Como usar Current Protocols em sua pesquisa diariamente

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CURRENT PROTOCOLS

2015

When researchers look for methods, they are concerned about …

- Reproducibility
- Trouble shooting and fixing problems
- Equipment and Reagents

Trust Current Protocols for your research needs

- History of Current Protocols
- Editors And Authors
- Current Protocols Editing process
- Wiley and Current Protocols Website
- Testimonials

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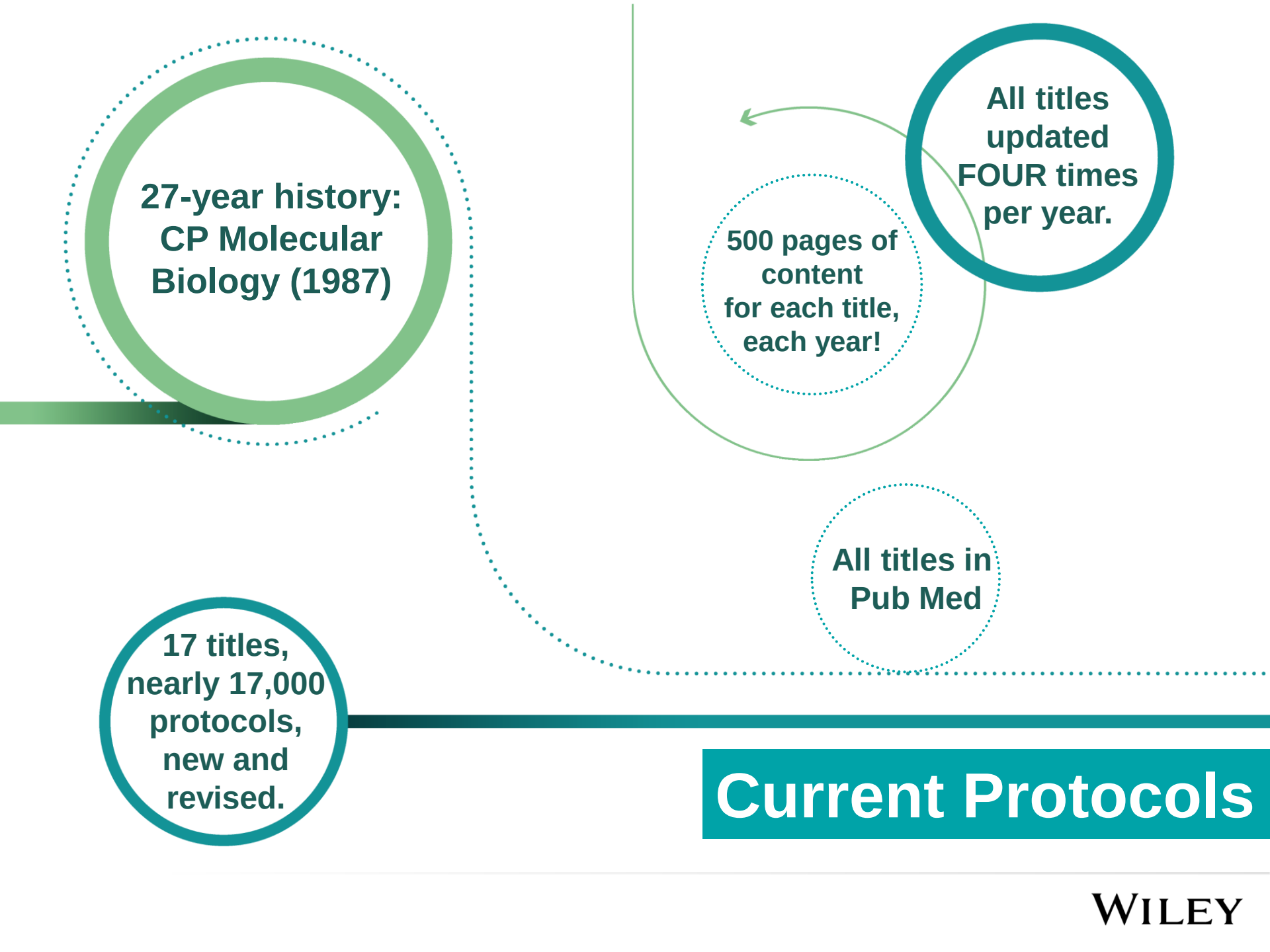
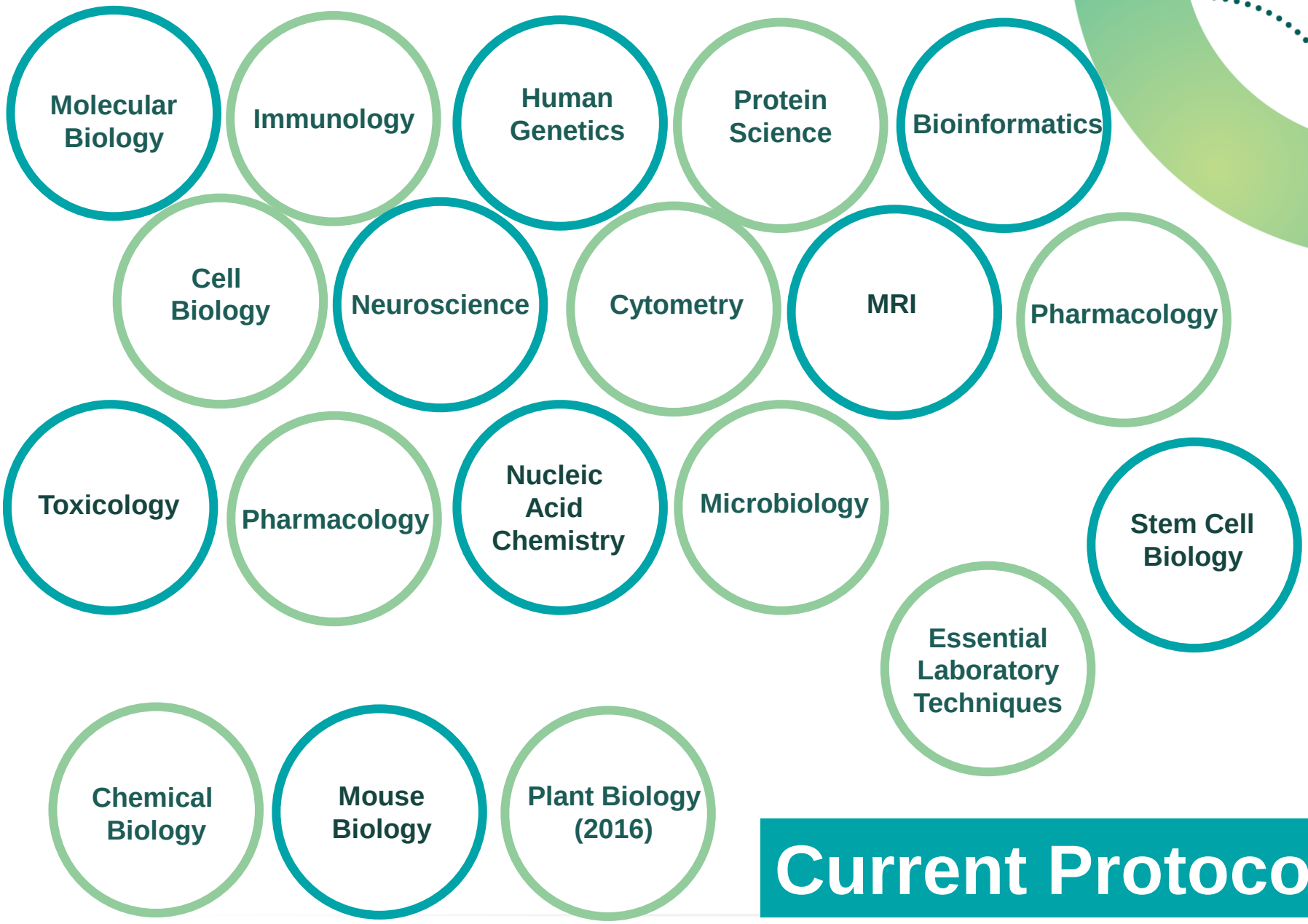

