

Instructions to Authors

Aims and Scope

The following areas are covered:

Clinical, pharmacological, molecular/genomic, pharmacokinetic and bioavailability studies of standardized plant extracts, fractions, isolated constituents and phytopharmaceuticals thereof having significant bioactivities or could be promising candidates for further thorough pharmacological and clinical studies.

1. Basic and stringent Requirements for consideration of submitted papers:

The standardisation of all above listed plant materials used for the investigations, has to be carried out by means of HPLC, HPLC/MS or HPLC/NMR-fingerprinting inclusive the identification and quantitation of the main bioactive compounds which are or might be responsible for pharmacological activities. The methods have to be described in details: apparatus, columns, solvent systems, gradient, flow rate, detection etc. If the authors do not possess the required analytical equipment or expertise, they are asked to seek cooperation with a phytochemical laboratory. For all plant materials used in investigations stated as derived from cultivated plants or from their natural origin, voucher specimens must be deposited in a specific location with a voucher number. The site (GPS coordinates) and date of collection, with the part(s) used in the study, have to be documented. Without phytochemical standardisation of the plant extracts, the results presented cannot be pharmacologically reproduced and are not acceptable for experimental and clinical studies.

Note: With immediate effect Phytomedicine will only accept two revisions of a manuscript.

2. The following areas have a restricted scope within Phytomedicine:

- Papers on the isolation and structure elucidation of novel bioactive compounds or the development of new analytical methods do not fall into the scope of Phytomedicine and should be reported elsewhere (e.g. Phytochemistry, Journal of Chromatography or Phytochemical Analysis). Extraordinary pharmacological and clinical studies of these novel natural products, however, are welcome.
- Screening results of a large number of plant extracts or plant constituents for antimicrobial

or other pharmacological activities will not be considered unless they are focused on those plants or constituents which show extraordinary activities in comparison with internationally accepted positive (reference) compounds.

- “Dietary Supplements”, “Botanicals” or “Functional Food” are not within the scope of Phytomedicine unless they are standardized and pharmacologically investigated analogue to herbal drugs and if the evidences presented are comparable to therapeutic outcomes of a positive control.

Clinical Studies

- Clinical studies must be designed, implemented and analyzed in a manner to meet current standards for clinical trials (GCP = Good Clinical Practice), which are equivalent to those required for synthetic drugs.
- For guidelines and necessary information see the following internet address: www.consort-statement.org with the “Revised Recommendations for Improving the Quality of Reports of Parallel-Group Randomized Trials” which provides links for downloading the Consort Statement and a checklist as well as explanatory and laboratory documents. Extensions of the Consort Statement for different types of trials including Herbal Medical Interventions are provided. (The Consort Statement is available in 10 different languages).
- Clinical studies must be approved by an Institutional Ethics Committee or its equivalent and it must be stated in the Method section that the research followed the guidelines of the Declaration of Helsinki and Tokyo for humans.

Pharmacological and molecular biological studies (*in vitro*, *ex vivo* or *in vivo*)

- Investigations with animals must state in the method section that the research was conducted in accordance with the internationally accepted principles for laboratory animal use and care with stating the guidelines (e.g. European community guidelines/ EEC Directive of 1986 or the US guidelines/ NIH publication)
- Results have to be based on adequate statistics. Positive controls (reference/

standard compounds) and at least three dose responses for conventional pharmacological experiments have to be included.

