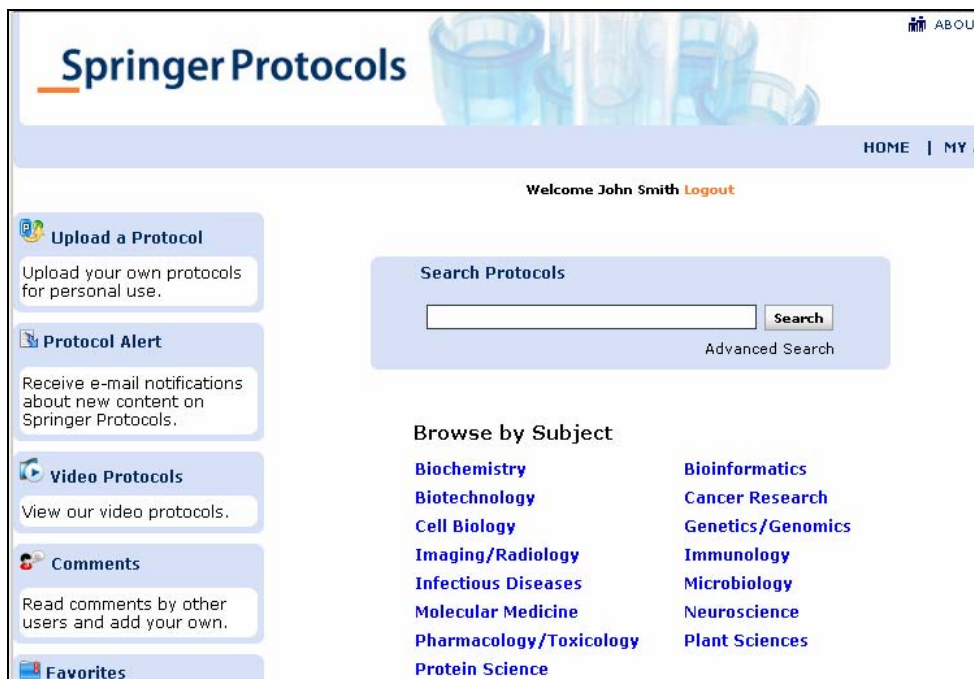


Springer Protocols User Guide

Browse

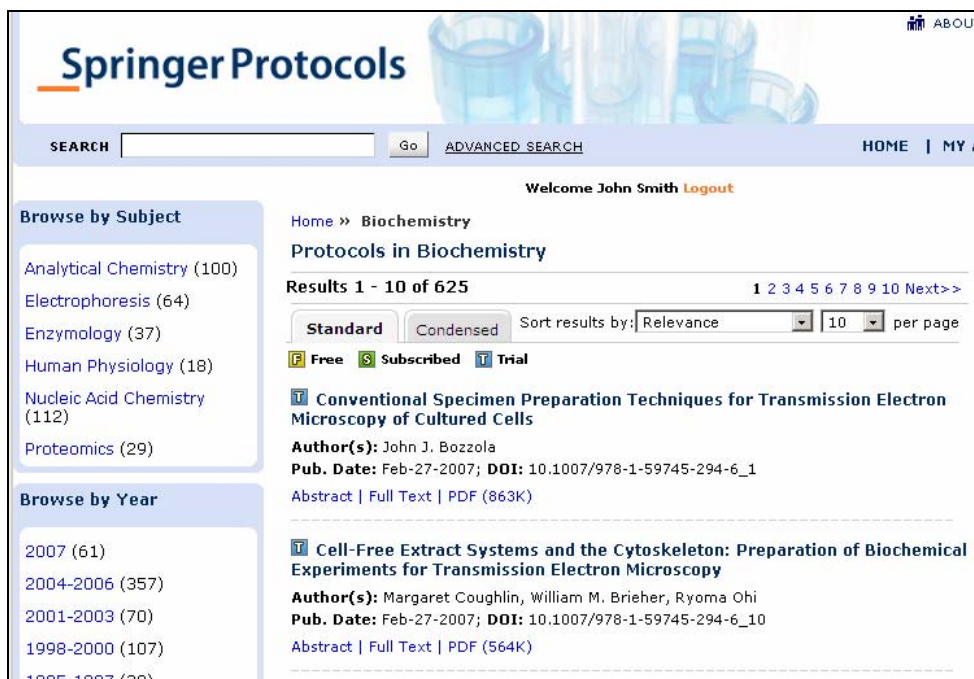
Browsing on Springer Protocols is easy.

