

THE KOREAN JOURNAL OF  
PARASITOLOGY

Vol. 54 No. 2 April 2016

CONTENTS

Original Articles

- 123 Inflammatory Responses in a Benign Prostatic Hyperplasia Epithelial Cell Line (BPH-1) Infected with *Trichomonas vaginalis*  
Sang-Su Kim, Jung-Hyun Kim, Ik-Hwan Han, Myoung-Hee Ahn, Jae-Sook Ryu
- 133 Identification of Protein Arginine Methyltransferase 5 As a Regulator for Encystation of *Acanthamoeba*  
Eun-Kyung Moon, Yeonchul Hong, Dong-Il Chung, Youn-Kyoung Goo, Hyun-Hee Kong
- 139 Sterculic Acid and Its Analogues Are Potent Inhibitors of *Toxoplasma gondii*  
Pan Hao, Intisar Q. M. Alaraj, Juma'a R. Al Dulayymi, Mark S. Baird, Jing Liu, Qun Liu
- 147 Exosomes Secreted by *Toxoplasma gondii*-Infected L6 Cells: Their Effects on Host Cell Proliferation and Cell Cycle Changes  
Min Jae Kim, Bong-Kwang Jung, Jaeun Cho, Hyemi Song, Kyung-Ho Pyo, Ji Min Lee, Min-Kyung Kim, Jong-Yil Chai
- 155 In Vitro and in Vivo Effects of Nitrofurantoin on Experimental Toxoplasmosis  
Seon-Ju Yeo, ChunMei Jin, SungYeon Kim, Hyun Park
- 163 Activation and Recruitment of Regulatory T Cells via Chemokine Receptor Activation in *Trichinella spiralis*-Infected Mice  
Jeong-Bin Ahn, Shin Ae Kang, Dong-Hee Kim, Hak Sun Yu
- 173 Complete Mitochondrial Genome of *Echinostoma hortense* (Digenea: Echinostomatidae)  
Ze-Xuan Liu, Yan Zhang, Yu-Ting Liu, Qiao-Cheng Chang, Xin Su, Xue Fu, Dong-Mei Yue, Yuan Gao, Chun-Ren Wang
- 181 Genetic Identification of *Spirometra decipiens* Plerocercoids in Terrestrial Snakes from Korea and China  
Hyeong-Kyu Jeon, Hansol Park, Dongmin Lee, Seongjun Choe, Kyu-Heon Kim, Woon- Mok Sohn, Keeseon S. Eom
- Brief Communications
- 187 Prevalence of Trichomoniasis by PCR in Women Attending Health Screening in Korea  
Seung-Ryong Kim, Jung-Hyun Kim, Na-Yeong Gu, Yong-Suk Kim, Yeon-Chul Hong, Jae-Sook Ryu
- 191 Optimization of *Trichomonas vaginalis* Diagnosis during Pregnancy at a University Hospital, Argentina  
Pamela Testardini, María Lucía Gallo Vaulet, Andrea Carolina Entrocassi, Claudia Menghi, Martha Cora Eliseht, Claudia Gatta, Mirta Losada, María Sol Touzón, Ana Corominas, Carlos Vay, Silvio Tatti, Angela Famiglietti, Marcelo Rodriguez Fermepin, Beatriz Perazzi
- 197 Identification of *Cryptosporidium* from Dairy Cattle in Pahang, Malaysia  
Nur Hazirah Hisamuddin, Najat Hashim, Sharmeen Nellisa Soffian, Mohd Hishammfariz Mohd Amin, Ridhwan Abdul Wahab, Mardhiah Mohammad, Muhammad Lokman Md Isa, Afzan Mat Yusof
- 201 High *Toxoplasma gondii* Seropositivity among Brain Tumor Patients in Korea  
Bong-Kwang Jung, Hyemi Song, Min-Jae Kim, Jaeun Cho, Eun-Hee Shin, Jong-Yil Chai
- 205 Three Nematode Species Recovered from Terrestrial Snakes in Republic of Korea  
Seongjun Choe, Junsik Lim, Hyun Kim, Youngjun Kim, Heejong Kim, Dongmin Lee, Hansol Park, Hyeong-Kyu Jeon, Keeseon S. Eom
- 215 Prevalence of *Clonorchis sinensis* Infection among Residents along 5 Major Rivers in the Republic of Korea  
Young-Il Jeong, Hee-Eun Shin, Sang-Eun Lee, Hyeng-Il Cheun, Jung-Won Ju, Jung-Yeon Kim, Mi Yeoun Park, Shin-Hyeong Cho

