THE CHINESE JOURNAL OF PHYSIOLOGY

2015	Volume 58		No. 2	ISSN 0304-4920	
EXECUTIVE CC J.Y.H. Chan K.R. Shieh	J.C. Chen C. I	P.S. Hsieh (Pro Isu C.Y. Huang . Tsai C.J. Tseng		E.H.Y. Lee Y.H. Lee H. Lin	
EDITOR-IN-CHIE	F P.S. Wa	P.S. Wang (Med. Ctr. Aging Res., China Med. U. Hosp., Taichung and Dept. Physiol., Natl., Yang-Ming U., Taipei, Taiwan, ROC)			
ASSOCIATE EDI	TORS H. Lin	Dept. Life Sci., Natl.	Chung Hsing U	., Taichung, Taiwan, ROC)	
HONORARY EDI	TOR S. Chie	n (Dept. AMES-Bioe	ngineering, U. C	alifornia, San Diego, CA, USA)	
MANAGING EDITOR H.F. Pu (Dept. Physiol., Natl. Yang-Ming U., Taipei, Taiwan, R		Taipei, Taiwan, ROC)			
ENGLISH EDITOR K.B. Choo (Facul. Med. & Health Sci., Univ. Tunku Abdul Rahman, Malaysia)				Tunku Abdul Rahman, Malaysia)	
EUROPE RECEIVING EDITOR M. AG van der Heyden (Dept. Med. Physiol., Utrecht U., Netherlands)					
EDITORIAL BO	ARD				

T.G. Amstislavskaya (Inst. Cytol. & Gen., Siberian B. Russ. S.D. Lee (Dept. Phys. Ther., China Med. U., ROC) Acad. Sci., Russia) Y.H. Lee (Dept. Physiol., Natl., Yang-Ming U., ROC) K.C. Liang (Dept. Psychol., Natl. Taiwan U., ROC) Y.C. Chang (Inst. Life Sci., Natl. Tsing Hua U., ROC) C.T. Chien (Dept. Life Sci., Natl. Taiwan Normal U., ROC) W.L. Cho (Inst. Biomed. Sci., Mackay Med. Coll., ROC) M.A. Gever (Dept. Psychia., UCSD, USA) P.S. Hsieh (Inst. Physiol., Natl. Def. Med. Ctr., ROC) C.Y. Huang (Inst. Basic Med. Sci., China Med. U., ROC) W.J. Huang (Dept. Surg., Taipei Vet. Gen. Hosp., ROC) Y.T. Huang (Natl. Res. Inst. Chinese Med., ROC) J.C. Hwang (Dept. Life Sci., Natl. Taiwan Normal U., ROC) P.H.S. Jen (Div. Biol. Sci., U. Missori, USA) K.W. Kim (Dept. Physiol. & Biophys., Seoul Natl. U., South Korea) Y.R. Kou (Dept. Physiol., Natl. Yang-Ming U., ROC) C.H. Kuo (Lab. Exercise Biochem., University of Taipei, ROC) E.H.Y. Lee (Inst. Biomed. Sci., Acad. Sinica, ROC) (alphabetical order)

R.M. Liao (Dept. Psychol., Natl. Cheng-Chi U., ROC) J.Y. Liu (Inst. Cancer Biol., China Med. U., ROC) X.H. Ning (Pediatr. Cardiol., U. Washington Med. Ctr., USA) T. Opthof (Heart Failure Res. Ctr., Acad. Med. Ctr., Netherlands) M.M. Poo (Dept. Mol. & Cell. Biol., U. Calif., Berkeley, USA) D.Y. Tan (Inst. Med. Sci., Jishou Univ., Jishou, Hunan, PRC) D.C. Tarng (Dept. Physiol., Natl. Yang-Ming U., ROC) Y.F. Tsai (Dept. Physiol., Natl. Taiwan U., ROC) C.J. Tseng (Res. Div., Kaoshiung Vet. Gen. Hosp., ROC) R.Y. Wang (Inst. Phys. Ther., Natl. Yang-Ming U., ROC) P.M. Wise (Div. Biol. Sci., U. Calif., Davis, USA) L. Yu (Inst. Behav. Med., Natl. Cheng Kung U., ROC) Y. Zhang (Dept. Physiol., Hebei Med. U., Shijiazhuang, Hebei, PRC)

EDITORIAL ASSISTANT

S.H. Su (Med. Ctr. Aging Res., China Med. U. Hosp., Taichung, Taiwan, ROC)

April 30, 2015

CO-ISSUED BY

THE CHINESE PHYSIOLOGICAL SOCIETY AND AIRITI PRESS INC.

China Medical University, Taichung, Taiwan, Republic of China

THE CHINESE JOURNAL OF PHYSIOLOGY (ISSN 0304-4920) is the official journal of The Chinese Physiological Society and is published bimonthly per year by The Chinese Physiological Society. Second class postage paid at Taipei, Taiwan and at additional mailing offices. The annual subscription rate is NT\$10,000 (US\$360 abroad). Order should be addressed to: The Editorial Office, The Chinese Journal of Physiology, Medical Center of Aging Research, China Medical University Hospital, Taichung 40402, Taiwan, Republic of China. No part of this publication may be reproduced or transmitted in any form, or by any means, electronic or mechanical, without written permission from The Chinese Physiological Society. All rights are reserved. Indexed by Science Citation Index, Index Medicus, Chemical Abstracts, EMBASE, Medline, and BIOSIS. Copyright © 2015 by The Chinese Physiological Society and Airiti Press Inc. The publication of this journal is sponsored in part by the Ministry of Science and Technology, Executive Yuan, Taiwan, ROC. The website location for CJP is: http://www.cps.org.tw.

