

**GROUPE D'ÉTUDE DE L'AUTO-IMMUNITÉ**



**BONJOUR au  
GEAI 2014**

***RL Humbel, Joelle Goetz, Alain Chevailler, Catherine Johanet,  
Pascale Chretien, Sophie Deplat-Jego, Sylvain Dubucquoi,  
Nicole Fabien, Françoise Fortenfant, Sophie Hue, Daniela Lakomi,  
Nils O. Olsson, Jean Sibilia, Thierry Vincent, Isabel Abreu, Xavier Bossuyt***

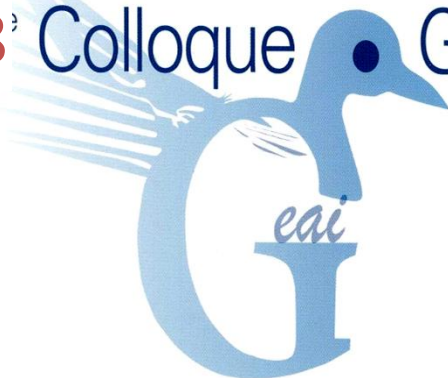
*Le professionnalisme, qui signifie compétence, étude, mise à jour,  
est une qualité fondamentale.*

*Quand il n'y a pas de professionnalisme, lentement,  
on glisse vers la médiocrité.*





8<sup>e</sup> Colloque GEAI 2014



Actualités

**Autoanticorps**





**BIOLOGIE PROSPECTIVE**



# **NOUVEAUX AUTOANTICORPS**

**UTILITE CLINIQUE**

**FAISABILITE**

**COÛT**

# 100 AUTOANTICORPS



<b>ANTI-NUCLEAIRES</b>	<b>30</b>
<b>ANCA</b>	<b>2</b>
<b>APL</b>	<b>2</b>
<b>ESTOMAC</b>	<b>2</b>
<b>INTESTIN</b>	<b>3</b>
<b>FOIE</b>	<b>5</b>
<b>REIN</b>	<b>2</b>
<b>GLANDES ENDOCRINES</b>	<b>10</b>
<b>CŒUR</b>	<b>1</b>
<b>SYSTEME NERVEUX PERIPHERIQUE</b>	<b>5</b>
<b>SYSTÈME NERVEUX CENTRAL</b>	<b>20</b>
<b>ŒIL</b>	<b>1</b>
<b>OREILLE INTERNE</b>	<b>2</b>

