

TECHNICAL BRIEF

SPS' Digest: The Swiss Proteomics Society selection of proteomics articles

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Despite the consolidation of the specialized proteomics literature around a few established journals, such as *Proteomics*, *Molecular and Cellular Proteomics*, and the *Journal of Proteome Research*, a lot of information is still spread in many different publications from different fields, such as analytical sciences, MS, bioinformatics, etc. The purpose of SPS' Digest is to gather a selection of proteomics articles, to categorize them, and to make the list available on a periodic basis through a web page and email alerts.

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Proteomics literature is growing fast. The first articles appeared in 1995, just after Mark Wilkins had introduced the word "proteome" at the 1994 Siena meeting. Since then, the number of manuscripts has increased regularly, dealing not only with technical issues but also with a broad range of biological issues. Therefore, some publishers launched specialized journals. The first one was Wiley, which inaugurated the journal *Proteomics* in January 2001, followed in 2002 by the American Society for Biochemistry and Molecular Biology (with the journal *Molecular and Cellular Proteomics*) and the American Chemical Society Publications (with the *Journal of Proteome Research*), just to name the main ones. However, in order to be up-to-date with the latest developments in their field, proteomics scientists have to deal with a lot of articles spread in many different publications from different fields, such as analytical sciences, MS, bioinformatics, etc.

Even a simple search for the term "proteomics" in a large resource such as PubMed [1] is not always efficient. Users have to be very familiar with search fields available to find the balance between too restrictive searches producing a very limited number of hits, whereas less restrictive searches will turn out with a long list flowed by irrelevant articles. Consequently, it became time consuming to have a general overview and try not to miss relevant articles. To address this crucial issue, attempts to produce virtual journals collecting articles from different resources have been proposed. Some individual contributions to this valuable initiative showed a real need, but in the meantime the authors' efforts had to be stopped because of the great amount of work that the collection represented (which was the case of the Core Proteomics Laboratory at University of Louisville [2]) or were at least limited to the author's particular interests (see e.g., the list collected by Dr. Y. F. Leung [3]). In the meantime, publishers launched similar initiatives. For example, the "Proteomics select" from Elsevier [4] collects proteomics articles on a regular basis (around 20 issues per year), but limited to their own publications. Wiley proposed in some of their journals (i.e., *Mass Spectrom. Rev.*, *Comp. Funct. Genomics*, *Yeast*, etc.) some collections of past articles on a regular basis as well (either on each journal issue or once or twice a year) grouped

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Abbreviation: SPS, Swiss Proteomics Society

by topics such as proteomics. Finally, some internet services also provided useful resources to proteomics researchers (see the proteomics section of “spectroscopyNow” [5, 6] or proteomicsSURF [7]), including newsletters, discussion forums, *etc.* However, the literature selection offered in these projects is limited to a very reduced number of articles that have been chosen based on their sensational attributes rather than their representation of the field.

Considering all these aspects, the Swiss Proteomics Society (SPS) launched in 2003 the SPS’ Digest, a selection of proteomics articles. The purpose was to gather a selection of proteomics articles, categorize them, and make the list available on a periodic basis through a web page and email alerts. Through a collaborative work of its members, with different expertise and personal interests, the SPS is able to provide a selection covering most of the topics in the burgeoning area that is proteomics, independently from any publisher.

SPS was the first proteomics society to be founded (April 2001). It is a scientific society created principally to promote research and education in proteomics especially in Switzerland but not restricted to. Its main activities are to promote courses and meetings on subjects connected to proteomics, and to facilitate the exchange of scientific information between biochemists, molecular biologists, biologists, chemists, and related scientists.