27-year history: CP Molecular Biology (1987)
All titles updated FOUR times per year.
500 pages of content for each title, each year!
All titles in Pub Med
17 titles, nearly 17,000 protocols, new and revised.
Current Protocols



Current Protocols

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Current Protocols Methods

Step-by-Step instructions for doing experiments, like “recipes” for scientists

Each article contains

- Introduction
- Materials lists
- Instructions (many protocols per article)
- Troubleshooting tips, explanations
- Figures and tables, videos

Who should use Current Protocols?

Our protocols are written for someone who is new to the lab or who has to do a new experiment for a grant.

- Undergraduate students
- Grad students
- Postdocs
- Technicians
- Principal investigators
- Department heads

How do we chose our protocols?

- **Editorial boards plan the content**
- 17 boards, >70 editors
- Carefully consider the content to be included
- Review content for updating
- Invite authors
- Perform peer review

Editors of
Current Protocols in Molecular Biology

John Coligan

Editor of Current Protocols in Immunology *and*
Current Protocols in Protein Science

"The goal of Current Protocols is to identify methodologies fundamental to each major research discipline. We invite investigators at the cutting edge of these methodologies to write detailed and precise protocols that can reproduced by investigators at any level in their scientific careers. Each protocol is rigorously reviewed by multiple members of the editorial staff before it is authorized for publication."