CONTENTS CONTINUED

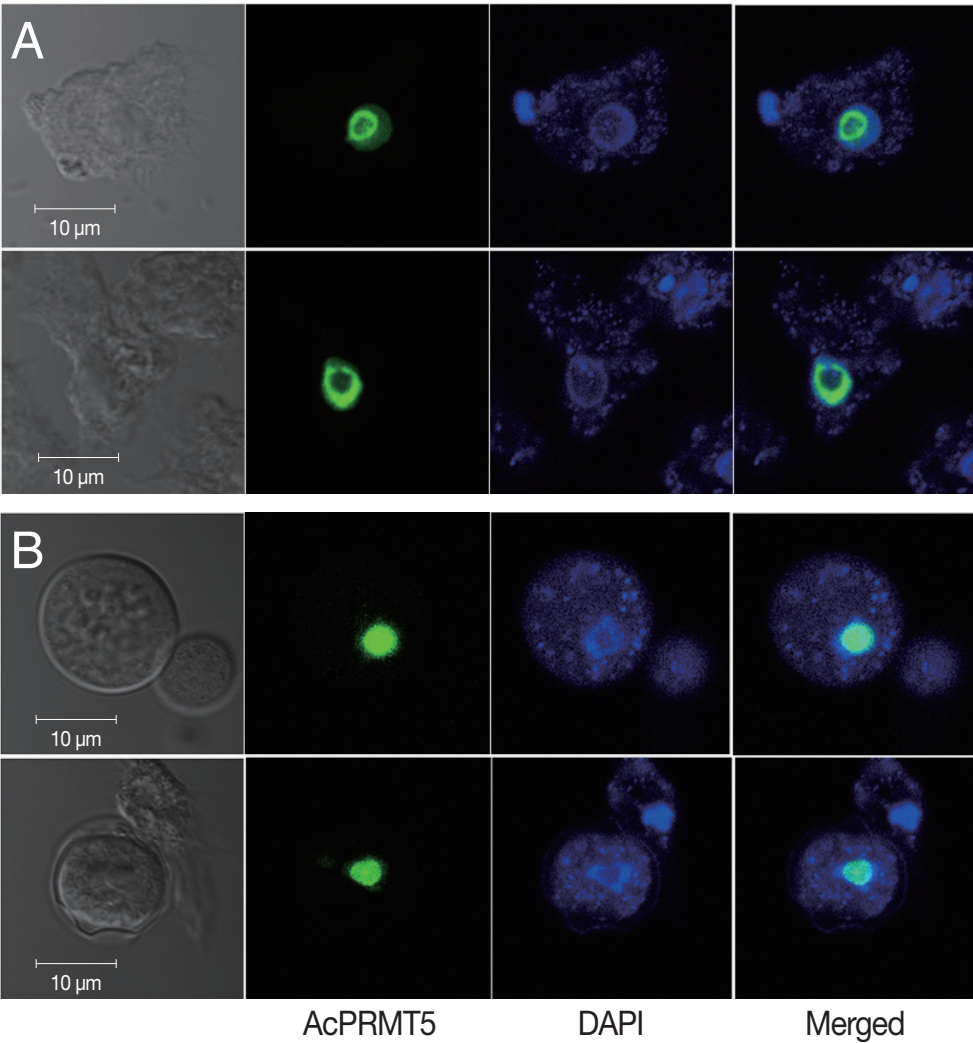
THE KOREAN JOURNAL OF PARASITOLOGY

Vol. 54, No. 2: 123-246 April 2016

THE KOREAN JOURNAL OF

PARASITOLOGY

Vol. 54 No. 2 April 2016



**Editor:** Jong-Yil Chai

**Associate Editors:** Sung-Jong Hong, Dongmi Kwak, Young-Ha Lee, Min Seo, Myeong Heon Shin, Woon-Mok Sohn, Hyun-Jong Yang, Tai-Soon Yong

**Manuscript Editor:** So-Jung Lee

Editorial Board			
Young-An Bae	Sun Huh	Hae-Seon Nam	Seobo Sim
Min-Ho Choi	Jin Kim	Yukifumi Nawa <i>Japan</i>	Takafumi Tsuboi <i>Japan</i>
Keeseon S. Eom	Terry A. Klein <i>USA</i>	Hyun Park	Jitra Waikagul <i>Thailand</i>
Eun-Taek Han	Hyun-Hee Kong	Soon-Jung Park	Jae-Ran Yu
Kenji Hirayama <i>Japan</i>	Won-Ja Lee	Jae-Sook Ryu	Hak Sun Yu
Yeonchul Hong	Santiago Mas-Coma <i>Spain</i>	Eun-Hee Shin	Xiaonong Zhou <i>China</i>

The Korean Journal of Parasitology is the official journal (paperless, on-line publication after Vol. 53, 2015) of The Korean Society for Parasitology and Tropical Medicine. Abbreviated title is 'Korean J Parasitol'. It was launched in 1963. It contains original articles, case reports, brief communications, reviews or mini-reviews, book reviews, and letters to the editor on parasites of humans and animals, vectors, host-parasite relationships, zoonoses, and tropical medicine. It is published bimonthly in February, April, June, August, October, and December each year. Supplement numbers are at times published. All of the manuscripts are peer-reviewed.

