

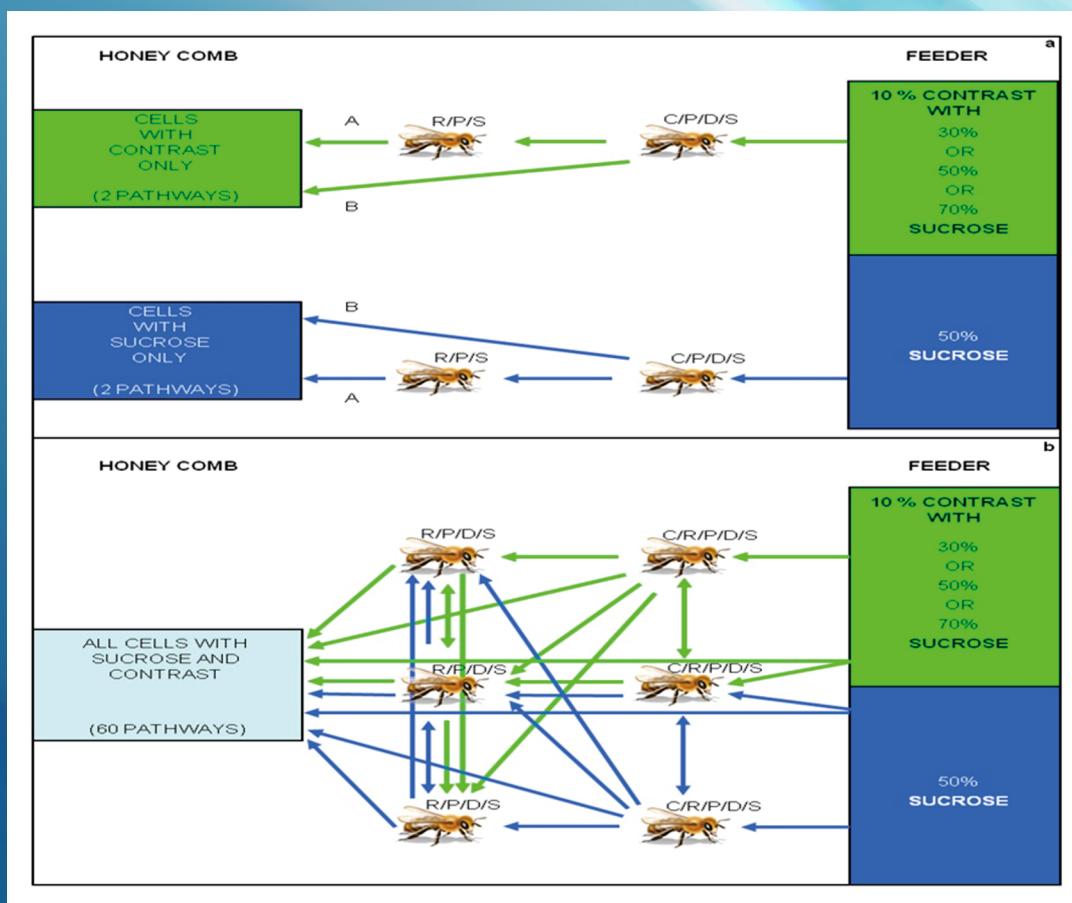


Scientific  
Research

ISSN: 2161-7597

Vol. 3, No. 3, July 2013

# Open Journal of Animal Sciences



ISSN: 2161-7597



[www.scirp.org/journal/ojs](http://www.scirp.org/journal/ojs)

# Journal Editorial Board

ISSN 2161-7597 (Print) ISSN 2161-7627 (Online)