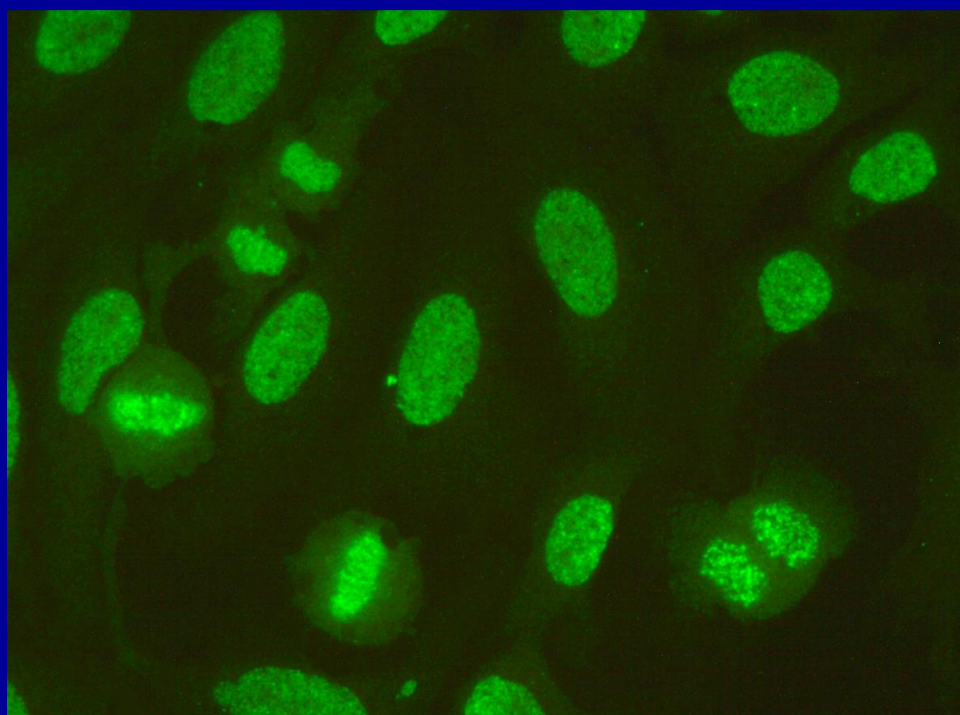
# ANTI-NUCLEAR ANTIBODIES

## PATTERNS ON Hep2 CELLS

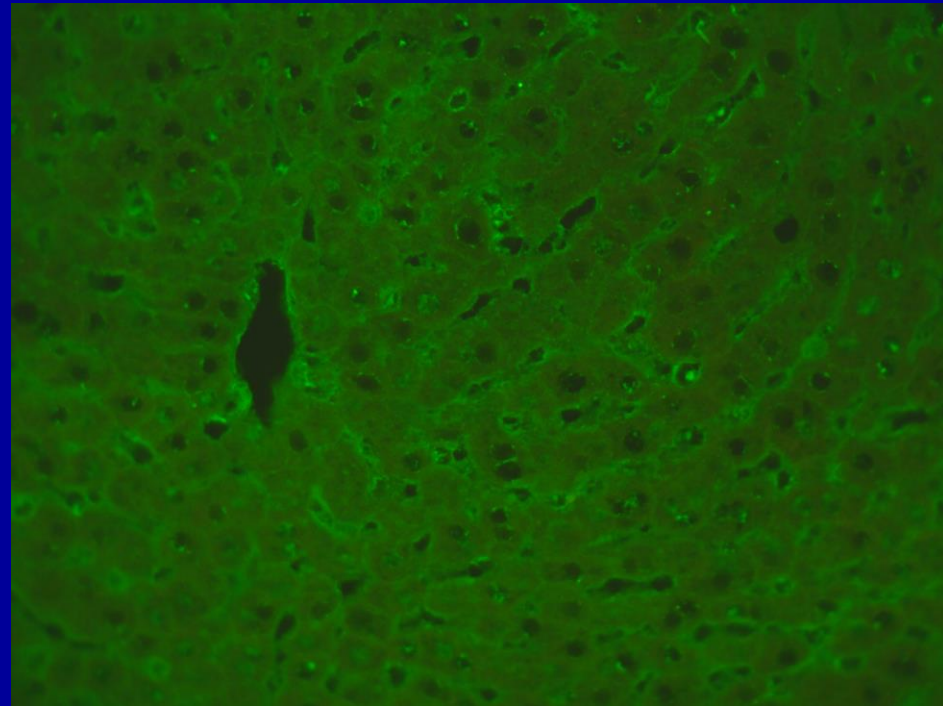
NUCLEAR	15
NUCLEOLAR	4
CYTOPLASMIC	12
PROLIFERATING CELLS	6
MITOTIC CHROMOSOMES	5
CHROMOSOMAL PASSENGER PROTEINS	2
SPINDLE APPARATUS	2
DIVIDING CELLS MIDBODY	2

# ANTI-CELLULES PROLIFERATIVES

## ANTI-DFS70



Cellules Hep2



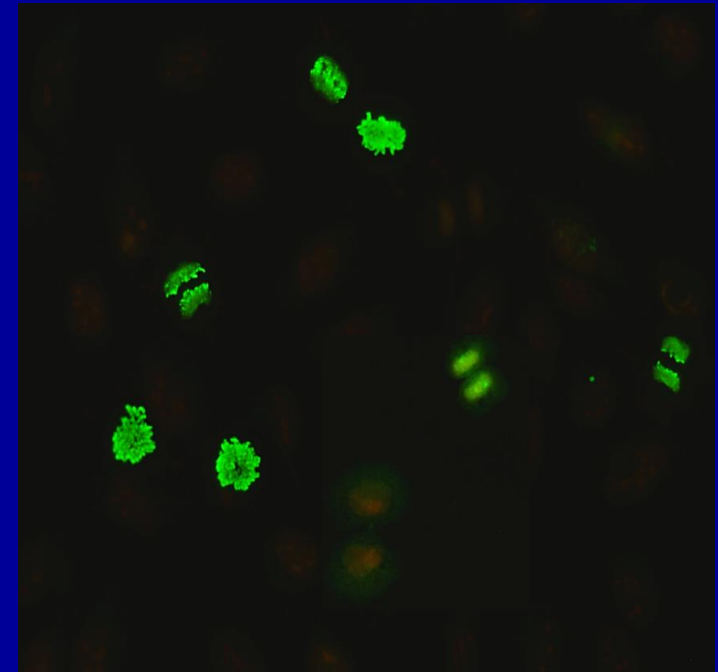
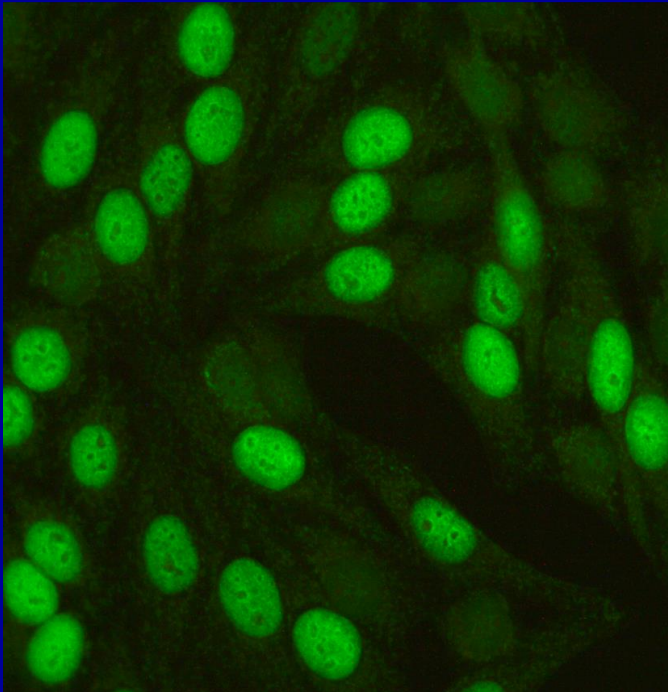
FOIE DE SOURIS