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Notable Contributors

In addition to our renowned editorial boards, over **7700** contributors globally have written for Current Protocols, including:

David Baulcombe
A.L. Burlingame
Thomas R. Cech
Fred Gage
Shinya Inouye
David Ledbetter
Lance Liotta
Craig C. Mello
Harvey Motulsky
Garry Nolan
Sten Orrenius
Howard Shapiro
Paul Tempst
Thomas Tuschl
Stanley Tabor
Shinya Yamanaka

Authors Worldwide

Region	CP Authors
United States	5254
Europe	1225
UK	459
Canada	276
Asia	339
Australia and New Zealand	169
Middle East/Africa	11
Latin America	13

Sample Articles
from Authors in Brazil

Current Protocols in Bioinformatics Unit 13.13

Analyzing Shotgun Proteomic Data with PatternLab for Proteomics

Paulo C. Carvalho[1], John R. Yates III[1], Valmir C. Barbosa[2]

[1] The Scripps Research Institute, La Jolla, California, [2] Systems Engineering and Computer Science Program, COPPE, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

Current Protocols in Bioinformatics Unit 13.19

PatternLab: From Mass Spectra to Label-Free Differential Shotgun Proteomics

Paulo C. Carvalho[1], Juliana S. G. Fischer[1], Tao Xu[2], John R. Yates[2], Valmir C. Barbosa[3]

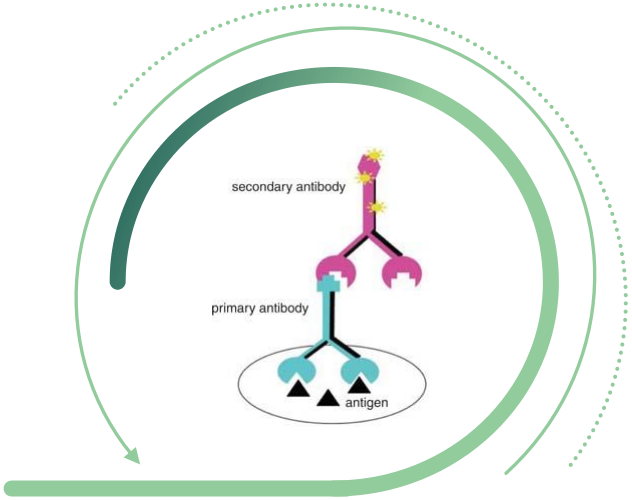
[1] Carlos Chagas Institute–Fiocruz, Paraná, Brazil, [2] Department of Cell Biology, The Scripps Research Institute, La Jolla, California, [3] Systems Engineering and Computer Science Program, COPPE, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

Current Protocols in Stem Cell Biology Unit 2D.9

Neural Differentiation of P19 Carcinoma Cells and Primary Neurospheres: Cell Morphology, Proliferation, Viability, and Functionality

Priscilla D. Negraes, Telma T. Schwindt, Cleber A. Trujillo, Henning Ulrich

Departamento de Bioquímica, Instituto de Química, Universidade de São Paulo, São Paulo, Brazil



Current Protocols in Neuroscience Unit 2.12

The Importance of Titrating Antibodies for Immunocytochemical Methods

Gloria E. Hoffman[1], Wei Wei Le[1], Luciane V. Sita[2]

[1] Department of Anatomy and Neurobiology, University of Maryland, Baltimore, Maryland, [2] Department of Anatomy, University of São Paulo, São Paulo, Brazil