<http://www.scirp.org/journal/ojas>

---

## Editor-in-Chief

**Prof. Robert W. Li**

United States Department of Agriculture, USA

## Editorial Board

<b>Prof. Mahmoud Mohamed Ahmed Abdel-Aziz</b>	King Faisal University, Saudi Arabia
<b>Prof. Adel Abdallah Abdel-Ghani</b>	Minia University, Egypt
<b>Prof. Ahmed A. Al-Haidary</b>	King Saud University, Saudi Arabia
<b>Prof. Berna Arda</b>	Ankara University School of Medicine, Turkey
<b>Prof. Osama Ibrahim Azawi</b>	University of Mosul, Iraq
<b>Prof. Klaus-Peter Brüssow</b>	Leibniz Institute for Far Animal Biology (FBN) Dummerstorf, Germany
<b>Prof. Elsayed Ibrahim Elagamy</b>	Al-Qassim University, Saudi Arabia
<b>Prof. Ivan Cunha Bustamante Filho</b>	Universidade Federal do Rio Grande do Sul, Brazil
<b>Dr. Elda Gaino</b>	University Center of Electron Microscopy, Italy
<b>Dr. Suresh Dinkar Kharche</b>	Central Institute for Research on Goats, India
<b>Prof. Oguz Kul</b>	Kirikkale University, Turkey
<b>Prof. Zisis Mamuris</b>	University of Thessaly, Greece
<b>Prof. Toshihiko Nakao</b>	Yamaguchi University, Japan
<b>Prof. Ahmad Oryan</b>	Shiraz University, Iran
<b>Prof. Young W. Park</b>	Fort Valley State University, USA
<b>Prof. Paolo Polidori</b>	University of Camerino, Italy
<b>Prof. H. P. Puttaraju</b>	Bangalore University, India
<b>Dr. Luis Eduardo Menezes Quintas</b>	Universidade Federal do Rio de Janeiro (UFRJ), Brazil
<b>Dr. Newton Soares da Silva</b>	Universidade do Vale do Paraiba, Brazil
<b>Dr. Augusto Vitale</b>	Italian National Institute of Health, Italy
<b>Prof. Qiao Wang</b>	Massey University, New Zealand
<b>Dr. Wolfgang Johann Weninge</b>	Centre for Anatomy and Cell Biology, Austria
<b>Prof. Hongli Yan</b>	Genomic Medicine Institute, China
<b>Dr. Arda Yildirim</b>	Gaziosmanpasa University, Turkey
<b>Prof. Moustafa M. Zeitoun</b>	Qassim University, Saudi Arabia
<b>Dr. Huitong Zhou</b>	Lincoln University, New Zealand

## TABLE OF CONTENTS

### Volume 3, Number 3, July 2013

<b>Mitochondrial D-loop diversity of grasscutter (<i>Thryonomys swinderianus</i> Rodentia: Hystricomorpha) in Ghana</b>	
C. Adenyo, A. Hayano, B. B. Kayang, E. H. Owusu, M. Inoue-Murayama.....	145
<b>Mouse housing system using pressurized cages intraventilated: Reproductive performance and lung histopathology</b>	
A. Martinewski, C. S. C. Correia, N. L. de Souza, J. L. B. Merusse.....	154
<b>Effect of exogenous somatotropin and staged ovariectomy on mRNA expression of select ECM-related proteins in mammary tissue of prepubertal Holstein calves</b>	
B. P. Huderson, B. T. Velayudhan, R. E. Pearson, S. E. Ellis, R. M. Akers.....	160
<b>The bactericidal spectrum and virucidal effects of silver nanoparticles against the pathogens in sericulture</b>	
W. C. Li, K. Volodymyr, Y. Y. Wang, D. Volodymyr.....	169
<b>Effect of heat stress in the maturation, fertilization and development rates of <i>in vitro</i> produced bovine embryos</b>	
M. F. Alves, R. F. Gonçalves, D. L. Pavão, E. G. Palazzi, F. Souza, R. K. R. de Queiróz, M. D'Angelo, M. A. de Achilles.....	174
<b>Phytophagous stink bugs (Hemiptera: Pentatomidae; Coreidae) associated with macadamia in South Africa</b>	
P. S. Schoeman.....	179
<b>Oronasal administration of lipopolysaccharide prepartum modulated plasma metabolite patterns in periparturient dairy cows</b>	
S. Iqbal, Q. Zebeli, D. A. Mansmann, S. M. Dunn, B. N. Ametaj.....	184
<b>Influence of three aphid species used as prey on some biological aspects of the predator <i>Eriopis connexa</i></b>	
W. Duarte, H. Arévalo, I. Z. de Polanía.....	193
<b>Effects of prepartal oronasal administration of lipopolysaccharide on milk composition and productivity of transition Holstein dairy cows</b>	
S. Iqbal, Q. Zebeli, D. A. Mansmann, S. M. Dunn, B. N. Ametaj.....	200
<b>Sugar concentration influences decision making in <i>Apis mellifera</i> L. workers during early-stage honey storage behaviour</b>	
M. K. Greco, J. Lang, P. Gallmann, N. Priest, E. Feil, K. Crailsheim.....	210
<b>Deuterium oxide dilution can be used to determine the net energy content of feeds for dairy cattle and goats</b>	
D. L. Brown.....	219

