

GEAI 2016



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*Luxembourg*

# RECHERCHE DES ANTICORPS ANTINEURONaux

## **ANTICORPS ANTI-NEURONAUX**

|                      |             |
|----------------------|-------------|
| <b>Yo</b>            | <b>1983</b> |
| <b>Hu</b>            | <b>1985</b> |
| <b>GAD</b>           | <b>1988</b> |
| <b>VGCC</b>          | <b>1989</b> |
| <b>Nb/AP3B2</b>      | <b>1989</b> |
| <b>Ri</b>            | <b>1991</b> |
| <b>NB (BETA-NAP)</b> | <b>1991</b> |
| <b>AMPHIPHYSIN</b>   | <b>1993</b> |
| <b>VGKC</b>          | <b>1995</b> |
| <b>CV2</b>           | <b>1996</b> |
| <b>Tr</b>            | <b>1997</b> |
| <b>Ma/Ta</b>         | <b>1999</b> |
| <b>mGluR1</b>        | <b>2000</b> |
| <b>PCA-2</b>         | <b>2000</b> |
| <b>Gephyrin</b>      | <b>2000</b> |
| <b>ANNA-3</b>        | <b>2001</b> |
| <b>Zic</b>           | <b>2002</b> |
| <b>CARPVIII</b>      | <b>2004</b> |
| <b>SOX1</b>          | <b>2005</b> |
| <b>BRSK-2</b>        | <b>2005</b> |

|                                 |             |
|---------------------------------|-------------|
| <b>GluR2<math>\delta</math></b> | <b>2005</b> |
| <b>PKCY</b>                     | <b>2006</b> |
| <b>HOMER 3</b>                  | <b>2007</b> |
| <b>AK5</b>                      | <b>2007</b> |
| <b>NMDAR</b>                    | <b>2007</b> |
| <b>Glycine Receptor</b>         | <b>2008</b> |
| <b>SYNAPTOPHYSIN</b>            | <b>2008</b> |
| <b>Caspr2</b>                   | <b>2009</b> |
| <b>AMPA Receptor</b>            | <b>2009</b> |
| <b>GABA B Receptor</b>          | <b>2010</b> |
| <b>Ca - ARHGAP26</b>            | <b>2010</b> |
| <b>Lgi1</b>                     | <b>2010</b> |
| <b>mGlu5 R</b>                  | <b>2011</b> |
| <b>DPPX</b>                     | <b>2012</b> |
| <b>GABA A R.</b>                | <b>2013</b> |
| <b>Sj - ITPR1</b>               | <b>2014</b> |
| <b>IgLON 5</b>                  | <b>2014</b> |
| <b>GlyT2</b>                    | <b>2014</b> |
| <b>SEPTIN</b>                   | <b>2014</b> |
| <b>ATPA1</b>                    | <b>2015</b> |
| <b>NEUROCHONDRIN</b>            | <b>2015</b> |
| <b>FLOTILLIN</b>                | <b>2016</b> |

Hu, Ri, ,Zic , Ma1, Ma2/Ta, ANNA 3  
DPPX, Iglon , ATP1A3,  
Yo, PCA2 ,Tr, Ca, PKC $\gamma$ ,ITPR1,CARPVIII  
HOMER3 , Géphyrine  
Sox,CV2

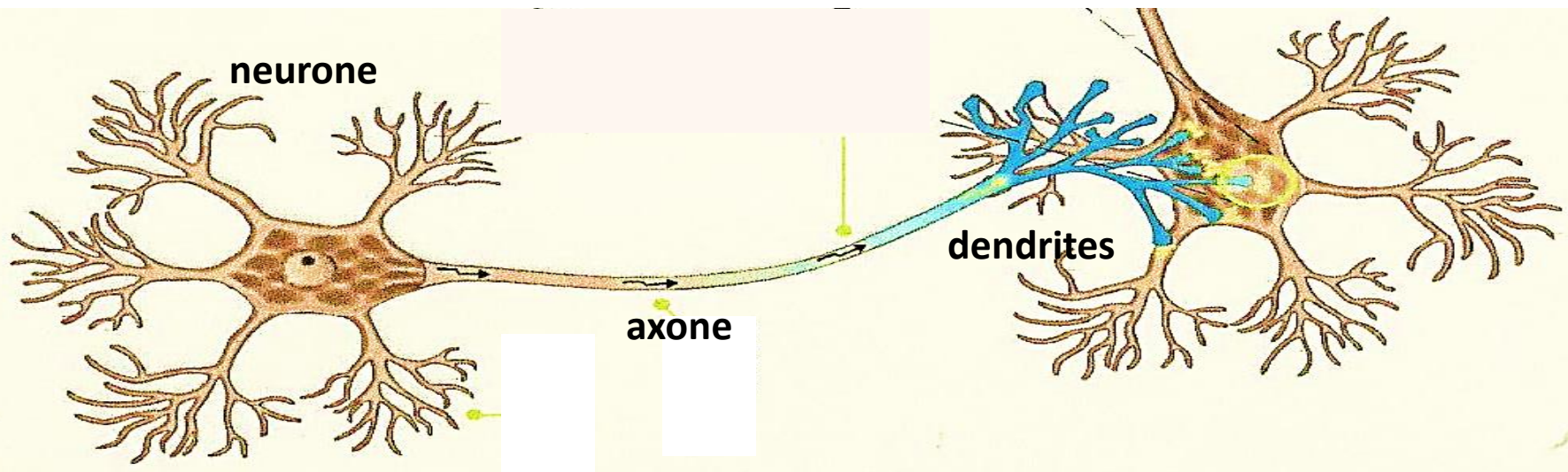
GAD  
Amphiphysine  
Synaptophysine

VGKC  
Lgi1 ,Caspr2  
AMPA-R-GluR  
NMDAR-GluR,  
GABA AR  
GABA BR  
GlycinR  
mGluR1 / R2/ R5

**PROTEINES NEURONALES  
INTRACELLULAIRES**

**PROTEINES INTRACEL.  
SYNAPTIQUES**

**PROTEINES NEURONALES  
MEMBRANAIRES**



Hu, Ri, ,Zic , Ma1, Ma2/Ta, ANNA 3  
DPPX, Iglon , ATP1A3,  
Yo, PCA2 ,Tr, Ca, PKCγ,ITPR1,CARPVIII  
HOMER3 , Géphyrine  
Sox,CV2

GAD  
Amphiphysine  
Synaptophysine

VGKC  
Lgi1 ,Caspr2  
AMPA-R-GluR  
NMDAR-GluR,  
GABA AR  
GABA BR  
GlycinR  
mGluR1 / R2/ R5

PROTEINES NEURONALES  
INTRACELLULAIRES

PROTEINES INTRACEL.  
SYNAPTIQUES

PROTEINES NEURONALES  
MEMBRANAIRES

IMMUNOFLUORESCENCE  
SUR CERVELET

IMMUNODOT (certains)

IF CELLULES TRANSFECTEES  
( Certains )

