

1. Record Nr.	UNINA9910647217903321
Autore	Matera Carlo
Titolo	Light-Controlled Modulation and Analysis of Neuronal Functions // Carlo Matera, Piotr Bregestovski
Pubbl/distr/stampa	[Place of publication not identified] : , : MDPI - Multidisciplinary Digital Publishing Institute, , 2023
ISBN	3-0365-6562-0
Descrizione fisica	1 online resource (6 pages)
Disciplina	612.81046
Soggetti	Neurons - Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Carlo Matera and Piotr Bregestovski Light-Controlled Modulation and Analysis of Neuronal Functions -- Evgenii Gerasimov, Alexander Erofeev, Anastasia Borodinova, Anastasia Bolshakova, Pavel Balaban and Ilya Bezprozvanny et al. Optogenetic Activation of Astrocytes-Effects on Neuronal Network Function -- Tarek Mohamed Abd El-Aziz, Amanpreet Kaur, Mark S. Shapiro, James D. Stockand and Crystal R. Archer Optogenetic Control of PIP2 Interactions Shaping ENaC Activity -- Antonia Lilja, Giuliano Didio, Jongryul Hong, Won Do Heo, Eero Castre´n and Juzoh Umemori Optical Activation of TrkB (E281A) in Excitatory and Inhibitory Neurons of the Mouse Visual Cortex -- Alla B. Salmina, Marina R. Kapkaeva, Anna S. Vetchinova and Sergey N. Illarionov Novel Approaches Used to Examine and Control Neurogenesis in Parkinson's Disease -- Olga I. Ivashkina, Anna M. Gruzdeva, Marina A. Roshchina, Ksenia A. Toropova and Konstantin V. Anokhin Imaging of C-fos Activity in Neurons of the Mouse Parietal Association Cortex during Acquisition and Retrieval of Associative Fear Memory -- Nikita Zhilyakov, Arsenii Arkhipov, Artem Malomouzh and Dmitry Samigullin Activation of Neuronal Nicotinic Receptors Inhibits Acetylcholine Release in the Neuromuscular Junction by Increasing Ca <sup>2+</sup> Flux through Cav1 Channels -- Daria Ponomareva, Elena Petukhova and Piotr Bregestovski Simultaneous Monitoring of pH and Chloride (Cl <sup>-</sup> ) in Brain Slices of Transgenic Mice -- Vladimir P. Sotskov, Nikita A. Pospelov, Viktor V. Plusnin and Konstantin V. Anokhin Calcium

Imaging Reveals Fast Tuning Dynamics of Hippocampal Place Cells and CA1 Population Activity during Free Exploration Task in Mice -- Carlo Matera, Pablo Calve´, Verónica Casado´-Anguera, Rosalba Sortino, Alexandre M. J. Gomila and Estefanía Moreno et al. Reversible Photocontrol of Dopaminergic Transmission in Wild-Type Animals -- Alba Nin-Hill, Nicolas Pierre Friedrich Mueller, Carla Molteni, Carme Rovira and Mercedes Alfonso-Prieto Photopharmacology of Ion Channels through the Light of the Computational Microscope.

---

Sommario/riassunto

Light is an extraordinary tool allowing us to read out and control neuronal functions thanks to its unique properties: it has a great degree of bioorthogonality and is minimally invasive; it can be precisely delivered with high spatial and temporal precision; and it can be used simultaneously or consequently at multiple wavelengths and locations.

---