Original papers concerned with all fields of physiology, pharmacology, anatomy, and biochemistry from labora-tory and clinical research and written in English are considered for publication in the Chinese Journal of Physiology. Send the cover letter and original manuscript to the Editor-in-Chief, Dr. Paulus S. Wang, via Email (cip.editorial. office@gmail.com) or Online Submission System (URL: http://aspers.airiti.com/aspers/webHome.aspx?jnliid=J0009). The manuscripts from Europe may be submitted to the Europe Receiving Editor. Dr. Marcel AG van der Heyden, via Email (M.A.G.vanderHeyden@umcutrecht.nl; URL: http://www.physiol.med.uu.nl/MarcelvanderHeyden).

- in lower right-hand corner.
- characters, the name of *Institute* where the work was done.
- references list should be in alphabetical order and numbered consecutively. The style of citation should be as follows:
- Circ. Res. 22: 363-370, 1968.
- and pages. Examples:

- (Abstract). Federation Proc. 38: 547, 1979.

- reverse side. Figure legends should be typed separately.
- reviewers.
- ing scientists on special topics.
- legends, and figures in sequence.

- should be attached with the submitted manuscript.

Instructions to Authors

To facilitate editorial processing, the following points with regard to the preparation of manuscript should be noted. 1. Manuscripts must be typewritten and double-spaced with margins on one side of paper. Pages should be numbered

2. The manuscripts should be arranged in the following order: title page, abstract, key words, introduction, materials and methods, results, discussion, acknowledgments, references, tables, figure legends, and illustrations.

3. The title page should contain the complete article title, a running page headline (short title) not to exceed 50

4. References cited in the text should be by Arabic numerals in parenthesis and not by the names of the authors. The

Journal Articles. Last name of first author, followed by initials; last names of each coauthor followed by initials, title of article (first word only capitalized); name of journal (abbreviated as in Index Medicus, published by the National Library of Medicine, USA), volume, inclusive pages, and year. *Examples*:

(1). Chen, H.I., Shih, W.J. and Chen, T.P. A scientiphotographic study of pulmonary edema and hemorrhage induced by cerebral compression and norepinephrine. *Chinese J. Physiol.* 22: 65-73, 1976.

(2). Childers, R.W., Merideth, J. and Moe, G.K. Supernormality in Bachmann's bundle: an in vivo and in vitro study.

Book References. Author(s) as above; title of book (main words capitalized); city of publication; publisher; year

(3). Parmley, W.W. and Tyberg, J.V. Determinants of myocardial oxygen demand. In: Progress in Cardiology, edited by Yu, P.N. and Goodwin, J.F. Philadelphia, PA, USA: Lea & Febiger, 1976, vol. 5, pp. 19-36.

(4). Winer, B.J. Statistical Principles in Experimental Design. New York, NY, USA: McGraw-Hill, 1971.

Abstracts. An abstract properly identified (Abstract) may be cited only when it is the sole source. *Examples*: (5). Turkenkopf, I., Olsen, J. and Johnson, P.R. Hepatic lipogenic enzyme activity in the preobese Zucker rat (fafa)

(6). Chang, J.P., Morgan, R.O. and Catt, K.J. Inositol phosphates, diacylglycerol, and arachidonic acid in GnRH action (Abstract 48). The 1st International Congress of Neuroendocrinology, San Francisco, USA, 1986, p. 35.

5. Abbreviations and symbols for units of measurement should conform to international recommendation.

6. Tables should be typed on separate sheets, be numbered in Arabic numerals and be accompanied by adequate headings. Explanatory matter should appear in foot notes that are identified by superscript letters or asterisks. Their appropriate position in the text should be indicated by a note in the margin.

7. Figures should be printed on glossy paper, be large enough for reproduction and be identified in pencil on the

8. If there are colored pages in a manuscript, authors must agree on printing them in colored plates, which are at the expense of the authors, after this manuscript is accepted for the publication.

9. To expedite the review process, authors are encouraged to submit names including E-mail address of 4-6 suggested

10. Manuscripts submitted as Short Communications should be concise and contain short technical notes, or preliminary experimental results. They should not exceed a total of five printed pages and not include more than three illustrations. The abstract for a Short Communication should not exceed 200 words. The editors reserve the right to decide what constitutes a Short Communication. Review Articles are published usually upon invitation to outstand-

11. Case report should contain abstract, introduction, case report, discussion, (acknowledgment), references, tables,

12. Non-member of the Chinese Physiological Society (CPS) should be charged (i.e. submission fee USD\$35.00 or NTD\$1,000) for each new manuscript submission. This is free for the active members of CPS with the member ID attached. All printed pages in a manuscript should be charged to the authors before publication.

13. For research articles with human subjects, the patients have a right to privacy that should not be infringed without informed consent. Identifying information, including patients' names, initials, or hospital numbers, should not be published in written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian) gives written informed consent for publication. Informed consent for this purpose requires that a patient who is identifiable be shown the manuscript to be published. Authors should identify Individuals who provide writing assistance and disclose the funding source for this assistance.

14. The copyright transfer form, the statement of conflict of interest, and the statement of human and animal rights