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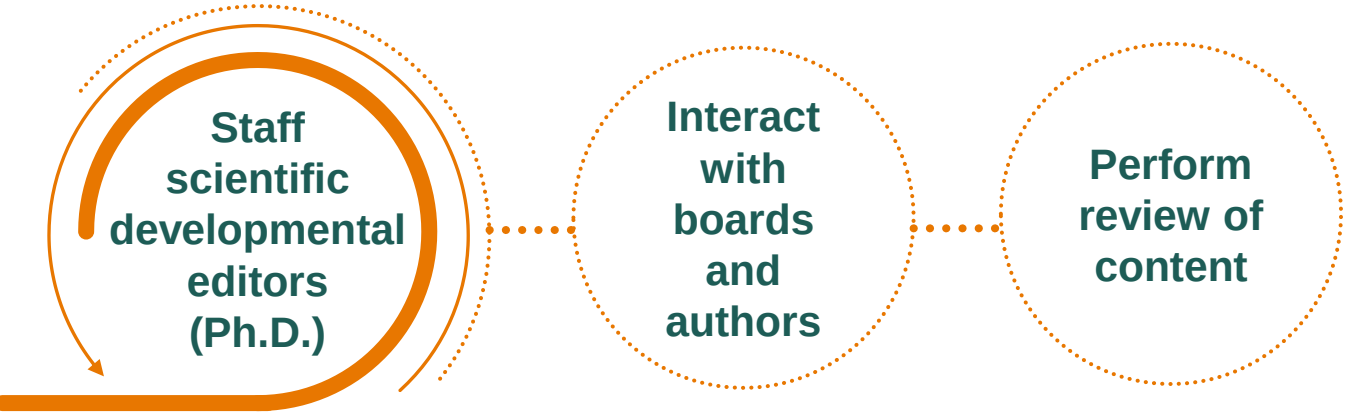
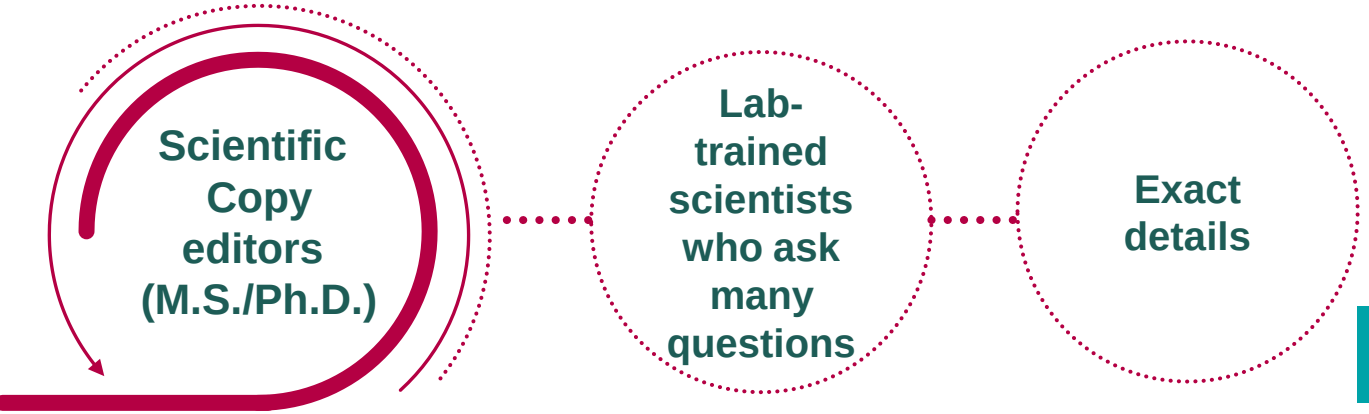
Editing process ensures detailed information, same format for all articles, all titles.

Reproducibility!





Editorial Process

Types of articles

Basic Methods

New specialized techniques

Overviews: reviews of a topic or procedure

Protocol articles: step-by-step procedures

Overviews

General, on topics such as

- Electrophoresis
- Protein folding
- Cell fractionation
- PCR

Advanced, on topics such as

- Engineering Transgenic Constructs and Mice
- Determination of Biopharmaceutical Properties for Development Candidate Selection

Protocol Articles

Introduction

Basic Protocol(s)
- Introduction
- Materials List
- Steps and Annotations
- Tables and/or Figures