# AUTOANTICORPS ET CANCER

## ANTI-CELLULES PROLIFERATIVES

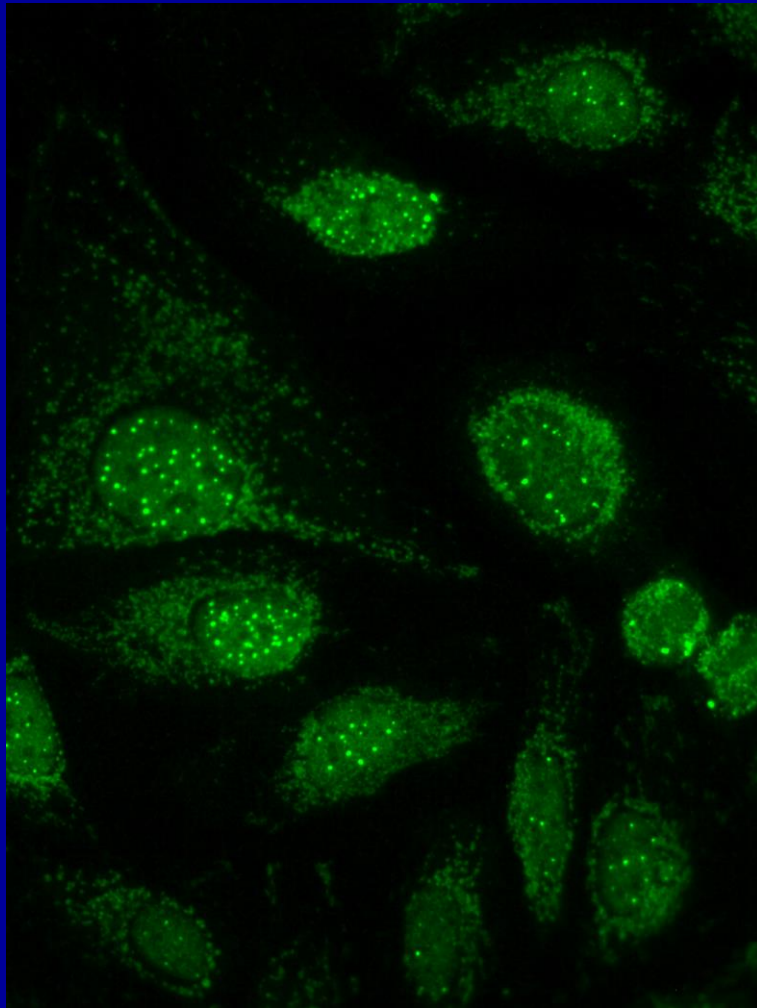
### ANTI-PCNA et Pseudo-PCNA



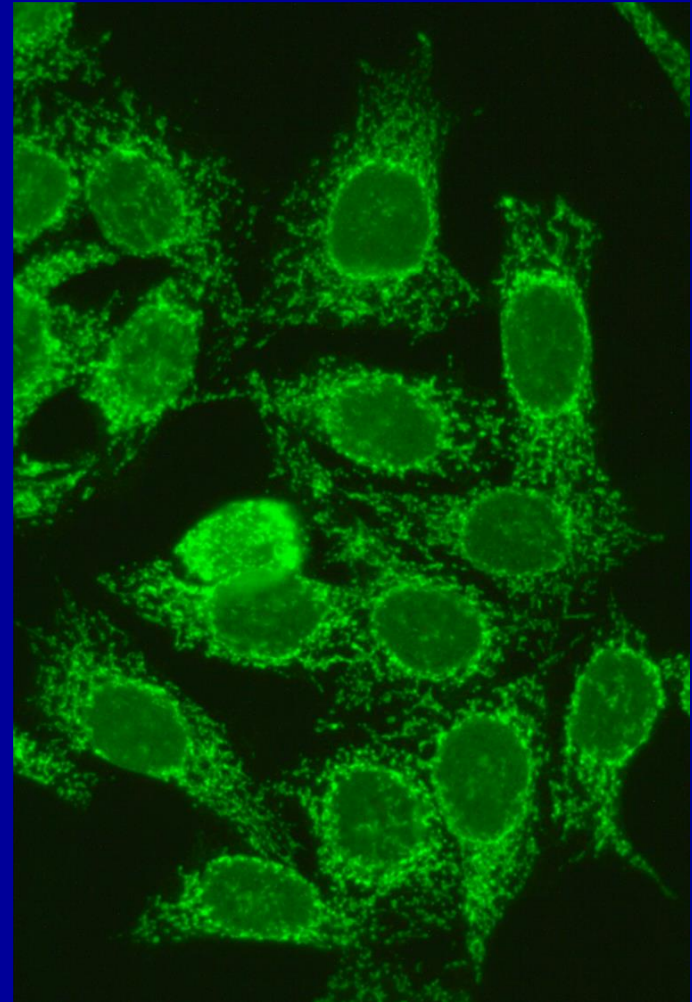
### ANTI-CHROMOSOMES MITOTIQUES

# ANTICORPS ANTI-NUCLEAIRES

DOTS NUCLEAIRES  
Sp100



MEMBRANAIRES  
gp210



# • IDIOPATHIC INFLAMMATORY MYOSITIS

## DERMATOMYOSITIS

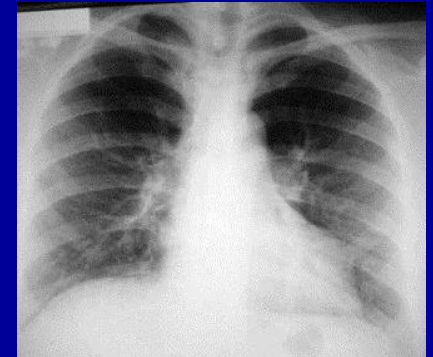
Juvenil Form  
Adult Form  
Cancer Associated  
Amyopathic