IF CELLULES  
TRANSFECTEES

# **IMMUNOFLUORESCENCE SUR CERVELET**

**COUPE DE TISSUE : Cervelet de Singe**

**DILUTION SERUM : 1/10**

**ANTI-GLOBULINE : IgG(H+L) Adsorbée Primate**

**LIQUIDE DE MONTAGE : Bromure d'Ethydium 1 $\mu$ g/ml**

# COUPE DE CERVELET

## COUCHE GRANULAIRE NEURONES

Hu, Ri, Ma, Ta, Zic  
GAD

## COUCHE MOLECULAIRE

mGluR1, mGluR2, mGluR5  
HOMER 3, géphyrine, septine

## NEUROPILE

DPPX, IGLON5,  
Amphiphysine,  
ATPA1 3, Neurochondrine

## CELLULES DE PURKINJE

Yo, PCA2, Tr,  
Ca, Sj, PKCγ

## SUBSTANCE BLANCHE

CV2

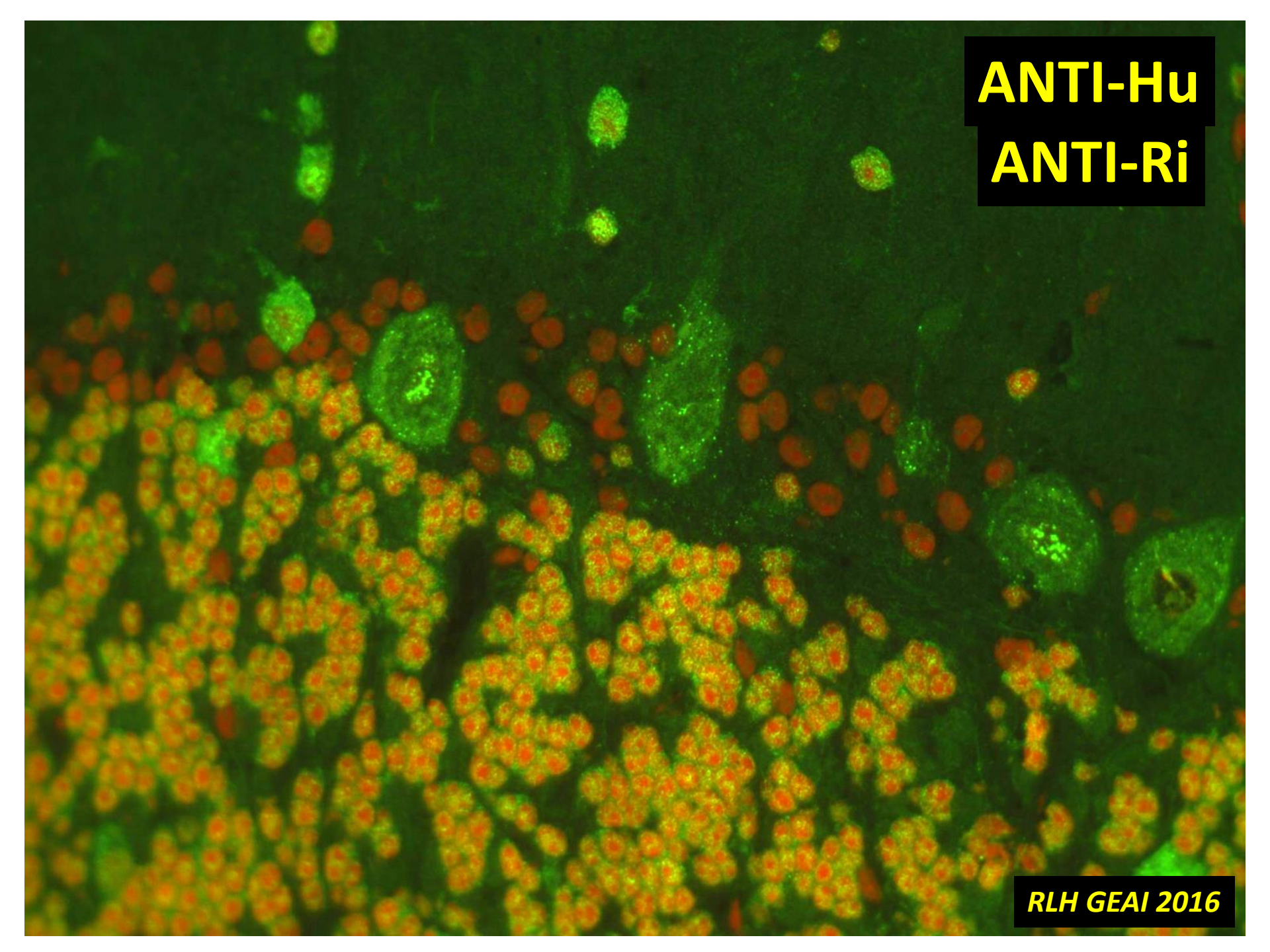
## CELLULES GLIALES

SOX



**COUCHE  
GRANULAIRE  
NEURONES**

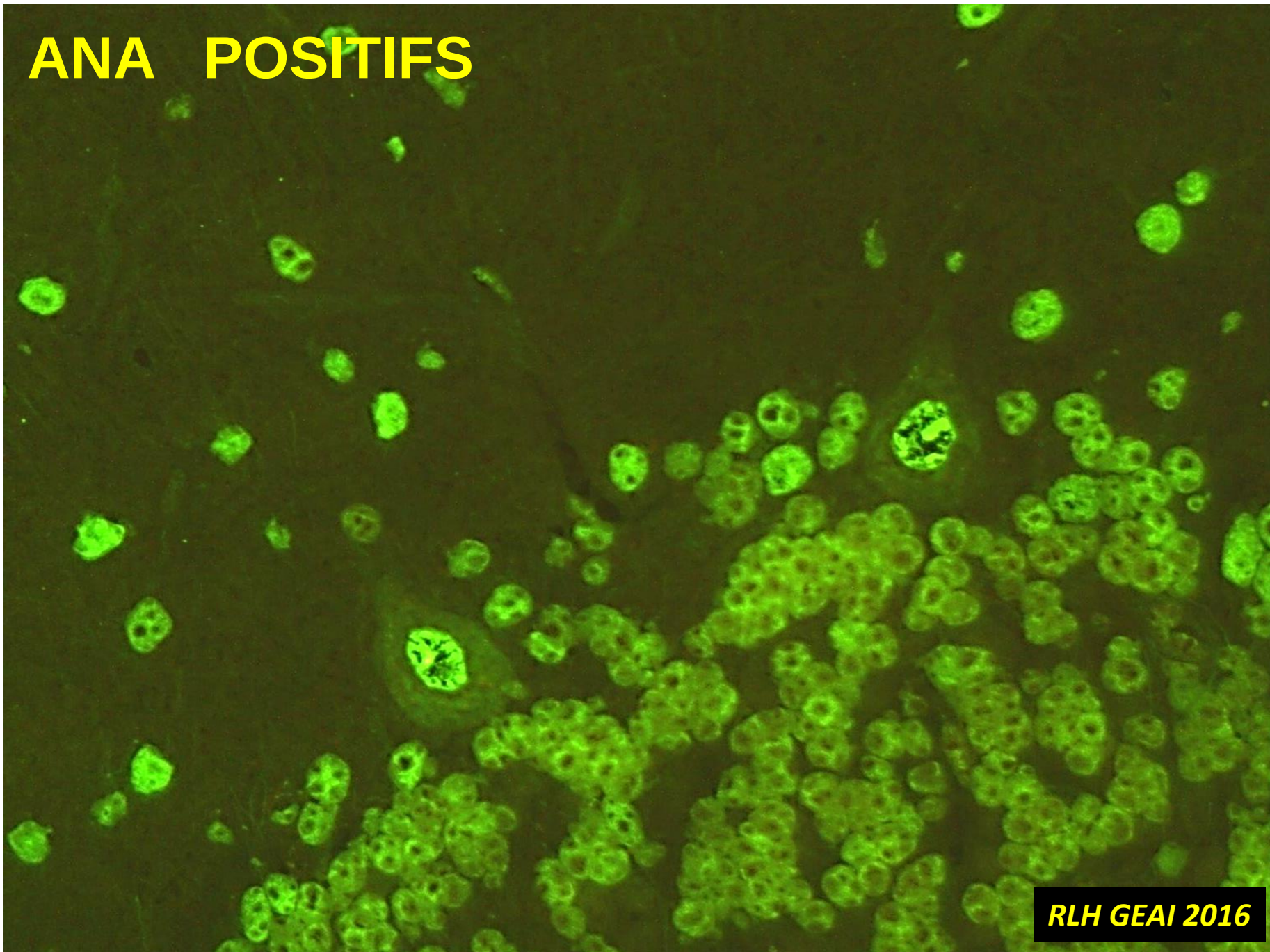
**Hu, Ri, Ma, Ta, Zic  
GAD**



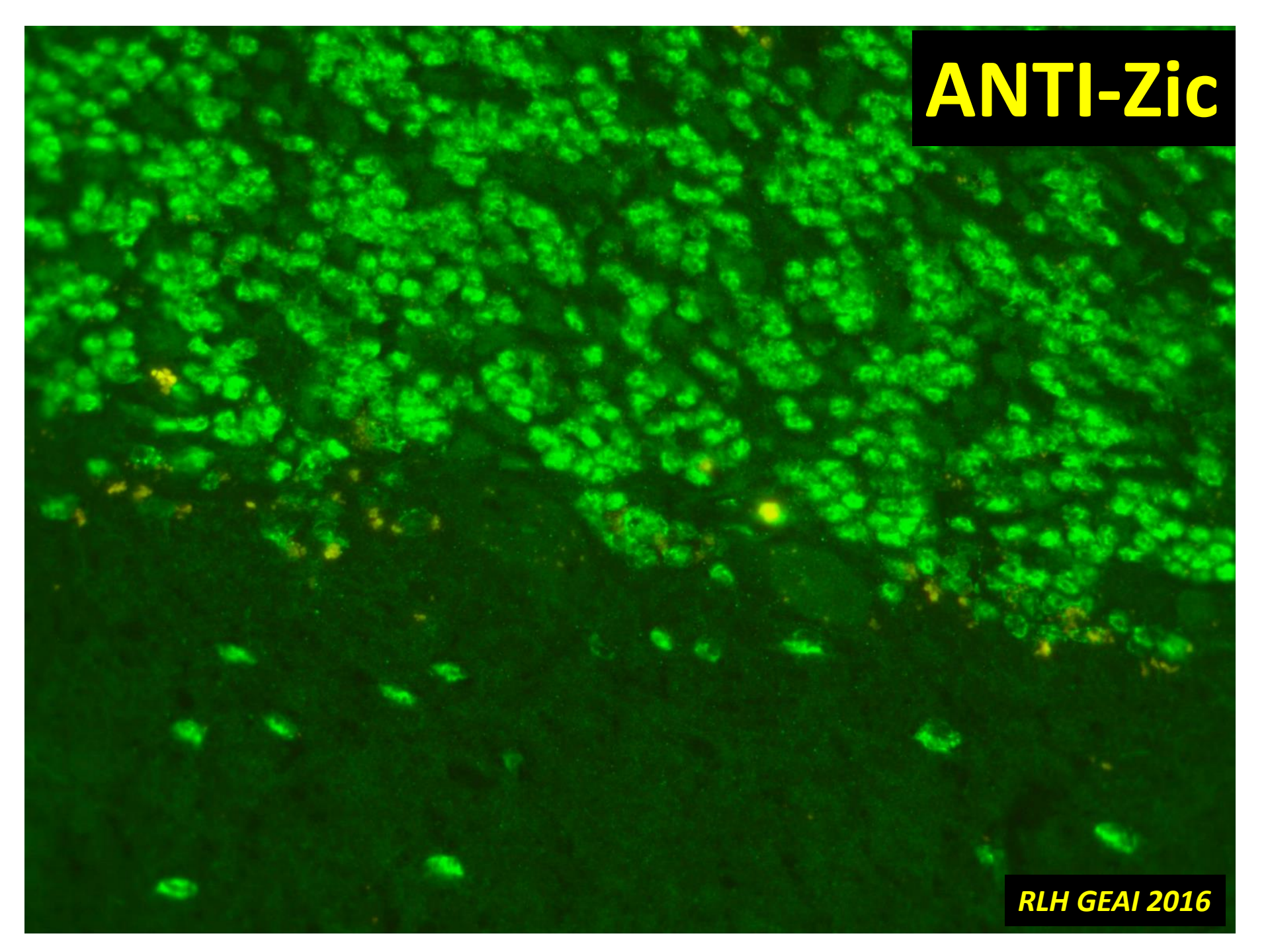
**ANTI-Hu**  
**ANTI-Ri**

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**ANA POSITIFS**



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**ANTI-Zic**

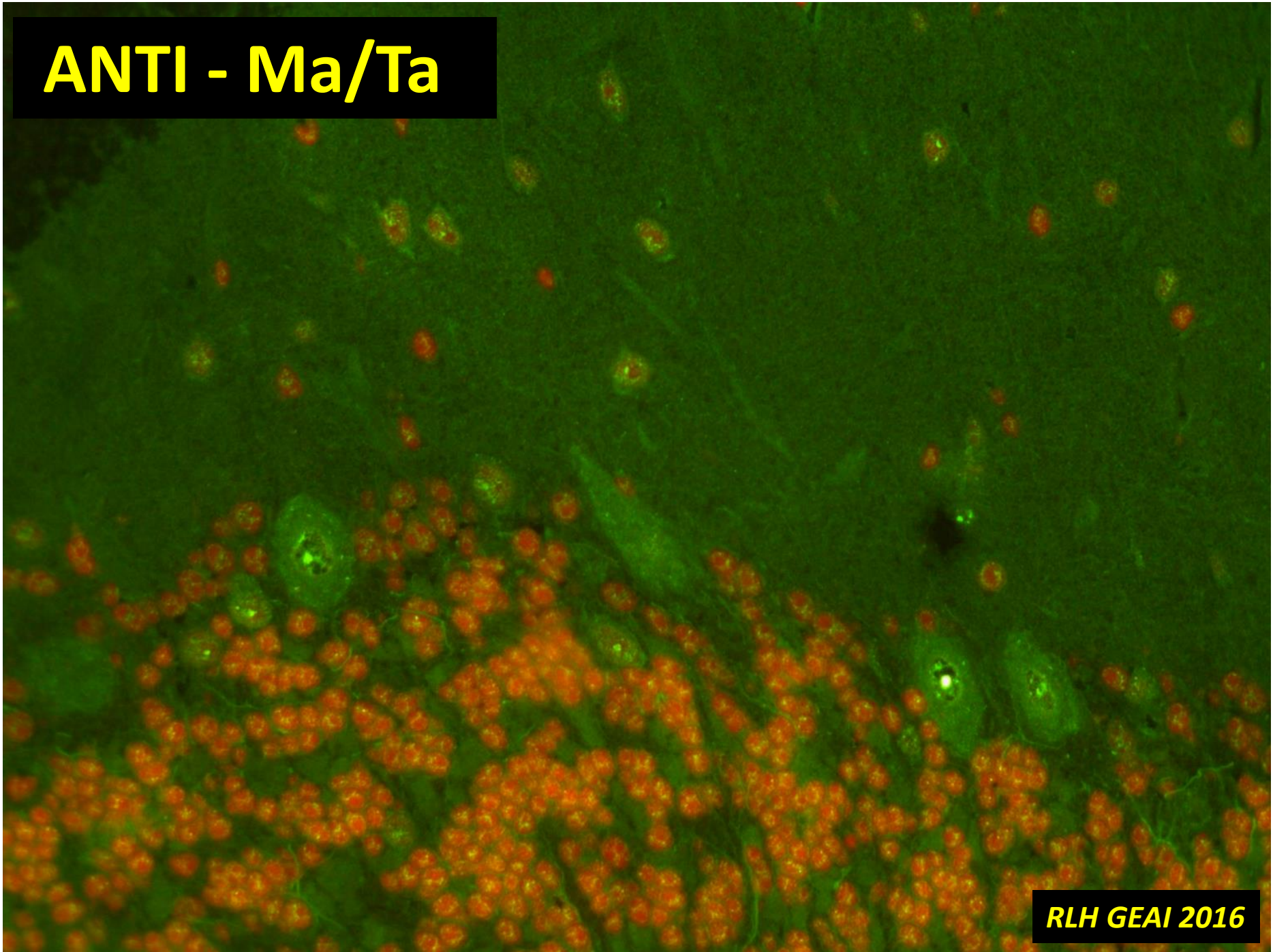
This is a fluorescence microscopy image showing a dense population of cells. The cells are stained with a green fluorescent antibody, likely anti-Zic, which highlights their nuclei. The background is dark, and there are some faint, out-of-focus spots visible.

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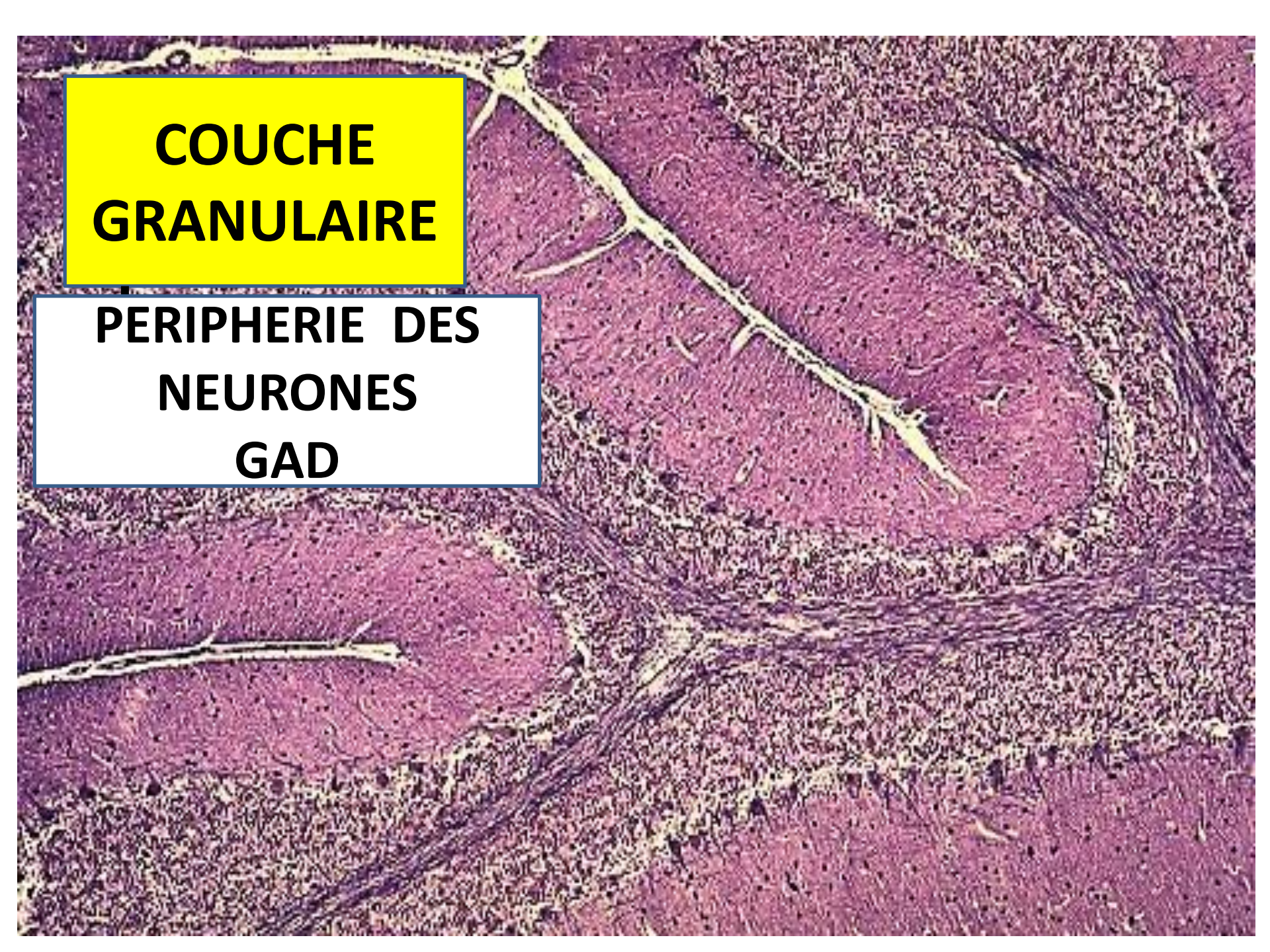
**ANTI - Ma/Ta**

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**ANTI - Ma/Ta**



**RLH GEAI 2016**

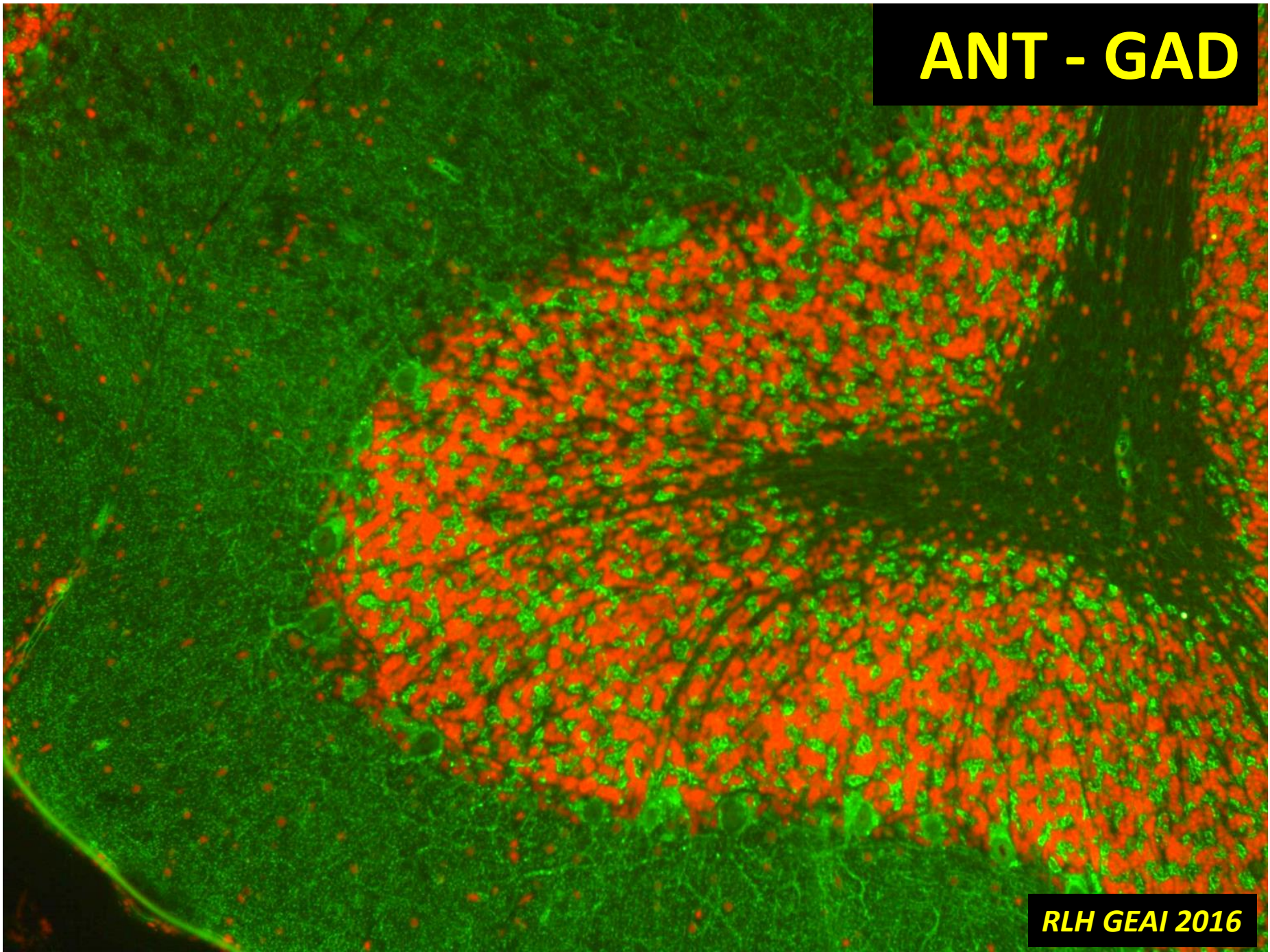


**COUCHE  
GRANULAIRE**

This is a high-magnification light micrograph of the granular layer of the cerebellar cortex. The image shows a dense population of small, dark-staining granule cell nuclei. A prominent, pale, branching structure, likely a dendrite or axon, traverses the field of view from the upper left towards the center. The overall texture is granular and somewhat disorganized due to the high density of the cells.