Alternate and/or Support Protocols

Reagents and Solutions

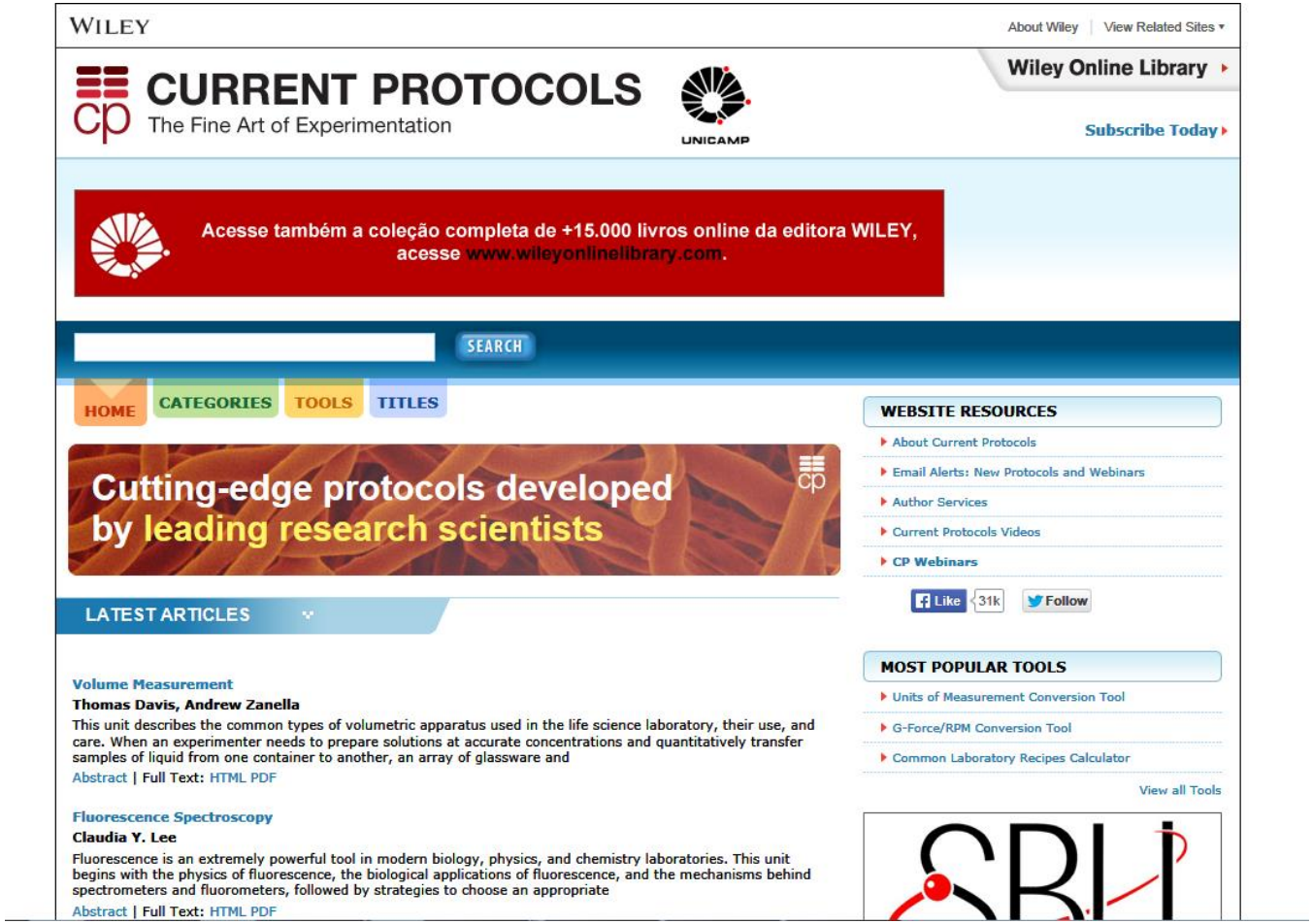
Commentary
- Background Information
- Critical Parameters
- Troubleshooting
- Anticipated Results
- Time Considerations

Literature Cited

Key References with Annotations

Internet Resources with Annotations

Finding Current Protocols Methods



www.currentprotocols.com/unicamp

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Why Current Protocols methods are better than:

Free protocols on the internet

Fred Ausubel

Editor for Current Protocols in Molecular Biology

"Although the internet has given laboratories all of the world access to a myriad of online protocols, it is difficult for individual investigators to gauge the reliability of any given protocol. This is especially true for smaller laboratories and laboratories at smaller institutions or institutions outside of North America and Europe. What CP provides is access to thousands of fully-vetted, reliable protocols in many diverse fields that can completely trusted. Moreover, unlike many protocols, Current Protocols educate the investigator about the underlying biology of how and why protocols work, allowing experimenters to design experiments intelligently and trouble shoot them when they don't work as expected."

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Why Current Protocols methods are better than Materials and Methods sections from journals

Journal articles do not give sufficient details of the experiments in the Materials and Methods sections to be able to perform the experiment.

Protein Structure Report

High-resolution crystal structure of FKBP12 from *Aedes aegypti*

Sreekanth Rajan,[1] Kai Qian Saw,[1] Quoc Toan Nguyen,[1] Kwanghee Baek,[2] and Ho Sup Yoon[1,2]*

[1]Division of Structural Biology and Biochemistry, School of Biological Science, Nanyang Technological University, Singapore 637551
[2]Department of Genetic Engineering, College of Life Sciences, Kyung Hee University, Yongin-si, Gyeonggi-do 446-701, Republic of Korea

Received 6 March 2012; Revised 3 April 2012; Accepted 5 April 2012
DOI: 10.1002/pro.2079
Published online 19 April 2012 proteinscience.org

Materials and Methods

Cloning, expression, and purification

The gene sequences encoding *Aa*FKBP12 were synthesized from GenScript (Piscataway, NJ). The PCR-amplified DNA fragment was inserted into pETSUMO (Novagen, Madison, WI) to generate pETSUMO-*Aa*FKBP12 with a hexahistidine tag at the N-terminus. The protein was expressed in *Escherichia coli* BL21(DE3) cells and purified by consecutive cycles of Ni-NTA metal affinity chromatography, before and after cleaving the SUMO-tag.

