Instructions for Authors

The **Roumanian Biotechnological Letters** (ISSN 1224-5984) provides rapid publication of papers on biotechnology and applied molecular biology. The Journal welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence. Papers will be published approximately one to two months after acceptance.

Electronic submission of manuscripts is strongly encouraged, provided that the text, tables, and figures are included in a single Microsoft Word file (preferably in TimesNewRoman font, 12 pts).

Disk. Manuscripts and illustration may be submitted on computer diskettes 3.5" Double density IBM or PC – compatible. In such case send the disk together with a print –out from the current version of the disk. The disk should be marked clearly with a file name and the software used.

1. The manuscript *on disk must* be the final version.
2. A double spaced hard copy accompanies the disk and matches the disc version exactly.
3. DO NOT include automatic pagination. Manuscript page should be numbered by hard in the hard copy version.
4. DO NOT USE COMPRESSION !

Submit manuscripts as e-mail attachment to the Editorial Office at: sciontea@univermed-cdgm.ro or jstefana@yahoo.com . A manuscript number will be mailed to the corresponding author same day or within 72 hours.

The **cover letter** should include the corresponding author's full address and telephone/fax numbers and should be in an e-mail message sent to the Editor, with the file, whose name should begin with the first author's surname, as an attachment. RBL will submit the manuscript to reviewers.

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For all other correspondence that cannot be sent by e-mail, please contact the editorial office (at sciontea@univermed-cdgm.ro or jstefana@yahoo.com) for the appropriate address or editorial board member to mail it to.

Article Types

Three types of manuscripts may be submitted:
Regular articles: These should describe new and carefully confirmed findings, and experimental procedures should be given in sufficient detail for others to verify the work. The length of a full paper should be the minimum required to describe and interpret the work clearly.
Short Communications: A Short Communication is suitable for recording the results of complete small investigations or giving details of new models or hypotheses, gene isolation and identification, innovative methods, techniques or apparatus. The style of main sections

need not conform to that of full-length papers. Short communications are 2 to 4 printed pages (about 6 to 12 manuscript pages) in length.
Minireview: Submissions of mini-reviews and perspectives covering topics of current interest are welcome and encouraged. Mini-reviews should be concise and no longer than 4-6 printed pages (about 12 to 18 manuscript pages). Mini-reviews are also peer-reviewed.

Review Process

All manuscripts are reviewed by an editor and members of the Editorial Board or qualified outside reviewers. Decisions will be made as rapidly as possible, and the journal strives to return reviewers' comments to authors within 3 weeks. The editorial board will re-review manuscripts that are accepted pending revision. It is the goal of the RBL to publish manuscripts within 8 weeks after submission.

Regular articles

All portions of the manuscript must be typed double-spaced and all pages numbered starting from the title page.

The **Title** should be a brief phrase describing the contents of the paper. The Title Page should include the authors' full names and affiliations, the name of the corresponding author along with phone, fax and E-mail information. Present addresses of authors should appear as a footnote.

The **Abstract** should be informative and completely self-explanatory, briefly present the topic, state the scope of the experiments, indicate significant data, and point out major findings and conclusions. The Abstract should be 100 to 200 words in length. Complete sentences, active verbs, and the third person should be used, and the abstract should be written in the past tense. Standard nomenclature should be used and abbreviations should be avoided. No literature should be cited.

Following the abstract, about 3 to 10 **key words** that will provide indexing references to should be listed.

A list of non-standard **Abbreviations** should be added. In general, non-standard abbreviations should be used only when the full term is very long and used often. Each abbreviation should be spelled out and introduced in parentheses the first time it is used in the text. Only recommended SI units should be used. Authors should use the solidus presentation (mg/ml). Standard abbreviations (such as ATP and DNA) need not be defined. Use the same abbreviations as the *Journal of Biological Chemistry*.