- Many polyphenolic- and terpenoids containing plant extracts exhibit polyvalent (pleiotropic) activities. Such extracts are of interest for further thorough pharmacological and therapeutic investigations only if one or two pharmacological activities are dominant and justify the therapeutic application for specified indications.
- Pharmacological studies with herbal drug combinations (e.g. 2–5 plants) will be accepted only if the single herbal extracts are HPLC-finger printed and their major bioactive constituents are quantified before the single extracts are mixed (combined) (see also as an example for the 3D-HPLC-analysis of multidrug combinations Amagaya S. et al., 2001, *Phytomedicine* 8, 338–342.).
- Two plant extracts or a single constituent of these combined with a synthetic drug or antibiotic which are suggested to exhibit synergistic effects have to be investigated by the “isobol method” according to Berenbaum M. 1989, *Pharmacol.Rev.* 41: 93-141 (see also Wagner H. and Ulrich-Merzenich G. Synergy research: Approaching a new generation of phyto-Pharmaceuticals *Phytomedicine* 16: 97-110 (2009).
- Antimicrobial evaluation of plants are of scientific value only if these plant extracts show extraordinary biological activities in comparison with a synthetic or natural antimicrobial agent standard. It is not useful if the in vitro activity (MIC) of an extract exceeds 100µg/ml. For the correct determination of MIC values, see Eloff J.N., 2004, *Phytomedicine* 11: 3701.
- Papers which describe classes of pharmacological activities such as flavonoids with antioxidative activity and isoflavones with estrogenic antiinflammatory activity, will be accepted only if the activities presented exceed those of standard substances and could be promising candidates for further pharmacological and clinical investigations.
- All papers reporting gene expression profiling data
- (microarray experiments) should comply with the Minimum Information about microarray experiments (MIAME) standard: (www.mged.org/Workgroups/MIAME/miame.html).

At least two **microarrays** should be provided for each experimental condition. Results of selected genes should be validated by a second method

(e.g. RT-PCR) or protein data should be provided. In addition functional test (animal experiments/ clinical data) undertaken simultaneously are desirable to allow an appraisalment of the biological/clinical relevance of the data. Alternatively, results of in vivo experiments with comparable dosages can be discussed. The presentation of a sole data collection is not acceptable. Biologically relevant information should be presented.

Gene nomenclature

Authors should use approved nomenclature for gene symbols. Please consult the appropriate nomenclature data bases for correct gene names and symbols. “Entrez Gene” is a useful resource. Approved human gene symbols are provided by HUGO Gene Nomenclature committee (HGNC):

www.gene.ucl.ac.uk/nomenclature Approved Mouse symbols are provided by The Jackson Laboratory:

www.informatics.jax.org/mgihome/nomen

Approved C. elegans symbols are provided by Caenorhabditis Genetics Center:

<http://www.cbs.unmn.edu/CGC/Nomenclature/nomenguid.htm>

For approved S. cerevisiae and S.pombe

Symbols see:

<http://yeastgenome.org/help/yeastGeneNomenclature.shtml>

and respectively:

www.sanger.ac.uk/Projects/S_pombe/SP_Name_FAQ.shtml

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Prevention of Plagiarism

Contributions are accepted on the understanding that the authors have obtained the necessary authority for publication. Submission of multi-authored manuscripts implies the consent of each

of the authors. The publisher will assume that the senior or corresponding author has specifically obtained the approval of all other co-authors to submit the article to this journal. Submission of an article is understood to imply that it is not being considered for publication elsewhere and that the author(s) permission to publish his/her article in this journal implies the exclusive authorization to the publisher to deal with all issues concerning copyright therein. Further information on copyright can be found on the Elsevier website.

Preparation and Format of manuscripts

Manuscripts submitted to Phytomedicine should be structured in the following manner:

Title: Full **author names** referenced by arabic superscripts with affiliation and addresses of all authors, e.g. A. Hymele^a, T.H. Iversen^a, J. Rohloff^{a*}, B. Erho^b

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^bInstitute of Pathobiology, Addis Ababa University P.O. 1176; Addis Abeba, Ethiopia

*The phone, fax and email address of the corresponding author should be placed on the cover page.

An **Abstract** should contain brief information on purpose, methods, results and conclusions in no more than 1000 words.

Keywords: Not more than six words

A section of **abbreviations** should precede the manuscript with molecular biological content (see also section "microarray data")

Introduction

Materials and Methods

Results

Discussion

A combined **Results and Discussion section** may also be appropriate.

