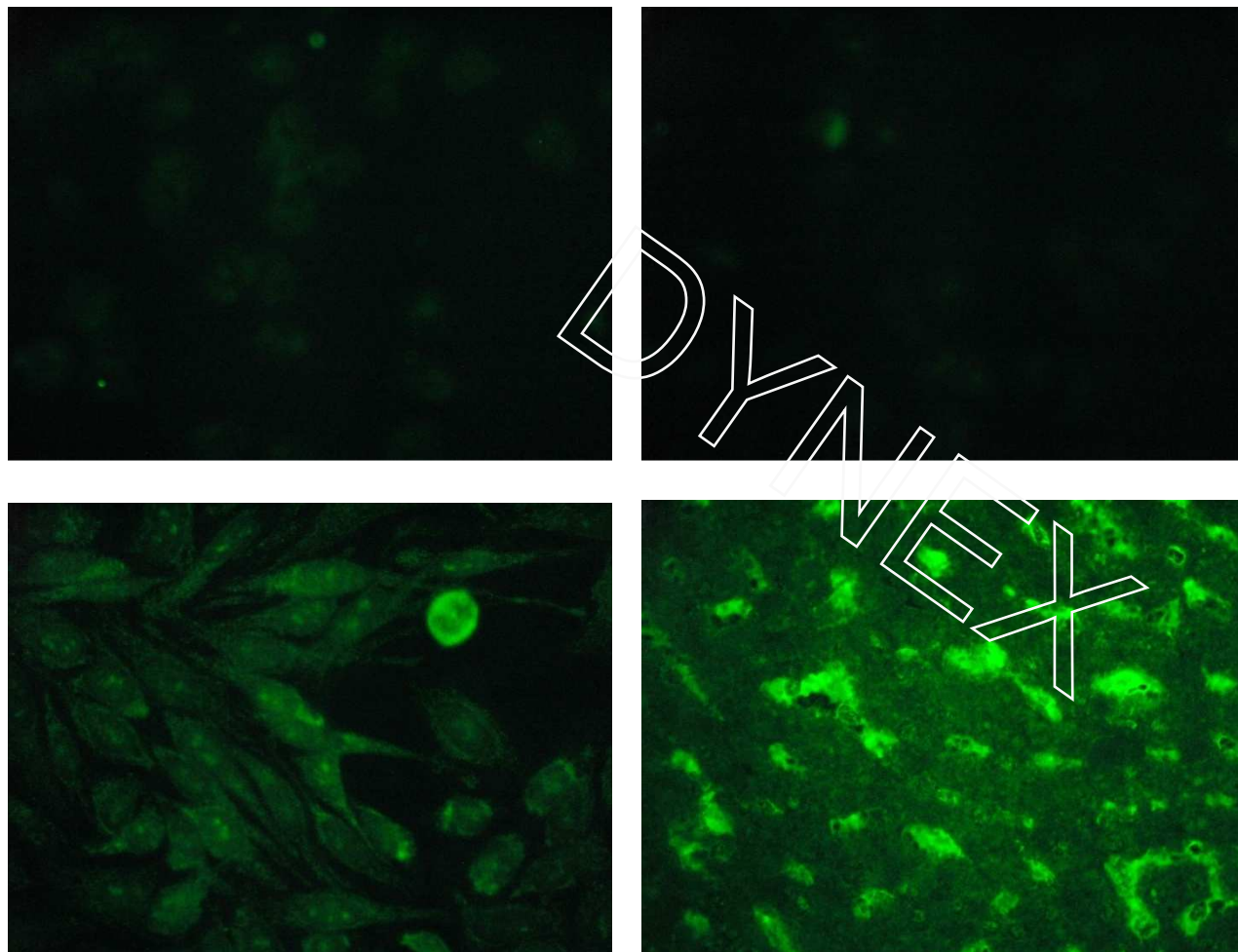


EA 1200-1208-1 G
ANCA Profile, EI

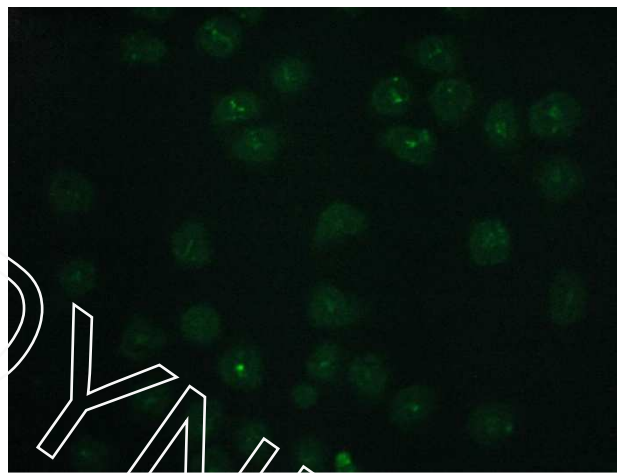
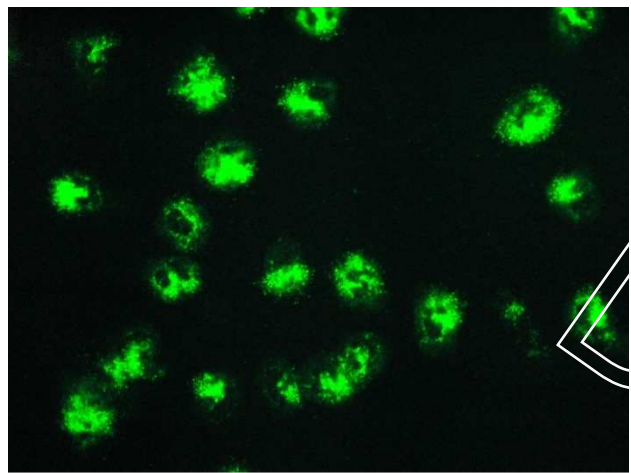
antigen	IP
PR3	0,01
Lactoferrin	0,02
MPO	1,04
