**Humana****1st
edition**1st ed. 2016, XII, 263 p. 89
illus., 46 illus. in color.**Printed book**

Hardcover

Printed book

Hardcover

ISBN 978-1-4939-3273-3

\$ 179,99

Available

Discount group

Professional Books (2)

Product category

Monograph

Series

Neuromethods

Other renditions

Softcover

ISBN 978-1-4939-8009-3

Biomedicine : Neurosciences

Graziane, Nicholas, Dong, Yan

Electrophysiological Analysis of Synaptic Transmission

- A practical guide to electrophysiological manipulations and assays in brain research
- A best-practices guide for collecting and interpreting data
- Intended for senior undergraduates and above

Electrophysiological methods are used at nearly all levels of biological research today. From basic science investigation to bringing new drugs to market, electrophysiology is an indispensable research technique that provides essential insights into cellular and molecular functions. This work is intended to be a practical guide for understanding and using contemporary electrophysiological manipulations and assays in brain research. New researchers attempting to learn electrophysiological techniques are confronted with a lack of adequate guiding resources. Currently, most electrophysiology-based research knowledge is passed on by experienced individuals to others within the same laboratory. But, this master-apprentice scenario has many inherent difficulties, as it is both a time intensive process and also leads to incomplete knowledge transfer, or even superstitious and maladaptive practices. Few external guiding resources exist for a budding researcher who wishes to gain the skills necessary to conduct responsible and competent electrophysiology research. Dr. Yan Dong, an expert in utilizing electrophysiological techniques for brain research with fifteen years of experience, and Peter Neumann hope this work can act as a concise and practical aid to remedy the current situation. This book will cover both basic methods and advanced techniques clearly and in depth, as well as the essential background and theory necessary to understand the methods. Additionally, this book also covers conventional and contemporary patch-clamp methods, experimental design, data collection and analysis, common pitfalls to avoid, important nuances, technical concerns, practical applications, and advice for teaching new researchers.

Order online at springer.com/booksellers**Springer Nature Customer Service Center LLC**

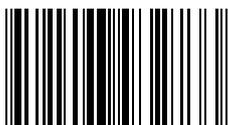
233 Spring Street

New York, NY 10013

USA

T: +1-800-SPRINGER NATURE

(777-4643) or 212-460-1500

customerservice@springernature.com

ISBN 978-1-4939-3273-3 / BIC: PSAN / SPRINGER NATURE: SCB18006

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.