Mi2,NXP2  
Mi2,SAE  
Tif1 $\gamma$ ,  
MDA5



## ANTI-SYNTHEASE SYNDRO.

JO1,PL7,PL12,EJ,  
OJ,KS,Zo,YRS



## INCLUSION BODY MYOSITIS

Mup44

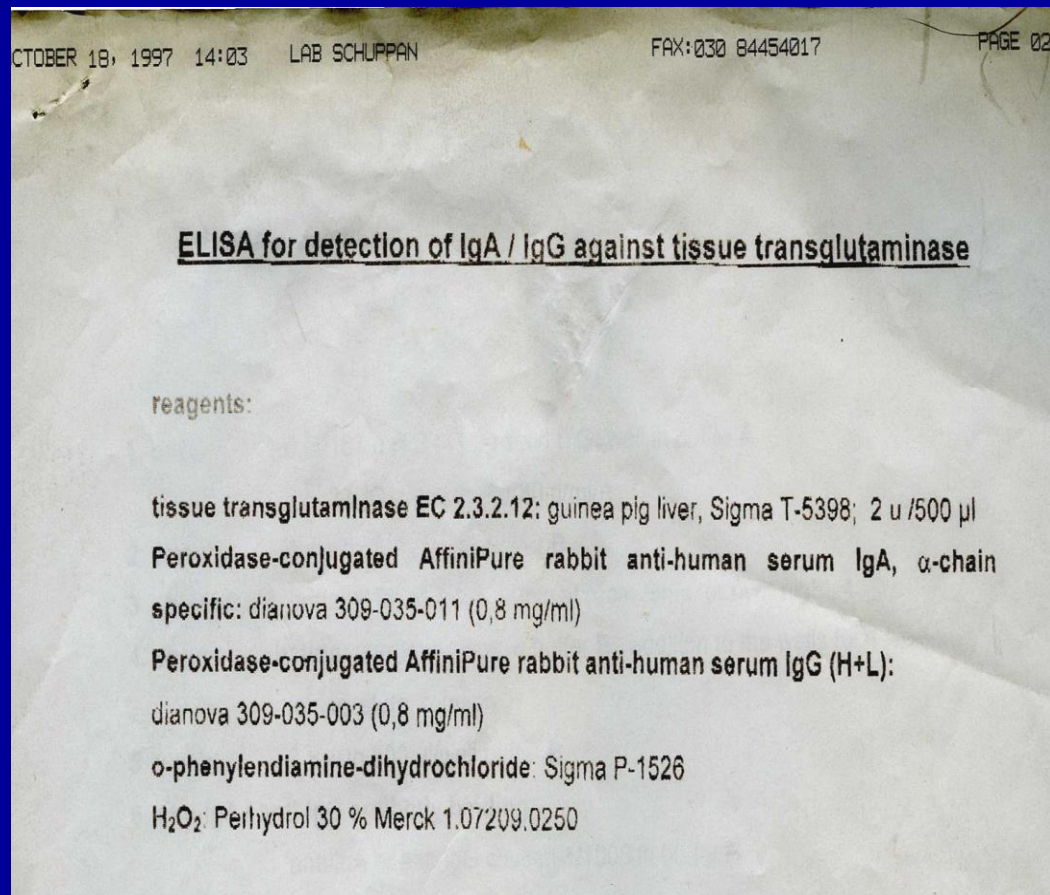
## NECROTIZING MYOSITIS

SRP,HMGCR



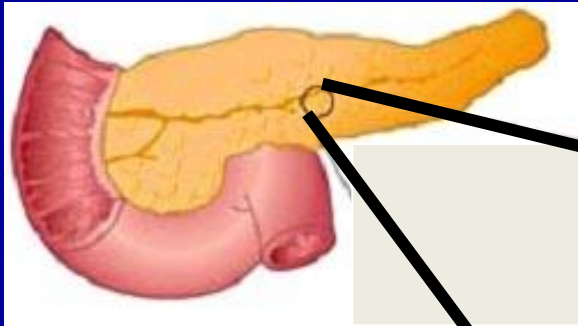
# Identification of tissue transglutaminase as the autoantigen of celiac disease

WALBURGA DIETERICH<sup>1</sup>, TOBIAS EHNIS<sup>1</sup>, MICHAEL BAUER<sup>1</sup>, PETER DONNER, UMBERTO VOLTA,  
ERNST OTTO RIECKEN<sup>1</sup> & DETLEF SCHUPPAN<sup>1</sup>