Elastase	0,01
Cathepsin G	0,00
BPI	0,01

FA 1201-1005-3: Granulocyte mosaic 3, Euroimmun

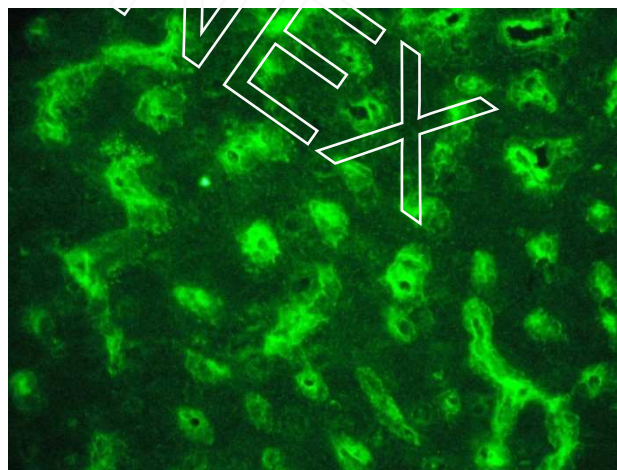
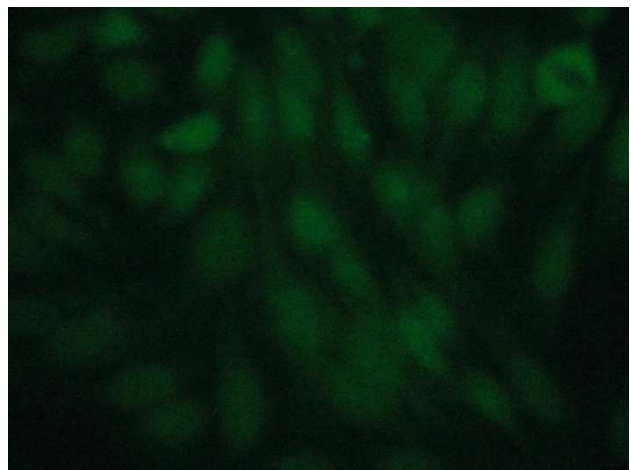
Kontrolní vzorek 2/B, ČASOMIL 2011



