Reviewer's report

Title: TM-MC: a database of medicinal materials and chemical compounds in traditional medicine

Version: 2 Date: 4 May 2015

Reviewer: Fidele Ntie-Kang

Reviewer's report:

Major compulsory revisions:

1. The title of this manuscript is quite misleading. The database seems to be focused on Korean, Japanese and Chinese traditional medicine. Thus, it does not contain compounds from plants used in traditional medicine elsewhere, e.g. African traditional medicine, Latin American traditional medicine, etc. I therefore suggest the authors adjust the title to take this into consideration.

2. In the introduction, the authors seem to focus a lot on traditional medicinal databases from South East Asia and do not mention databases from elsewhere, e.g. from South America (J Nat Prod 2013, 76: 439), Africa (Ntie-Kang et al. BMC Complement Altern Med 2013, 13, 88; Ntie-Kang et al. RSC Adv., 2014, 4, 409; Ntie-Kang et al. PLoS One 2013, 8: 10e78085, Ntie-Kang et al. PLoS One 2014, 93: e90655, Ntie-Kang et al. J Chem Inf Model 2014, 54: 2433), databases for plant-based molecules against cancer (Nucleic Acids Res 2013, 41: D1124), anti-mycobacterial infections (Journal of Cheminformatics 2014, 6: 46), etc. These are examples of databases of natural products derived from plants used in traditional medicine elsewhere in the world, which are completely ignored by the authors of this manuscript.

3. The authors are advised to consult the instructions to authors of this journal and harmonize the reference list accordingly, e.g. complete the list of authors wherever et al. Is used (refs 1 and 3), titles in bold, journal titles in italics, commas between year and volume, full page range, etc. The text book references should also be double checked.

4. The downloadable version of the TC-MC database is an OWL file (6 MB). Have the authors verified whether the current version is accessible to a wide range of potential users? Otherwise, could the authors provide advice on this?

5. In looking through the database, plant pictures are absent. What do the authors plan to do about this?

6. In general, research groups interested in computer-aided molecular design and virtual screening seek for databases with 3D structures. This is absent in the TC-MC database. Do the authors have any future plans for developing 3D libraries based on information in this database?

7. Could the authors provide any information on whether the compounds in the TC-MC database could be purchasable?
Minor Essential Revisions:

1. It may be more useful to the readers if the list of abbreviations could be arranged in alphabetical order.

2. In the database, plant names do not follow the standard systematic for scientific names, i.e. genus name beginning with upper case and species name in lower case letters. This could be misleading to ordinary users.

Discretionary Revisions:

Much of the contents of the online version of the TC-MC database are word verbatim with the content of the manuscript. Will this not be considered as self-plagiarism? The authors would do well by rephrasing much of the contents of this manuscript in order to avoid this.

**Level of interest:** An exceptional article

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

None declared