**PERIPHERIE DES  
NEURONES  
GAD**

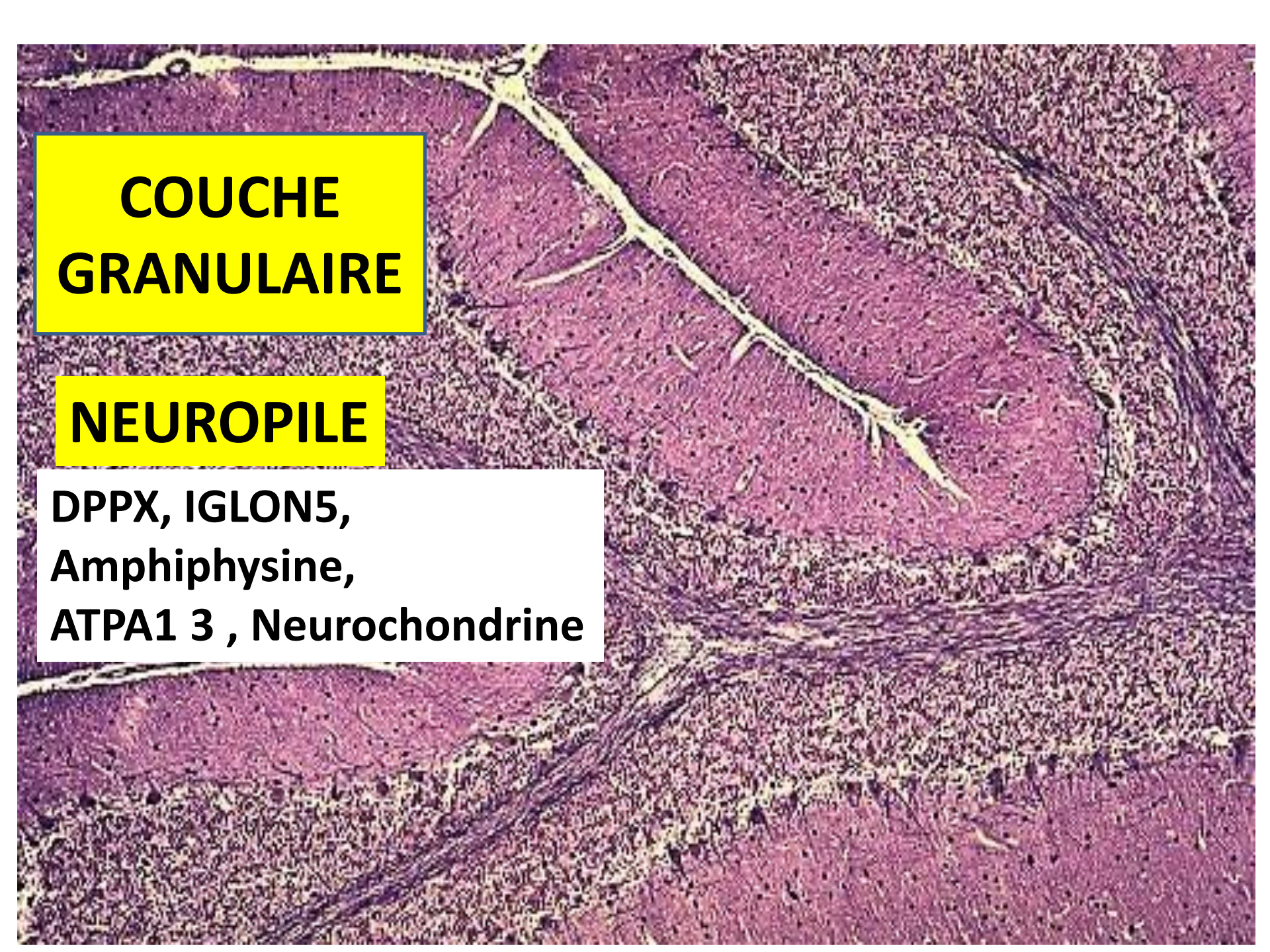
**ANT - GAD**



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**ANTI - GAD**

**RLH GEAI 2016**



**COUCHE  
GRANULAIRE**

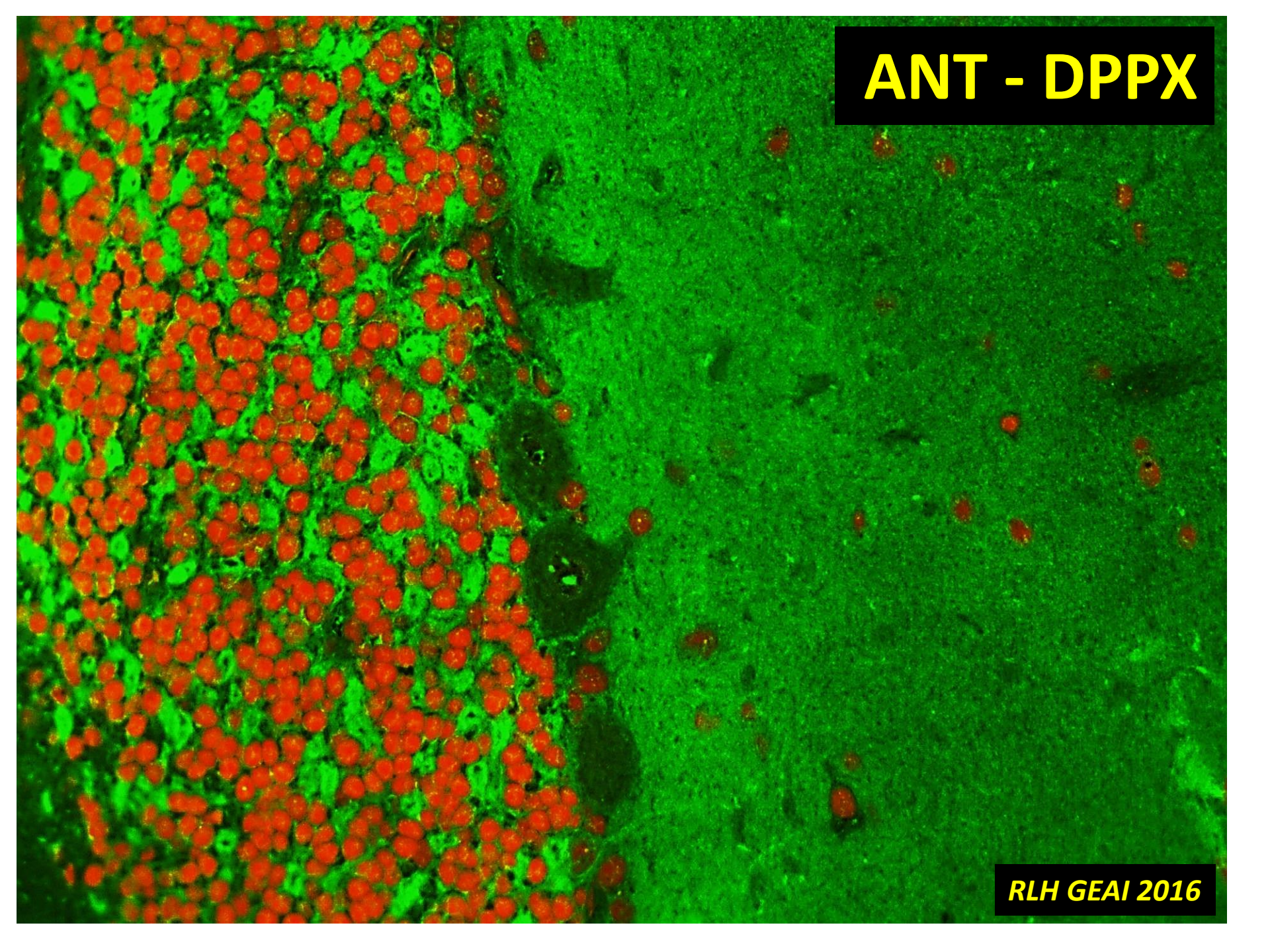
**NEUROPILE**

DPPX, IGLON5,  
Amphiphysine,  
ATPA1 3 , Neurochondrine

**ANT - DPPX**



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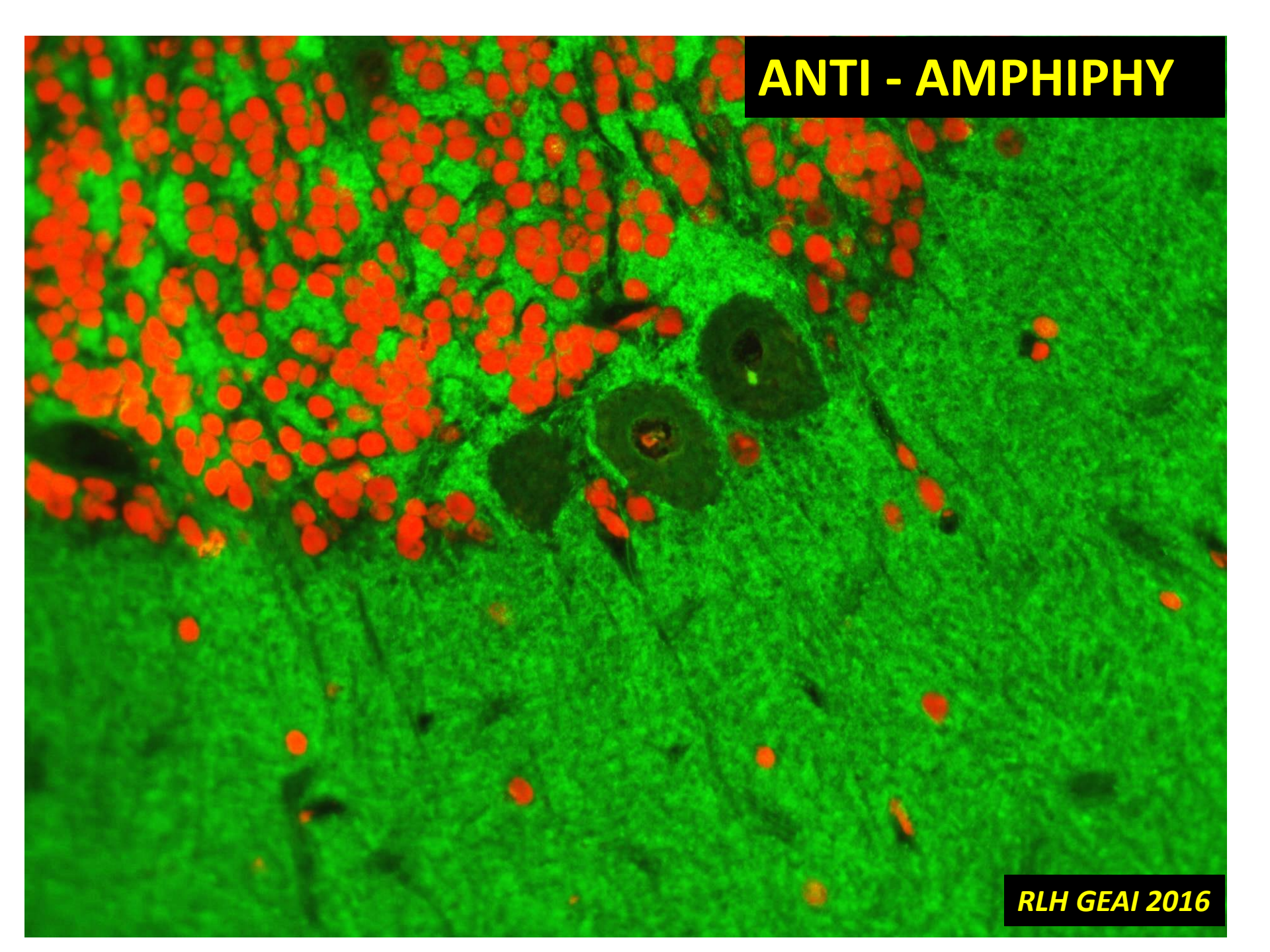
**ANT - DPPX**

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# ANT – IGLON 5

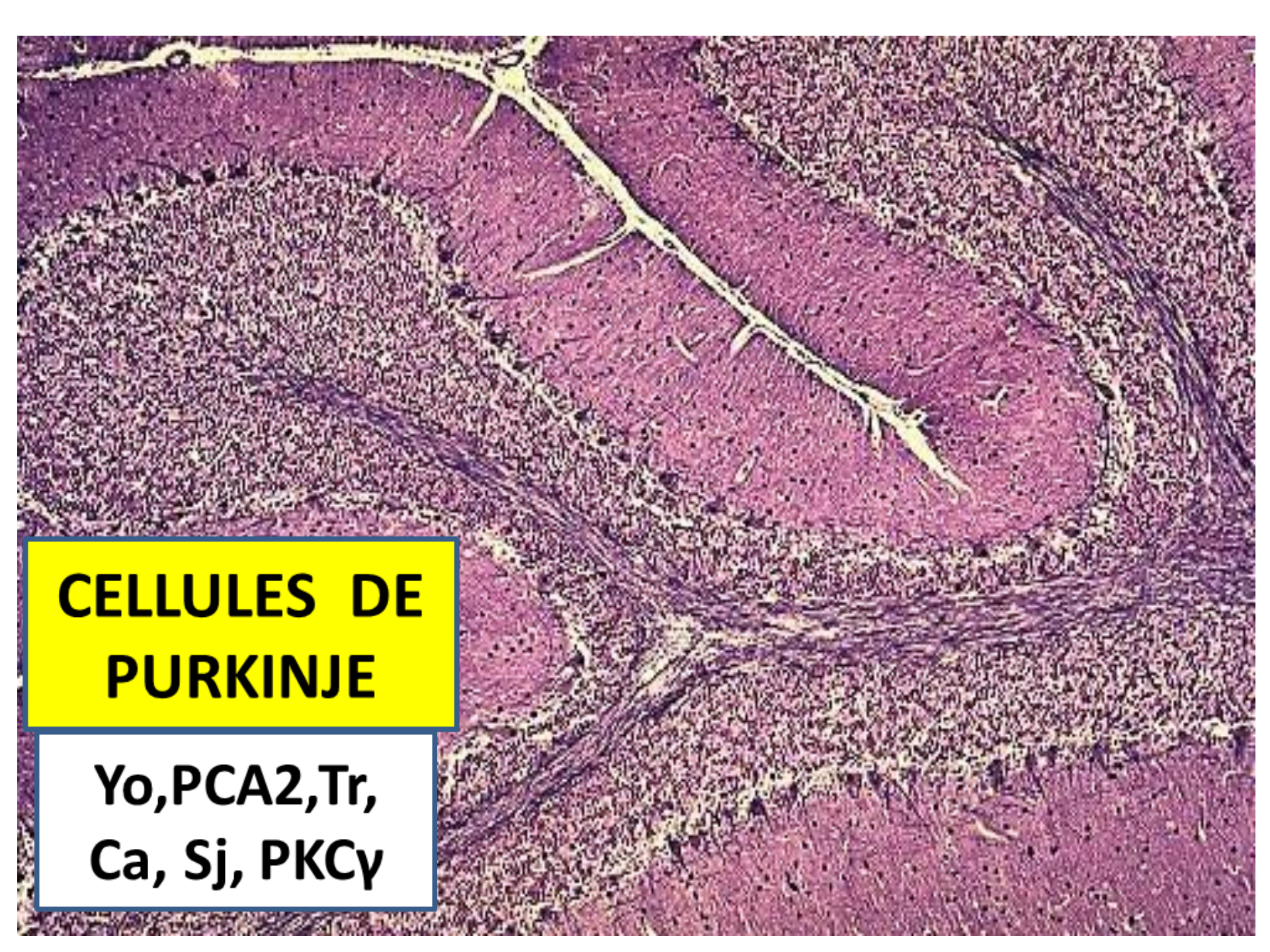
Iglon5

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**ANTI - AMPHIPHY**

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## **CELLULES DE PURKINJE**

**Yo, PCA2, Tr,  
Ca, Sj, PKCγ**

**ANTI - ANNA 3**

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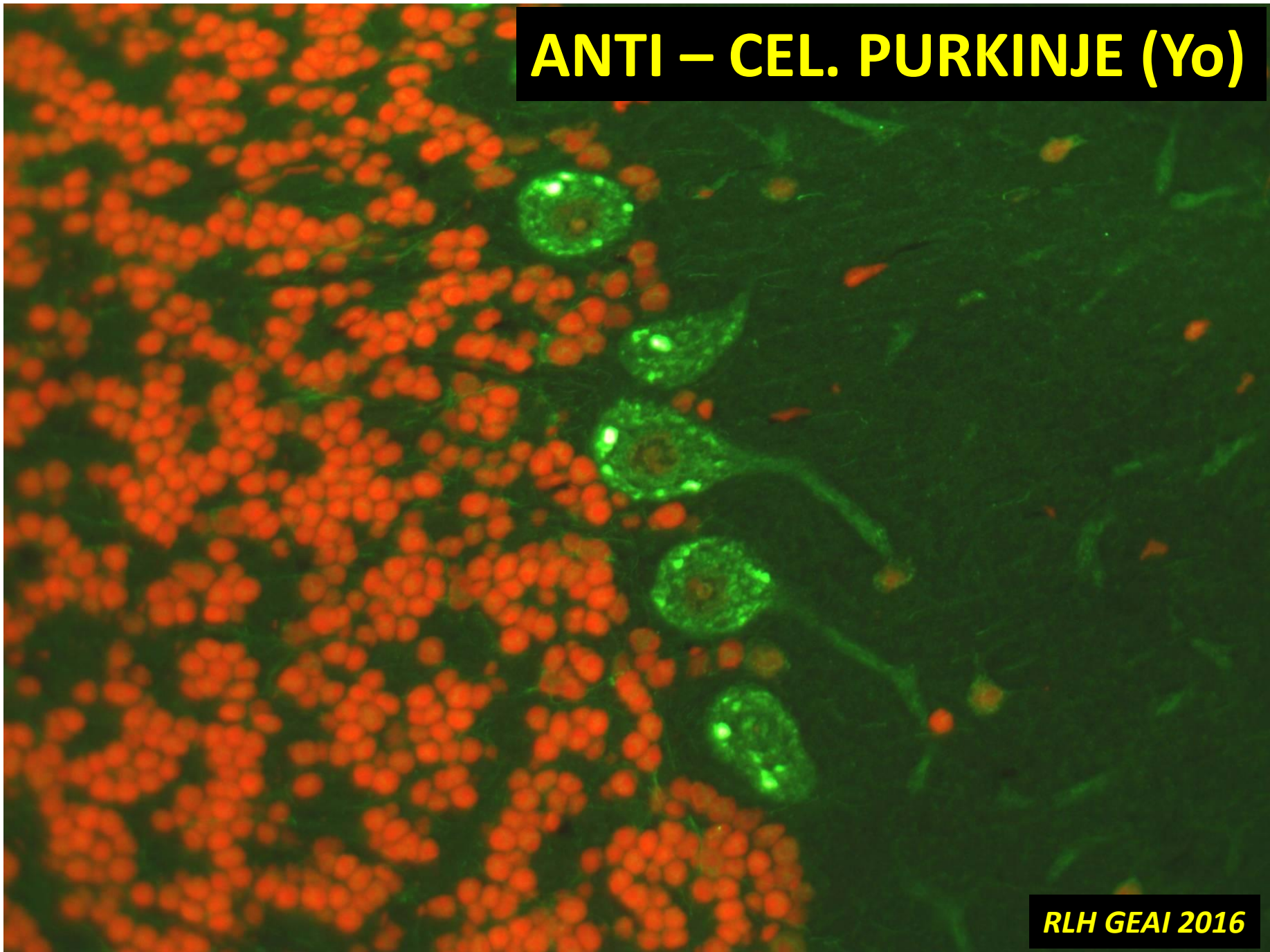
**ANTI - ANNA 3**