Kontrolní vzorek 3/C, ČASOMIL 2011

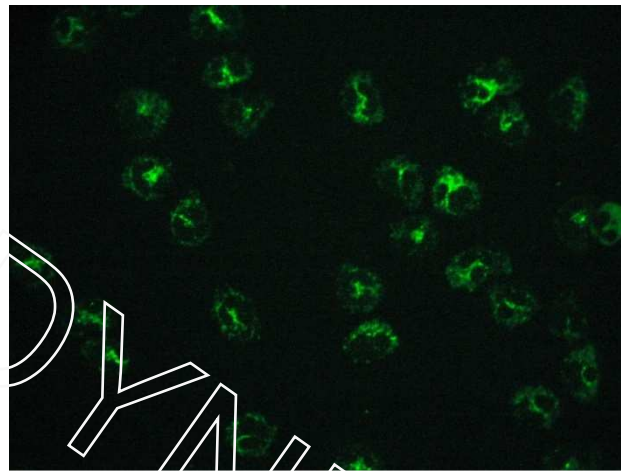
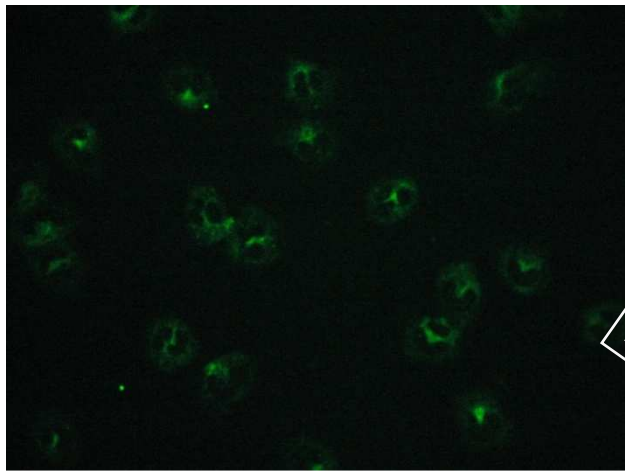


EA 1200-1208-1 G
ANCA Profile, EI



antigen	IP
PR3	0,08
Lactoferrin	0,13
MPO	0,03
Elastase	0,12
Cathepsin G	0,00
BPI	0,04

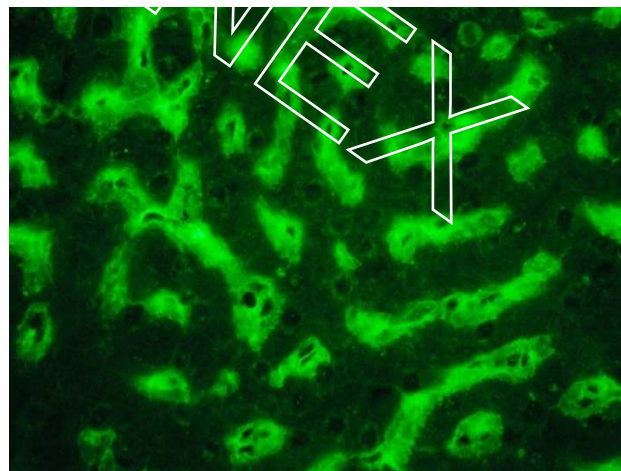
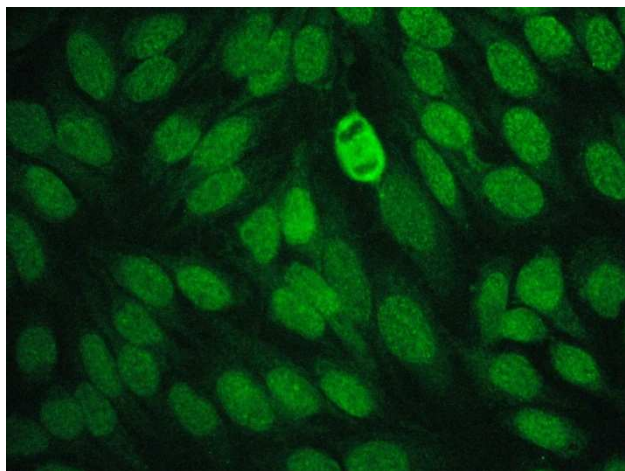
Kontrolní vzorek 4/D, ČASOMIL 2011



