PREPARATION OF MANUSCRIPTS FOR THE REVISTA PRODUCTOS NATURALES (ISSN 1916-2413)

Manuscripts can be written in Spanish or English, in both cases with a title and abstract in both languages. Manuscripts prepared in Microsoft Word 2004 or higher (Win/Mac), Apple Pages, or OpenOffice, double-spaced and in "Times New Roman" font, can be submitted. It is recommended to use the "RevProdNat.dotx", template and the "RevProdNat.ens", style, which can be downloaded and saved in the "Templates" and "Styles" folders, respectively, of the EndNote X or EndNote 20 software. These will facilitate the preparation of the manuscript and the management of citations and bibliographic references, tables, and figures.
The template is divided into four sections containing the following parts:

1. Cover letter
2. Abstract and resumen
3. Body of the manuscript
4. References, Figures, and Tables

All sections are written double-spaced, except for the references.

COVER LETTER

Contains the title in Spanish and English (Times New Roman, 16 points, Uppercase), names of the authors (First and Last Names, Times New Roman, 12 points, Lowercase), and institutional affiliation data (Times New Roman, 12 points, Lowercase). If the authors belong to different institutions, they should be referenced with superscript numbers. The corresponding author is highlighted with an asterisk.
The title should use a maximum of 15 words or 100 characters. Expressions like "Chemical evaluation of...", "Study...", "Research...", "Examination of...", etc., should be avoided as much as possible. The taxonomic authority in scientific names is omitted in the title.

ABSTRACT AND RESUMEN

When writing the abstract in English, select the language "English (US)" and for the resumen, select the language "Español Internacional". In both cases, it should be concise, detailing in a single paragraph the problem, method, major findings, and conclusions. It should not exceed 150 words.
This section also includes Keywords (English) and palabras clave (Spanish). Up to six keywords can be written, following the order: scientific name of plants, animals, fungi, or microorganisms (Binomial system), family, biological activity, class of compounds, proteins or genes, compound name(s).

BODY OF THE MANUSCRIPT

The IMRAD organization (Introduction, Methods, Results, and Discussion) is used. The only difference is the change of Methods to Experimental Section. Acknowledgments are included at the end.

INTRODUCTION

Presents the study's relationships with previously published works, without reiterating or attempting a complete literature review. It should provide the minimum historical data to

contextualize the author's research and its relationships with other similar previously conducted research. It should clearly and concisely express the purpose of the research, its significance, originality, or contribution to new knowledge in the area.

EXPERIMENTAL SECTION

The purpose of this section is to describe and defend the experimental design; thus, sufficient details should be provided so that any colleague can repeat the experiments. This reproducibility is particularly important as it is the cornerstone of the scientific method. Another purpose is to allow readers (including peer reviewers) to judge the appropriateness of the experimental methods, the validity of the results, and assess the extent to which they can be generalized. When the manuscript is submitted for peer review, the experimental section is read carefully, and if there are serious doubts about the reproducibility of the experiments, the reviewers will recommend rejecting the manuscript, regardless of how impressive the results are.

The subtitles of this section are written in lowercase and bold. As much as possible, construct the subtitles to match those used in the results and discussion. Do not mix some results in this section. Thus, writing the two sections will be easier, consistent, and readers will easily find the relationships of a particular method to the results. Some applicable subtitles are:

General experimental procedures

This subtitle includes details of the instruments used, specialized reagents, and biochemical or molecular biology kits used, indicating the brand, city, and country, without including catalog numbers. The general order is as follows: melting points, specific optical rotation, UV-VIS spectra, circular dichroism (CD) spectra, FTIR spectra, nuclear magnetic resonance (NMR) spectra, mass spectra (MS), chromatographic techniques (HPLC, GC, CE), and other techniques. It is recommended to use common abbreviations from the international literature in their English version, both for techniques and reagents.

Biological material

Here, the sources and documentation of the biological materials used are described, such as the whole plant or parts of the plant, raw drugs, or any other plant, animal, fungus, or microorganism material from which new substances were obtained and identified. The documentation should include the reference to collection specimens and herbarium numbers (voucher number) of the plants and other analyzed materials. The specimens should preferably be deposited in major regional herbaria where collections are maintained by the state or private institutions that allow the loan of such materials. For microorganisms, the documentation should include the collection culture from which they were obtained or to which they were deposited, along with the strain designation code.

The scientific names (*Genus species* Authority) of all experimented plants, animals, fungi, or microorganisms should be written in full at the first appearance, according to the "Index Kewensis" (www.ipni.org) and preferably in the form recommended by the "International Code of Botanical Nomenclature". If the organism is not identified to the specific epithet, the

manuscript is not accepted unless a witness specimen is deposited in a recognized herbarium and with an expert taxonomist in the particular group of organisms. The taxonomist will assign a unique identification number to the specimen and write a brief taxonomic description to include in the manuscript (supporting material). If DNA sequencing is used, these data should be deposited in "GenBank". Additionally, photographs can be attached as supporting material.

