

# Open Journal of Endocrine and Metabolic Diseases



# **Journal Editorial Board**

https://www.scirp.org/journal/ojemd

### **Editors-in-Chief**

**Prof. Aline Marcadenti** Federal University of Health Sciences of Porto Alegre, Brazil

**Prof. Yuh-Min Song**Taichung Veterans General Hospital, Chinese Taipei

## **Editorial Board**

Prof. Belinda R. Beck Griffith University, Australia

Dr. Chong-Chi Chiu Chi-Mei Medical Center, Chinese Taipei

Prof. Sang Ho Choi Seoul National University, South Korea

Prof. Fernando Cordido University of A Coruña, Spain

**Dr. Zhongquan Dai** China Astronaut Research and Training Center, China

**Prof. Daniel Y. C. Fung**Kansas State University, USA

**Dr. Arumugam R. Jayakumar** University of Miami, USA

**Dr. Li Ji** University of Mississippi Medical Center, USA

Dr. Udaya M. Kabadi VA Medical Center, USA

Prof. Wan Lee Dongguk University School of Medicine, South Korea

**Prof. Mohammad R. Movahed**University of Arizona College of Medicine, USA

**Prof. Lawrence C. Perlmuter** Rosalind Franklin University of Medicine, USA

**Dr. Pandurangan Ramaraj** A. T. Still University, Kirksville, Missouri, USA

Prof. Danilo Grünig Humberto da Silva Departamento de Biologia (UNESP/IBILCE), Brazil

**Dr. Weiwei Song** Temple University School of Medicine, USA

**Dr. Mukesh Tiwari** North Shore University Hospital, USA



ISSN Online: 2165-7432 ISSN Print: 2165-7424

# **Table of Contents**

Volume 11	Number 7	<b>July 2021</b>
Low Reverse T3: A	Reliable, Sensitive and Specific in Diagnosis of Central Hy	pothyroidism/
S Evley S Ranzal	II Kahadi	137

## Open Journal of Endocrine and Metabolic Diseases (OJEMD) Journal Information

#### SUBSCRIPTIONS

The *Open Journal of Endocrine and Metabolic Diseases* (Online at Scientific Research Publishing, <a href="https://www.scirp.org/">https://www.scirp.org/</a>) is published monthly by Scientific Research Publishing, Inc., USA.

#### Subscription rates:

Print: \$79 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

#### **SERVICES**

#### Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

#### Reprints (minimum quantity 100 copies)

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

E-mail: sub@scirp.org

#### **COPYRIGHT**

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2021 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

http://creativecommons.org/licenses/by/4.0/

#### Copyright for individual papers of the journal:

Copyright © 2021 by author(s) and Scientific Research Publishing Inc.

#### Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### Disclaimer of liability

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 assume 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: ojemd@scirp.org





# Call for Papers

# Open Journal of Endocrine and Metabolic Diseases

https://www.scirp.org/journal/ojemd

Open Journal of Endocrine and Metabolic Diseases (OJEMD) is an international journal dedicated to the latest advancement in endocrine and metabolic diseases. 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 endocrine and metabolic diseases.

#### **Editorial Board**

Prof. Belinda R. Beck Dr. Chong-Chi Chiu Prof. Sang Ho Choi Prof. Fernando Cordido Dr. Zhongquan Dai

Prof. Daniel Y. C. Fung Dr. Arumugam R. Jayakumar

Dr. Li Ji

Dr. Udaya M. Kabadi Prof. Wan Lee

Prof. Mohammad R. Movahed Prof. Lawrence C. Perlmuter Dr. Pandurangan Ramaraj

Prof. Danilo Grünig Humberto da Silva

Dr. Weiwei Song Dr. Mukesh Tiwari Griffith University, Australia

Chi-Mei Medical Center, Chinese Taipei Seoul National University, South Korea

University of A Coruña, Spain

China Astronaut Research and Training Center, China

Kansas State University, USA University of Miami, USA

University of Mississippi Medical Center, USA

VA Medical Center, USA

Dongguk University School of Medicine, South Korea University of Arizona College of Medicine, USA Rosalind Franklin University of Medicine, USA A. T. Still University, Kirksville, Missouri, USA Departamento de Biologia (UNESP/IBILCE), Brazil

Temple University School of Medicine, USA North Shore University Hospital, USA

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:

- Bone and Mineral Metabolism
- Cell Metabolism
- Clinical Endocrinology
- Clinical Nutrition and Metabolism
- Dermato-Endocrinology
- Diabetes Mellitus
- Diabetes, Obesity and Metabolism
- Diabetology and Metabolic Syndrome
- Diseases of the Pancreas
- Drug Metabolism & Toxicology
- Endocrine & Metabolic Disorders
- Endocrine Disorders

- Endocrine Pathology
- Inherited Metabolic Disease
- Metabolic Brain Disease
- Metabolic Engineering
- Metabolic Eng
  Metabolic Eng
- Molecular and Cellular Endocrinology
- Molecular Genetics and Metabolism
- Neuroendocrinology
- Nutrition, Metabolism and Cardiovascular Diseases

E-mail: ojemd@scirp.org

- Pediatric Endocrinology
- Psychoneuroendocrinology
- Reproductive Biology and Endocrinology

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

https://www.scirp.org/journal/ojemd

#### What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience





Website: https://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org