Crystallization, data collection, and structure determination

Crystal screening was performed at 15 mg/mL protein concentration, using hanging drop vapor diffusion method, with an ammonium sulfate-buffer grid. The reservoir contained 500 μL of the screening solution, and the drop constituted of 4 μL with equal volume of protein and reservoir solution. Crystals of $0.5 \times 0.5 \times 0.1$ mm^3 size appeared in 3.0*M* ammonium sulphate and 0.1*M* MOPS buffer pH 8.0, in 5 days. The crystals were cryo protected with 20% glycerol added to the reservoir solution and data, up to 1.3 Å resolution, was collected at 100 K on beamline 13B1 at the National Synchrotron Radiation Research Center (Hsinchu, Taiwan) using an ADSC-Quantum 315 detector. Two datasets (a low and high resolution) were collected from a single crystal and merged to improve the completeness in low-resolution shell. The diffraction data was indexed, integrated, merged, and scaled using the HKL2000 suite of programs.[28] The structure was solved by molecular replacement method using the program PHASER,[29] with initial phases from the *Human* (*Hs*)FKBP12 (PDB ID 2PPN) as search model.

cp 8 Articles

cp 5 Articles

cp 3 Articles

cp 10 Articles

cp 2 Articles

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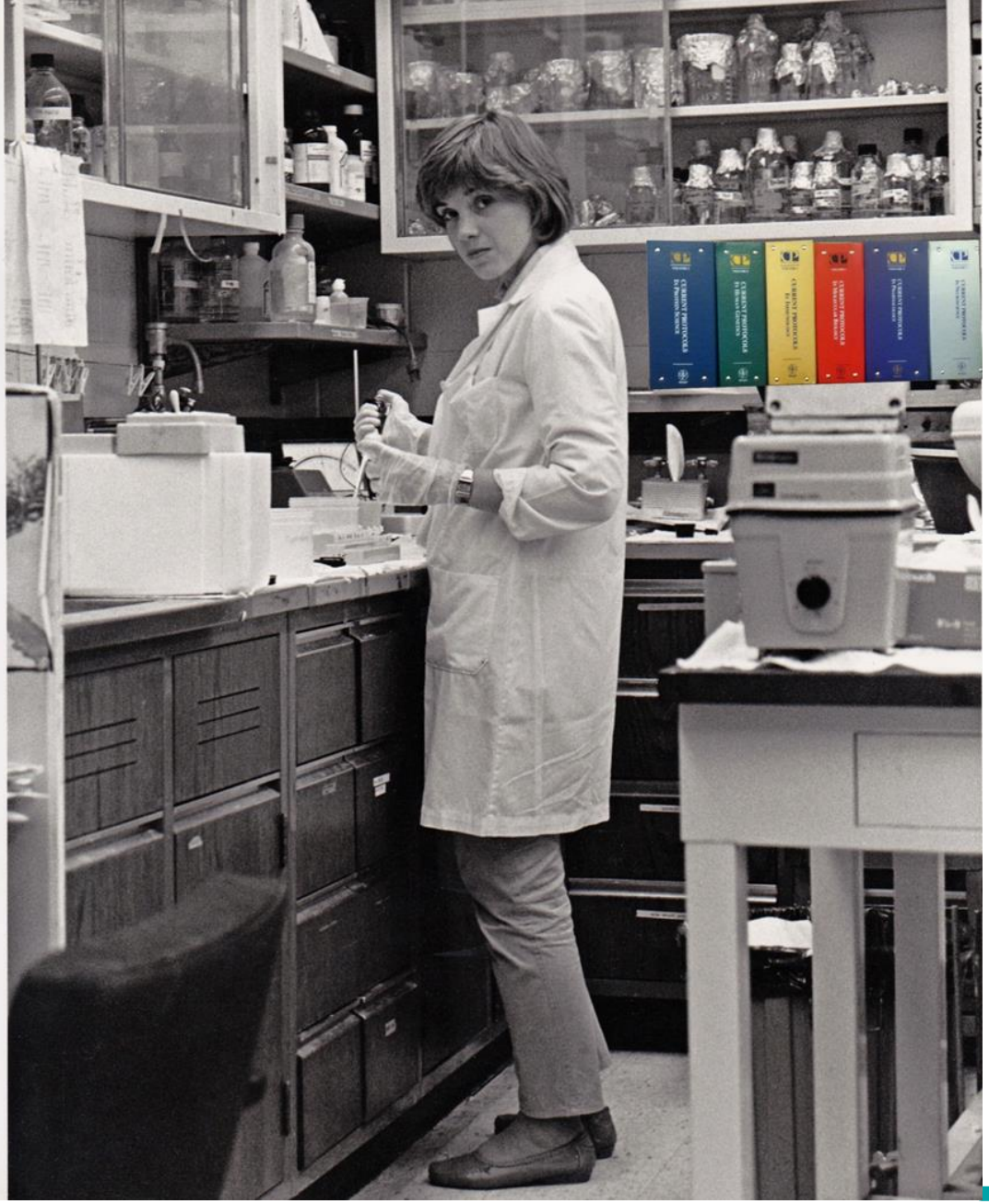