To prepare an SPS’ Digest issue, currently more than 20 different journals are reviewed each month, including *Proteomics*, *Mol. Cell. Proteomics*, *J. Proteome Res.*, *Int. J. Mass*

Spectrom., *J. Am. Soc. Mass Spectrom.*, *Mass Spectrom. Rev.*, *Rapid Commun. Mass Spectrom.*, *Proc. Natl. Acad. Sci. USA*, *Nature*, *Bioinformatics*, *Electrophoresis*, *Anal. Chem.*, *J. Chromatogr. A*, *etc.* Obviously, this list is far from being exhaustive. The selection of articles is made by the SPS members through an automated web-based submission of table of contents. The first screen allows choosing the table of contents of interest (Fig. 1A). Then each article of the table of contents can be selected to be included in the SPS’ Digest issue in preparation, and a category has to be picked up from the list (Fig. 1B). Links to abstract or full text when available are provided to help the selection of the appropriate category. Currently, the list of available categories is bioinformatics, biological applications, biomedical and clinical applications, eukaryotic cells and tissues, prokaryotes, pharmacology and toxicology, protein array, protein characterization/PTMs, protein-protein interaction, quantitation, review, methodology, books, meeting, other. The members can also submit their own selection of articles to the SPS’ Digest editorial board by using the template available at <http://www.swissproteomicsociety.org/digest/template.html>

Up to now 19 issues have been released, totaling nearly 2400 articles. A web page for each SPS’ Digest issue is available from the SPS website (<http://www.swissproteomicsociety.org/digest/>), where one can also browse through the archives of previous issues. Each issue contains a summary of included journal titles and quick jumps to the list of articles in each category, with the respective numbers of articles in both cases (Fig. 2A). Then

Swiss Proteomics Society SPS Check journal's ToC

Selector [38 items / 1 page]

Latest issues [Do not forget to use the scroll when list is big]

Done (2nd check) [Do not forget to use the scroll when list is big]

Specialized journals

File of selected articles [Selected | Erase]

[A]

Choose category for articles to be included, then submit data

PROTEOMICS, Volume 5, Issue 4, 2005

38 articles in this issue

Include	Category	Article
<input type="checkbox"/>		Cover Picture: Proteomics 4/2005
<input type="checkbox"/>		Pages: published 9 Mar 2005 Abstract 10.1002/pmic.200590011
<input type="checkbox"/>		Contents: Proteomics 4/2005
<input type="checkbox"/>		Pages: published 9 Mar 2005 Abstract 10.1002/pmic.200590012
<input type="checkbox"/>		Editorial: Proteomics 4/2005 Richard J. Simpson, Akira Tsujita, Young-Ki Paik Pages: 831-839 Abstract 10.1002/pmic.200590010
<input checked="" type="checkbox"/>	Methodology	A new application of microwave technology to proteomics Hsueh-Fen Juan, Shing-Chuan Chang, Hsuan-Cheng Huang, Shui-Tain Chen Pages: 840-842 Abstract 10.1002/pmic.200401056
<input type="checkbox"/>		The development of an algorithm for the mass spectral interpretation of phosphoproteins Yupeng Zhao, Yen-Han Lin Pages: 843-845 Abstract 10.1002/pmic.200401162
<input type="checkbox"/>	Bioinformatics	Tryptic transpeptidation products observed in proteome analysis by liquid chromatography-tandem mass spectrometry Heike Schaefer, Daniel C. Chamrad, Katrin Marcus, Kai A. Reidegeld, Martin Bluggel, Helmut E. Meyer Pages: 846-852 Abstract 10.1002/pmic.200401203
<input type="checkbox"/>	Biological applications	A proteomic tool for protein identification from tandem mass spectral
<input type="checkbox"/>	Biomedical and clinical applications	
<input type="checkbox"/>	Eukaryotic Cells And Tissues	
<input type="checkbox"/>	Prokaryotes	
<input type="checkbox"/>	Pharmacology and Toxicology	
<input type="checkbox"/>	Protein Array	
<input type="checkbox"/>	Protein characterization / PTMs	
<input type="checkbox"/>	Protein-protein interaction	
<input type="checkbox"/>	Quantitation	
<input type="checkbox"/>	Review	
<input type="checkbox"/>	Methodology	
<input type="checkbox"/>	Books	
<input type="checkbox"/>	Meeting	
<input type="checkbox"/>	Other	

[B]

Figure 1. SPS’ Digest articles selection process: (A) Choice of the table of contents of interest. (B) Choice of the articles to include and selection of the relevant category.

