

# touchREVIEWS in Endocrinology

Volume 17 • Issue 1



Cover image: Fat cells – 3d rendered illustration By xrender

#### **Editorial Directors**

Helen Fowler

#### **Commissioning Editors**

Sophie Nickelson (Therapy Lead) Katey Gabrysch

#### **Editorial Workflow**

Lisa Glass Heather Hall Joanna Macdiarmid

#### **Editorial Assistant**

Louise Taylor

#### Design Manager Julie Stevenson

#### **Group Head Medical & Editorial**

Nicola Cartridge

T: +44 (0)20 7193 3186

Barney Kent

E: barnev.kent@touchmedicalmedia.com

Caroline Markham

E: caroline.markham@touchmedicalmedia.com T: +44 (0)20 7193 3704

© shutterstock.com

Gina Furnival

E: nicola.cartridge@touchmedicalmedia.com

#### **CEO & Managing Director**

T: +44 (0)20 7193 3009

### **Head of Strategic Partnerships**

#### **Editor-in-Chief**

#### John Doupis

Director of the Diabetes Division of latriko Palaiou Falirou Medical Center and the Internal Medicine and Diabetes Department, the NS Naval Hospital, Athens, Greece

#### **Section Editors**

#### George P Chrousos

Professor and Chairman, First Department of Paediatrics, University of Athens Medical School, Athens, Greece

#### **Neil Gittoes**

Head, Centre for Endocrinology, Diabetes and Metabolism, University Hospitals Birmingham and University of Birmingham, Birmingham, UK

#### Ashley Grossman

Professor of Endocrinology, Oxford Centre for Diabetes, Endocrinology and Metabolism, University of Oxford, Oxford, UK

#### **Chantal Mathieu**

Professor of Medicine, Catholic University of Leuven, Leuven, Belgium

Senior Clinical Lecturer in Endocrinology, Imperial College London, London, UK

#### **Editorial Board**

#### S Faisal Ahmed

Samson Gemmell Chair of Child Health, Consultant in Paediatric Endocrinology, School of Medicine, University of Glasgow, Glasgow, UK

#### **Philippe Bouchard**

Professor and Chairman, Department of Endocrinology, Hospital Saint Antoine and University Pierre and Marie Curie, Paris, France

# Francesco Chiarelli Professor of Paediatrics, D'Annunzio

University of Chieti-Pescara, Chieti, Italy

### Annamaria Colao

Full Professor, University of Naples Federico II, Naples, Italy

#### Thomas Danne

Professor of Paediatrics, Children's Hospital 'Auf der Bult', Hannover, Germany

### Deep Dutta

Senior Endocrinologist, Department of Endocrinology, CEDAR Super-specialty Clinics, New Delhi, India

**Ulla Feldt-Rasmussen** Professor, Department of Endocrinology, Centre of Cancer and Organ Diseases, University of Copenhagen, Copenhagen, Denmark

**Anne-Marie Felton**President, Federation of European Nurses in Diabetes (FEND), Newcastle On Tyne, UK

**Angus Forbes**Professor of Diabetes Nursing and Chair,
Foundation of European Nurses in Diabetes (FEND), King's College London, London, UK

#### **Baptist Gallwitz**

Professor of Medicine, Eberhard Karls University of Tübingen, Tübingen, Germany

#### Andrea R Genazzani

Professor and Director, Department of Reproductive Medicine and Child Development, University of Pisa, Pisa, Italy

**Ezio Ghigo**Professor, Division of Endocrinology and
Metabolism, University of Turin, Turin, Italy

#### **Burkhard Göke**

Medical Director and CEO, University Medical Center Hamburg-Eppendorf, Hamburg, Germany

**Anthony M Heagerty** Professor, University of Manchester, Manchester, UK

### Jens Juul Holst

Professor of Medical Physiology, University of Copenhagen, Copenhagen, Denmark

#### Ilpo Huhtaniemi

Emeritus Professor of Reproductive Emdocrinology, Faculty of Medicine, Department of Surgery & Cancer, Imperial College London, London, UK

Anna-Lena Hulting Professor, Endocrinology, Metabolism and Diabetology, Karolinska University Hospital, Solna, Sweden

Sanjay Kalra Executive Editor, JoSH Diabetes, Bharti Hospital, Karnal, India

**Robert Knutzen** President and CEO, Pituitary Network Association (PNA), Thousand Oaks,

#### Andrea Lenzi

Full Professor of Endocrinology, 'La Sapienza' University of Rome, Rome, Italy

### Rayaz A Malik

Professor of Medicine at Weill Cornell Medical College, Doha, Qatar & New York City, New York, NY, USA