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# ANTI - CELLULES PURKINJE



# ANTI – CEL. PURKINJE (Yo)

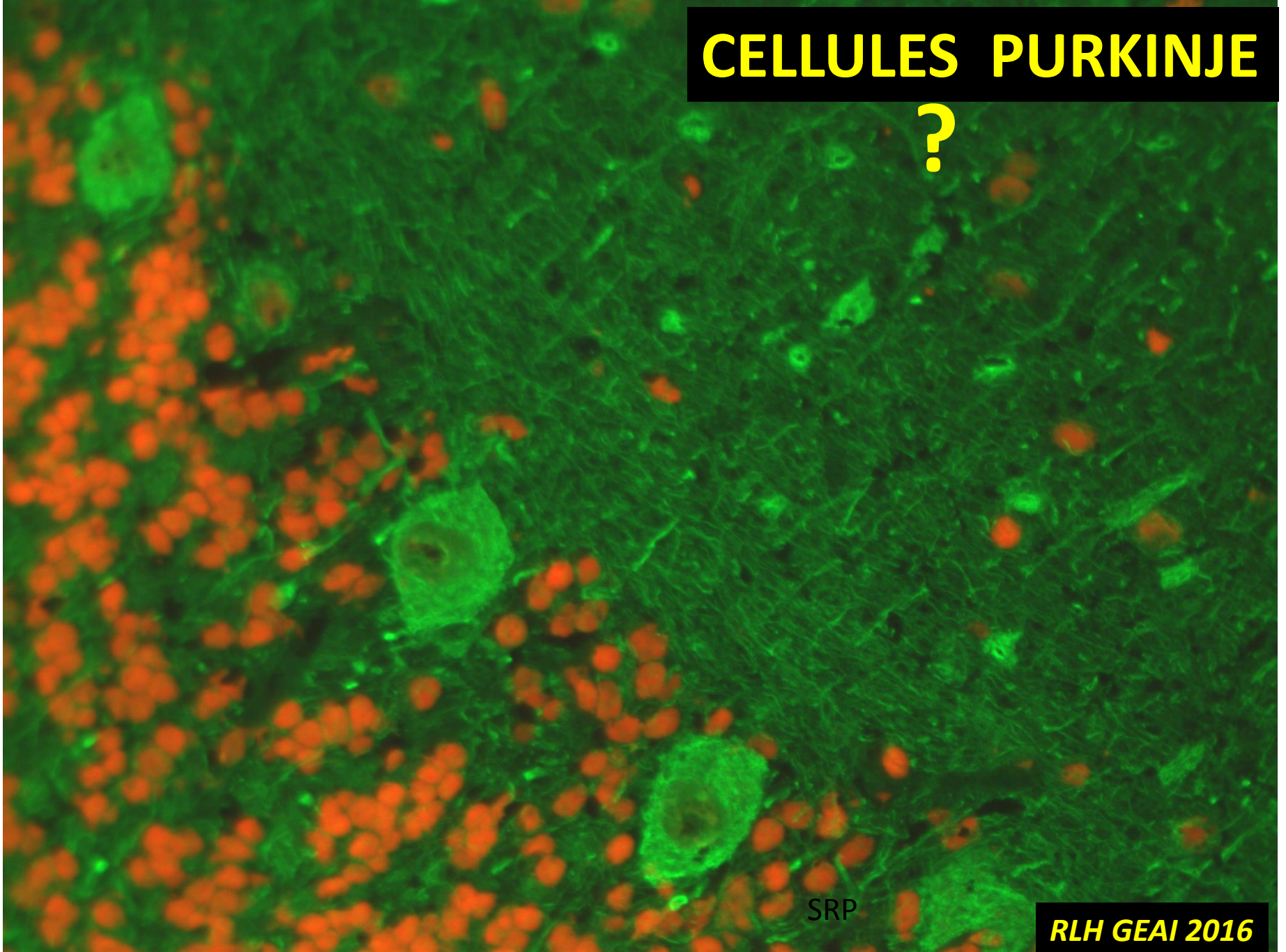


# CELLULES PURKINJE

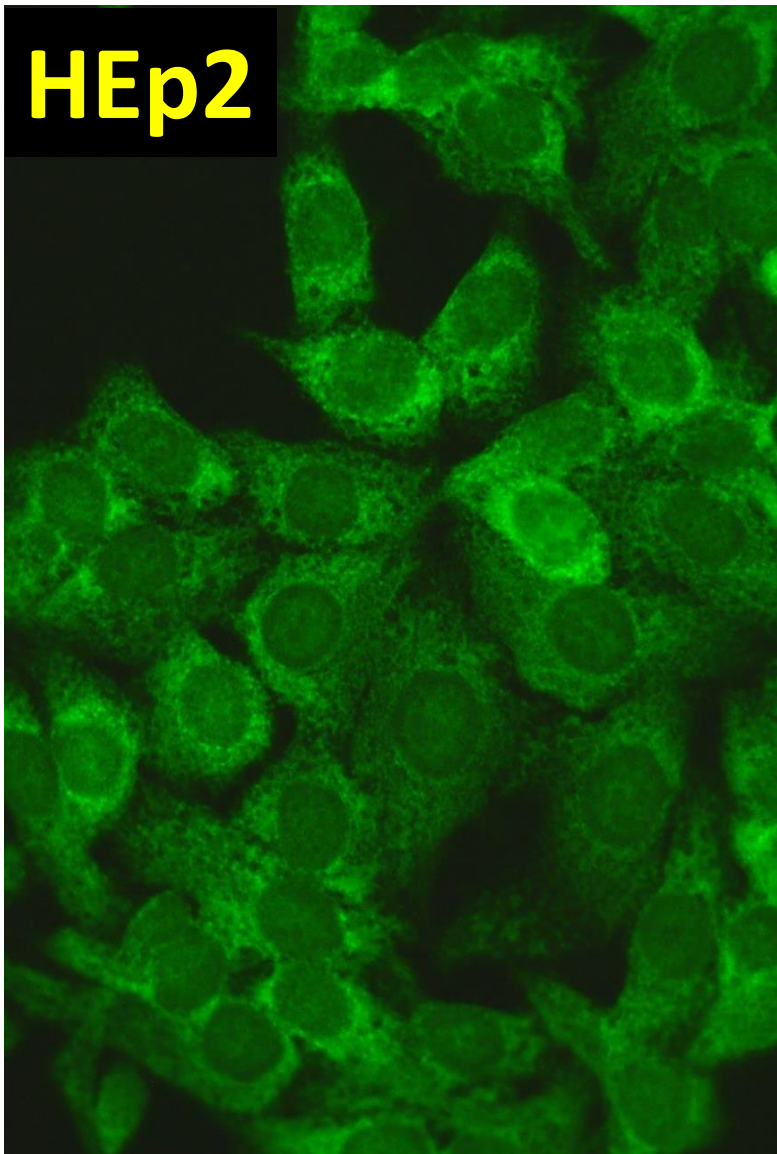
?

SRP

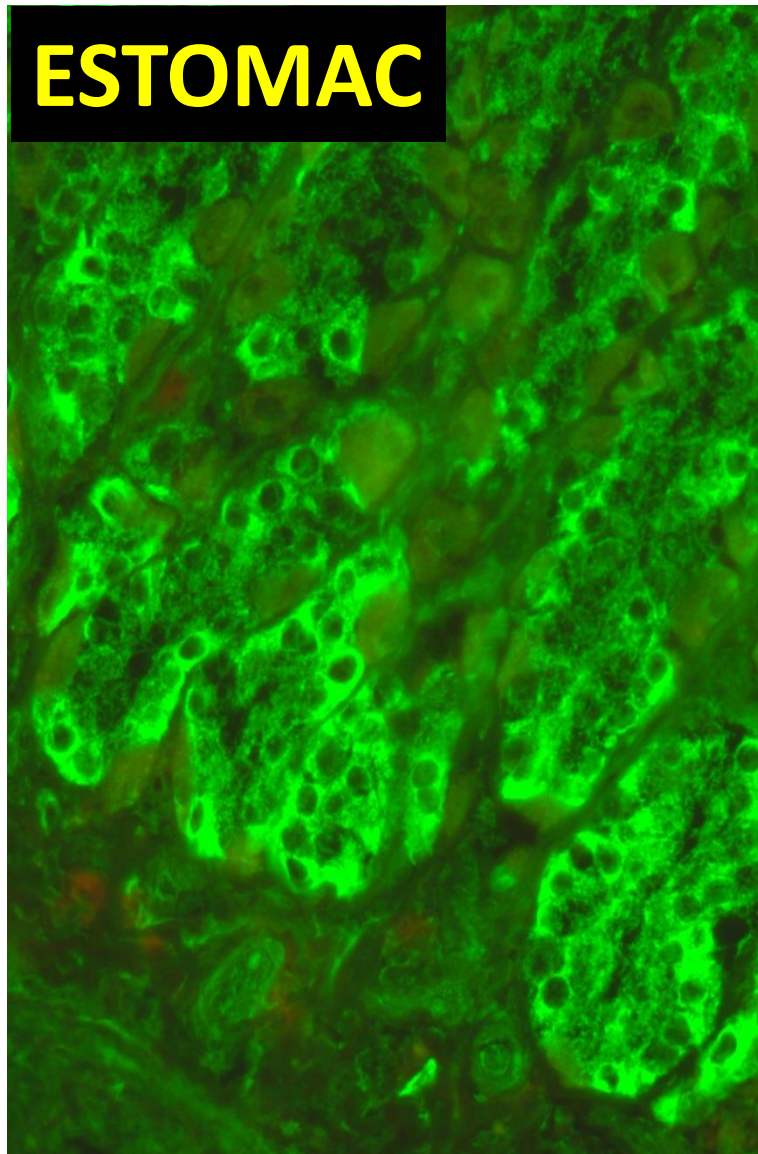
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**HEp2**