Acknowledgement

Literature citations should appear parenthetically in the text as the last name of the author and year of publication, such as (Wagner, 1992), (Smith and Peters, 1991) or (Johnson et al., 1987). Citations should be presented in the bibliography alphabetically by author names and if two or more publications are used by the same authors and the same year of publication, lower case letters following the year of publication should distinguish them, e.g. (Smith, 1990a, b), (Gunter and Miller 1990b) etc.

The correct citation in the bibliography is e.g.

Brown, J.H., Tylor P., 1996. Muscarine receptor agonist and antagonists. In: Hardman, J.G., Limbird, L.E. (Eds.), Goodman & Gilman's The Pharmacological Basis of Therapeutics. McGraw-Hill, New York, pp. 141–160.

Liu, C.D., Kwan, D., Saxton, R.E., McFadden, D.W., 2000. Hypericin and photodynamic therapy decreases human pancreatic cancer in vitro and in vivo. *J. Surgical Res.* 93, 137–143.

Nomenclatur of plant materials have to be studied:

The most recent botanically accepted Latin binominal(s), with authorities, of the plant(s) used must be given, together with accepted synonymy, if appropriate. Vernacular names should also be given for plants used in the study. Data on plants not identified to the species level will not be accepted.

Abbreviations: See "Uniform requirements for manuscripts submitted to biomedical journals" (1991) *New England Journal of Medicine* 324:424–428.

Typewriting, Figures and Tables: The manuscript has to be written in the English language. Typewritten manuscripts should be double-spaced.

Text, including italics and bold characters, should be saved as Word or WordPerfect .rtf or .doc documents for Windows.

Figures and Tables: The maximum type area is 17 cm (6.7 inch) width and 22.5 cm (8.9 inch) height. Figures must be clearly lettered and suitable for reproduction to fit either one column width (8.2 cm or 3.2 inch) or two-columns width (17 cm or 6.7 inch). In addition to the printed version figures and tables can be supplied in digital format (EPS, TIFF, JPG or PPT and XLS format, final resolution 300 dpi for halftones, 1270 dpi for black/white line drawings).

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Label each figure with figure number. Figures should be cited in the text as Fig. 1 or Figs. 1 and 2. Figures should be placed after the References (and Appendices, if any) in the manuscript. They should be preceded by the figure legends on a separate page. Indicate in the margins of the manuscript where figures should be placed. Tables should be prepared so that they can be printed in one column or full page width (see above). Tables should be submitted at the end of the manuscript, placed on separate pages, double spaced and numbered sequentially. Indicate in the margins of the manuscript where tables should be placed. Tables should be cited in the text as Table 1 or Table 1 and 2. Tables containing a great amount of pharmacological data should be better presented as instructive graphs.

Graphical Abstract

Authors are requested to supply a graphical abstract for all types of articles at the time of the first submission. The graphic should be representative of the central message of the paper in a concise pictorial form. The dimension of the graphical abstract are: 5 cm by 17 cm and 200 x 500 pixels. Authors must supply the graphic separately as a digital file. For an example of a graphical abstract please click [here](#).

Language Editing

“Phytomedicine” publishes papers in clear and grammatically correct English, in as much as they are pertinent to the area of interest of the journal and conform to the specifications mentioned above. Authors who require information about language editing and copyediting services pre- and post-submission please visit: www.elsevier.com/locate/languagepolishing or our customer support site at <http://epsupport.elsevier.com>

Types of Manuscripts

Original Papers

The papers should contain not more than **12–15 typewritten pages** or up to **5,000 words**, including references, tables and figures. Previously reported methods should be referenced only. The number of references should not exceed 30 (except for review articles or reports on microarray data).

Short Communications

They should be condensed to **4–8 typewritten pages** or not more than **2,500 words** including references and a maximum of two illustrations.

Review Articles

Review articles will only be by invitation. Review articles can provide concise and critical updates on a subject of current interest. Herbal drug-monographs are only acceptable if they contain the newest pharmacological and toxicological issues and an outlook on future directions.

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