Biological activity assays

If only one type of biological activity is reported, the word biological can be replaced by the corresponding activity (antioxidant, antibacterial, etc.). If several biological activity assays are reported, third-level subtitles can be used, in normal lowercase. If a new assay method is presented, all necessary details should be described. If significant variations to previously reported methods are reported, the literature references should be cited, and the modifications made should be emphasized. If the method is commonly used, it should be referenced, and details omitted. If the results come from mathematical treatment, it should be described here with the corresponding equations. The statistical processing should also be briefly expressed.

Manuscripts involving experiments with animals or humans should include a statement of compliance with appropriate laws and institutional guidelines issued by the institutional ethics committee that approved the experiments.

Extraction and purification

This subtitle describes the processes of extraction, fractionation, preparative chromatography, monitoring by TLC or spectroscopic, including the masses of starting material, intermediate fractions, and pure compounds obtained. Pure compounds should be referenced with bold numbers without parentheses when the name is not indicated and in parentheses when preceded by the name. For example: HPLC purification of fraction C produced compounds **1** (2 mg), **5** (23 mg), and **8** (5 mg) or HPLC purification of fraction C produced kaempferol (**1**) (2 mg), quercetin (**5**) (23 mg), and caffeic acid (**8**) (5 mg).

Compound characterization

If previously isolated and characterized compounds are reported in another article, the bibliographic reference should be cited. If new data are reported, such as spectra in different solvents that confirm doubtful assignments of a known substance, they should be detailed here in the same way as the data of substances described for the first time. The order should be as shown in the following hypothetical example (the values in each technique correspond to different compounds):

Compound name (Number assigned in the text)

Physical state of the compound (oil, crystal, colorless liquid, amorphous powder, etc.); melting or boiling point (mp 175-176 ºC); molecular formula ($C_{68}H_{50}O_{44}$), HPLC NP-1 t_R: 19.4 min, RP-1 t_R: 8.4 min., specific optical rotation ($[\alpha]^{27}_D$ +86.5º (c= 1.0, MeOH); UV-VIS (MeOH) λ_{max} nm (log ε): 217(5.29), 274(4.91); circular dichroism CD (c = 0.01, MeOH): [θ]227 +3.32 x 105, [θ]238 +2.36 x 105, [θ]261 -7.98 x 104, [θ]282 +4.52 x 104, [θ]310 -1.67 x 104; IR (KBr) $\overline{\nu}_{max}$ (cm^{-1}): 3430, 2924, 2861, 1632, 1313, 1158, 1077, 809, 621; ^{1}H-NMR (KBr) max (cm^{-1}):

3430, 2924, 2861, 1632, 1313, 1158, 1077, 809, 621; ^{1}H-NMR (Acetone-d_6 + D_2O) δ: 7.16, 7.14 (1H each, s, galloyl H-2,6), 6.72, 6.44 (1H each, s, HHDP H-3,3`), 6.18 (1H, d, *J* = 8.5, H-1), 5.24 (1H, t, *J* = 9.5, H-3), 5.06 (1H, dd, *J* = 8.5, 9.6, H-2), 4.63 (1H, dd, *J* = 12.0, 1.0, Ha-6), 4.51 (1H, dd, *J* = 12.0, 5.0, Hb-6), 4.11 (1H, ddd, *J* = 9.5, 5.0, 1.0, H-5), 4.05 (1H, t, *J* = 9.5, H-4); 13C-NMR (Pyridine-d_5) : Aglycone, 106.7 (C-1), 164.3 (C-2), 91.6 (C-3), 166.7 (C-4), 96.8 (C-5), 162.8 (C-6), 202.8 (C=O), 32.3 (CH3-CO-), 55.0 (CH3-O-), glucose residue, 100.8 (C-1´), 74.1 (C-2´), 77.9 (C-3´), 70.6 (C-4´), 78.6 (C-5´), 61.7 (C-6´); EIMS (70 eV) *m/z* (% int rel) [ion]$^{+}$: 323 (98) [M]$^{+}$, 308 (28) [M-CH3]$^{+}$, etc.; HREIMS *m/z* 323.1152 (calc for $C_{19}H_{17}O_4N$, 323.1158).

Nuclear magnetic resonance data can be presented in tables in the results and discussion section, as appropriate. For further illustration, see the tables, figures, and photographs section. Data from the tables should not be repeated in the experimental section, compound characterization.

RESULTS AND DISCUSSION

This is the central part of the manuscript where the data (observed facts) are presented and their significance is analyzed. The data can be presented in tables, figures, schemes, or photographs designed to optimize their understanding. The main purpose of the discussion is to reveal the relationships between the observed facts and their concordance or discrepancy with previously reported facts, strictly supporting them with evidence, avoiding speculation.

The following are some essential characteristics of a good discussion. 1) Present the principles, relationships, and generalizations shown by the results, keeping in mind that the results are discussed and not recapitulated. 2) Point out some exceptions or losses of correlation and define the discrepant points. Do not take the highly risky alternative of covering up or disguising irregular data. 3) Show how your results fit or contrast with previously published works. 4) Discuss the theoretical implications, as well as some practical applications of your work. 5) Explain your conclusions as clearly and concisely as possible. 6) Summarize the evidence for each conclusion.

