

*Como usar Current Protocols  
em sua pesquisa diariamente*



**WILEY**

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

**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**

**WILEY**

**Molecular  
Biology**

**Immunology**

**Human  
Genetics**

**Protein  
Science**

**Bioinformatics**

**Cell  
Biology**

**Neuroscience**

**Cytometry**

**MRI**

**Pharmacology**

**Toxicology**

**Pharmacology**

**Nucleic  
Acid  
Chemistry**

**Microbiology**

**Stem Cell  
Biology**

**Essential  
Laboratory  
Techniques**

**Chemical  
Biology**

**Mouse  
Biology**

**Plant Biology  
(2016)**

**Current Protocols**

**WILEY**



## 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.”*



## 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<sup>1</sup>, John R. Yates III<sup>1</sup>, Valmir C. Barbosa<sup>2</sup>

<sup>1</sup>The Scripps Research Institute, La Jolla, California, <sup>2</sup>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<sup>1</sup>, Juliana S. G. Fischer<sup>1</sup>, Tao Xu<sup>2</sup>, John R. Yates<sup>2</sup>, Valmir C. Barbosa<sup>3</sup>

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

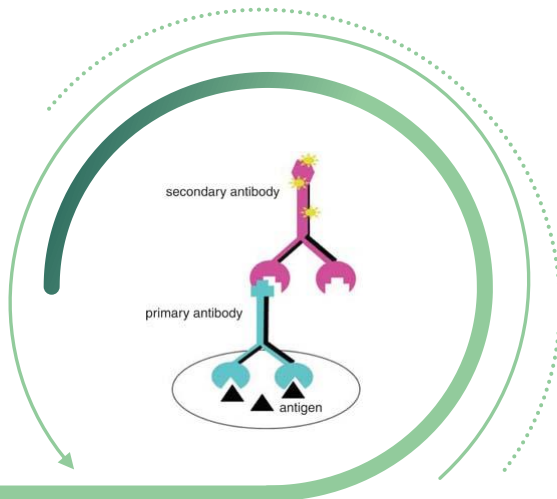


*Current Protocols in Stem Cell Biology* Unit 2D.9

## **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



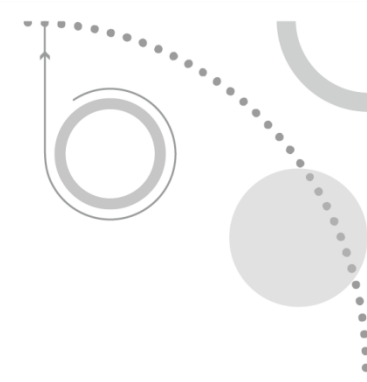
*Current Protocols in Neuroscience* Unit 2.12

## **The Importance of Titrating Antibodies for Immunocytochemical Methods**

Gloria E. Hoffman<sup>1</sup>, Wei Wei Le<sup>1</sup>, Luciane V. Sita<sup>2</sup>

<sup>1</sup> Department of Anatomy and Neurobiology,  
University of Maryland, Baltimore, Maryland, <sup>2</sup>

Department of Anatomy, University of São Paulo,  
São Paulo, Brazil



**Expert  
editorial  
boards**

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

*Reproducibility!*



**Staff  
scientific  
developmental  
editors  
(Ph.D.)**

**Interact  
with  
boards  
and  
authors**

**Perform  
review of  
content**



**Scientific  
Copy  
editors  
(M.S./Ph.D.)**

**Lab-  
trained  
scientists  
who ask  
many  
questions**

**Exact  
details**

**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

The screenshot shows the Wiley Current Protocols website. At the top, the Wiley logo is on the left, and navigation links 'About Wiley' and 'View Related Sites' are on the right. The main header features the 'CURRENT PROTOCOLS' logo with the tagline 'The Fine Art of Experimentation', the UNICAMP logo, and a 'Wiley Online Library' button. Below this is a red banner with a sunburst icon and text in Portuguese: 'Acesse também a coleção completa de +15.000 livros online da editora WILEY, acesse [www.wileyonlinelibrary.com](http://www.wileyonlinelibrary.com).' A search bar with a 'SEARCH' button is positioned below the banner. A navigation menu includes 'HOME', 'CATEGORIES', 'TOOLS', and 'TITLES'. A large orange banner reads 'Cutting-edge protocols developed by leading research scientists'. The 'LATEST ARTICLES' section lists two articles: 'Volume Measurement' by Thomas Davis and Andrew Zanella, and 'Fluorescence Spectroscopy' by Claudia Y. Lee. On the right, 'WEBSITE RESOURCES' includes links to 'About Current Protocols', 'Email Alerts: New Protocols and Webinars', 'Author Services', 'Current Protocols Videos', and 'CP Webinars'. Below this are social media buttons for 'Like' (31k) and 'Follow'. The 'MOST POPULAR TOOLS' section lists 'Units of Measurement Conversion Tool', 'G-Force/RPM Conversion Tool', and 'Common Laboratory Recipes Calculator'. A 'View all Tools' link is at the bottom right of this section. The footer of the page features a large 'SRI' logo.