EA 1201-9601-2 G
cANCA PR3-hn-hr

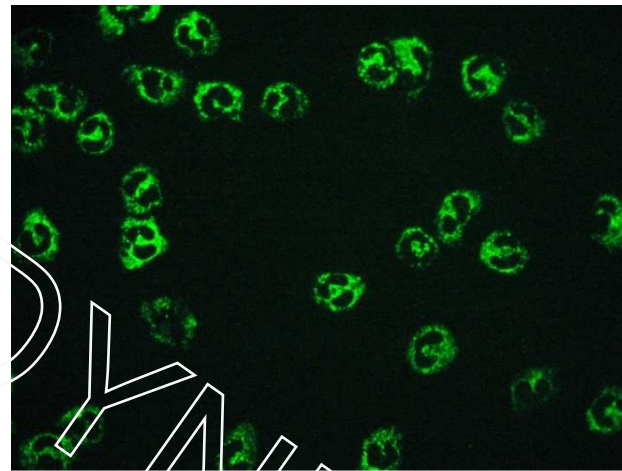
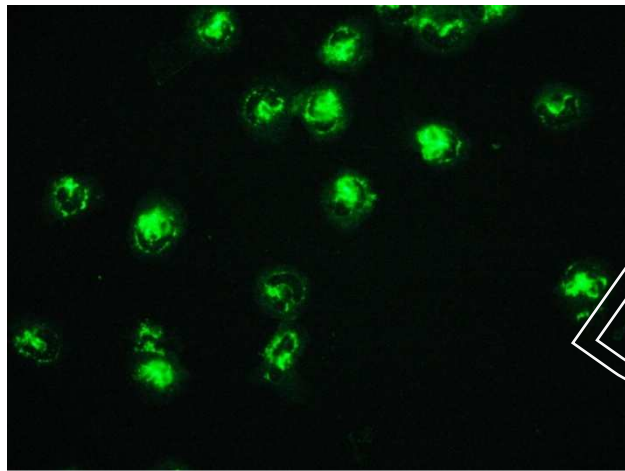
EA 1211-9601 G
pANCA MPO

Euroimmun



antigen	IP
PR3	0,59
MPO	0,08

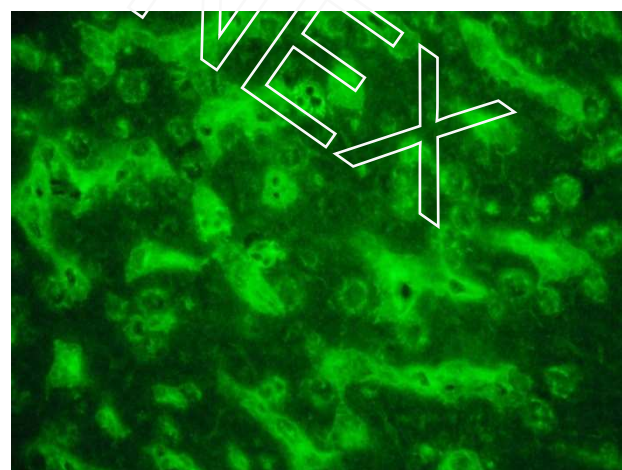
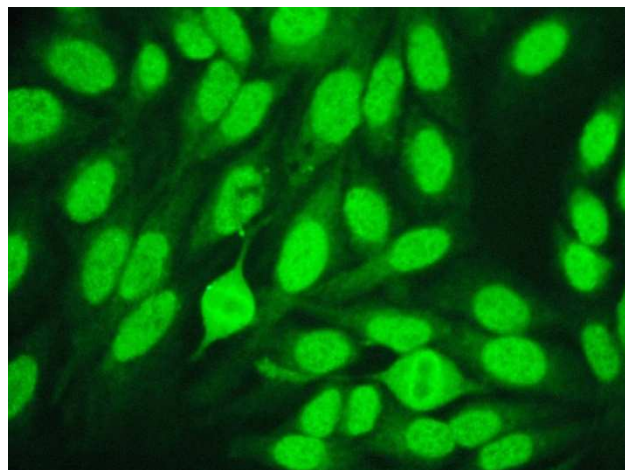
Kontrolní vzorek 5/E, ČASOMIL 2011