The subtitles of this section are written in lowercase and bold. As much as possible, they should match those used in the experimental section.

Acknowledgments

There is always time and space for courtesy and public recognition for those people and entities that made significant contributions to the research work. In this section, include essential credits for financial support, scientific and technical assistance, keeping the length to a minimum.

CITATIONS AND REFERENCES

There are two general rules to follow in the references section: 1) only significant published references should be listed, and 2) review all parts of each reference against the original publication before submitting the manuscript and even at the proof stage. References to unpublished data, abstracts, theses, and other secondary sources should be avoided in this section. If such references are essential, they can be added in parentheses. Articles accepted for publication can be cited in the literature indicating the URL or the Digital Object

Identifier (DOI: Digital Object Identifier). If you use EndNote software, you can enter the DOI in the "Electronic Resource Number" field.
References to the literature, regardless of their nature, should be numbered in order of appearance in the manuscript and cited in the text with superscript italics in brackets as follows: single citation [1] or multiple citations [4-6]. Authors are responsible for the accuracy of all cited references.
The main types of primary sources are articles and books published in print or online. Below are some examples of citations and references for these two types of sources:

Printed serial publications
Citation: Compound 1, isolated from the methanolic extract of Polygala hongkongensis Hemsl, was identified as 6'-methoxy-8-hydroxy-3-(4-hydroxyphenyl)isocoumarin-1-one and named hongkogenin[1].

Online serial publications
Citation: The first example of a biflavonoid with an interflavone C6-C6" linkage was found in the methanolic extract of the leaves of *Miconia cabucu* Hoehne (Melastomataceae)[2].

Books
Citation: Goma Santana is a high molecular weight microbial gum prepared by the action of *Xanthomonas campestris* on appropriate carbohydrates[3].

Book section or chapter
Citation: Given the intrinsic tendency of phenolic nuclei to develop molecular interactions, it is not surprising that examples of flavonoid-protein complexation are numerous and concern a wide variety of proteins[4].

References
[1] WU, J. F., et al. (2007). Antioxidants and a new dihydroisocoumarins from Polygala hongkongensis Hemsl. Nat Prod Res., 21(7): 580-584.
[2] RODRIGUES, J., et al. An unusual C6-C6'' linked flavonoid from Miconia cabucu (Melastomataceae). Phytochemistry, In Press, Corrected Proof. doi:10.1016/j.phytochem.2007.04.020
[3] ROBBERS, J. E., et al. Pharmacognosy and Pharmacobiotechnology. 1st Ed. Baltimore: Williams & Wilkins, (1996). 337 p.
[4] DANGLES, O. and DUFOUR, C. Flavonoid-Protein Interactions. In: ANDERSEN, O. M. and MARKHAM, K. R. Flavonoids: Chemistry, Biochemistry and Applications. Boca Raton: CRC, (2006). p. 443-469.

PREPARATION OF TABLES, FIGURES, AND PHOTOGRAPHS
In general, results can be presented in tables, figures, and photographs. Tables can be prepared based on examples from journals such as "Phytochemistry", "Journal of Natural Products", "Phytomedicine", "Journal of Agriculture and Food Chemistry", "Chemical and

Pharmaceutical Bulletin", or "Journal of Ethnopharmacology". Table descriptions are placed at the top as in the following example:

Table 2. Inhibitory effect of compounds 1-5 and the reference compound Celecoxib on COX-1 and COX-2 activity.

Compound	IC50 COX-1	IC50 COX-2	IC50 COX-1/ IC50 COX-2	IC50 COX-2/ IC50 COX-1
1				
2				
3				
4				
Celecoxib				

The presentation of nuclear magnetic resonance and X-ray data can be done in tables following examples given in the following references:
Chem. Pharm. Bull. 55(3) 376—381 (2007)
Journal of Natural Products. 70(1):10A—15A (2007)
Figures and photographs can be prepared for one column or two columns, so that they fit within the following measurements:

	Una columna	Dos columnas
Ancho mínimo	11 cm	17.5 cm
Ancho máximo	8.5 cm	
Altura máxima	22 cm	

Figures and photographs can be saved in one of the following formats:
EPS (preferred format for diagrams)
PDF (also especially available for diagrams)
PNG (preferred format for photos or images)
TIFF
Black and white line figures 1200 dpi
Grayscale figures 600 dpi
Color photographs or figures 300 dpi
JPEG
BMP
CDX (ChemDraw)
TGF (ISIS/Draw)
Chemical structures should be prepared with software such as ChemDraw or Isis/Draw using the following preferences:

1. Drawing settings

chain angle 120°
bond spacing 18% of width
fixed length 14.4 pt (0.508 cm, 0.2 in.)
bold width 2.0 pt (0.071 cm, 0.0278 in.)
line width 0.6 pt (0.021 cm, 0.0084 in.)

margin width 1.6 pt (0.056 cm, 0.0222 in.)
hash spacing 2.5 pt (0.088 cm, 0.0347 in.)
2. Text setting:
font Arial/Helvetica
size 10 pt
3. Preferences:
units points
tolerances 3 pixels
4. Page setup:
Paper: US Letter
Scale: 100%