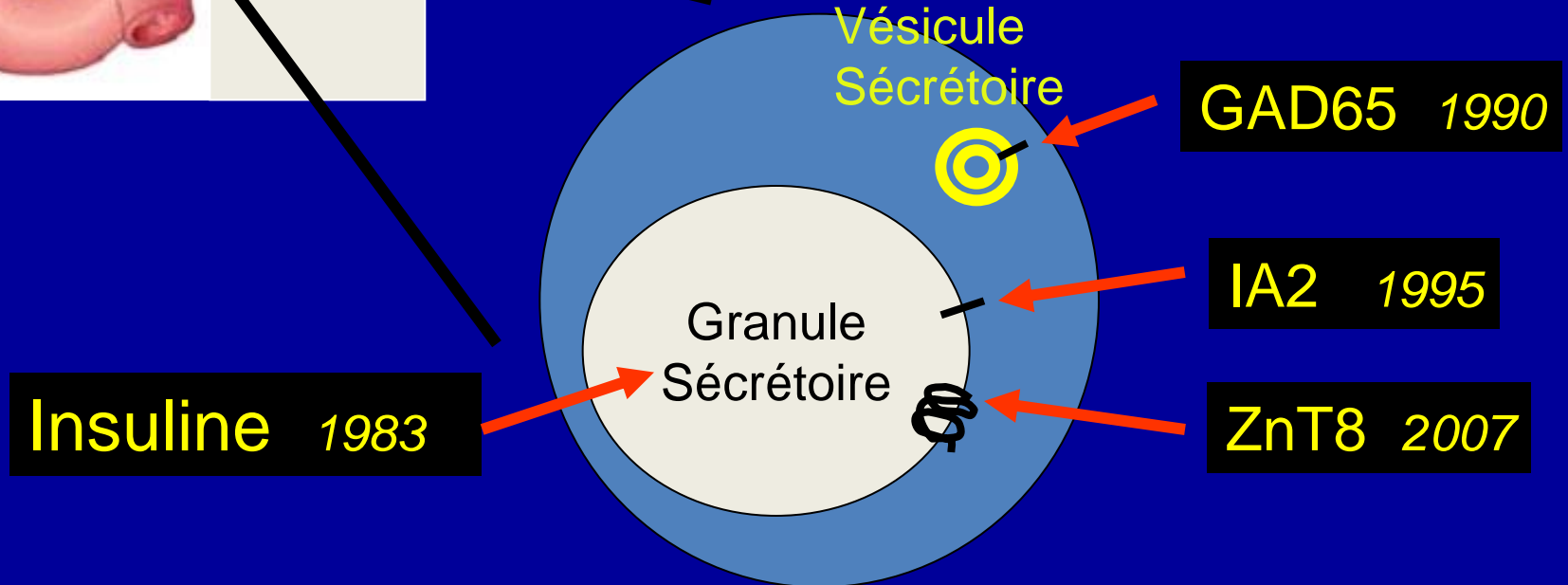


# AUTOANTICORPS DANS LE DIABETE ID

ICA IF 1974



## CELLULE $\beta$

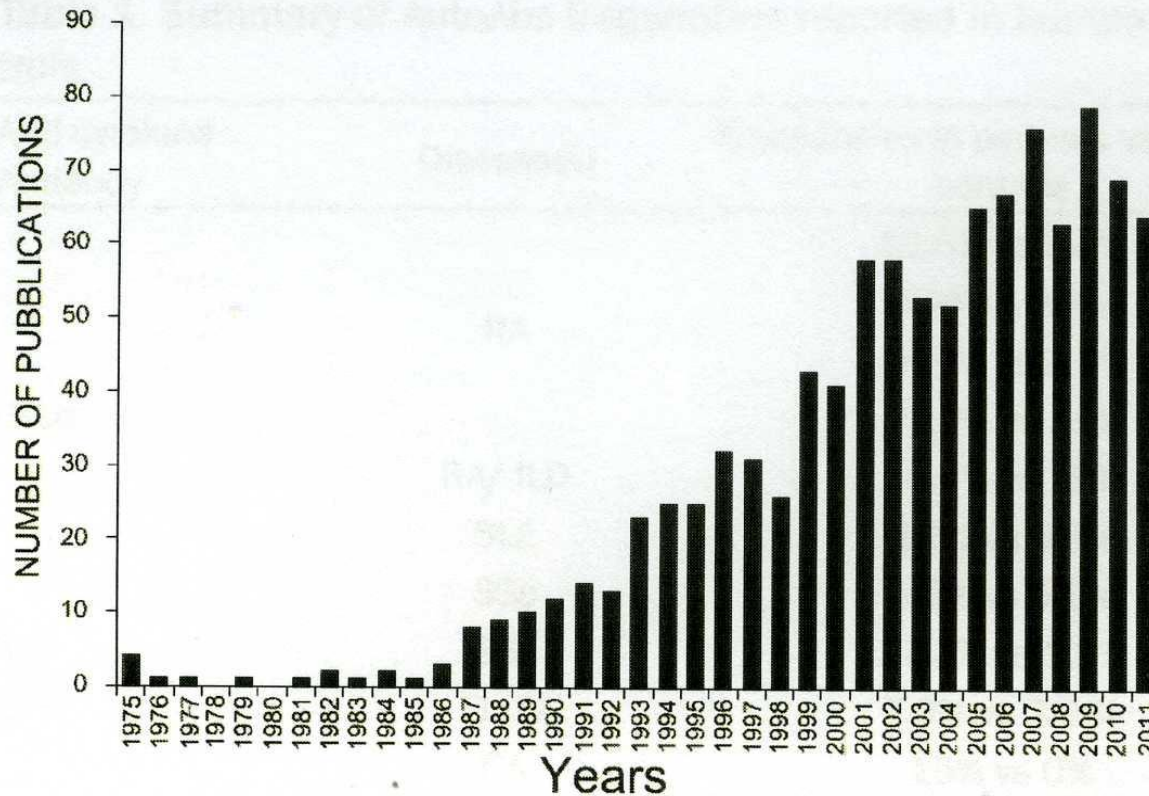


## Review Article

# Anti-cytokine autoantibodies in autoimmune diseases

Giuseppe Cappellano<sup>1,2</sup>, Elisabetta Orilieri<sup>1,2</sup>, Abiy D Woldetsadik<sup>1,2</sup>, Elena Boggio<sup>1,2</sup>, Maria F Soluri<sup>1,2</sup>, Cristoforo Comi<sup>1,3</sup>, Daniele Sblattero<sup>1,2</sup>, Annalisa Chiocchetti<sup>1,2</sup>, Umberto Dianzani<sup>1,2</sup>

<sup>1</sup>Interdisciplinary Research Center of Autoimmune Diseases (IRCAD), <sup>2</sup>Department of Health Sciences, <sup>3</sup>Department of Translational Medicine, "A. Avogadro" University of Eastern Piedmont, Novara, Italy

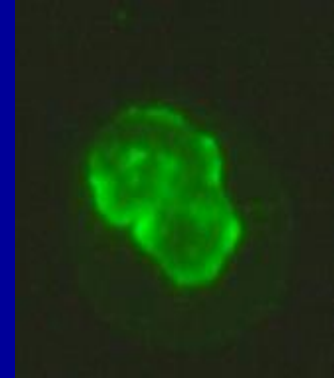
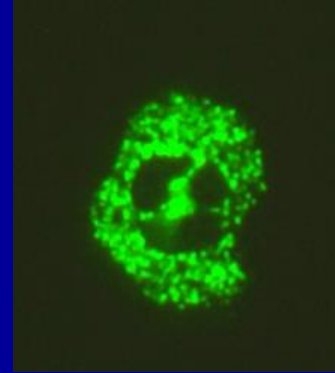


**Figure 1.** Number of publications focused on AutoAbs against cytokines between 1975 and 2011 (<http://www.ncbi.nlm.nih.gov/pubmed/>).