Physico–chemical quantities

Quantity	Preferred unit	Symbol
Amount (of substance)	mole	mol
Capacities	farad	F
Concentration	moles per litre	M or mol L^{-1}
Current	ampere	A
Electrical conductance	siemens	S
Electromotive force	volt	V
Flow (blood or other liquid)	litres per second (or min)	L s^{-1} or L min^{-1}
Flow (air or others gas)	litres per second (or min)	L s^{-1} or L min^{-1}
Force	newton	N
Frequency of regular event	hertz	Hz
Length	meter	m
Mass	gram	g
Power	watt	W
Pressure (or partial pressure)	pascal	p
Radioactivity	becquerel or curie	Bq (60 d.p.m.) or Ci (3.7×10^{10} Bq)
Resistance (electrical)	ohm	Ω
Temperature	degree celsius	°C
Time	second (preferred) minute hour	s min h
Volume (blood or other liquid)	litre	L
Volume (air or other gas)	litre	L
Work	Joule	J

Abbreviations, symbols and other nomenclature requirements.

Clinical and Biological abbreviations

A		Correction coefficient	*r*
Acetylcholine	ACh	Cubic	cu
Acetylcholinesterease	AChE	*D*	
Adenosine 3':5'-cyclic monophosphate	cyclic AMP	Degree of freedom (statistic)	d.f
Adenosine 5'-phosphate	AMP	Deoxyribonucleic acid	DNA
Adenosine triphosphate	ATPase	Deoxyribonuclease	DNase
□-aminobutyric acid	GABA	Dextro- (absolute configuration)	D–
Analysis of variants	F		
Adrenaline	Ad	Dextro- (optical rotation)	(+)–
Analytical standard of	A.R.	Diameter	diam.

reagent purity		Diameter, inside	i.d.
Anhydrous	anhyd.	Diameter, outside	o.d.
Approximate(ly)	approx.	Diffusion coefficient	D
Approximately equals	~	3,4-dehydroxyphenylalanine	DOPA
Aqueous	aq.	3,4-dehydroxyphenilethylamine	dopamine
B			
Boiling point	b.p.	Direct current	d.c.
Bovine serum albumin	BSA	Disintegration per minute	d.p.m.
C		Dissociation constant	K_D
Cardiovascular system	CVS	Dissociation constant, negative logarithm of	pK
Catechol-*O*-methyl transferase	COMT	Distilled	dist.
		Dry ice	solid CO_2
Central nervous	CNS	*E*	
Cerebrospinal	CSF	Edition	edn
Chi – squared (statistic)	χ^2	Editor(s)	ed.
Clearance	c	Effective concentration	EC_{50}
Coenzyme A	CoA	Effective dose, median	ED_{50}
Concentrated	conc.	Electrocardiogram	ECG
Electrocorticogram	ECoG	N-[2-Hydroxyethyl] piperazine-N'-[2-ethanesulphonic]	HEPES
Electroconvulsie therapy	ECT		
Electroencephalogram	EEG		
Electromyogram	EMG	5-hydroxyindoleacetic	5-HIAA
Electron spin resonance	e.s.r.	5-hydroxytryptamine	5-HIT
emdothelial-derived relaxing factor	EDRF	*I*	
		Immunoglobulins	IgA, IgD, IgE, IgG IgM
Epithelial-derived relaxing factor	EpDRF		
Equilibrium constants	K	Inhibitor constants	K_i
Equivalent (general use)	equiv.	Inhibitory concentration	IC_{50}
Erytrocyte	r.b.c.	Inhibitory postsynaptic potential	i.p.s.p.
Erytrocyte sedimentation rate	ESR	Insoluble	insol.
Ethylendiaminetetracetic acid	EDTA	International unit	iu
Excitatory postsynaptic potential	e.p.s.p.	Intra – arterial	i.a.
		Intracellular fluid	ICF
Experiment	expt.	Intradermal	i.d.
Experimental	exptl	Intramulscular	i.m.
F		Intraperitoneal	i.p.
Fatty acids, nonesterified	NEFA	Intracerebroventricular	i.c.v.
Figure(s) (with reference number)	Figure(s)	Intravenous	i.v.
		Isotope (atomic mass)	^{131}I