EA 1201-9601-2 G
cANCA PR3-hn-hr

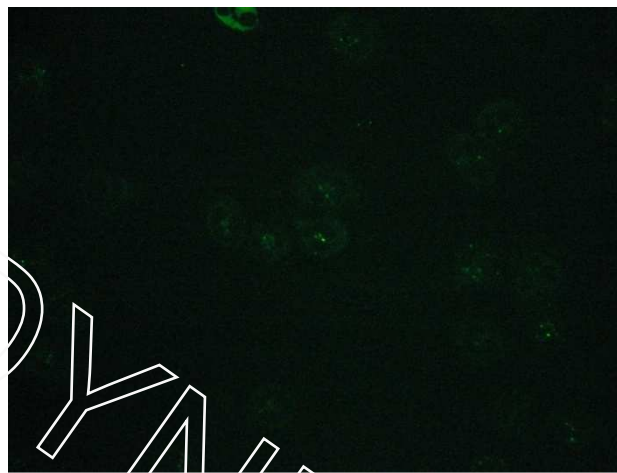
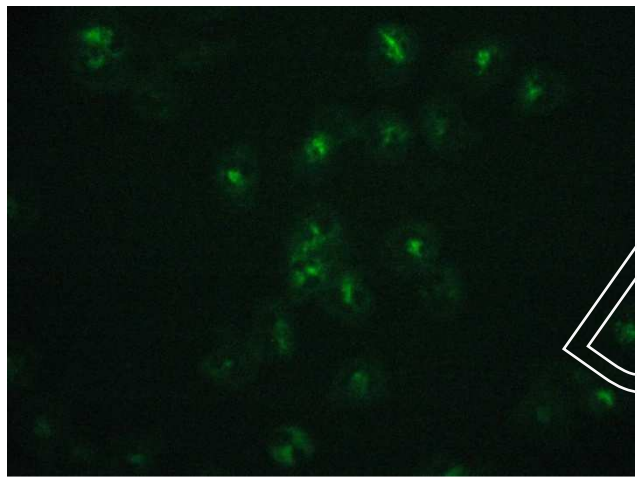
EA 1211-9601 G
pANCA MPO