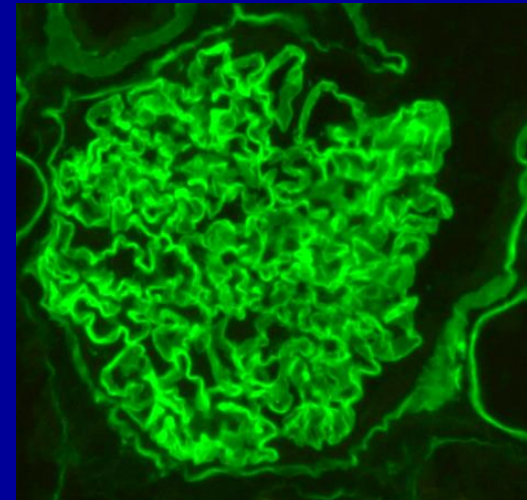
# AUTOANTICORPS EN URGENCE



**ANCA**



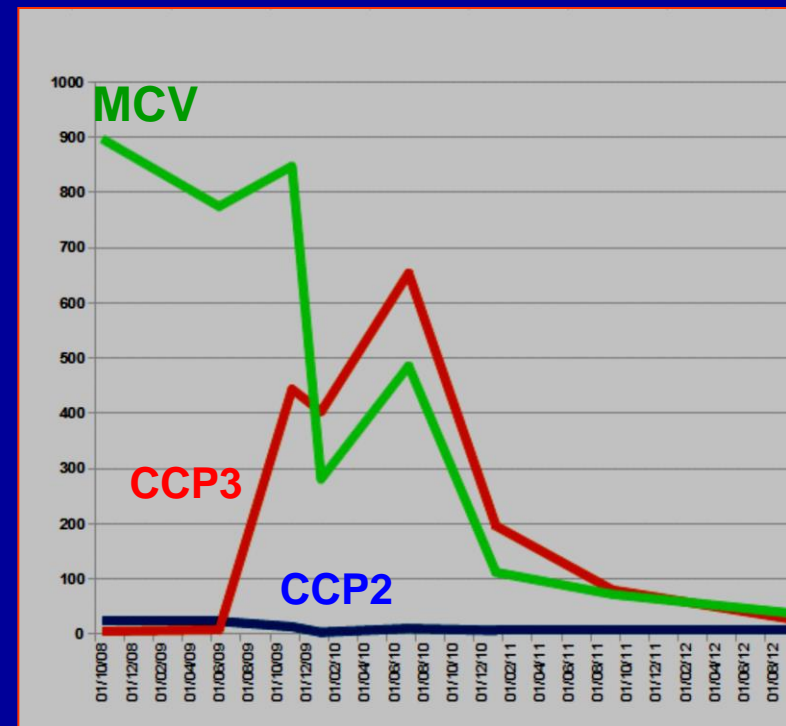
**ANTI-MBG**



# ACPA

## ANTI CITRULLINATED PROTEINS ANTIBODIES

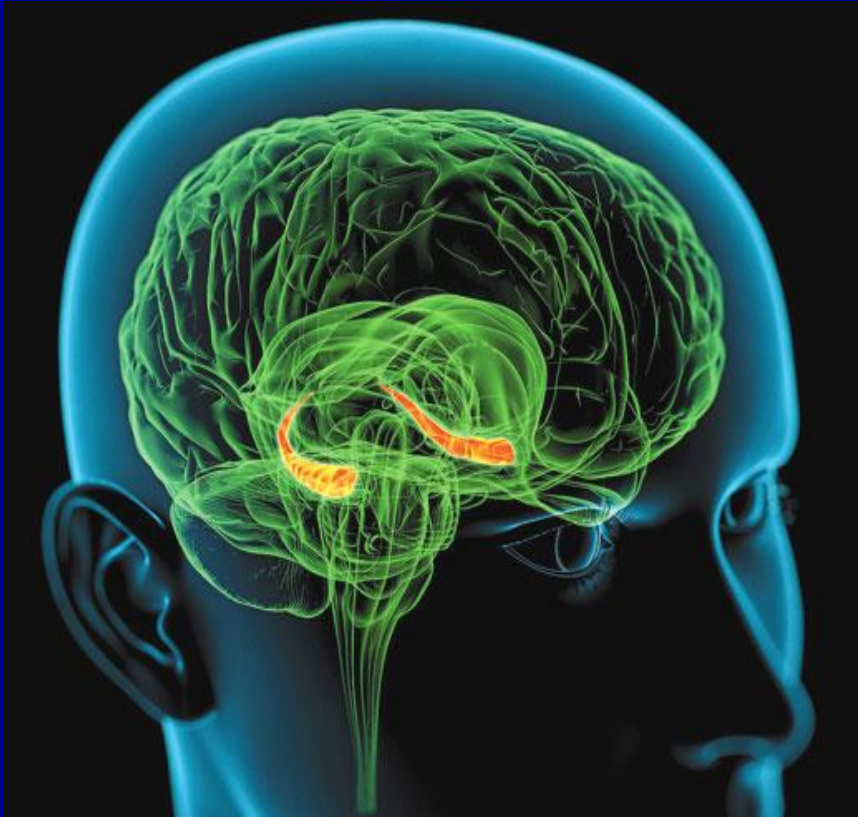
CCP2	CCP3	MCV
393	90	22
7	440	775
280	385	14
30	65	485
32	165	22