Figure (diagram)	figure	e.g. iodin-131	
G		Isotopically substituted compounds e.g.	[^{14}C]-ethanol
Gas-liquid chromatography	g.l.c.		
glomerular filtration rate	GFR	*L*	
H		Leavo-(absolute configuration)	L–
Haemoglobin	Hb	Leavo-(optical rotation)	(–)–
Half–life	$t_{½}$	Lethal dose, median	LD_{50}
Half–frequency	h.f.	Leukotriene	LT
High performance liquid chromatography	h.p.l.c.	Logarithm to base e	$\log_e$ or ln
		Logarithm to base 10	$\log_{10}$
Human serum albumin	HSA	*M*	
Hydrogen – ion concentration	$[H^+]$	Maximum	max.
Hydrogen-ion activity, negative logarithm of (hydrogen-ion exponent)	pH	Mean arterial pressure	MAP
		Mean value of (statistics)	
		Melting point	m.p.
6-hydroxydopmanine	6-OHDA	Meta	m-
Michaelis constant	K_M	*S*	
Minimum	min.	Section	§
Mobility (electrophoresis)	*m*	Sedimentation coefficient (ultracentrifugation)	s
Monoamine oxydase	MAO		
N		Sinister (configuration by the sequence rule)	S
Noradrenaline	NA		
Nuclear magnetic resonance	n.m.r.	Soluble	sol.
Number	no. or No.	Solution	soln.
Number of observations (statistics)	*n*	Separman rank coefficient	rs
		Standard derivation (of observed sample)	s.d.
O			
Ortho-	o-	Standard error (of estimate mean value)	s.e. mean
P			
Packed cell volume	PCV	Standard error (of sampling)	s.e.
Page / pages	p. / pp.		
Para-	p-	Standard temperature and pressure	STP
Paragraph	para. or ¶		
Parts per million	p.p.m.	Subcutaneous	s.c.

Per centplatelet activating factor	¦ % PAF	Sum (statistical): of hypothetical population of observed sample	S S or S
Posterior	post.		
Probability (significance level in a statistical test)	*P*	*T*	
		Temperature	temp.
R		Thin layer chromatography	t.l.c.
Radioimmunoassay	RIA	Time, clock – 24 h clock used e.g. 18 h 30 min	*t*
Rectus (configuration by the sequence rule)	R	Time constant	t
Red blood corpuscle	RBC	2-amino-2-hydroxymethyl-propan-1,3-diol	Tris
Relative band speed to font (chromatography)	R_F	*U*	
Renal plasma flow	RPF	Ultraviolet	u.v.
Resistance (respiratory)	R	Unit	u
Respiratory conductance	Sgaw	*V*	
Revolutions per minute	r.p.m.	Vacuum	vac.
Ribonucleic acid	RNA		

Valency	e.g. Fe^{2+}; Fe (II) protoporphyrin
Volume by volume	v / v7
W	
Wavelength	□
Weight	wt.
Weight by volume	w /

Terms used to describe affinity and potency

1. *EC_{50}* The concentration of an agonist that produces 50% of the maximal response for that agonist in vitro. When EC_{50} values are determined in the presence of other agonists or antagonosts the concentration of the latter should be stated;

2. *IC_{50}* This term may be used in the following ways: (i) The concentration of antagonist that reduces the response to a sub - maximal concentration of agonist by 50%; the concentration of agonist should be stated. (ii) The concentration of competing agonist or antagonist that inhibits the binding of a radioligand by 50%; the concentration of radioligand should be stated;

3. ED_{50} The dose of the agonist or antagonist that produces 50% of the maximal possible effect of that agonist or antagonist *in vitro*. or The dose of drug that produces the effect under investigation in 50°%o of the population;