**ESTOMAC**



CY6D 11

1

Positive Con

M2

Jo-1

PL-7

PL-12

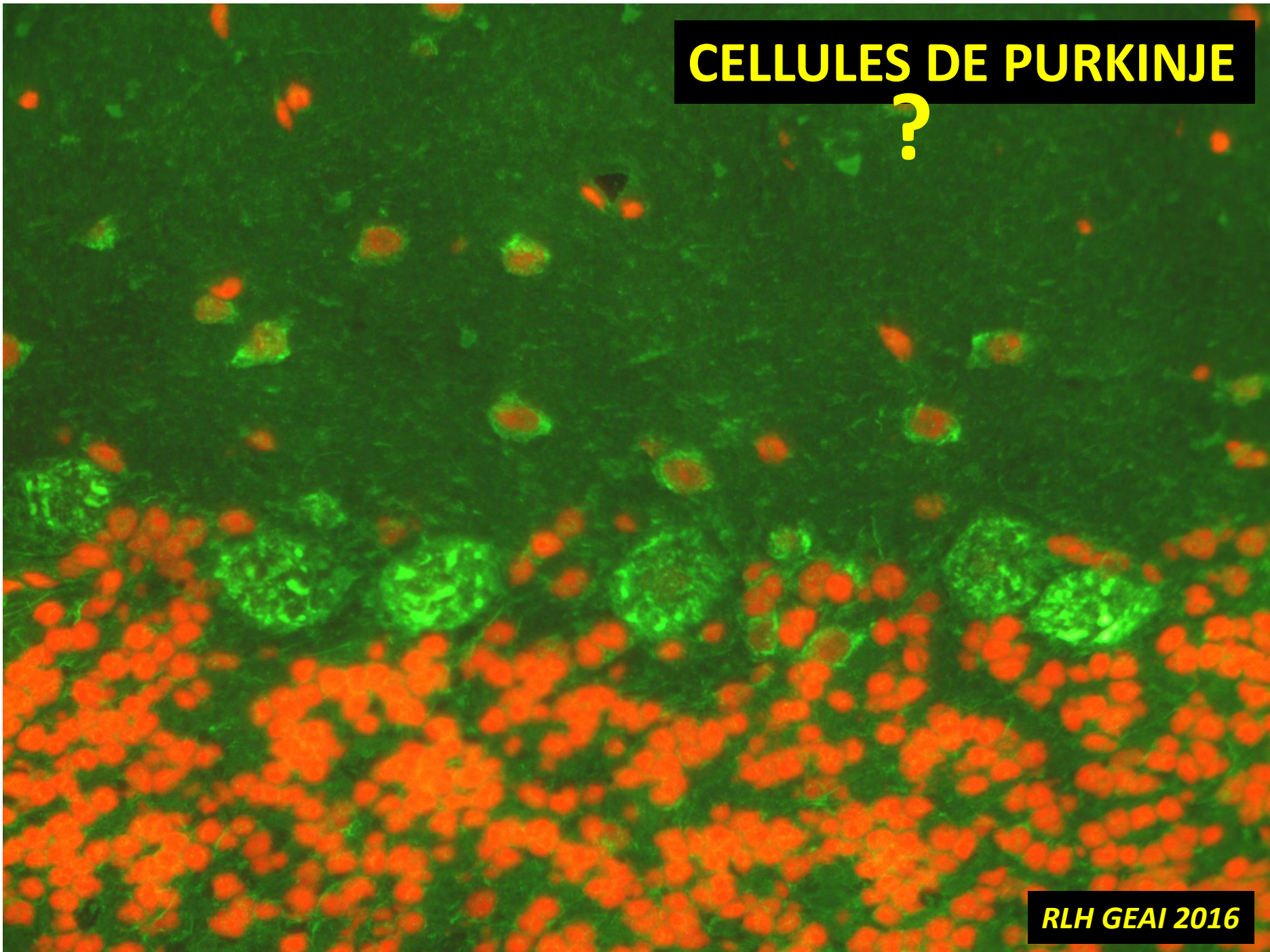
SRP-54

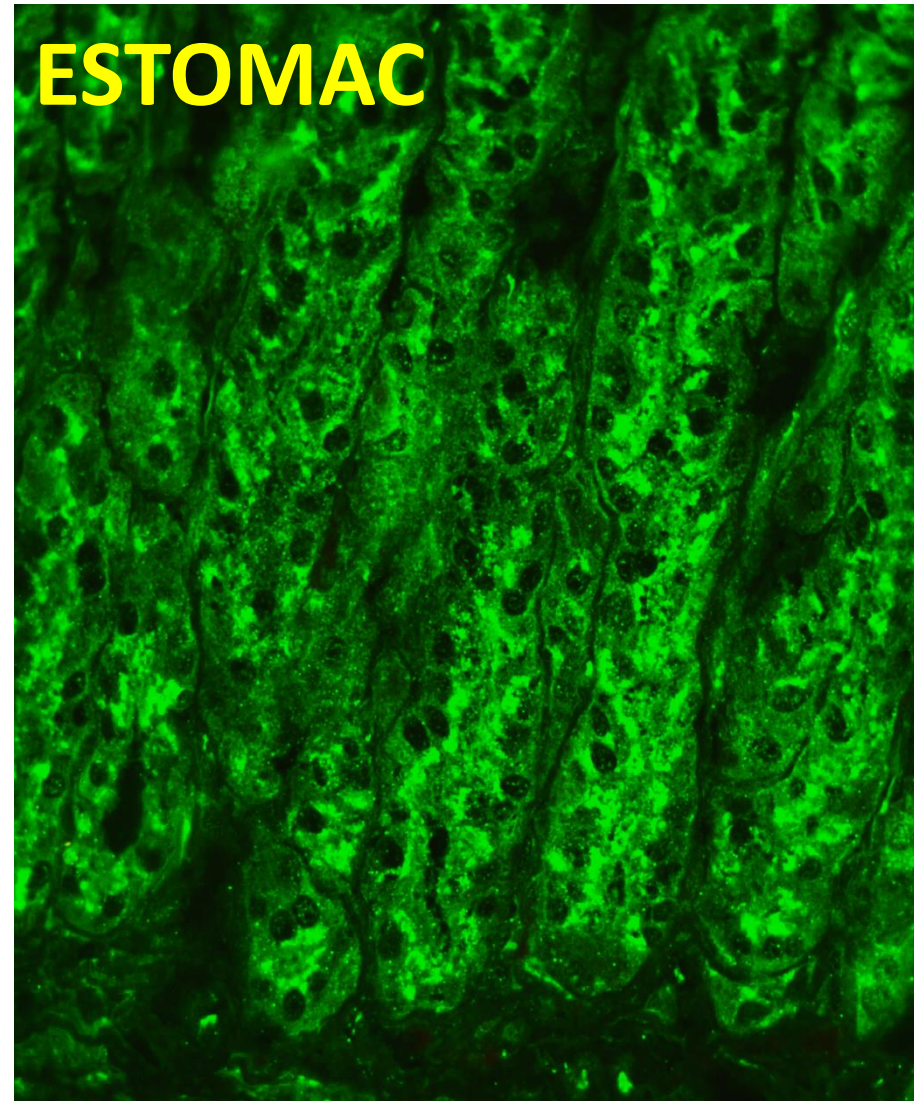
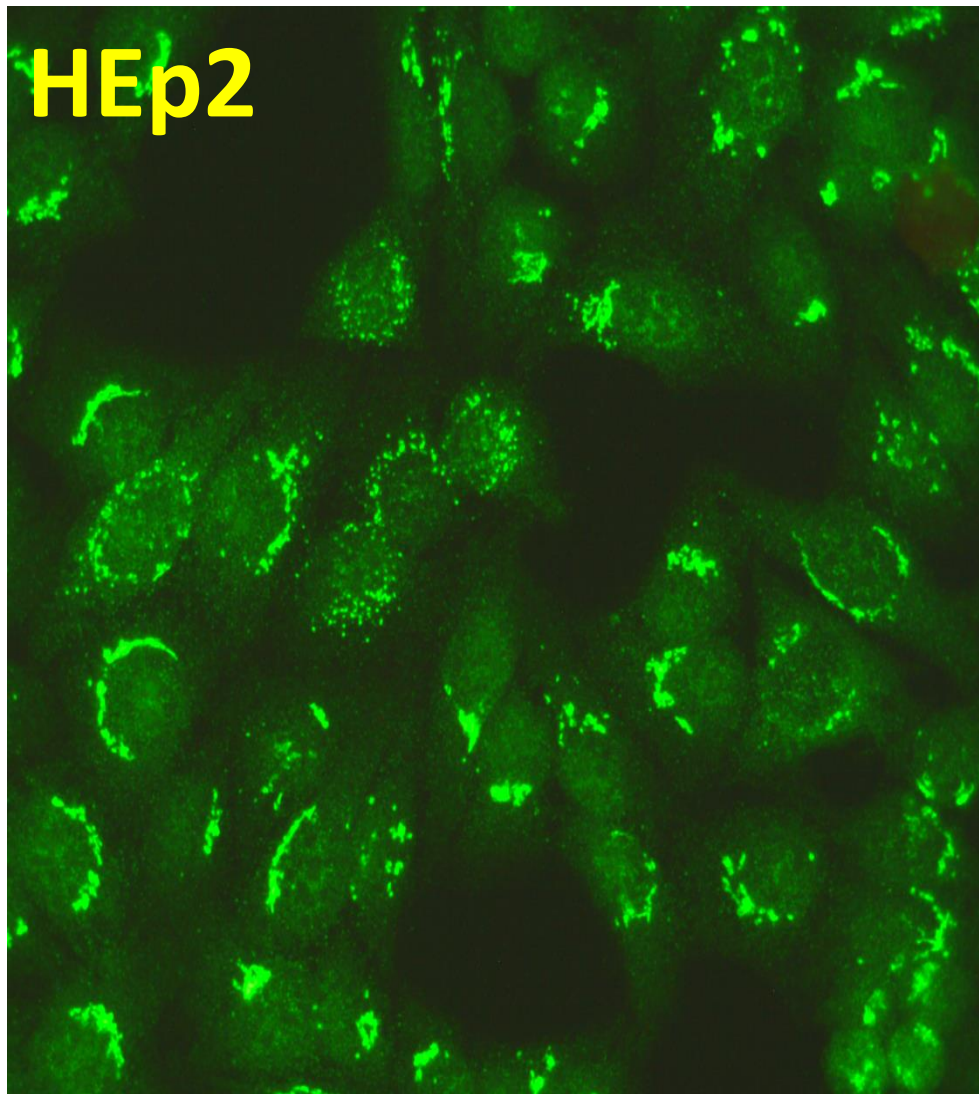
Ribosomes

Negative Cor

**ANTICORPS ANTI-SRP**

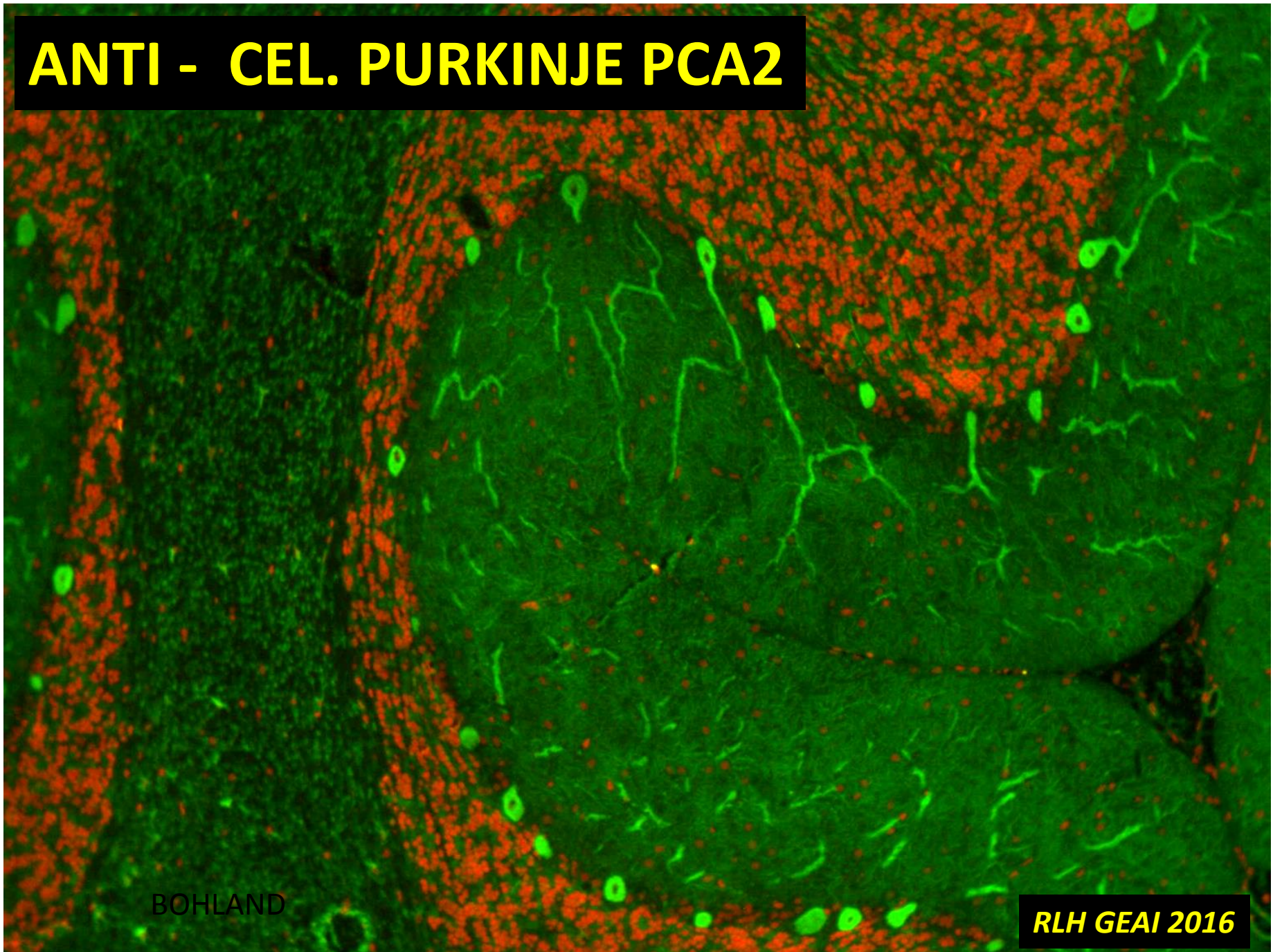
# CELLULES DE PURKINJE ?





**ANTICORPS ANTI-APPAREIL DE GOLGI**

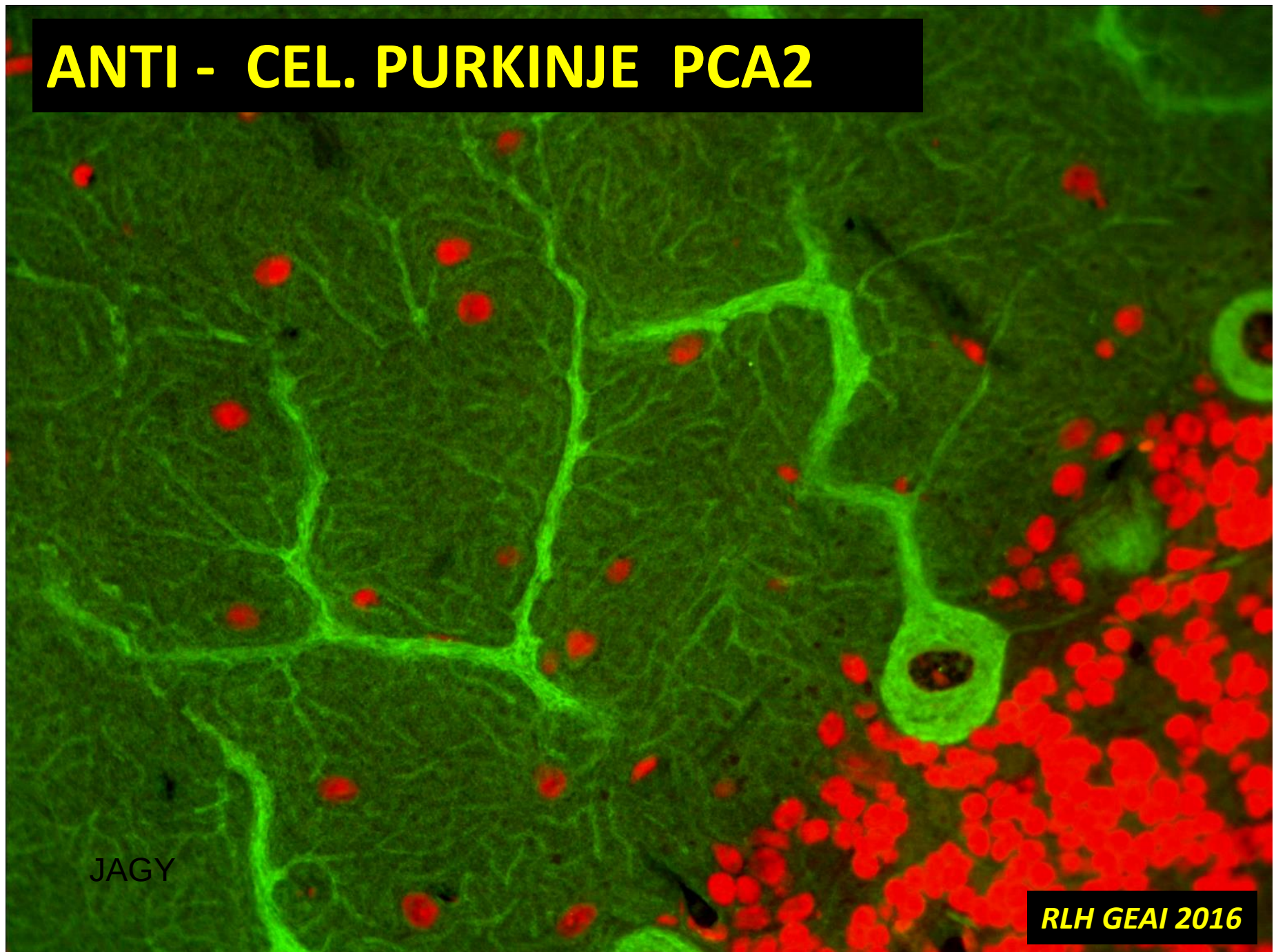
# ANTI - CEL. PURKINJE PCA2



BOHLAND

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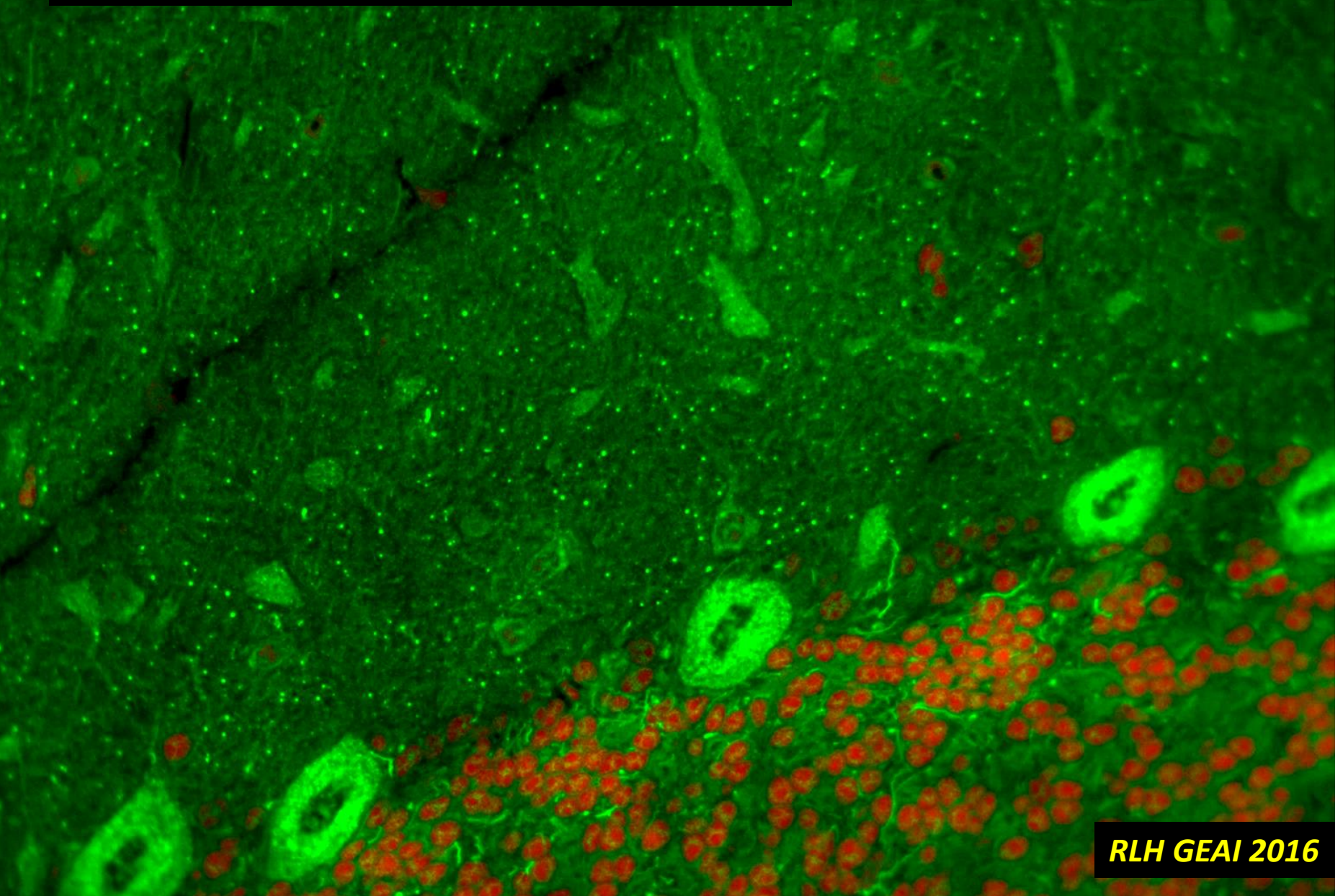
# ANTI - CEL. PURKINJE PCA2