2008 2009 2010 2011 2012



# ANTICORPS ANTI-NEURONAUX



Yo  
Hu  
GAD  
VGCC  
Ri  
VGKC  
CV2  
AMPHI  
Tr (DNER)  
Ma/Ta  
mGluR1  
PCA-2  
Gephyrin  
ANNA-3  
Zic

SOX  
BRSK2  
GluR2 $\delta$   
PKCY  
HOMER 3  
AK5  
NMDAR  
GlycinR  
Caspr2  
AMPAR  
GABA B R  
ARMGAP26  
Lgi1  
mGluR5  
DPPX  
GABA A R

# AUTOANTICORPS ANTI-GANGLION DE BASE



**CHOREE**

**TICS**

**Trouble Obsessionnel Compulsif**

**Maladie de Gilles de la Tourette**

**PANDAS**

**ANTICORPS**

*Lysoganglioside GM1*

*Pyruvate Kinase M*

*Aldolase C*

*Neuron Specific Enolase*

*CaMKinase II*

*Tubulin*

*Recepteur Dopamine D1/D*



moleculera labs

## Cunningham Panel

There are a series of five (5) assays in the Cunningham Panel. Four of these clinical assays or tests include enzyme-linked immunosorbent assays (ELISAs) to measure antibody titers against four neuronal antigens present in the brain; the neuronal antigens include:

1. lysoganglioside
2. tubulin
3. dopamine receptor D1
4. dopamine receptor D2

A fifth assay is used to quantify calcium/calmodulin-dependent protein kinase activity using a neuronal cell line to test for functional signaling antibodies against human neuronal cells. In the case of each analysis, the measured amounts from the assays are compared to normal control

### Price of PANDAS test

Wieslab charges **USD 925 / EUR 708** for the PANDAS test which is the same price that Moleculera charges their North American customers. We will invoice the person specified under “billing information” on the request form. This is done after the test result has been submitted. Payment details: *Bank:* Svenska Handelsbanken Frihem, *Swift Code:* HANDSESS, *IBAN:* SE52 6000 0000 0007 4146 0912. If payments are not received we will have to revise our policies.



# IMMUNOFLUORESCENCE

*' l'œil ne se rassasie pas de voir '*

# AUTOMATISATION

PREPARATION DES LAMES

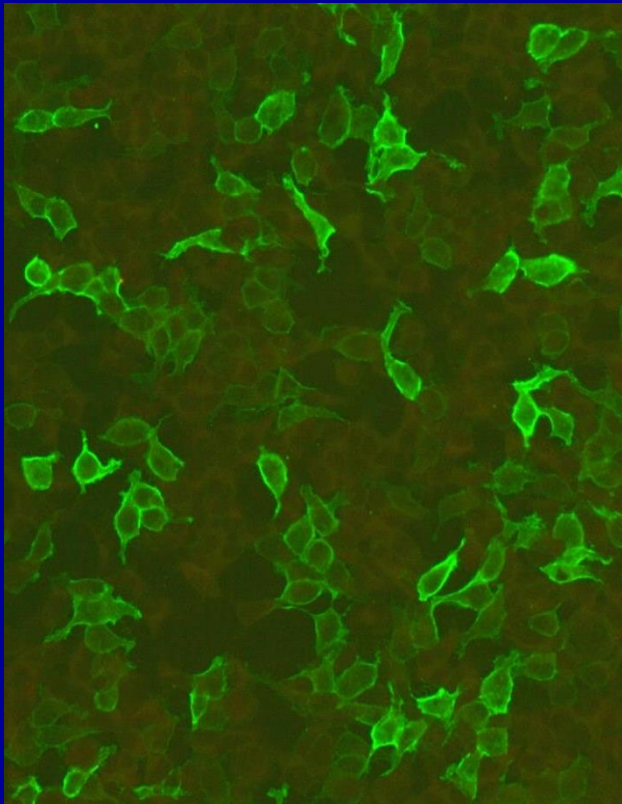


LECTURE DES LAMES



# CELLULES TRANSFECTEES

## ANTIGENES SPECIFIQUES D'ORGANES



**Pancréas**    **CUZD1 , GP2**

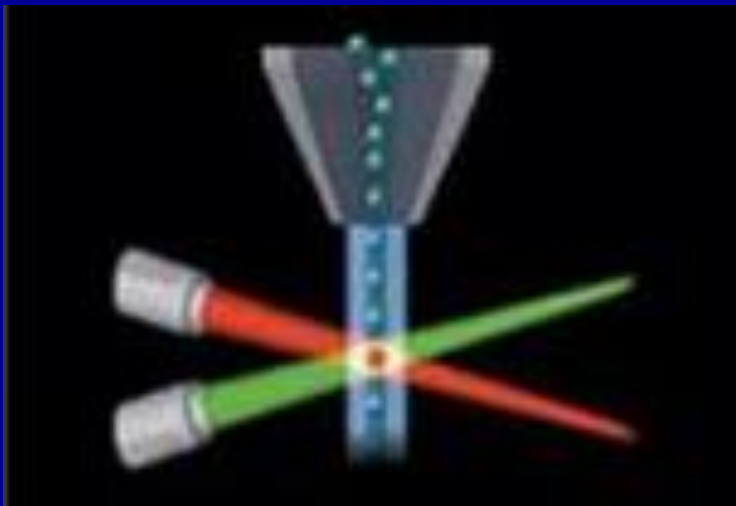
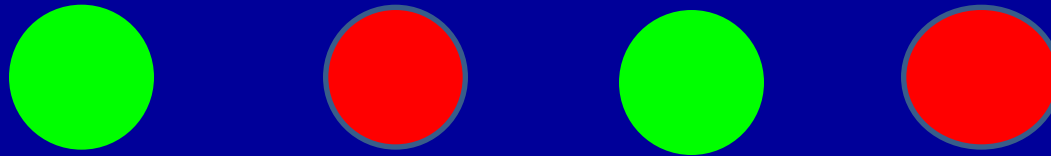
**Peau**        **Dsg1/3, BP180/230, Collag.VII**