WILEY

About Wiley | View Related Sites

**CURRENT PROTOCOLS**  
The Fine Art of Experimentation

UNICAMP

Wiley Online Library

Subscribe Today

Acesse também a coleção completa de +15.000 livros online da editora WILEY, acesse [www.wileyonlinelibrary.com](http://www.wileyonlinelibrary.com).

SEARCH

HOME CATEGORIES TOOLS TITLES

Cutting-edge protocols developed by leading research scientists

LATEST ARTICLES

**Volume Measurement**  
**Thomas Davis, Andrew Zanella**  
This unit describes the common types of volumetric apparatus used in the life science laboratory, their use, and care. When an experimenter needs to prepare solutions at accurate concentrations and quantitatively transfer samples of liquid from one container to another, an array of glassware and  
[Abstract](#) | [Full Text: HTML PDF](#)

**Fluorescence Spectroscopy**  
**Claudia Y. Lee**  
Fluorescence is an extremely powerful tool in modern biology, physics, and chemistry laboratories. This unit begins with the physics of fluorescence, the biological applications of fluorescence, and the mechanisms behind spectrometers and fluorometers, followed by strategies to choose an appropriate  
[Abstract](#) | [Full Text: HTML PDF](#)

WEBSITE RESOURCES

- About Current Protocols
- Email Alerts: New Protocols and Webinars
- Author Services
- Current Protocols Videos
- CP Webinars

Like 31k Follow

MOST POPULAR TOOLS

- Units of Measurement Conversion Tool
- G-Force/RPM Conversion Tool
- Common Laboratory Recipes Calculator

View all Tools

SRI

[www.currentprotocols.com/unicamp](http://www.currentprotocols.com/unicamp)



**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.”*



## 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,<sup>1</sup> Kai Qian Saw,<sup>1</sup> Quoc Toan Nguyen,<sup>1</sup> Kwanghee Baek,<sup>2</sup> and Ho Sup Yoon<sup>1,2\*</sup>

<sup>1</sup>Division of Structural Biology and Biochemistry, School of Biological Science, Nanyang Technological University, Singapore 637551

<sup>2</sup>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 AaFKBP12 were synthesized from GenScript (Piscataway, NJ). The PCR-amplified DNA fragment was inserted into pETSUMO (Novagen, Madison, WI) to generate pETSUMO-AaFKBP12 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  $\mu$ L of the screening solution, and the drop constituted of 4  $\mu$ L with equal volume of protein and reservoir solution. Crystals of  $0.5 \times 0.5 \times 0.1$  mm<sup>3</sup> size appeared in 3.0M ammonium sulphate and 0.1M 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.<sup>28</sup> The structure was solved by molecular replacement method using the program PHASER,<sup>29</sup> with initial phases from the Human (Hs)FKBP12 (PDB ID 2PPN) as search model.

cp 8 Articles

cp 3 Articles

cp 2 Articles

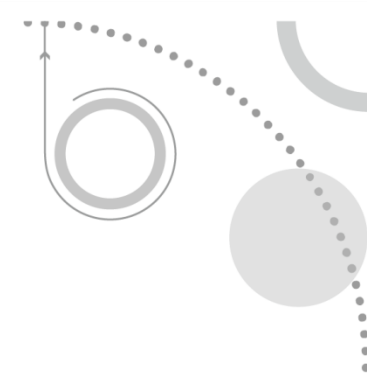
cp 5 Articles

cp 10 Articles





**Think of  
Current  
Protocols  
as your  
“colleague down  
the hall”**



# Testimonials from our editors, authors, users


Scientists write for Current Protocols because of the:



**Reach into  
the  
scientific  
community  
(94%)**



**Reputation  
of the  
editorial  
board  
(82%)**



**Prestige  
of the CP  
program  
(89%)**





*“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**

**WILEY**



*“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<sup>1,8</sup>, Nianhan Ma<sup>2,8</sup>, Yu-Tsen Lin<sup>1,3,8</sup>, Cheng-Chung Wu<sup>1,3</sup>, Hong-Jin Wu<sup>1</sup>, Ching-Chia Yu<sup>1</sup>, Michael Hsiao<sup>1</sup>, Frank Leigh Lu<sup>4</sup>, Scott C. Schuyler<sup>5</sup>, and **Jean Lu**<sup>1,3,6,7,\*</sup>

**Jean Lu**

**Researcher and author**



*“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



*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



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

## Wiley Advisors

[Home](#) [Our advisors](#) [Apply now](#) [Membership Information](#) [Exchanges blog](#)



Connecting the next generation of researchers and professionals | WILEY

WILEY





Thank you!

Virginia Chanda, Ph.D.  
Publisher, Current Protocols