- Click on a category either on the homepage or on any other site page.



The screenshot shows the Springer Protocols homepage. At the top left is the Springer Protocols logo. To the right of the logo is a navigation bar with links for HOME and MY ACCOUNT. Below the logo is a search bar with a 'Search' button and a link to 'Advanced Search'. On the left side, there are several menu items: 'Upload a Protocol', 'Protocol Alert', 'Video Protocols', 'Comments', and 'Favorites'. In the center, there is a 'Browse by Subject' section with a grid of subject categories including Biochemistry, Biotechnology, Cell Biology, Imaging/Radiology, Infectious Diseases, Molecular Medicine, Pharmacology/Toxicology, Protein Science, Bioinformatics, Cancer Research, Genetics/Genomics, Immunology, Microbiology, Neuroscience, and Plant Sciences.

- Continue browsing by clicking on subcategory(ies) or years(s) to refine your browse results.



The screenshot shows the Springer Protocols search results page for Biochemistry. The search bar at the top contains the word 'SEARCH' and a 'Go' button. Below the search bar is a navigation bar with links for HOME and MY ACCOUNT. The main content area is titled 'Protocols in Biochemistry' and shows 'Results 1 - 10 of 625'. There are filters for 'Standard', 'Condensed', and 'Trial' views, and a 'Sort results by' dropdown menu set to 'Relevance'. The results are displayed in a list format, with the first two results visible. The first result is 'Conventional Specimen Preparation Techniques for Transmission Electron Microscopy of Cultured Cells' by John J. Bozzola, published in Feb-27-2007. The second result is 'Cell-Free Extract Systems and the Cytoskeleton: Preparation of Biochemical Experiments for Transmission Electron Microscopy' by Margaret Coughlin, William M. Brieher, and Ryoma Ohi, also published in Feb-27-2007. On the left side, there is a 'Browse by Subject' section with a list of subjects and their counts, and a 'Browse by Year' section with a list of years and their counts.

Search

You can perform a quick search from any page on the site for a set of immediate results that can be sorted by date, author, and title.

Search Protocols

Advanced Search

SEARCH ADVANCED SEARCH HOME | MY

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Results 1 - 10 of 382 1 2 3 4 5 6 7 8 9 10 Next>>

Search results for: Text "mutagenesis" - any of the words/ (Protocol search)

[Save search results](#)

Sort results by: 10 per page

Free Subscr

Random Muta smid PCR Amplification

Author(s): Donghak Kim, F. Peter Guengerich
Pub. Date: Apr-01-2002; **DOI:** 10.1385/1-59259-177-9:241
Summary: Random **Mutagenesis** by Whole-Plasmid PCR Amplification **Mutagenesis** is a popular tool used in the analysis of protein structure and function. Polymerase chain reaction (PCR)-based **mutagenesis** can be...
[Abstract](#) | [Full Text](#) | [PDF \(154K\)](#)

EMS Mutagenesis of Arabidopsis

Author(s): YongSig Kim, Karen S. Schumaker, Jian-Kang Zhu
Pub. Date: Mar-15-2006; **DOI:** 10.1385/1-59745-003-0:101
Summary: EMS **Mutagenesis** of Arabidopsis A powerful approach for determining the biological functions of genes in an organism is to produce mutants with altered

You can also filter these results through a relevant list of subjects and time periods, enabling you to quickly narrow down long lists of articles to a short list of your desired results. For searches that you may perform often, or for very detailed searches, once you find your desired results, you can save that search to your account for use at a later time.

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Results 1 - 10 of 24 1 2 3 Next>>

Search results for: Text "mutagenesis" - any of the words/ published between 2004 to 2006/ subject "Cell Biology"/ (Protocol search)

[Save search results](#)

Sort results by: 10 per page

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Identification of Apoptosis Regulatory Genes Using Insertional Mutagenesis

Author(s): Joëlle Thomas, Yann Leverrier, Anne-Laure Mathieu, Jacqueline Marvel
Pub. Date: May-20-2004; **DOI:** 10.1385/1-59259-812-9:275
Summary: Identification of Apoptosis Regulatory Genes Using Insertional **Mutagenesis** This chapter describes a retroviral insertion **mutagenesis** approach using replication-deficient myeloproliferative sarcoma...
[Abstract](#) | [Full Text](#) | [PDF \(219K\)](#)

Should you wish to have further refined results, use the Advanced Search feature, also located on every page. Use the advanced search feature to define your result list by any combination of keyword, abstract, title, author, subject, and date.