4. *K* The dissociation equilibrium constant (mol L^{-1}) for ligand – receptor interactions. The reciprocal is called the affinity constant or association equilibrium constant;

5. n_H The hill coefficient;

6. pA_2 The negative logarithm to base 10 of the concentration of an antagonist that makes it necessary to double the concentration of agonist needed to elicit a given submaximal response. Note that the definition is empirical and does not pre - suppose the mechanism of antaginism;

7. pD_2 The negative logarithm to base 10 of the EC_{50};

8. pIC_{50} The negative logarithm to base 10 of the IC_{50};

9. *pK* The negative logarithm to base 10 of K.

Enzymes. The International Union of Biochemistry and Molecular Biology Enzyme Commission (EC) number and full name (Enzyme Nomenclature 1992, Academic Press, San Diego and London) must be quoted when first mentioned in text. Trivial names may be used in the title.

Other Nomenclature.

Racemates. Authors must state unambiguously in the Methods section of papers which isomers were used, e.g. (+)– or (–)– propanolol, and must bring to the attention of the reader the composite character of drugs that were mixtured of stereoizomers;

Eicosanoids. *The system of nomenclature to be used for eicosanoids is that published* in *Methods in Enzimology*, 187, 1–9 (1990).

Cell lines. Cell type, species and source should be defined.

Tension. Tension is force and should be calibrated in newtons (1 newton=1 Kg m s^{-1}) or in kg weigh, g weigh, or mg weigh etc. *Trends Pharmacol. Sci*., 9, 124–125 (1988).

Ions. When referring to ions, tile charge should be indicated, e.g. Na^+, Ca^{2+}, $2Na^+/Ca^{2+}$ exchange, etc.

Inhibitors of nitric oxide synthase. The most commonly used and currently accepted abbreviations for NG - nitro - L - arginine and NG - nitro - L - argininc methyl ester are L - NOARG and L - NAME respectively.

Abbreviation and Symbols

Use the SI symbols for units. The following prefixes for multiples of units should be used:

Multiplier	*Prefix*	*Symbol*
10^{-1}	deci	d
10^{-2}	centi	c
10^{-3}	milli	m
10^{-6}	micro	□
10^{-9}	nano	n
10^{-12}	pico	p
10^{-15}	femto	f
10^{-18}	atto	a

Multiplier	*Prefix*	*Symbol*

10^3	kilo	k
10^6	mega	M
10^9	giga	G
10^{12}	tera	T

Thus, micron = □m, ångstrom = 0.1 nm. Mixed prefixes are not permissible.

The **Introduction** should provide a clear statement of the problem, the relevant literature on the subject, and the proposed approach or solution. It should be understandable to colleagues from a broad range of scientific disciplines.

Materials and methods should be complete enough to allow experiments to be reproduced. However, only genuinely new procedures should be described in detail; previously published procedures should be cited, and important modifications of published procedures should be mentioned briefly. Capitalize trade names and include the manufacturer's name and address. Subheadings should be used. Methods in general use need not be described in detail.

The doses of reactives should be given as unit weight per body weight, e.g. mmol kg^{-1} or mg kg^{-1}; concentrations should be given in term of molarity, e.g. nM or □M.

Results should be presented with clarity and precision. The results should be written in the past tense when describing findings in the authors' experiments. Previously published findings should be written in the present tense. Results should be explained, but largely without referring to the literature. Discussion, speculation and detailed interpretation of data should not be included in the Results but should be put into the Discussion section.

The **Discussion** should interpret the findings in view of the results obtained in this and in past studies on this topic. State the conclusions in a few sentences at the end of the paper. The Results and Discussion sections can include subheadings, and when appropriate, both sections can be combined.
The **Acknowledgments** sources of research support and address changes for authors should be briefly listed in a separate section at the end of the manuscript, immediately preceding the differences.

