Zotero: A bibliographic assistant to researcher

Sir,
Common mistakes such as 'references are outdated', 'references not in the prescribed format', 'incomplete references' and 'volume and year are missing' pointed out by reviewers of many journals are not difficult to avoid. The citations are the backbone of any article. Supporting the content of a manuscript with proper references plays an important role in its acceptance. References also help us trace the origin of a study or its methods being adopted. Hence, the accuracy of references in the manuscripts being submitted to journals is an important issue and it contributes to the quality of article. Though, there are plenty of software packages available for managing bibliographies,[1-3] they are often unaffordable by a student researcher. Hence, alternate free open access software is the need of time. In this article, a free inbuilt Firefox plugin exclusively for managing citations is discussed and recommended as it works similar to Endnote or other bibliographic managers. We describe a free Firefox[4] plugin "Zotero"[5,6] which does almost everything which a paid

bibliography manager does. It is available freely and could be easily downloaded from https://addons.mozilla.org/en-US/firefox/addon/zotero/; www.zotero.org.

Zotero acts as a personal research assistant within the Firefox browser. Many interesting features are available, such as automatic capture of citation information from web pages, storage of portable document format (PDF), files, images, links, and whole web pages, including saved searches and tag them for better understanding and identification.

Zotero is powered with different formatted citation export options with many publishers and journal styles integrated in it. Updated version is also available which integrates with MS Word or OpenOffice.org by using a simple word plugin (could be downloaded from http://www.zotero.org/support/word_processor_plugin_installation) a detailed explanation is available at this link: http://www.youtube.com/watch?v = aMkccKZ0Hio and feature = player_embedded#at = 51.

Figure 1: Install Firefox plugin: https://addons.mozilla.org/en-US/fi refox/addon/zotero/, Visit journal page and identify contents having DOI

Figure 2: Click blue/folder icon in address bar to capture the citations

Figure 3: Select one or multiple citations to save zotero

In addition to this, Zotero synchronizes and back up saved research library to its website www.zotero.org. A user account could be easily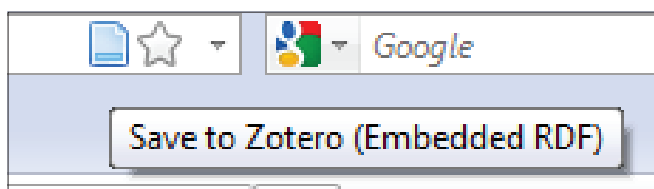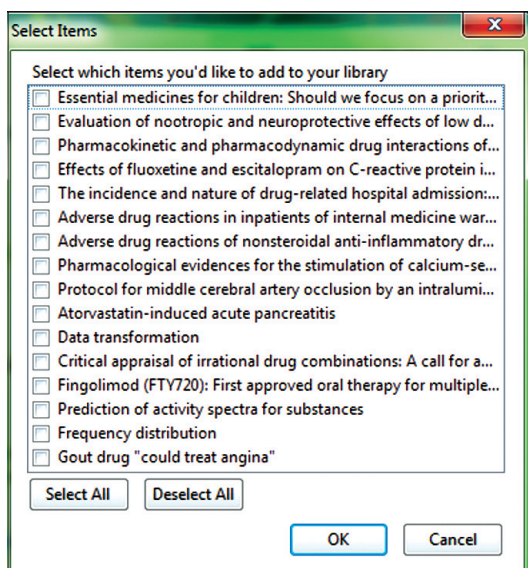 created to get connected and save it online. With this account one can create and share public or private research groups to collaborate with other Zotero users.

Many journals are now published with DOIs (Digital Object Identifiers) assigned with Crossref and PMID (PubMed Identification numbers) for PubMed indexed journals. The citations can be directly imported into Zotero database using DOI, PMID or ISBN (in case of books). DOIs are basically alphanumeric strings assigned to digital objects. Each DOI is unique and, once assigned to an item, remains a constant locator, not changing even as object moves from URL to URL.[7] Zotero can capture citations from other websites like PubMed, Google scholar, amazon.com, or web page of a journal, which has DOI, PMID, ISBN displayed in it. Further, it retrieves the citation information directly from Crossref or PubMed database. As an example, we have demonstrated the utilization of Zotero in retrieving citations from Journal of Pharmacology and Pharmacotherapeutics website. We have chosen Jan-Mar, 2011 issue for this purpose by using snipping tool for better understanding [Figures 1-6].