SEARCH ADVANCED SEARCH [HOME](#) | [M](#)

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Browse by Subject

- Biochemistry (863)
- Bioinformatics (87)
- Biotechnology (163)
- Cancer Research (532)
- Cell Biology (1052)
- Genetics/Genomics (1019)
- Imaging/Radiology (79)
- Immunology (397)
- Infectious Diseases (287)
- Microbiology (623)
- Molecular Medicine (621)
- Neuroscience (414)
- Pharmacology/Toxicology (200)
- Plant Sciences (383)
- Protein Science (800)

Advanced Search

Select Option Protocols Books

Anywhere in Text: any all exact phrase

Keywords: any all exact phrase

Abstract: any all exact phrase

Title: any all exact phrase

Author/Editor: e.g. Smith JS, Jones D

Series:

Volume No:

EISBN:

Subject:

Year: through

DOI:

Sort by:

Results: View per page

Upload a Protocol

Upload your own protocols for personal use.

Personalization

Springer Protocols allows you to personalize the site environment to suit your own needs. You can save search results for use at a later time, set up your My Protocols page, and manage alerts to be notified when desired content has been posted.

- When browsing the site, should you find articles on the site that you want to single out or visit again later, you can add them to your My Protocols area with the click of a button so you can easily find them without having to search or browse again.


The screenshot shows the article page for "Hydrolysis of Hemicelluloses Using Combinations of Xylanases and Feruloyl Esterases" by Craig B. Faulds, Paul A. Kroon, Begofa Bartolomé, and Gary Williamson. The page includes a search bar, a navigation menu, and a table of contents. The abstract states: "Hemicelluloses are heteropolysaccharides that occur in many plant cell walls. Usually hemicelluloses consist of a xylan backbone highly substituted with sugar side chains and with acetyl, feruloyl, coumaroyl, and other groups; the polymer is linked to protein, cellulose, and other cell wall components. The hemicellulose component of the cell wall helps prevent infection, provides strength, and protects against other external agents. Plant pathogens hydrolyze the plant cell wall, including the hemicellulose component, prior to invasion, and dead plant cell walls are degraded by Saprophytic fungi and other microbes to utilize the components as energy. This digestive process also occurs in ruminants and in the colon of humans, and is catalyzed by gut microflora." The page also lists the affiliation (Biochemistry Department, Institute of Food Research, Norwich Research Park, Norwich, UK) and the book title "Carbohydrate Biotechnology Protocols".


- To add your own content, use the Upload a Protocol feature to add your own protocols to your My Protocols area, where they can be saved alongside your favorites.

The screenshot shows the "Upload a Protocol" form. It includes a "Browse by Subject" sidebar with categories like Biochemistry (863), Bioinformatics (87), Biotechnology (163), Cancer Research (532), Cell Biology (1052), Genetics/Genomics (1019), Imaging/Radiology (79), Immunology (397), Infectious Diseases (287), Microbiology (623), Molecular Medicine (621), Neuroscience (414), Pharmacology/Toxicology (200), Plant Sciences (383), and Protein Science (800). The main form area is titled "Upload a Protocol" and contains the following fields and instructions:

- Welcome to Upload a Protocol!**
- Instructions: "You may upload a protocol (or protocols) in this area for your own private reference. If you so choose, you may also send your protocol to Springer Protocols to be considered for publication."
- Upload Guidelines:**
 - To upload a protocol, please complete the required fields below and click "Submit."
 - Please submit your file in Word or PDF.
 - Only one file may be submitted, so please embed any figures and tables within the body of the document.
 - Do not submit files greater than 7.0MB (7,000KB).
- All submitted protocols should contain the following sections:
 - Introduction, Materials, Methods, Notes, References
- Protocol Title:** DNA Sequencing Issues
- First Author:** John Smyth
- Affiliation(s):** Grant University
- Co-authors:** A table with columns for Author Name and Affiliation. One entry is visible: Carrie Sanchez, Carlisle University.
- Protocol Information:** This article covers dna sequencing as related to ...