References should be numbered consecutively and placed in a separate section at the end of the manuscript. In the text, references to other works should take the form (C. ONISCU & al. [4] or MARINESCU [5]. Reference to "unpublished obsevations" (works) or "personal communications" should be mentioned in the text only, *and not included in the list of references. Papers in preparation or which have been submitted but not yet finally accepted, for publication must not be included in the of references*. They should be typed single - spaced, with one line space between each reference. Each reference should contain names of all authors (with initials of their first and middle names); do not use et al. for a list of authors. Abbreviations of journal titles will follow the international standards. The REFERENCES should be capitalized and centred above the reference list. Following acceptable reference formats:

Journal: C. ONISCU, R. TUDOSE, D. CASCAVAL, *Rev. Roum. Chim.*, **39**(11), 1343–1350 (1994).

Book: L.R. SNYDER, J.J. KIRKLAND, *Introduction to Modern Liquid Chromatography*, K.M. GOODING, F.E. REGNIER, eds., Marcel Dekker, inc., New York, 1990, pp. 301–332.

Reference should be indicated in the text by a superior Arabic number in brackets. The full list of references should be numbered consecutively and be listed according to the order in which they are referred to in the manuscript text. References should be typed double - spaced, and Journal names are abbreviated according to Chemical Abstracts. Authors are fully responsible for the accuracy of the references.

Tables should be kept to a minimum and be designed to be as simple as possible.Each table should be on a separate page and must be numbered consecutively with Arabic numerals. Number should be followed by a brief descriptive caption, not more than two lines, at the head of the table. Each column should have a heading and the unit of measurement (in parentheses in the heading). Tables should be self- explanatory and the absolute necessary descriptions should be at the bottom of the table. The same data should not be presented in both table and graph form or repeated in the text.

Figures. Figures, particularly those requiring half - tone reproduction, only critical points of the text should be illustrated. Please note that *unsatisfactory* figures will be returned to the author for revision. The Journal rejects a manuscript if the figures are unacceptable. It is important that the printed symbols and lines should retain their clarity and each copy of the manuscript must be accompanied by one set of labeled figures (an original set and one high quality photocopy will suffice). Each figure must be accompanied by a legend typed on a separate sheet of paper and paginated as part of the manuscript. The symbols used for plotting data points should be large enough to show up clearly when reduced to on - page size. Symbol should be chosen from the following set:

Figure legends should be typed in numerical order on a separate sheet. Graphics should be prepared using applications capable of generating high resolution GIF, TIFF, JPEG or Power Point before pasting in the Microsoft Word manuscript file. Tables should be prepared in Microsoft Word. Use Arabic numerals to designate figures and upper case letters for their parts (Fig 1). Begin each legend with a title and include sufficient description so that the figure is understandable without reading the text of the manuscript. Information given in legends should not be repeated in the text.

Photographs. These should be submitted, twice as large as their intended published size as good quality prints of high contrasts, especially where traces and records are illustrated.

Footnotes. Authors are encouraged to minimize the use of footnotes. A footnote may include the designation of a corresponding authors of the manuscript, current address information for an author and traditional footnotes content.
Footnotes should be indicated in the text by the following symbols: * (asterisk), + (dagger), ‡ (double dagger), j (paragraph mark), (section mark), || (parallels), # (number sign). Please do not use numerals for footnote call - outs, as they may be mistaken for bibliographical reference call - out or exponents. For the footnotes within a table the same symbols listed above are recommended.

Short Communications

Short Communications are limited to a maximum of two figures and one table. They should present a complete study that is more limited in scope than is found in full-length papers. The items of manuscript preparation listed above apply to Short Communications with the

following differences: (1) Abstracts are limited to 100 words; (2) instead of a separate Materials and Methods section, experimental procedures may be incorporated into Figure Legends and Table footnotes; (3) Results and Discussion should be combined into a single section.

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