



SCUOLA DI MEDICINA  
UNIVERSITÀ DEGLI STUDI DI TORINO



## Giornate delle Neuroscienze

Dipartimento di Neuroscienze "Rita Levi Montalcini"  
Palazzo degli Istituti Anatomici | corso M. d'Azeglio 52, Torino

27 > 29 giugno 2018



Neuroscience in Turin

A network of Institutes gathered in  
an interdepartmental center



NIT



- Neuroscience Institute Cavalieri Ottolenghi
  - Department of Neuroscience
    - Neurology
    - Psychiatry
    - Anatomy
    - Physiology
  - Department of Psychology
  - Center for Brain Imaging 3T
  - Koelliker Hospital Brain Imaging
  - Members also in
    - Istituto Zooprofilattico
    - Dept. Veterinary Medicine
    - Molecular Biology Center
    - Dept. Life Sci Biol



Center for Brain Imaging  
c/o Molinette Hospital

- MRIBT
  - fMRI
  - Tractography
  - Voxel-based morphometry
  - Resting state
  - TDCS
  - TMS



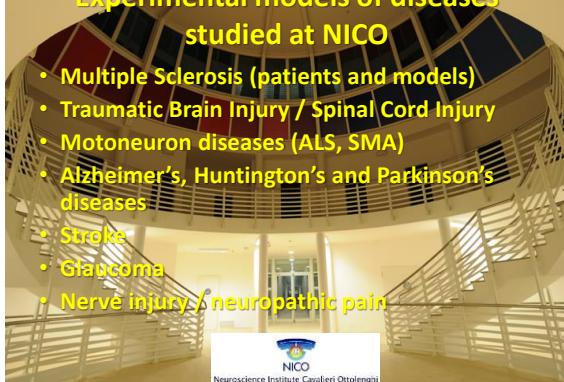
NICO – Neuroscience Institute  
Cavalieri Ottolenghi

- Basic and translational neuroscience
  - 9 scientific teams
    - Adult neurogenesis
    - Brain Development and Disease
    - Clinical Neurobiology
    - Embryonic Neurogenesis
    - Neuroendocrinology
    - Nerve regeneration
    - Neurophysiology of Neurodegenerative Diseases
    - Neuropsychopharmacology
    - Physiopathology of neurostemcells
  - 70 researchers
  - 60 indexed papers/year



**Experimental models of diseases studied at NICO**

- Multiple Sclerosis (patients and models)
- Traumatic Brain Injury / Spinal Cord Injury
- Motoneuron diseases (ALS, SMA)
- Alzheimer's, Huntington's and Parkinson's diseases
- Stroke
- Glaucoma
- Nerve injury / neuropathic pain



NICO  
Neuroscience Institute Cavalleri Ottolenghi



### Department of Neuroscience: clinics

- Neurology
- Psychiatry
- Neurosurgery
- Neuroradiology
- Clinical Psychology



### Department of Neuroscience:



#### neurobiology



##### Anatomy

- Neuroanatomy lab
- Cesare Lombroso museum
- Anatomy Museum

##### Physiology

- Behavioral Physiology
- Neurophysiology of placebo
- Calcium channels
- Integrative Physiology



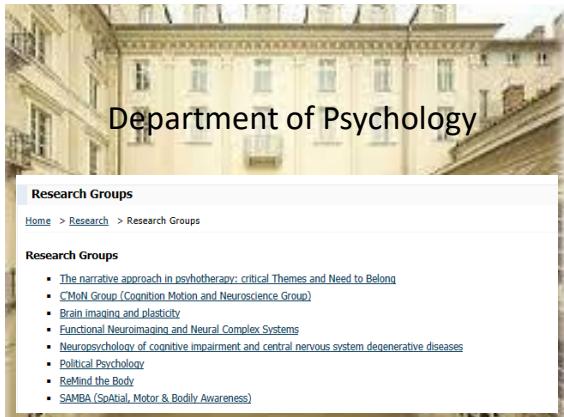
**Center for Brain Imaging  
c/o Koelliker Hospital**

- MRI1.5T
- fMRI
- Tractography
- Voxel-based morphometry
- Resting state
- TDCS
- fMS



NET

**Department of Psychology**



**Research Groups**

[Home](#) > [Research](#) > [Research Groups](#)

**Research Groups**

- The narrative approach in psychotherapy: critical Themes and Need to Belong
- CMot Group (Cognition Motion and Neuroscience Group)
- Brain imaging and plasticity
- Functional Neuroimaging and Neural Complex Systems
- Neuropsychology of cognitive impairment and central nervous system degenerative diseases
- Political Psychology
- ReMind the Body
- SAMBA (SpAtial, Motor & Bodily Awareness)

**S.C. Neuroscienze**

Istituto Zooprofilattico Sperimentale  
del Piemonte, Liguria e Valle d'Aosta

**Responsabile:**  
Dr.ssa Cristina CASALONE





Centro di Referenza Nazionale per le Encefalopatie Spongiformi Trasmissibili - CEA