Total or a part of the articles in this Journal are abstracted in *Biological Abstracts*, *CAB International*, *Chemical Abstract*, *DOI/Crossref*, *Excerpta Medica (EMBASE)*, *Google Scholar*, *Helminthological Abstracts*, *Index Medicus/Medline/PubMed/PubMed Central*, *KoMCI*, *KoreaMed*, *KoreaMed Synapse*, *Protozoological Abstracts*, *Review of Medical and Veterinary Entomology*, *Science Citation Index Expanded*, *Scopus*, *Tropical Diseases Bulletin*, *WPRIM*, and *Zoological Record*.

Full text is freely available from: <http://parasitol.or.kr/kjp/>. This journal was supported by the National Research Foundation of Korea Grant and the Korean Federation of Science and Technology Societies Grant funded by the Korean Government (MEST).

Manuscripts should be submitted via the online Manuscript Central website (<http://mc.manuscriptcentral.com/kjp>, <http://www.parasitol.kr>). Other correspondences can be sent by an e-mail to the Editor, Dr. Jong-Yil Chai, Department of Parasitology and Tropical Medicine, Seoul National University College of Medicine, Seoul 03080, Korea (Tel: +82-2-740-8342, Fax: +82-2-765-6142, e-mail: [cjy@snu.ac.kr](mailto:cjy@snu.ac.kr), [kjp.editor@gmail.com](mailto:kjp.editor@gmail.com)).

Correspondence concerning business matters should be addressed to Secretary-Treasurer, Dr. Hyun-Jong Yang, Department of Parasitology, School of Medicine, Ewha Womans University, Seoul 07985, Korea (Tel: +82-2-2650-5750, Fax: +82-2-2650-5791, e-mail: [parayang@ewha.ac.kr](mailto:parayang@ewha.ac.kr)).

Staff of The Korean Society for Parasitology and Tropical Medicine (2016-2017)

President	Young-Ha Lee, M.D., Ph.D.
Vice-President	Won-Ja Lee, Ph.D.
Secretary-Treasurer	Hyun-Jong Yang, M.D., Ph.D.
Secretary for Academic Affairs	Eun-Taek Han, Ph.D.
Secretary for Social Affairs	Hak Sun Yu, Ph.D.

© 2016, Korean Society for Parasitology and Tropical Medicine  
© It is identical to Creative Commons Non-Commercial License.  
Ⓢ This paper meets the requirements of KS X ISO 9706, ISO 9706-1994 and ANSI/NISO Z39.48-1992 (Permanence of Paper).  
Printed on 30 April 2016 by Academya Publishing Co., Anyang, Korea

Cover: Intracellular localization of *Acanthamoeba castellanii* EGFP-PRMT5 fusion protein. (A) Trophozoite, (B) Cyst, p 135 of this issue.

- 221 Plerocercoids of *Nybelinia surmenicola* (Cestoda: Tentacularidae) in Squids, *Todarodes pacificus*, from East Sea, the Republic of Korea  
Joon Yup Lee, Ji Woon Kim, Gab Man Park
- 225 A Rapid and Convenient Method for in Vivo Fluorescent Imaging of Protoscolices of *Echinococcus multilocularis*  
Tao Yang, Sibó Wang, Xuyong Zhang, Jie Xia, Jun Guo, Jixue Hou, Hongwei Zhang, Xueling Chen, Xiangwei Wu
- 233 *Ornithodoros sawaii* (Ixodida: Argasidae) Larvae Collected from *Hydrobates monorhis* on Sogugul and Gaerin Islands, Jeollanam-do (Province), Republic of Korea  
Heung-Chul Kim, Chang-Yong Choi, Young-Soo Kwon, Seok-Min Yun, Won-Ja Lee, Sung-Tae Chong, Richard G. Robbins, Terry A. Klein
- 239 Western Blot Detection of Human Anti-Chikungunya Virus Antibody with Recombinant Envelope 2 Protein  
Zhaoshou Yang, Jihoo Lee, Hye-Jin Ahn, Chom-Kyu Chong, Ronaldo F. Dias, Ho-Woo Nam
- 243 Instructions for Authors