JAGY

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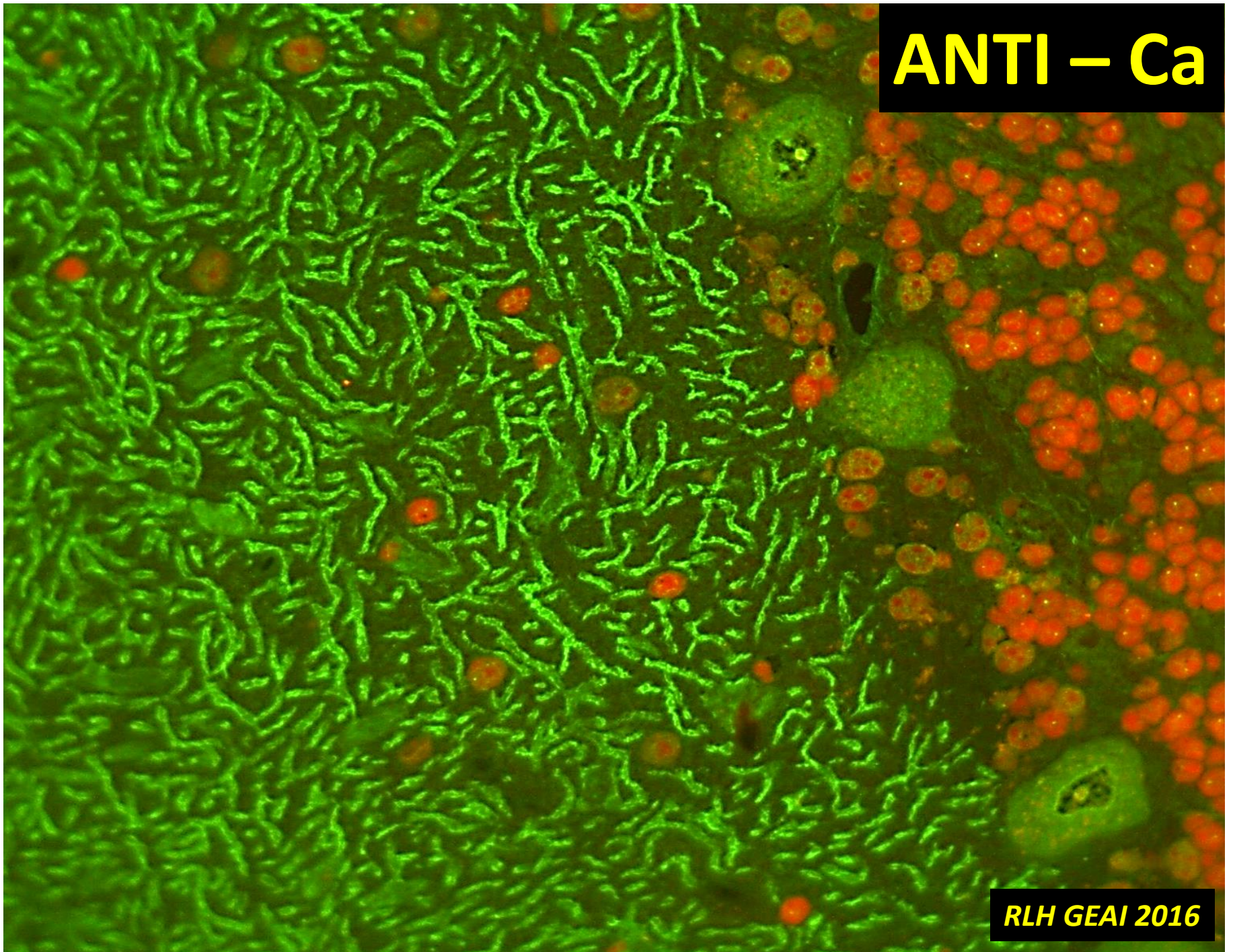
# ANTI - CEL. PURKINJE Tr



**ANTI -Ca**

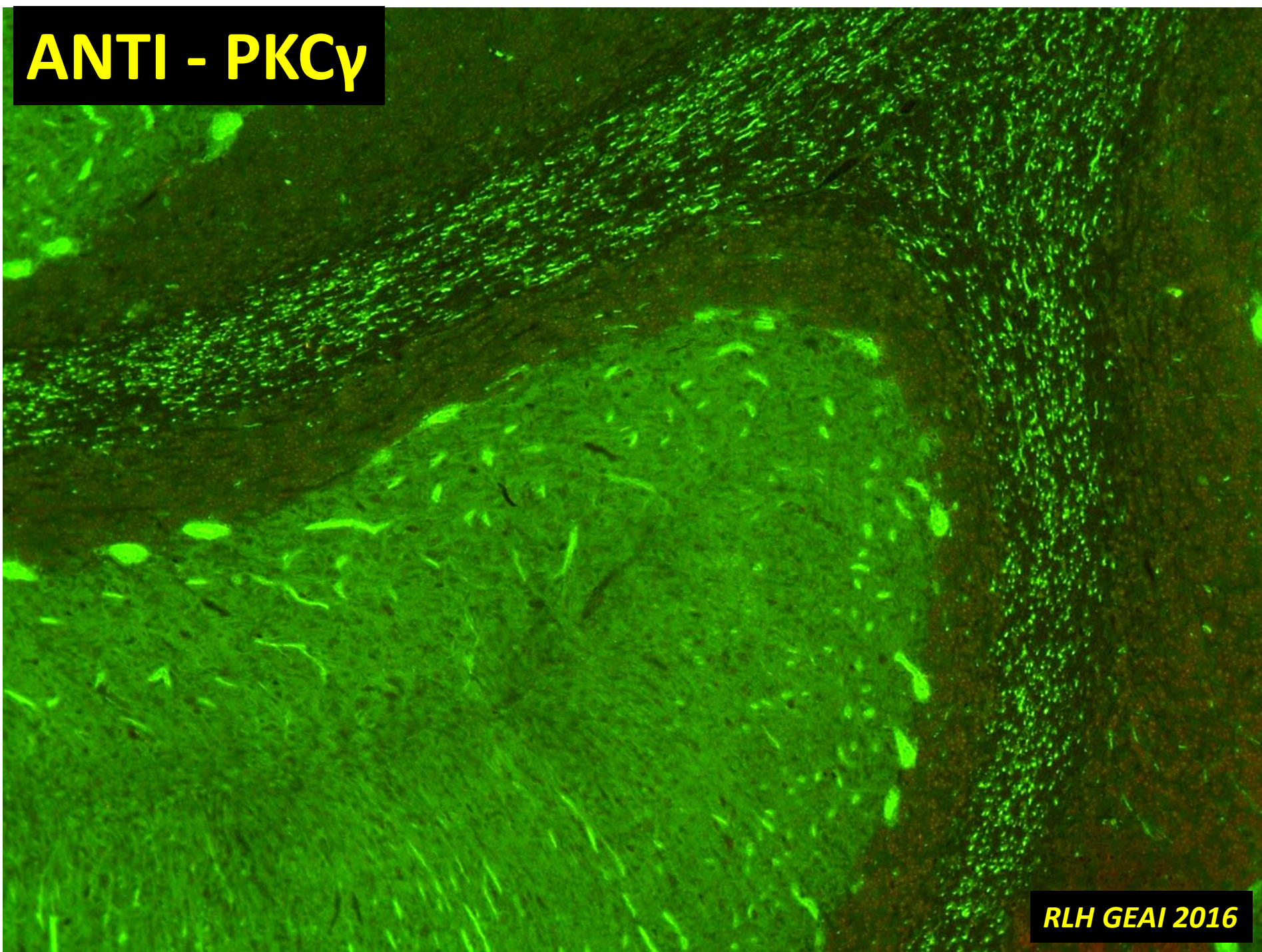
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**ANTI – Ca**



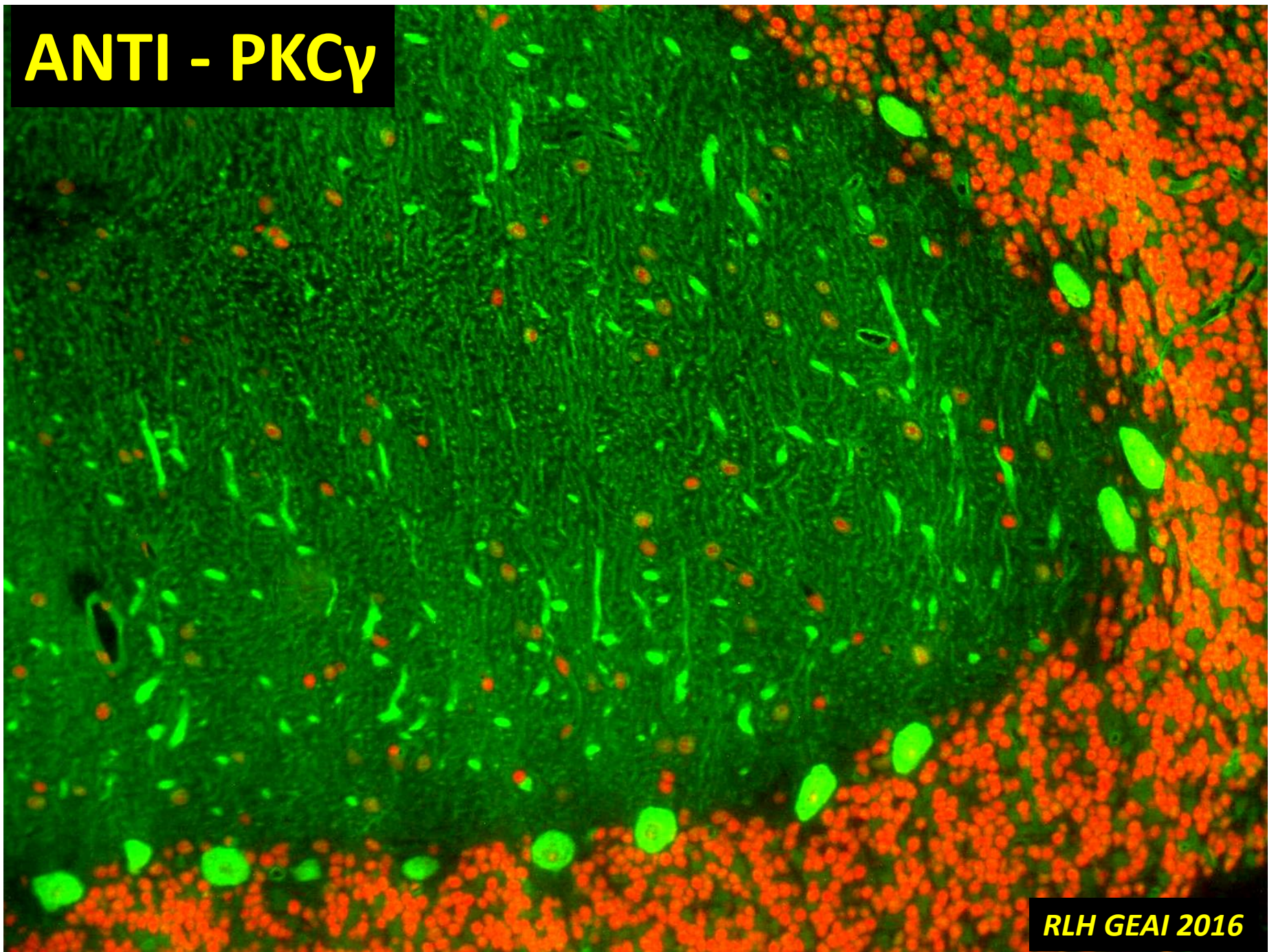
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**ANTI - PKC $\gamma$**