My Protocols

 **My Favorite Protocols**

 **My Uploaded Protocols**

My Favorite Protocols

Hydrolysis of Hemicelluloses Using Combinations of Xylanases Feruloyl Esterases
DOI: 10.1007/978-1-59259-261-6_15
Pub. Date: Jul-23-1999
[Abstract](#) | [Full Text](#) | [PDF \(122K\)](#)

Electron Crystallography of Membrane Proteins
DOI: 10.1007/978-1-59745-294-6_16
Pub. Date: Feb-27-2007
[Abstract](#) | [Full Text](#) | [PDF \(543K\)](#)






My Uploaded Protocols

Protein Determination
Author(s): John Smyth¹, Stanley Frank²
Date Submitted: Dec-18-2007
[Abstract](#) | [Protocol](#)

DNA Sequencing Issues
Author(s): John Smyth¹, Carrie Sanchez²
Date Submitted: Dec-18-2007
[Abstract](#) | [Protocol](#)

All your favorite protocols and saved searches can also be viewed from your My Account page.

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Last Name

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<input checked="" type="checkbox"/> Biochemistry	<input type="checkbox"/> Bioinformatics
<input type="checkbox"/> Biotechnology	<input type="checkbox"/> Cancer Research
<input checked="" type="checkbox"/> Cell Biology	<input checked="" type="checkbox"/> Genetics/Genomics
<input type="checkbox"/> Imaging/Radiology	<input type="checkbox"/> Immunology
<input type="checkbox"/> Infectious Diseases	<input type="checkbox"/> Microbiology
<input type="checkbox"/> Molecular Medicine	<input type="checkbox"/> Neuroscience
<input type="checkbox"/> Pharmacology/Toxicology	<input type="checkbox"/> Plant Sciences
<input type="checkbox"/> Protein Science	

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<input checked="" type="checkbox"/>	Analysis of Focal Adhesions and Cytoskeleton by Custom Microarray	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Proteomic Analysis of Cell Surface Membrane Proteins in Leukemic Cells	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Bioinformatic Analysis of Adhesion Proteins	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Analysis of Integrin Dynamics by Fluorescence Recovery After Photobleaching	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Double-Hydrogel Substrate as a Model System for Three-Dimensional Cell Culture	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	In Vitro Actin Assembly Assays and Purification From Acanthamoeba	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Separation of Cell-Cell Adhesion Complexes by Differential Centrifugation	2/25/2007 1:30 PM		
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<input checked="" type="checkbox"/>	Analysis of Leukocyte Migration Through Monolayers of Cultured Endothelial Cells	2/25/2007 1:30 PM		
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<input checked="" type="checkbox"/>	Dynamic Assessment of Cell-Matrix Mechanical Interactions in Three-Dimensional Culture	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Quantitative Analyses of Cell Adhesion Strength	2/25/2007 1:30 PM		
<input checked="" type="checkbox"/>	Using RNA Interference to Knock Down the Adhesion Protein TES	2/25/2007 1:30 PM		

Springer Protocols

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Analysis of Focal Adhesions and Cytoskeleton by Custom Microarray

By: [Matthew J. Dalby](#)², [Stephen J. Yarwood](#)³

Abstract

[Full Text](#) | [Download PDF \(238K\)](#)    

Focal adhesions and the cell cytoskeleton (intermediate filaments, microfilaments, microtubules) are involved in mechanotransduction—both direct (transduction of mechanical forces to the nucleus) and indirect (transduction of chemical signaling cascades to the nucleus). Thus, observation of changes in focal adhesion and cytoskeletal organization can be invaluable in research such as drug treatments and medical material testing in vitro. Here we describe how to stain human fibroblasts for vinculin (located to focal adhesions), actin (microfilaments), tubulin (microtubules), and vimentin (intermediate filaments) and how to perform custom microarray experiments. Comparative analysis of the immunofluorescence and array data should allow the researcher to build up a global picture of changes to both direct and indirect mechanotransduction through the actin cytoskeleton. [View Full Article](#)

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 - [2.1 Cell Culture](#)
 - [2.2 Immunohistochemistry](#)
 - [2.3 Microarray](#)
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 - [3.1 Cell Culture](#)
 - [3.2 Immunohistochemistry \(Fig. 1 \)](#)

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Protocols

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- Search for the authors on Springer Protocols or on PubMed.
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- Use the contents of this article box to jump directly to any of the main areas of the protocol.
- Use our hypertext links to jump to other sections of the protocol, or to specific notes, references, figures, and tables.
- Download the Materials and Reference sections right to your desktop.