Euroimmun

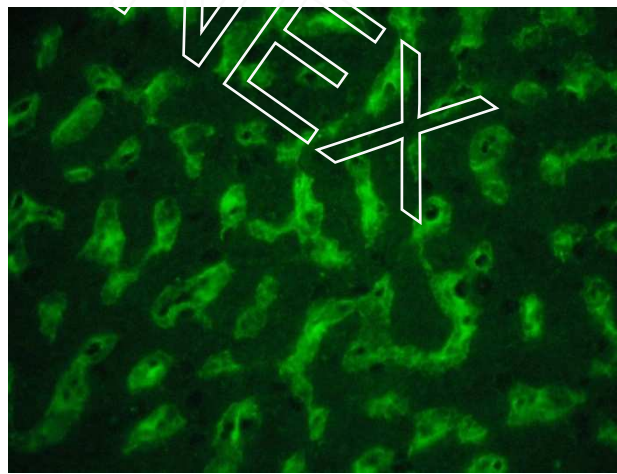


antigen	IP
PR3	0,84
MPO	0,15

Kontrolní vzorek 6/F, ČASOMIL 2011

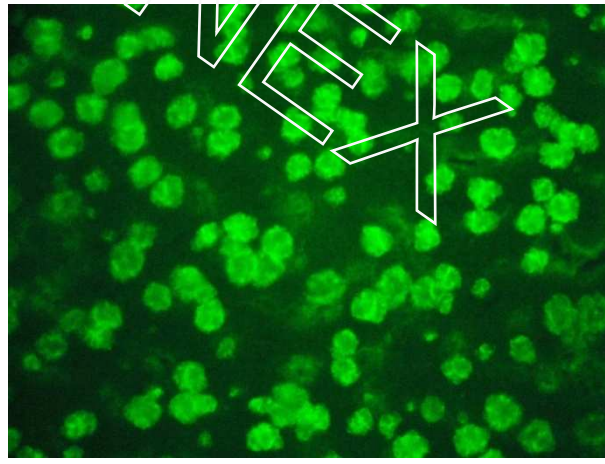
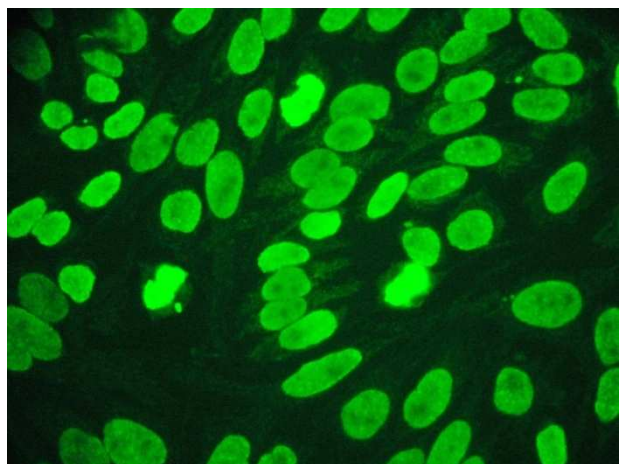
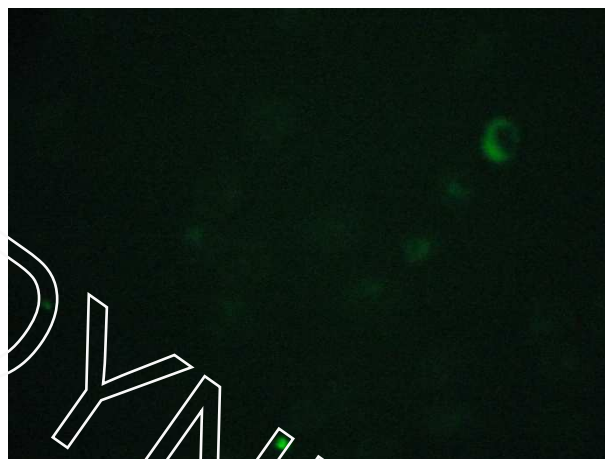
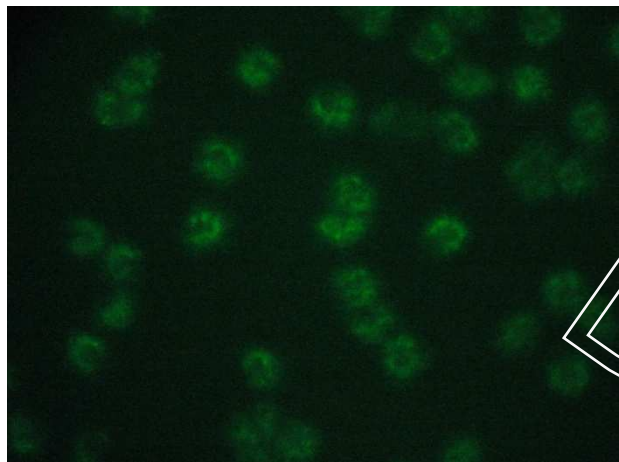