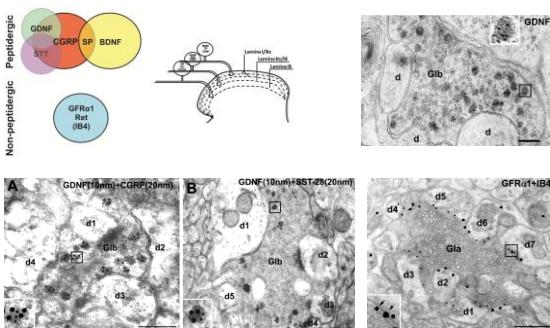
Centro di Referenza OIE per le malattie da prione animali



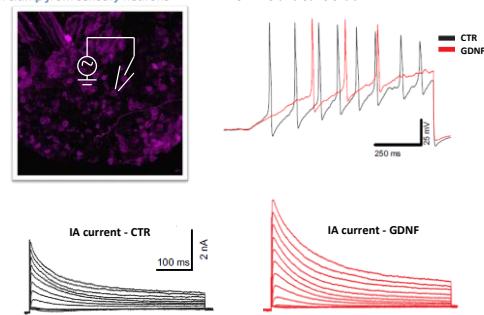
Centro di Referenza Europeo per le malattie da prione animali



**Neurotrophic factors in nociceptive pathways  
ultrastructural localization**  
Ferrini's and Salio's lab



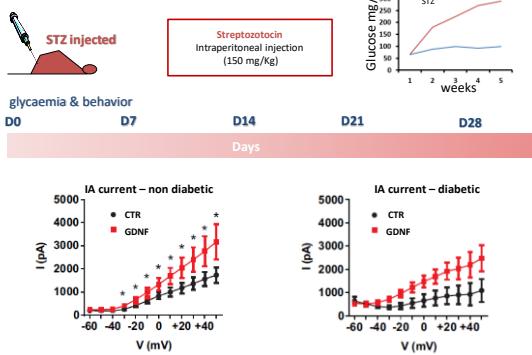
**Neurotrophic factors in nociceptive pathways  
patch clamp from sensory neurons**  
Ferrini's and Salio's lab



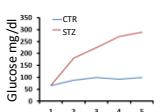
## **Neurotrophic factors in nociceptive pathways**

*Mouse model of diabetic neuropathy*

Neurotrophic factors in nociceptive pain  
Mouse model of diabetic neuropathy

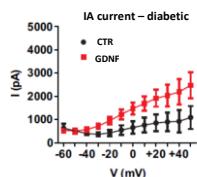
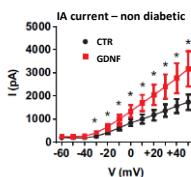


Ferrini's and Salio's lab



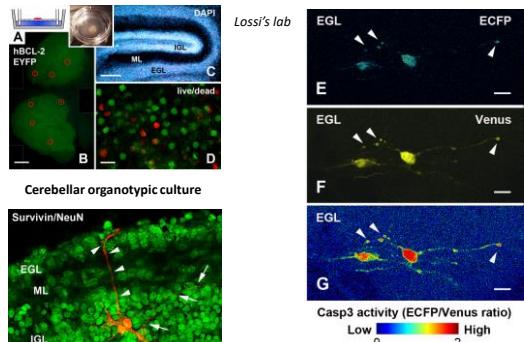
glycaemia & behavior

D0 D7



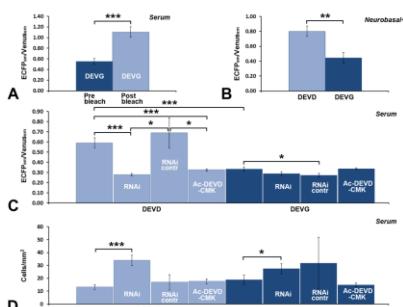
## *Ex vivo platform for imaging neuronal death with a caspase 3 FRET probe*

*Lossi's lab*



## **Neuronal expression of the inhibitor of apoptosis protein survivin**

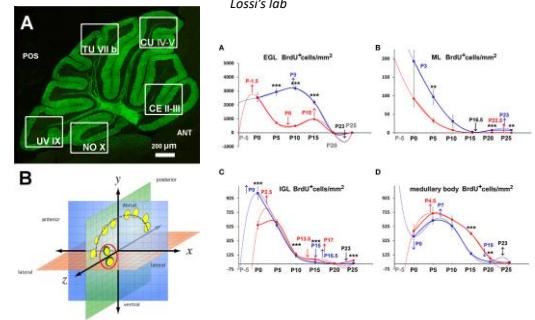
## *Ex vivo platform for imaging neuronal death with a caspase 3 FRET probe*



## **Specificity controls with a caspase inhibitor (Ac-DEVD-CMK) and RNA interference**

The Reeler mouse cerebellum to model autism

Lossi's lab



## Analysis of Purkinje cell size and alignment in 5 lobules of the cerebellar vermis of the heterozygous mouse