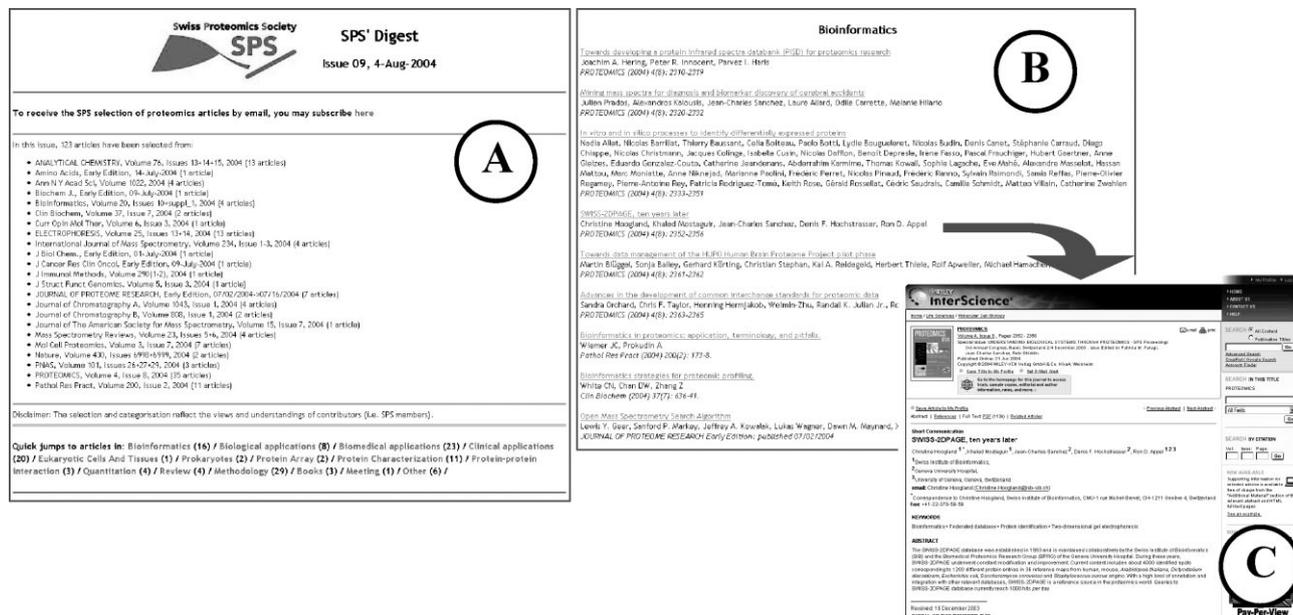


Figure 2. SPS' Digest issue example: (A) Top of the web page that summarizes the included journals and the quick jumps to the list of categories (both with the respective numbers of articles). (B) Continuation of the web page showing the list of articles of a specific category (here, Bioinformatics as an example). (C) Direct link to the publisher's website, providing at least free access to the abstract article and full content for subscribers.

follow the articles listed by categories (Fig. 2B), with direct links (Fig. 2C) to PubMed (providing free abstract access) or the publisher's website, when the full-content access is available to the subscriber. The number of selected articles in each issue varies from 78 to 214 in the delivered issues, comprising articles from 8 to 54 different journals, depending on the availability of the table of contents and on the members' contributions.

At any time, one can freely subscribe or unsubscribe to the email alert, sent after immediate release. There are currently (June 2005) nearly 420 subscribers, which clearly indicates that this initiative fulfills a need for rapid access to meaningful publications. Started earlier this year, a basic query interface is provided for searches in the SPS' Digest archives for a word or a phrase in the fields Title, Authors, Citation, Category, and/or Dates Range. This search facility is not intended to substitute PubMed queries; however, it can be helpful to retrieve papers on a particular topic during a certain period.

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- [7] <http://www.proteomicssurf.com/>
- [7] <http://proteomicssurf.com/>