Think of Current Protocols as your "colleague down the hall"

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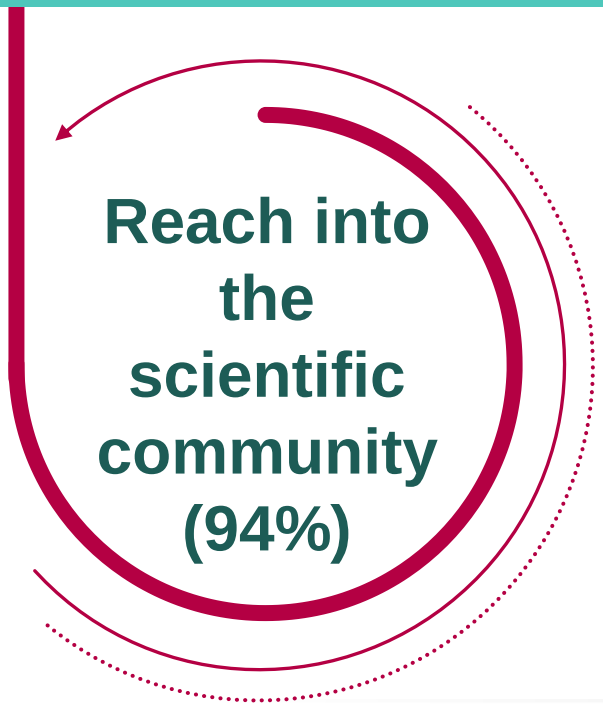
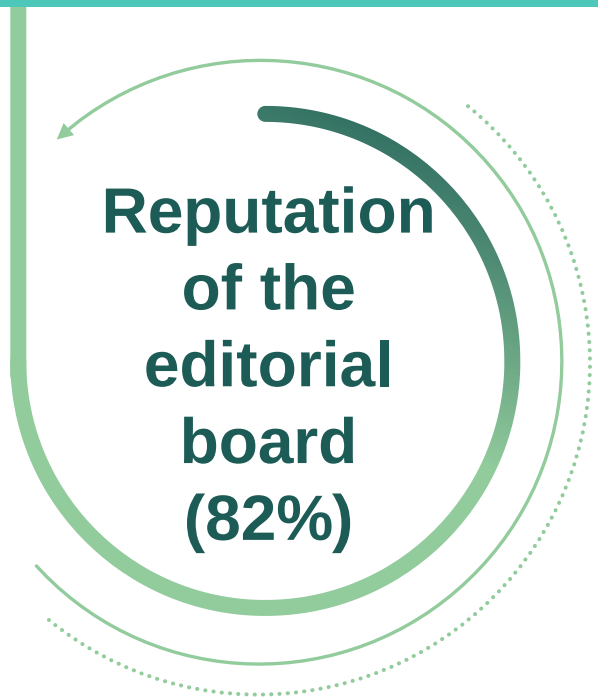
Testimonials from our editors, authors, users

Scientists write for Current Protocols because of the:





"Current Protocols has been the leading collection of laboratory protocols for almost 30 years. There is a good reason for this. The protocols are not only comprehensive, up-to-date, and well validated, but they are much more than a series of steps to perform. There are sections that tell you why the steps are done, what really matters, and how to deal with problems that may arise. The goal is to help researchers get their experiments to work. My lab uses CP all the time because the protocols work, not just because I'm an editor."

Kevin Struhl

Editor for Current Protocols in Molecular Biology

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"I read lots of methods from Current Protocols before. You guys are really great! In addition to helping me set up many experiments, I passed qualifying exam very easily in Mol Biol by listing about 7 different methods to find the interacting proteins and discuss the pros and cons in detail."

- Jean Lu

Array-Based High-Throughput Screening in Mouse Embryonic Stem Cells with shRNAs

Chia-Hui Wang[1,8], Nianhan Ma[2,8], Yu-Tsen Lin[1,3,8], Cheng-Chung Wu[1,3], Hong-Jin Wu[1], Ching-Chia Yu[1], Michael Hsiao[1], Frank Leigh Lu[4], Scott C. Schuyler[5], and **Jean Lu[1,3,6,7,*]**

Jean Lu

Researcher and author

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“Once I need to start something new for my project or I need to confirm anything, I will consult Current Protocols. There are really detailed descriptions for things that I need to learn and do, so Current Protocols have helped me a lot.”