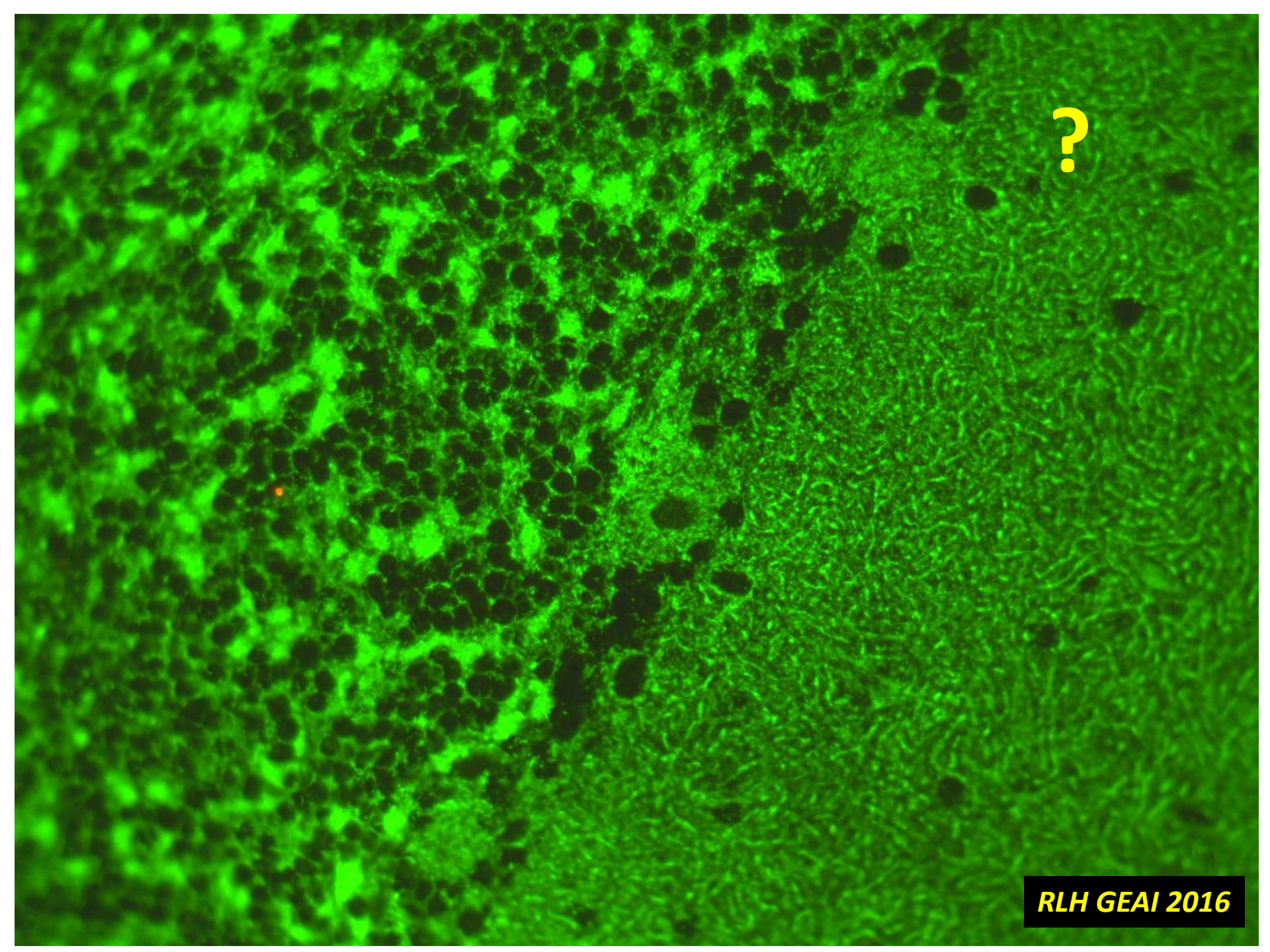


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**ANTI - PKC $\gamma$**



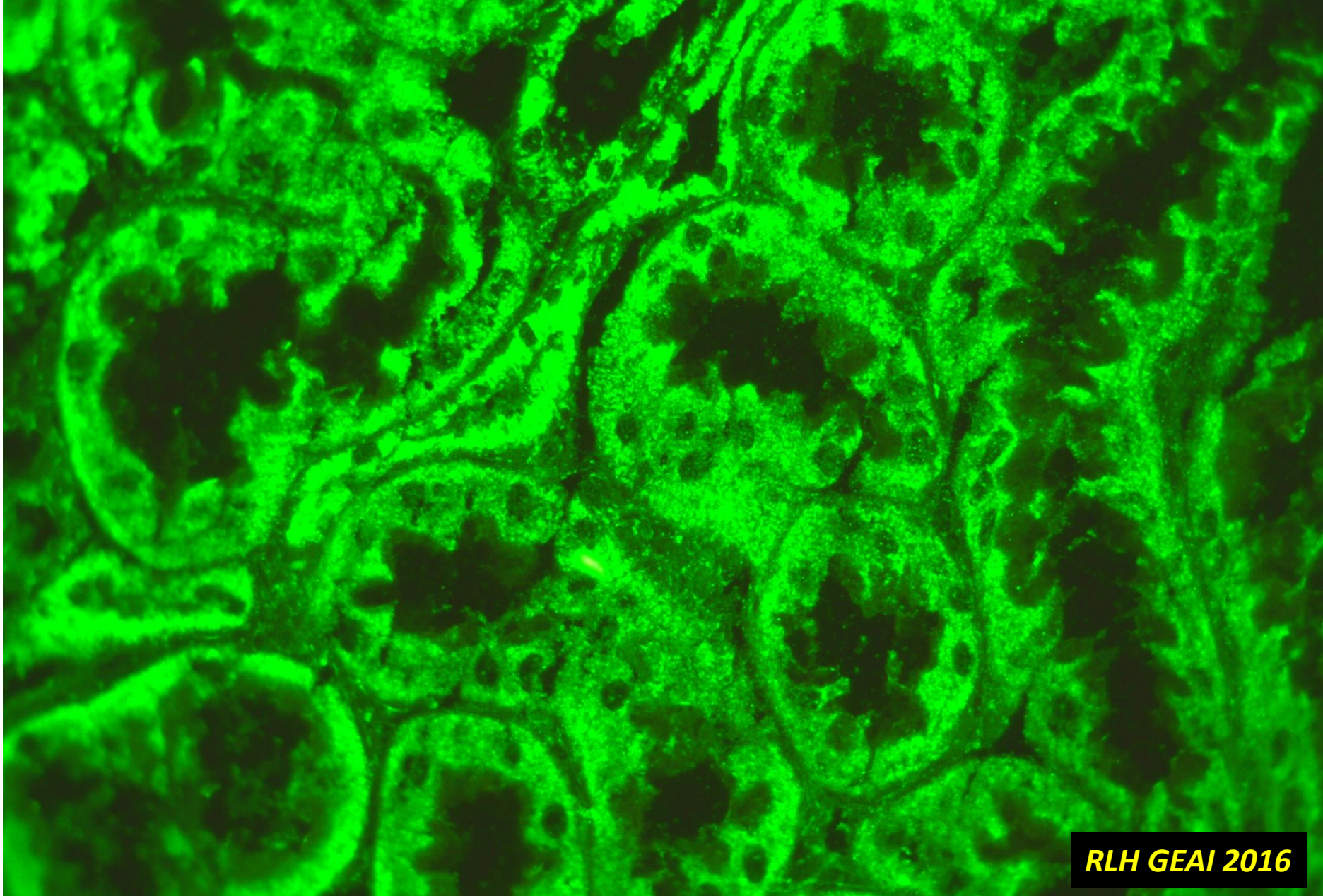
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A fluorescence micrograph of a tissue section. The left side shows a dense cluster of cells with bright green fluorescence, while the right side is more fibrous and less fluorescent. A yellow question mark is in the upper right.

?

# ANTI-MITOCHONDRIE

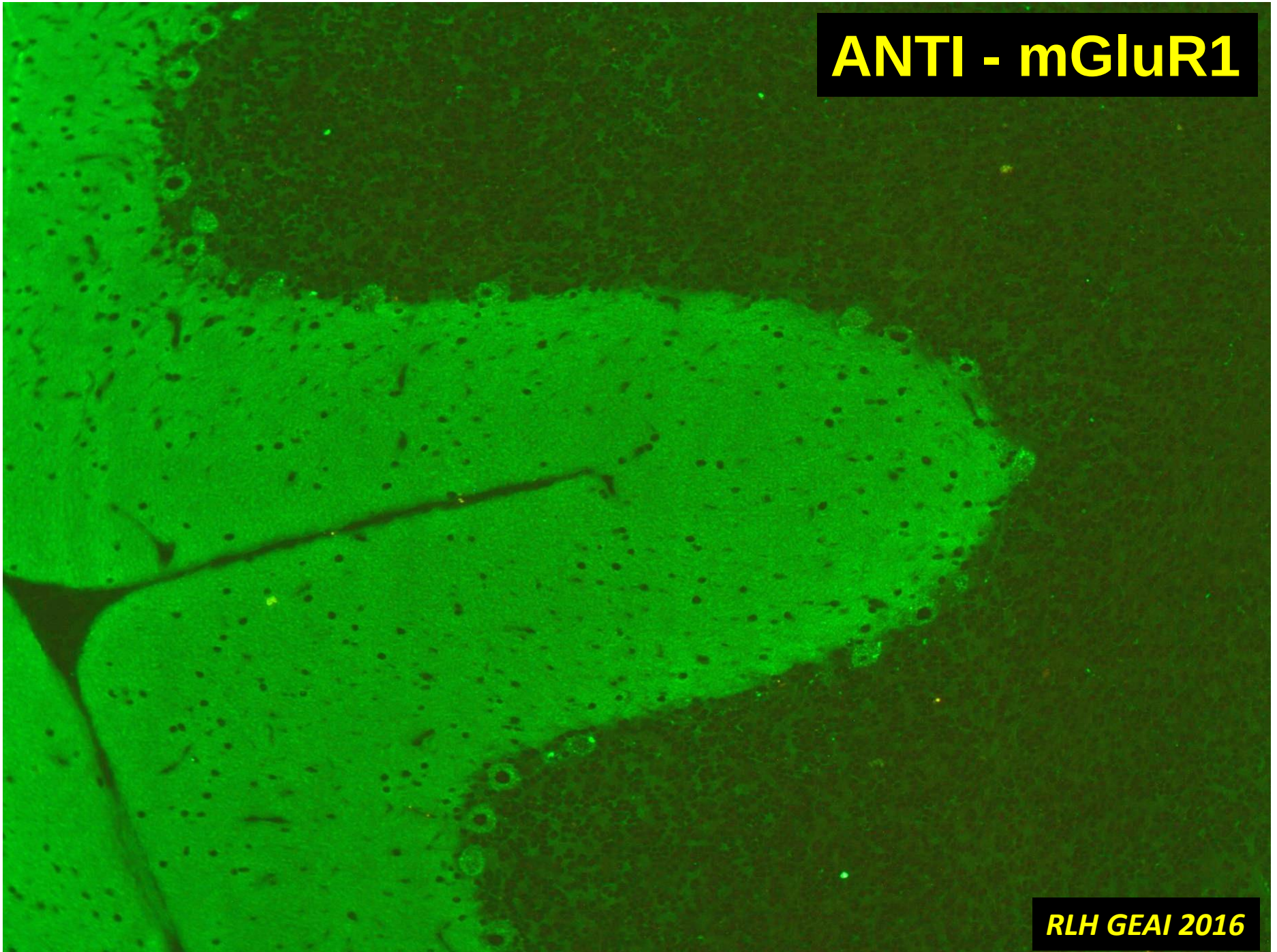




**COUCHE  
MOLECULAIRE**

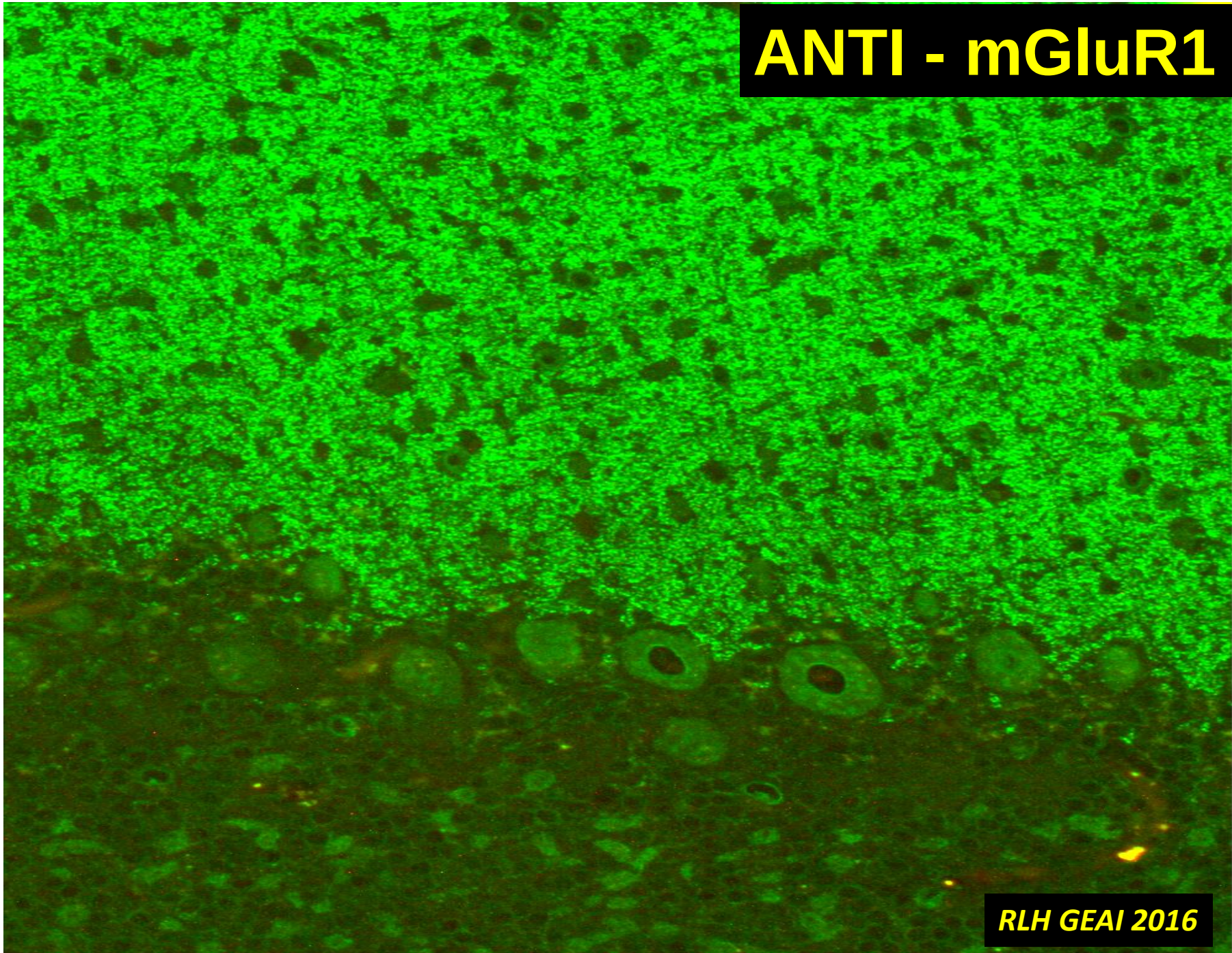
**mGluR1, mGluR2, mGluR5  
HOMER 3, géphyrine, septines**

**ANTI - mGluR1**



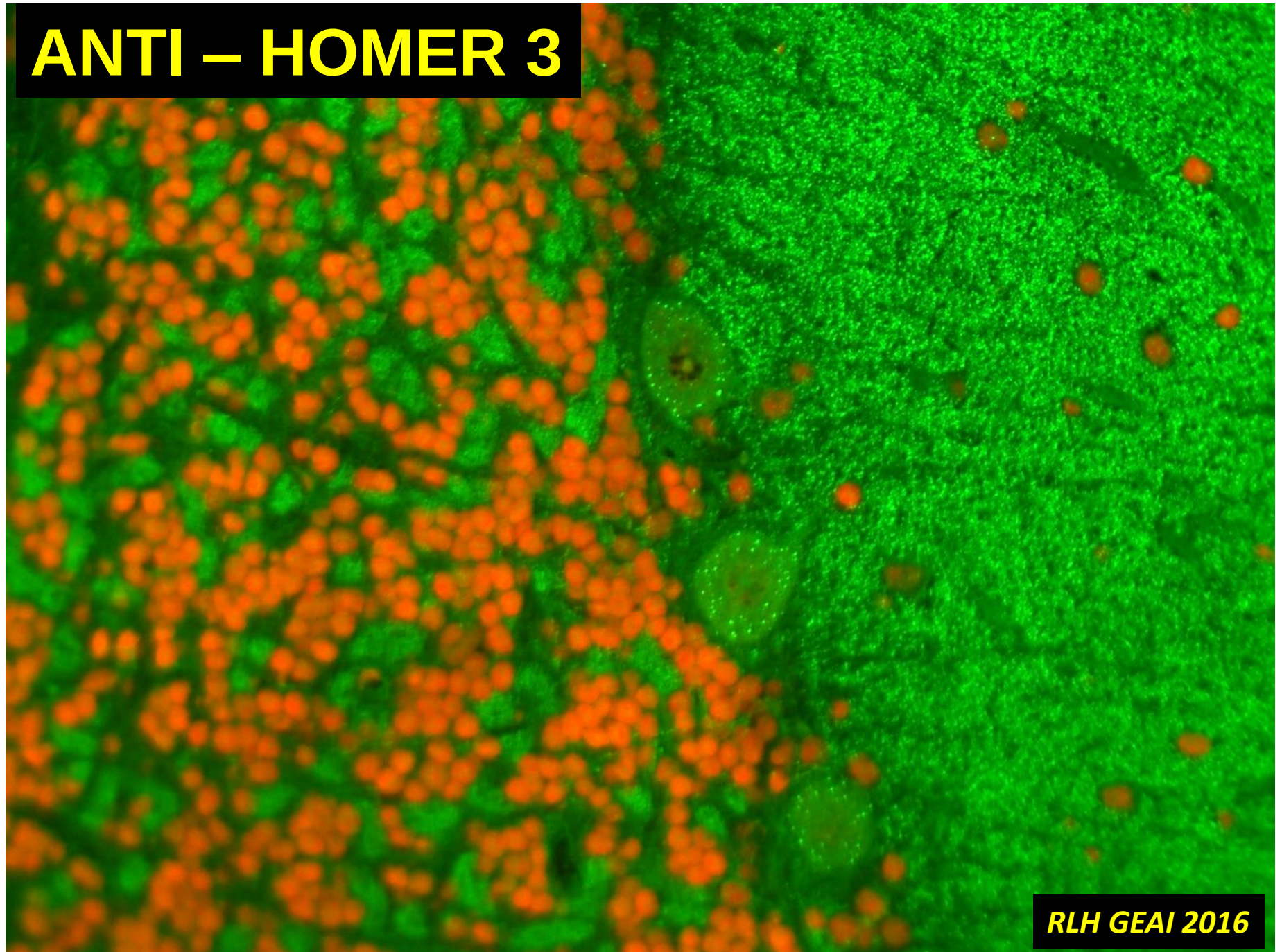
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**ANTI - mGluR1**