**Transfer of PUFA fatty acid protected and carnitin precursor  
on the ration of chemical composition of milk dairy goat**

Sudibya, S. H. Purnomo.....225

**Morphological characterization of indigenous and crossbred  
pigs in rural and peri-urban areas of southwestern Nigeria**

A. C. Adeola, S. O. Oseni, O. G. Omitogun.....230

**Effects of phytase supplementation on growth performance, slaughter performance, growth  
of internal organs and small intestine, and serum biochemical parameters of broilers**

W. Wang, Z. Y. Wang, H. M. Yang, Y. J. Cao, X. C. Zhu, Y. Zhao.....236

**Review point on neural stem cells and neurogenic areas of the central nervous system**

E. T. da Fonseca, A. C. F. Mançanares, C. E. Ambrósio, M. A. Miglino.....242

**Loss of anti-predator behaviors in cattle and the increased  
predation losses by wolves in the Northern Rocky Mountains**

C. Flörcke, T. Grandin.....248

**Development of a computer vision system to monitor pig locomotion**

J. Kongsro.....254

**Determination of caprine serum albumin in milk using bromocresol green dye**

B. A. Olaniyan, X. Zhao, A. F. Mustafa.....261

---

The figure on the front cover is from the article published in Open Journal of Animal Sciences, 2013, Vol. 3, No. 3, pp. 210-218 by Mark K. Greco, *et al.*

# **Open Journal of Animal Sciences (OJAS)**

## **Journal Information**

### **SUBSCRIPTIONS**

The *Open Journal of Animal Sciences* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **SERVICES**

#### **Advertisements**

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### **Reprints (minimum quantity 100 copies)**

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **COPYRIGHT**

Copyright©2013 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact:

E-mail: [ojas@scirp.org](mailto:ojas@scirp.org)



# Open Journal of Animal Sciences

ISSN 2161-7597 (Print) ISSN 2161-7627 (Online)  
<http://www.scirp.org/journal/ojas>

## *Editor-in-Chief*

**Prof. Robert W. Li**

United States Department of Agriculture, USA

## *Editorial Board*

Prof. Mahmoud Mohamed Ahmed Abdel-Aziz  
Prof. Adel Abdallah Abdel-Ghani  
Prof. Ahmed A. Al-Haidary  
Prof. Berna Arda  
Prof. Osama Ibrahim Azawi  
Prof. Klaus-Peter Brüssow  
Prof. Elsayed Ibrahim Elagamy  
Prof. Ivan Cunha Bustamante Filho  
Dr. Elda Gaino

Dr. Suresh Dinkar Kharche  
Prof. Oguz Kul  
Prof. Zissis Mamuris  
Prof. Toshihiko Nakao  
Prof. Ahmad Oryan  
Prof. Young W. Park  
Prof. Paolo Polidori  
Prof. H. P. Puttaraju  
Dr. Luis Eduardo Menezes Quintas

Dr. Newton Soares da Silva  
Dr. Augusto Vitale  
Prof. Qiao Wang  
Dr. Wolfgang Johann Weninge  
Prof. Hongli Yan  
Dr. Arda Yildirim  
Prof. Moustafa M. Zeitoun  
Dr. Huitong Zhou

Open Journal of Animal Sciences (OJAS) is an international journal dedicated to the latest advancement of animal sciences. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in different areas of animal sciences. All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. The journal publishes original papers including but not limited to the following fields:

- Animal Behavior
- Animal Cognition
- Animal Conservation
- Animal Ecology
- Animal Genetics
- Animal Physiology and Nutrition
- Animal Products and Processing
- Animal Reproduction
- Breeding and Genetics
- Embryo Manipulation
- Environment and Housing
- Ethology and Welfare
- Feeds and Feeding
- Food Evaluation
- Livestock Economics
- Nutrition and Digestion
- Physiology and Endocrinology
- Tropical Animal Health and Production

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

## *Website and E-Mail*

<http://www.scirp.org/journal/ojas>

E-mail: [ojas@scirp.org](mailto:ojas@scirp.org)