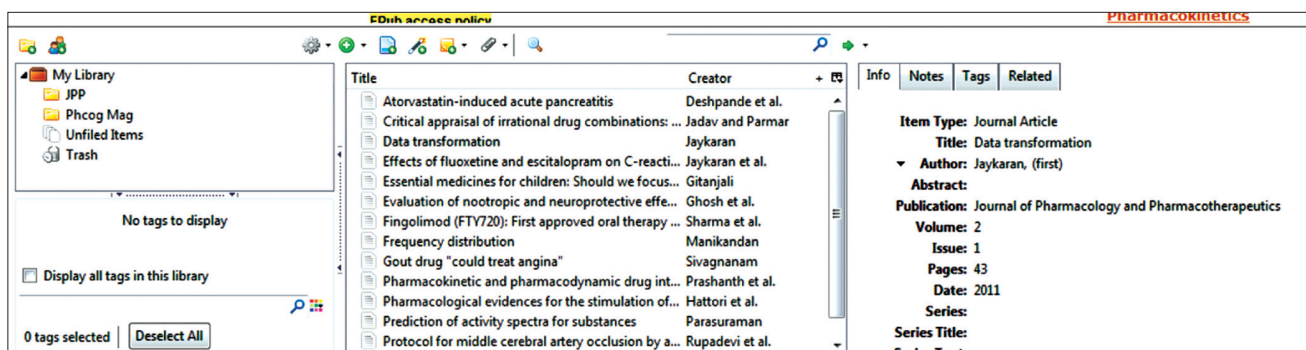**Zotero resources**

- Firefox plugin: https://addons.mozilla.org/en-US/firefox/addon/zotero/

Figure 4: Zotero panel for organizing citations in a specified folder
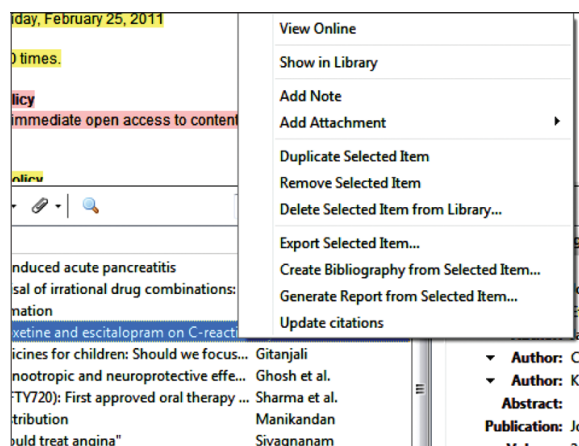

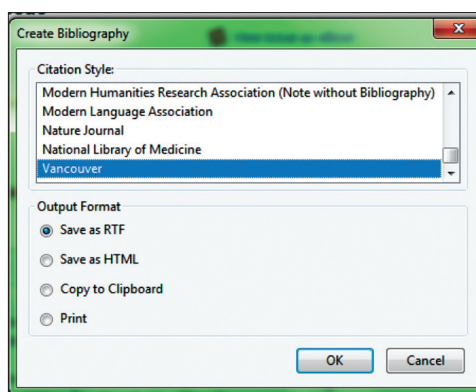**Figure 5:** Select one or multiple citations to export or create bibliography

Figure 6: Select the required output of citation and generate citations in seconds. Note: Zotero repository has specific citation styles for many journals, visit http://www.zotero.org/styles

- Zotero site: www.zotero.org;
- Zotero tutorials: http://youtu.be/PgwMggLg71M; http://youtu.be/__V_9Uoj7yY

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