**Rein**        **PLA2R**

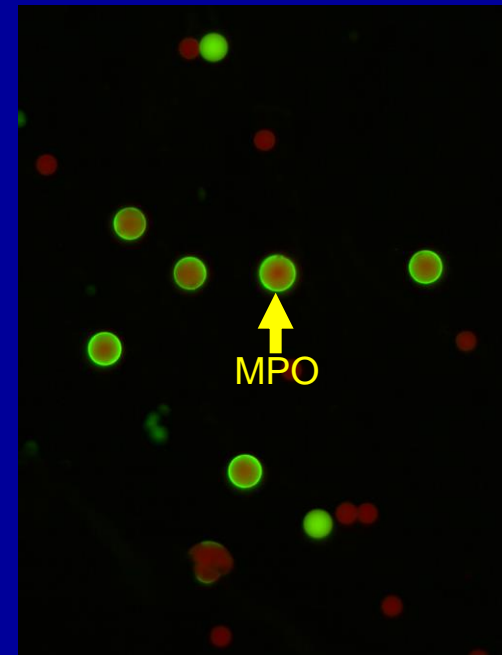
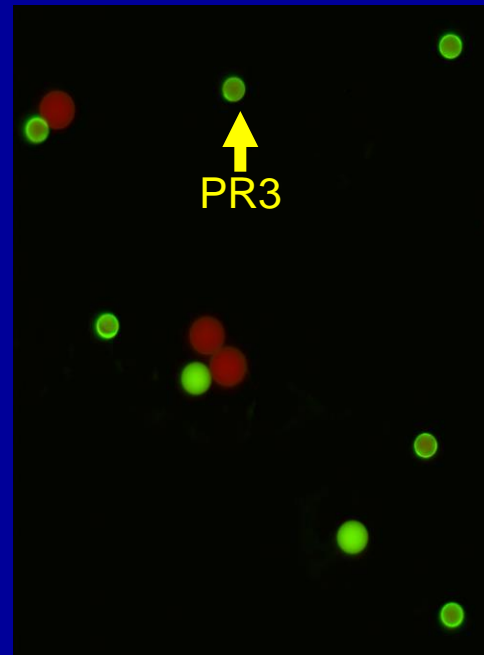
**Foie**        **SLA**

**Cerveau**    **GluNMDAR, GluAMPR, Lgi1, Caspr2,  
GAD65, AQP4, DNER, DPPX**

# MICROBEADS TECHNOLOGY



**FLOW CYTOMETRY**



**MICROSCOPIC IIF**

# Your platform

Prevalence of autoimmune diseases is increasing. This puts pressure on health-care services to make accurate diagnoses in a cost and time-efficient manner, based on test results with high clinical value.

Working with EliA™ autoimmunity assays allows you to run tests with excellent accuracy and high clinical usefulness in routine clinical practice. EliA assays are processed on the fully automated Phadia® Laboratory Systems and help to increase your efficiency. Furthermore, you are supported by dedicated specialists, helping you to make a difference in autoimmunity diagnostics.

## for diagnostic success





QUANTAPLEX

FIDIS

BIOPLEX

QUANTAFLASH

MULTI-LYTE

LIAISON

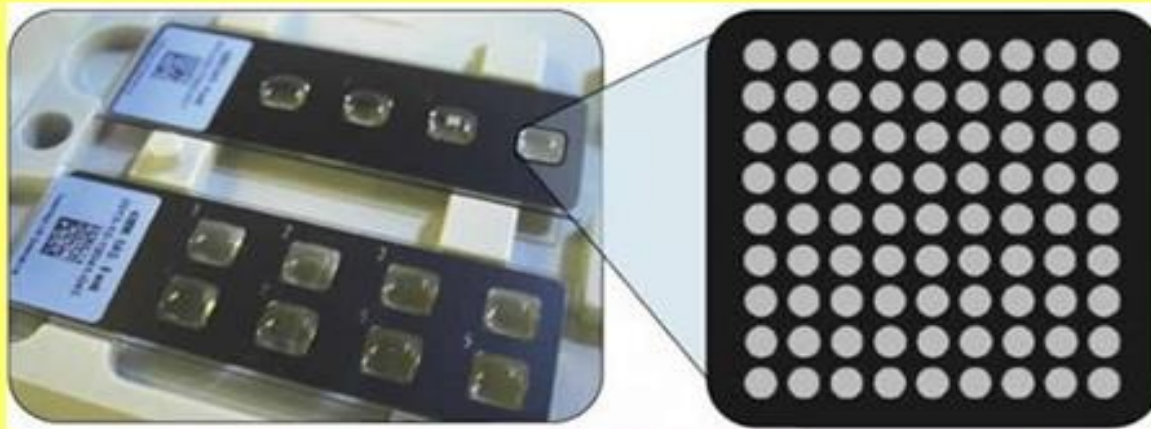
UNICAP

ALEGRIA

BLUEDIVER

AMIDOT

An analytical microdot array system for the detection, identification and quantification of autoantibodies in human sera



81 AUTOANTIBODIES

NATURE

ANTIGENES

UTILISATION

**GROUPE D'ÉTUDE DE L'AUTO-IMMUNITÉ**



**BON COLLOQUE**

***RL Humbel, Joelle Goetz, Alain Chevailler, Catherine Johanet,  
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Nicole Fabien, Françoise Fortenfant, Sophie Hue, Daniela Lakomi,  
Nils O. Olsson, Jean Sibilia, Thierry Vincent, Isabel Abreu, Xavier Bossuyt***