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Titolo	Mastering the Patch Clamp Technique: A Practical Guide // by Fabian Christoph Roth, Markus Numberger, Andreas Draguhn
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Descrizione fisica	1 online resource (XIV, 162 p. 43 illus., 20 illus. in color.)
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Lingua di pubblicazione	Inglese
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Nota di contenuto	The History of the Patch Clamp Technique -- Bioelectrical Phenomena and their Measurement -- Technical Basics of the Patch Clamp Method -- The Patch Clamp Rig and Technical Components -- The Practice of Patch Clamp Experiments -- Special Applications -- Data Handling and Documentation.
Sommario/riassunto	The patch clamp technique is one of the most important electrophysiological methods in use today. Its application in basic biomedical research has provided significant insights into the function and properties of ion channels, making it equally indispensable in applied pharmacological research. This book is the English edition of the popular German introduction to the patch clamp technique. This introductory book serves as a practical guide for teachers and students, offering clear and practical instructions on patch clamp recordings. The authors provide essential information to establish and successfully apply this method in the laboratory. The book covers the basics of measurements, the detailed setup of a patch clamp rig and how to carry out typical recordings. It also includes concrete tips and tricks to

help with troubleshooting, making it an indispensable resource. The book not only highlights the enormous potential of the method for the study of ion channels and cell signaling, but also provides an introduction to the major developments and variations of the technique. The book is aimed at advanced students of biology, biochemistry, medicine, pharmacy and related disciplines as well as scientists who want to better understand and/or acquire the technique.

About the Authors Fabian Roth is a neurobiologist who researches and teaches at the Institute of Basic Medical Sciences (IMB) at the University of Oslo, Norway. Markus Numberger is a biologist and works as a freelance science writer in the fields of medicine, pharmacy and biology. Andreas Draguhn is a medical doctor and lecturer at the University of Heidelberg, Germany.

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