The screenshot shows a web page for a protocol. At the top, there is a search bar and navigation links for 'HOME', 'MY ACCOUNT', and 'MY PROTOCOLS'. A welcome message for 'John Smyth' is visible. The main content area is titled 'Manipulation of Cell-Cell Adhesion Using Bowtie-Shaped Microwells' and lists authors: Celeste M. Nelson², Wendy F. Liu³, and Christopher S. Chen³. It provides affiliation details for both authors, the book title 'Adhesion Protein Protocols', and series information: 'Methods in Molecular Biology', Volume 370, published Feb-26-2007, with a page range of 1-9 and DOI: 10.1007/978-1-59745-353-0_1. The subject is 'Protein Science'. An abstract follows, describing the method of using microfabricated stamps of poly(dimethylsiloxane) to create bowtie-shaped microwells for cell culture. Key words include 'Cell-cell interaction', 'cadherin', and 'microfabrication'. A 'Download PDF (170K)' link is provided. On the left, there is a 'Contents of this article' sidebar with sections: 1 Introduction, 2 Materials, 3 Methods (3.1 Master Fabrication, 3.2 Molding and Treatment, 3.3 Construction of Agarose..., 3.4 Coating and Cell Cultur..., 3.5 Experimental Analysis), 4 Notes, and References. Below this is a 'Browse by Subject' section with categories: Biochemistry (863), Bioinformatics (87), and Biotechnology (163). On the right, there are sections for 'Inside Springer Protocols' (New, Free, Popular Protocols, Tour, For Contributors/Editors, For Library Administrators) and 'Useful Tools' (Related Books, Similar Protocols, Export Citation, Comment, Recommend to your library administrator).

You can share with others by e-mailing the protocol to a colleague or tagging it to one of your favorite bookmarking sites.

The screenshot shows an 'E-mail a friend' form. It contains the following fields and content:

- *Your Name: John Smyth
- *Your e-mail: test1@test1.com
- *Your Friend's name: Sally Hernandez
- *Your Friend's e-mail: s.hernandez@test.com
- Subject: Murine Model Protocol
- Message: Thought you might like to read this.
John

At the bottom of the form are 'Send' and 'Cancel' buttons. Below the form, there is a row of icons for social media and sharing: a blue envelope icon, a printer icon, a document icon, and a green share icon.

A Murine Model for Studying Hematopoiesis and Immunity in Heart Failure

By: Per Ole Iversen², Dag R. Sørensen³

Abstract

Full Text | Download PDF (463K)

Recent epidemiological research indicates that a coexistent anemia among patients with heart failure might worsen their prognosis. However, whether the reduced synthesis of red blood cells is a contributing factor to the development and progression to overt heart failure, or whether it simply is a mere consequence of a dysfunctional heart, remains to be elucidated. Studies in mice with experimentally induced acute myocardial infarction leading to subsequent development of a postinfarction congestive heart failure have shed some light on this problem. Careful analyses of the number and of the functions of various hematopoietic cells residing in either blood or bone marrow point to a possible inhibitory role of cytokines, such as tumor necrosis factor α , on hematopoiesis. The present protocol

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Title: A Murine Model for Studying Hematopoiesis and Immunity in Heart Failure

Author(s): Per Ole Iversen, Dag R. Sørensen

Book Title: Target Discovery and Validation Reviews and Protocols: Volume 1, Emerging Strategies for Targets and Biomarker Discovery

Series: Methods in Molecular Biology

DOI: 10.1385/1-59745-165-7:269

Comments

Results 1 - 2 of 2

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Comments

By **John Smyth** Dec-13-2007 06:35 AM

This study should encourage further studies of hematopoiesis and immunity in heart failure by using a combination of animal models with state-of-the-art techniques in molecular biology to define and validate possible targets for therapy.

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