Linlin Wang, Ph.D Student, Dept. of Chemistry, New York University, New York, NY USA

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The flow charts and the diagrams and the crisp to the point methods in Current Protocols are useful to understand and implement the methods easily in research work.

Ashish Wadhwani, Senior Research Fellow, JSS College of Pharmacy, CSIR, India

"One of the best aspects of Current Protocols is the introduction that it offers for new researchers. Every time that I would work with a new undergraduate research assistant, I would ask them to read a few selected chapters. Current Protocols helps the students (and me) understand not only WHAT the best practices are, but WHY they are best practices. Thanks!"

Rebecca Lahti Matz, Ph.D. Candidate, Department of Chemistry and Michigan Nanotechnology Institute for Medicine and Biological Sciences, University of Michigan

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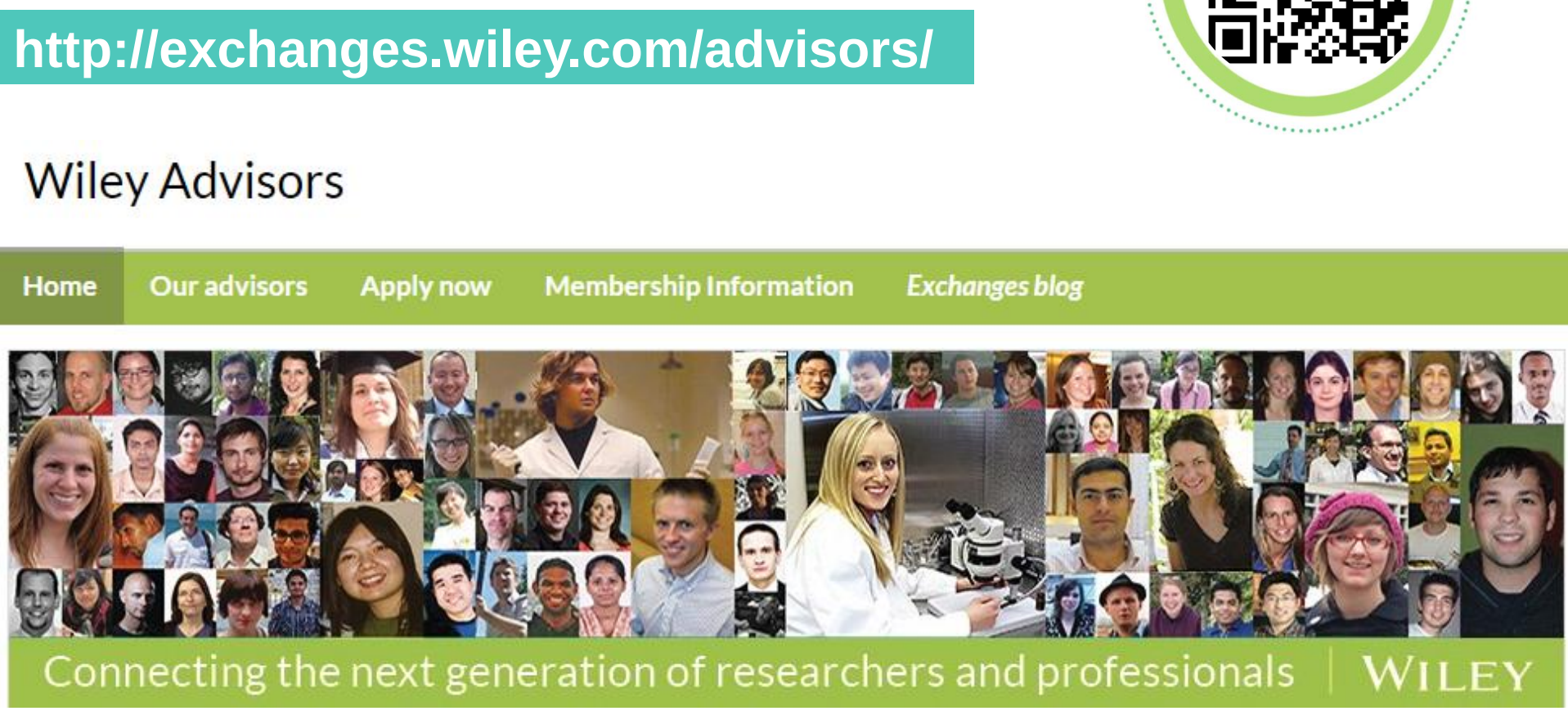
http://exchanges.wiley.com/advisors/



Thank you!

Virginia Chanda, Ph.D.
Publisher, Current Protocols