**RLH GEAI 2016**

# ANTI – HOMER 3



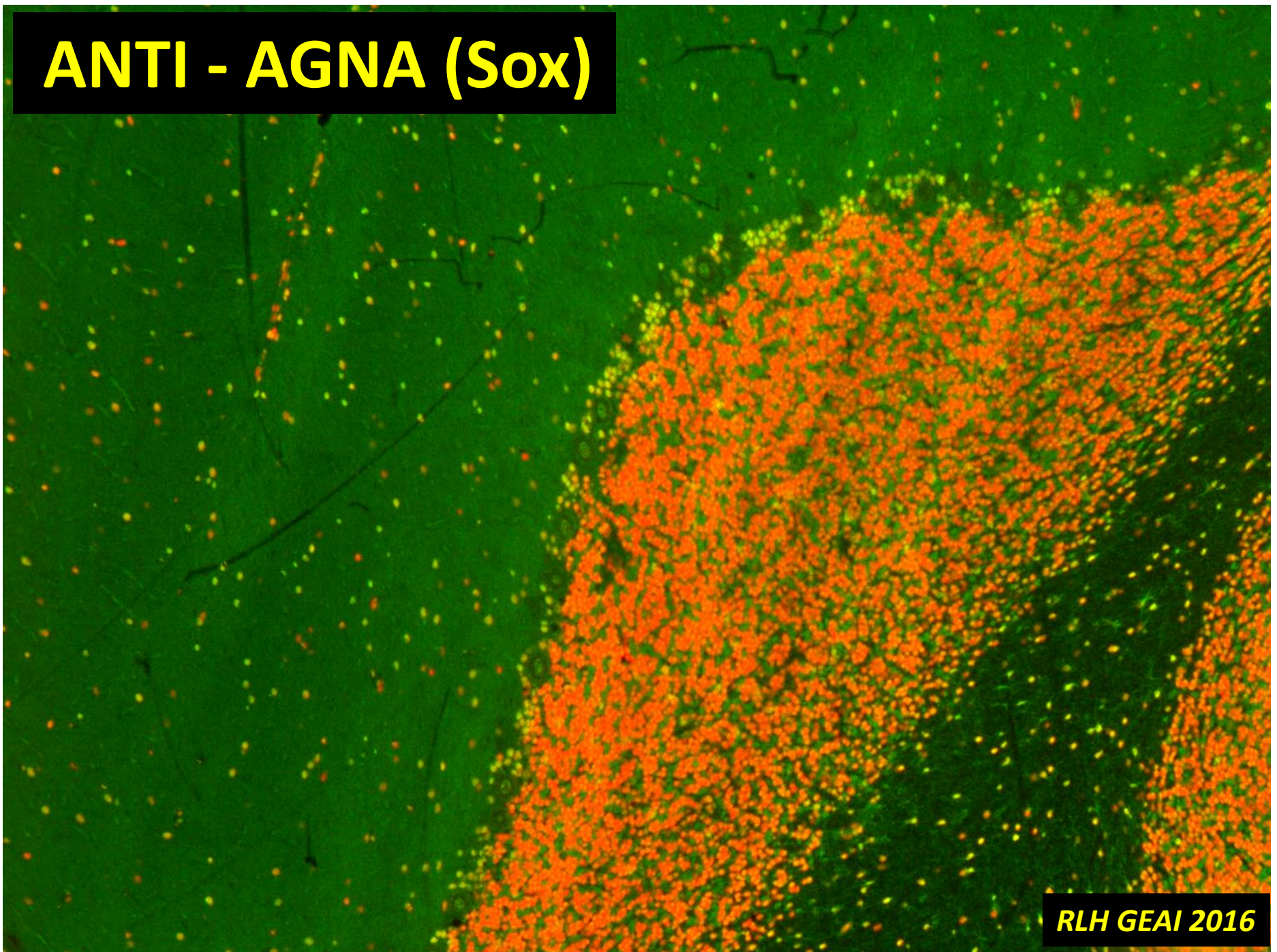
**RLH GEAI 2016**



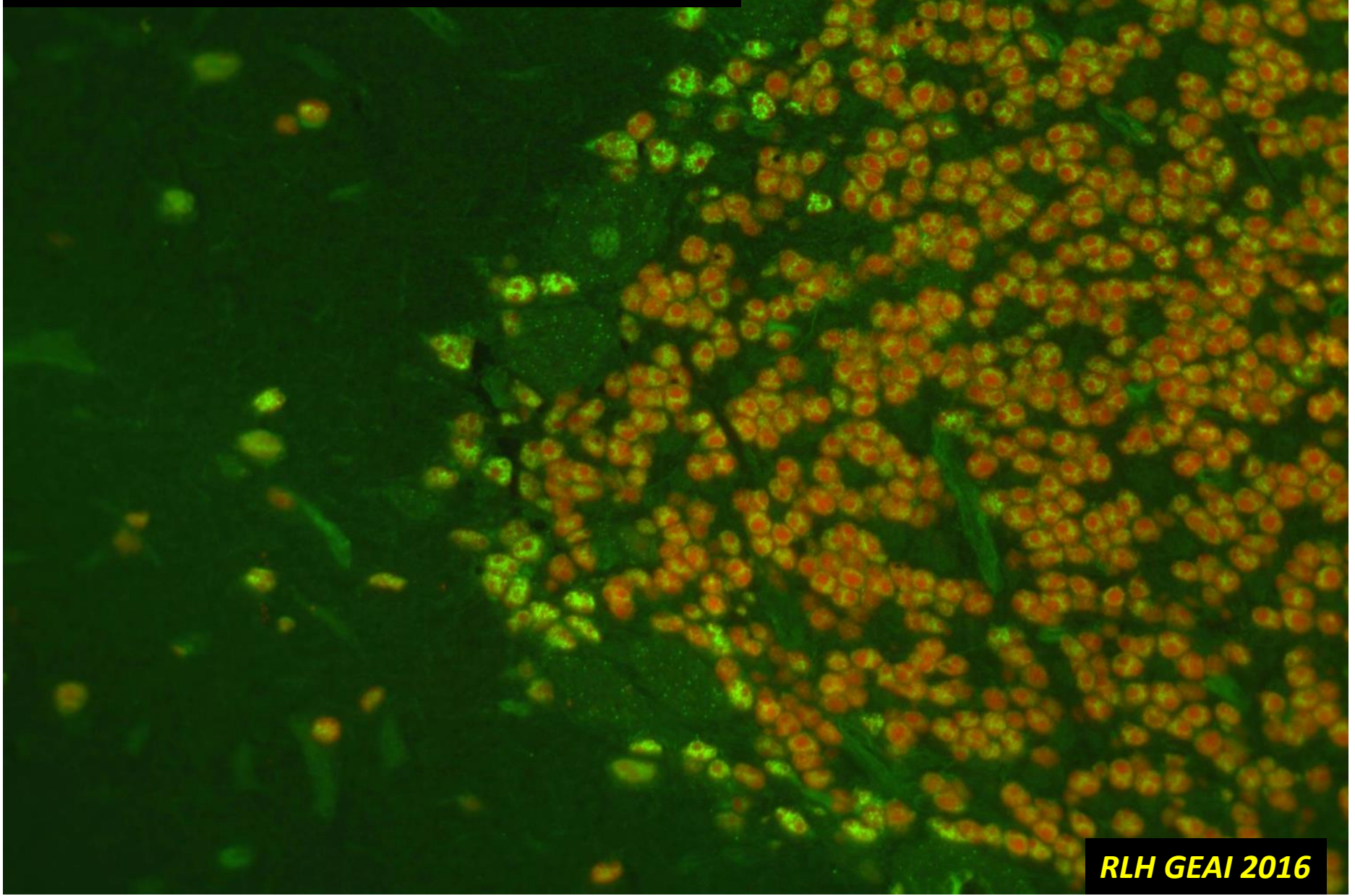
**CELLULES  
GLIALES**

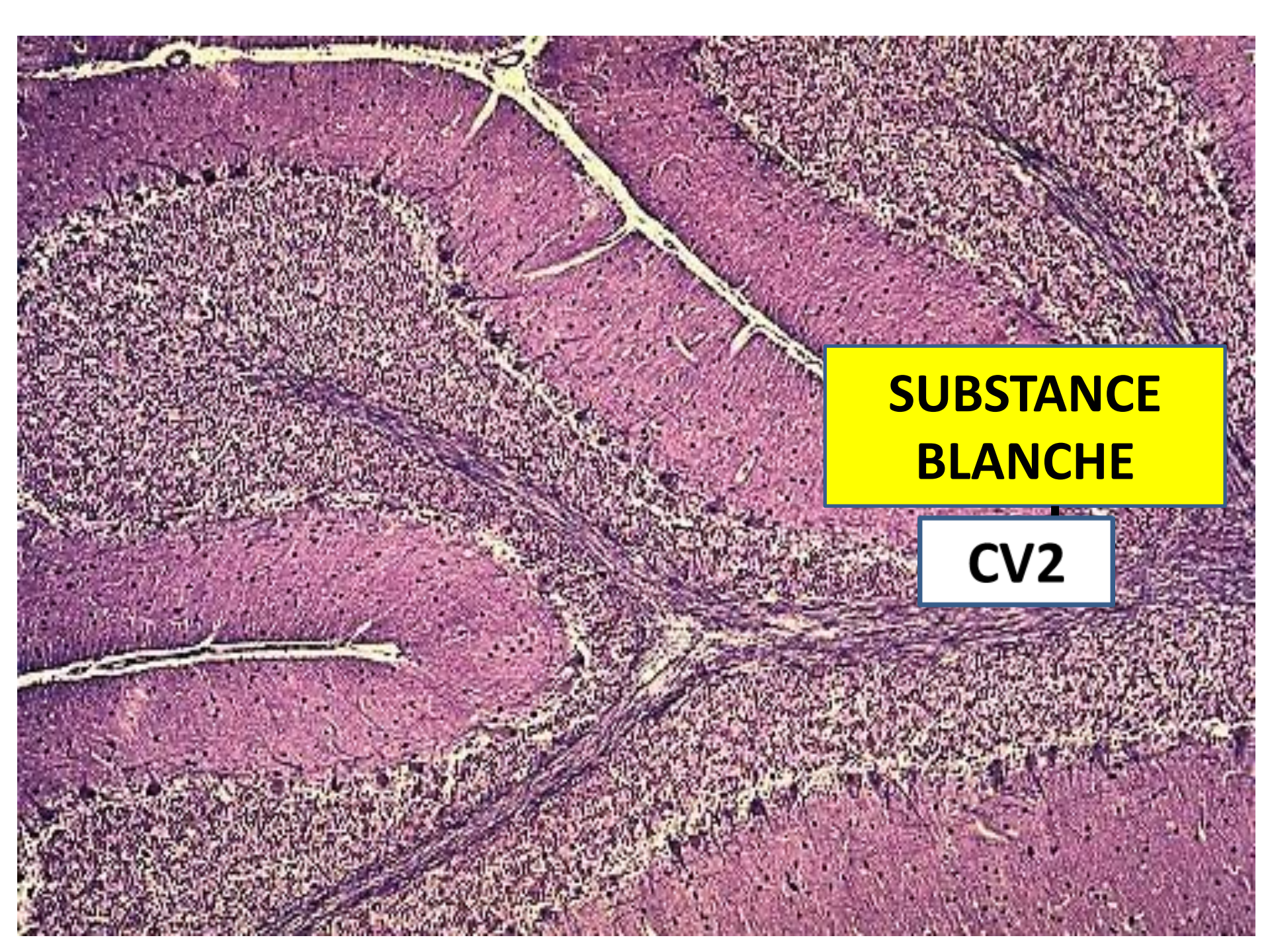
**SOX**

# ANTI - AGNA (Sox)



# ANTI - AGNA (Sox)

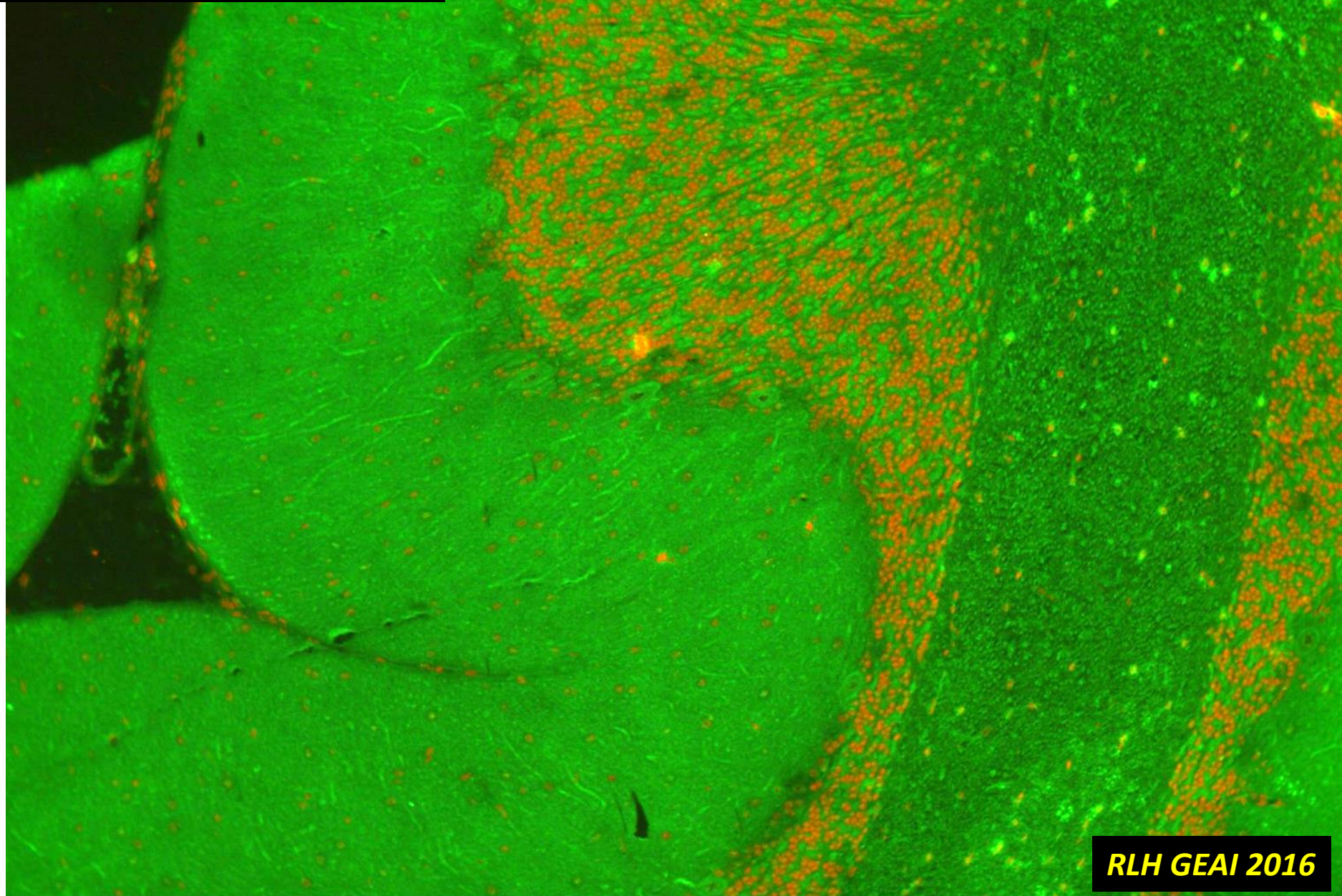


A microscopic image of brain tissue, likely stained with hematoxylin and eosin (H&E). The image shows a dense network of white matter tracts, which appear as lighter, fibrous structures against a darker, more cellular background. A prominent, branching white matter tract is visible in the upper left quadrant. The overall texture is granular and complex, typical of neural tissue.

**SUBSTANCE  
BLANCHE**

**CV2**

**ANTI - CV2**



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**ANTI - CV2**



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# IMMUNODOTS

| ANTICORPS ANTI- | EUROLINE (EUROIMMUN) | RNS LINE DOT (RAVO) | DOT (D-TEK) |
|-----------------|----------------------|---------------------|-------------|
| Hu D            | +                    | +                   | -           |
| Ri (NOVA1)      | +                    | +                   | -           |
| Yo (CDR62)      | +                    | +                   | -           |
| CV2 (CRMP5)     | +                    | +                   | -           |
| Ma1 (PNMA1)     | -                    | +                   | -           |
| Ma2 (PNMA2)     | +                    | +                   | -           |
| Tr (DNER)       | +                    | +                   | -           |
| Amphiphysine    | +                    | +                   | -           |
| SOX 1           | +                    | +                   | -           |
| Zic 4           | +                    | +                   | -           |
| GAD 65          | +                    | +                   | +           |
| GAD 67          | -                    | -                   | +           |
| PKC $\gamma$    | -                    | +                   | -           |