Author's response to reviews

Title: alpha-Glucosidase inhibition, antioxidant and antibacterial activities of two medicinal plants used in Benin as folk medicine

Authors:

Fifa TD Bothon (bothon2006@hotmail.com)
Eric Debiton (eric.debiton@inserm.fr)
Felicien Avlessi (felicien.avlessi@epac.uac.bj)
Christiane Forestier (christiane.forestier@udamail.fr)
Jean-Claude Teulade (j-claude.teulade@u-clermont1.fr)
Dominique KC Sohounhloue (ksohoun@bj.refer.org)

Version: 3 Date: 28 November 2012

Author's response to reviews: see over
Dear Sir,

Please find enclosed our revised manuscript now entitled “In vitro biological effects of two anti-diabetic medicinal plants used in Benin as folk medicine” for publication as a full length article. As recommended, this corrected version was read and corrected by a native English speaking colleague Mr William Tottey (Irish people). Moreover, the title and the discussion part was partly re-written.

Please find below the answers to the referees’ comments.

Yours Sincerely,

E. Debiton
Comments and point-by-point responses

Reviewer 1:

1. These activities, from our knowledge, were not reported yet. Only molluscicidal, and antiplasmodial properties of *Polygonum senegalensis* were previously reported\(^1\)\(^-\)\(^2\) and in the later case, only the exudates was tested. For *Pseudocedrela kotschyi*, anti-microbial, analgesic, antiplasmodial, and antiprotozoal effect were assayed previously\(^3\)\(^-\)\(^7\). For this later plant, as mentioned in the discussion part of our paper, an extract was demonstrated to decrease the blood glucose content in vivo without any clue about the pharmacological mechanism\(^8\). Then, we consider that our results have sufficient novelty to be published in this journal.

As mentioned in the discussion part, the identification of the active component(s) by biological effect-guided fractionation is in progress but is out of the scope of this article. It will be published later.

\(^1\)Saifuddin Dossaji, Isao Kubo. Quercetin 3-(2″-galloylglucoside), a molluscicidal flavonoid from *Polygonum senegalensis*. *Phytochemistry* 1980, 19, (3), 482-482

\(^2\)Midiwo, Jacob O.; Omoto, Fidilia M.; Yenesew, Abiy; Akala, Hosea M.; Wangui, Julia; Liyala, Pamela; Wasunna, Christine; Waters, Norman C.. The first 9-hydroxyhomoisoflavanone, and antiplasmodial chalcones, from the aerial exudates of *Polygonum senegalensis*. 2007, 9, 21-27


\(^7\)Anne-Emmanuelle Hay, Jean-Robert Ioset, Kouassi Maximin Ahua, Drissa Diallo, Reto Brun, Kurt Hostettmann, Limonoid Orthoacetates and Antiprotozoal Compounds from the Roots of *Pseudocedrela kotschyi*. *Journal of Natural Products* 2007, 70(1), 9-13

\(^8\)Udeme O. Georgewill, Owunari A. Georgewill, Effect of extract of *Pseudocedrela kotschyi* on blood glucose concentration of alloxan induced diabetic albino rats Eastern. *Journal of Medicine*, 2009, 14, 17-19
2. The re-written discussion part of the article mentioned now this hypothesis. We shared totally the point of view of the reviewer, but we have any proof at this time.

3. We did not make concomitantly pure antibiotic molecules. But, Dr Forrestier (co-author responsible for studying the anti-bacterial effect) indicated that in the test used here, pure antibiotics are positive in the range of µg/ml (personal communication). The independent patterns of response observed here between the microorganisms are sufficient to our point of view to validate our data.

4. All the minor revisions asked was all considered and revised in this new version.

Reviewer 2:

The title was changed into “In vitro biological effects of two anti-diabetic medicinal plants used in Benin as folk medicine”.

All the language corrections were considered and the style of written English was improved by our native English speaking colleague.

French labeling in Figure 1 was translated.

Reviewer 3:

1. The methodology used was referenced to the original method article when possible.
2. The discussion was re-written extensively and we hope that it will be satisfactory.
3. The reference #9 in French is from a Scopus- or Embase-indexed French publication from Springer editor.