EA 1200-1208-1 G
ANCA Profile, EI

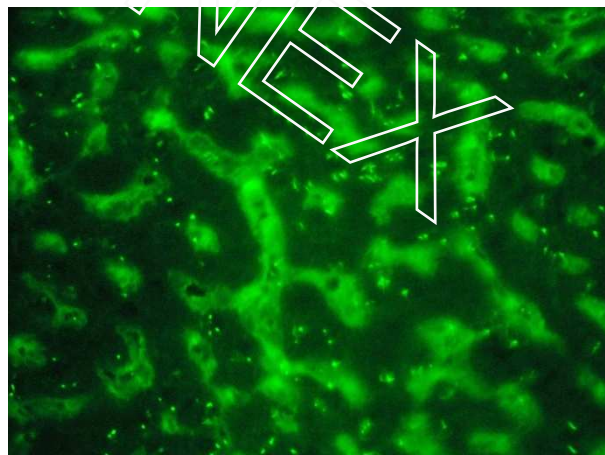
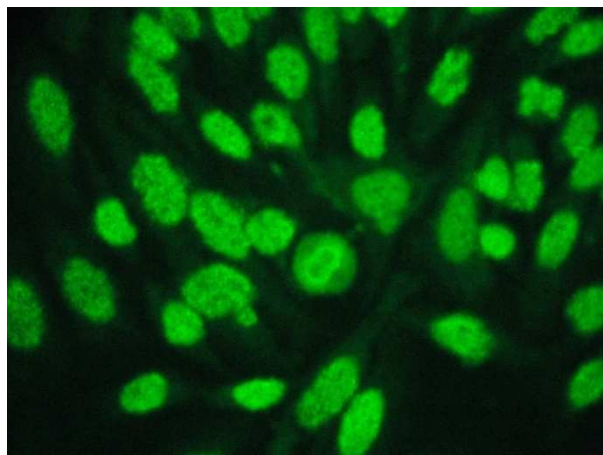
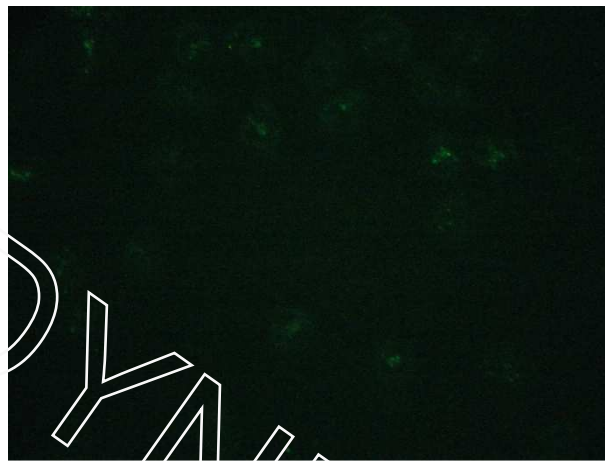
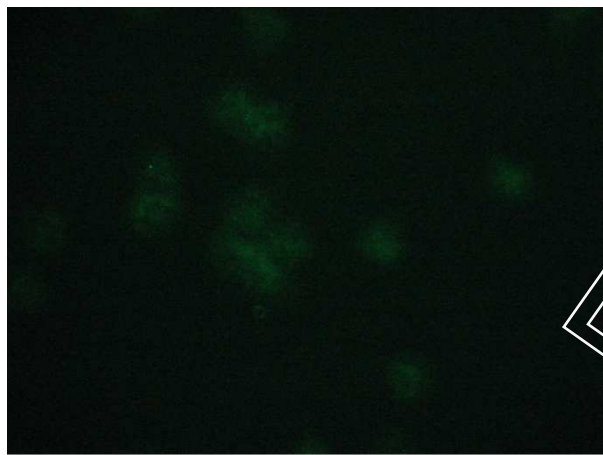


antigen	IP
PR3	0,17
Lactoferrin	0,08
MPO	0,05
Elastase	0,08
Cathepsin G	0,06
BPI	0,09

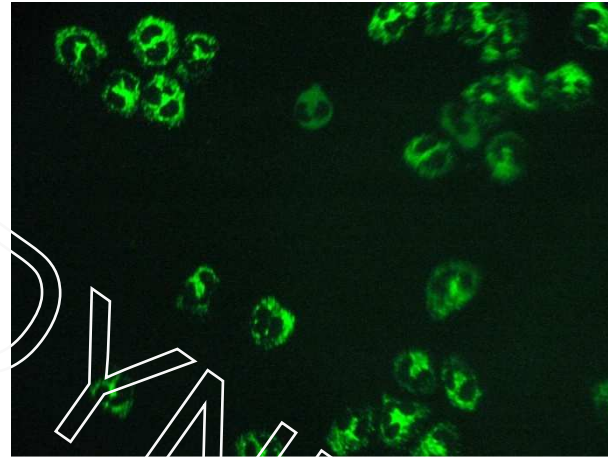
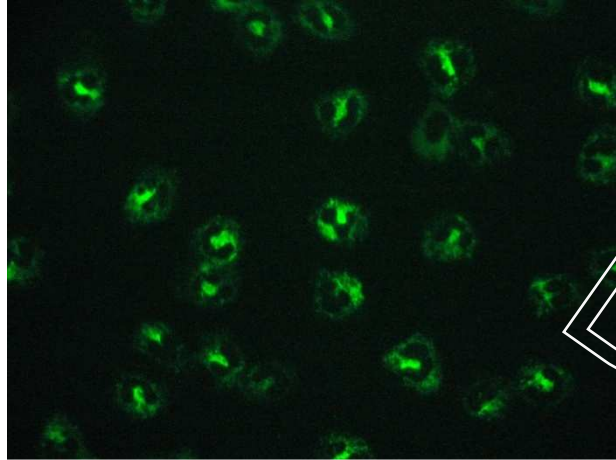
Kontrolní vzorek 7/G, ČASOMIL 2011



Kontrolní vzorek 8/H, ČASOMIL 2011



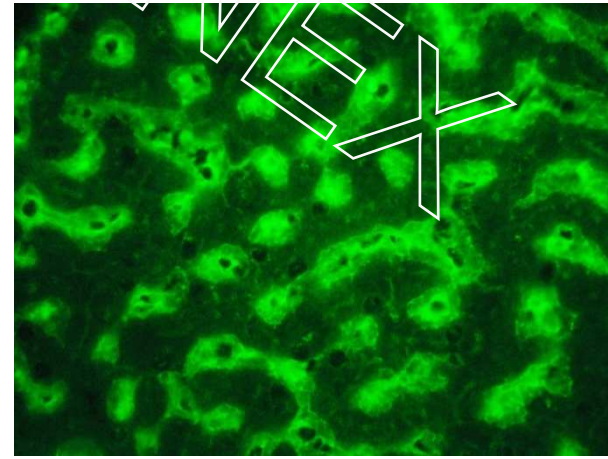
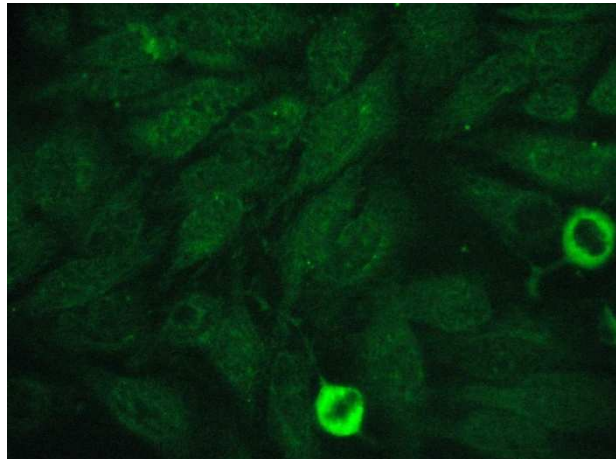
Kontrolní vzorek 9/I, ČASOMIL 2011



EA 1201-9601-2 G
cANCA PR3-hn-hr

EA 1211-9601 G
pANCA MPO

Euroimmun



antigen	IP
PR3	1,14
MPO	0,07

Pozitivní kontrola C-ANCA