### Jean Claude Mbanya

Professor of Medicine and Endocrinology, University of Yaoundél, Cameroon, Africa

#### **Furio Pacini**

Professor of Endocrinology, University of Siena, Siena, Italy

#### Enrico Papini

Professor of Endocrinology, 'La Sapienza' University of Rome Medical School, Rome, Italy

### Ralf Paschke

Professor of Internal Medicine and Endocrinology, Leipzig University, Leipzig, Germany

#### Vera Popovic-Brkic

Professor of Medicine, University of Belgrade School of Medicine, Belgrade, Serbia

#### Michael B Ranke

Professor, University Children's Hospital, Eberhard Karls University, Tübingen, Germany

João Filipe Raposo Assistant Professor of Public Health, Medical Faculty of New University of Lisbon; Clinical Director, Protective Association of Diabetics of Portugal, Lisbon, Portugal

#### Martin Silink

Mattin Sillink Professor of Paediatric Endocrinology, University of Sydney; Children's Hospital, Westmead, Sydney, Australia

Johannes WA Smit Professor and Chairman, Department of Endocrinology, Leiden University Medical Centre, Leiden, Netherlands

**Solomon Tesfaye** Consultant Physician and Honorary Professor of Diabetic Medicine, University of Sheffield, Sheffield, UK

### Tommaso Simonicini

Professor of Obstetrics and Gynaecology, Department of Clinical and Experimental Medicine, University of Pisa, Pisa, Italy

#### Peter Trainer

Professor of Endocrinology, University of Manchester, Manchester, UK

### Graham R Williams

Professor of Endocrinology, Imperial College London, London, UK

touchREVIEWS in Endocrinology wishes to thank the organisations below for their assistance. This does not constitute any official endorsement.























www.touchmedicalmedia.com

All information obtained by Touch Medical Media and each of the contributors from various sources is as current and accurate as possible. However, due to human or mechanical errors, Touch Medical Media and the contributors cannot guarantee the accuracy, adequacy or completeness of any information, and cannot be held responsible for any errors or omissions, or for the results obtained from the use thereof. Where opinion is expressed, it is that of the authors and does not necessarily coincide with the editorial views of Touch Medical Media. Statistical and financial data in this publication have been compiled on the basis of factual information and do not constitute any investment advertisement or investment advice. For the avoidance of doubt, the information contained in this publication is intended for use by licensed medical professionals. The content should not be considered medical advice, diagnosis or treatment recommendations.

© 2021 Touch Medical Media Limited, trading as Touch Medical Media, is a private limited company registered in England and Wales at The White House, Mill Road, Goring, Reading, England, RG8 9DD with registered number 08197142. All rights reserved.

# touchREVIEWS in Endocrinology

Established: December 2005 Frequency: Bi-annual Current edition: Volume 17 Issue 1

#### Aims and Scope

- touchREVIEWS in Endocrinology enables time-pressured physicians to stay abreast of major advances and opinion in endocrine practice in Europe.
- touchREVIEWS in Endocrinology comprises balanced and comprehensive articles, addressing the most important and salient developments in the endocrinology field.
- touchREVIEWS in Endocrinology endeavours to support physicians, clinicians and related healthcare professionals in continuously developing their knowledge, effectiveness and productivity. The editorial policy has been designed to encourage discussion among this peer group.
- Comprehensive bibliographies for each article mean that touchREVIEWS in Endocrinology is an informative and valuable reference tool for use throughout the year.
- All articles are subject to peer review, and must adhere to the ICMJE, GPP-3, and COPE guidelines.

#### **Structure and Format**

- touchREVIEWS in Endocrinology is a peer-reviewed, free-toaccess, bi-annual journal comprising expert interviews, review articles, case reports, editorials, special reports and original research.
- The structure of each edition of the publication comprises section categories determined by the Managing Editor. The degree of coverage assigned to each category is the decision of the Managing Editor, and in part reflects the views of the Editorial Board
- All articles disclose any author disclosures along with any funding, financial support, and medical writing assistance.
- Each edition of touchREVIEWS in Endocrinology is published in full online at www.touchENDOCRINOLOGY.com

### **Editorial Expertise**

touch REVIEWS in Endocrinology is supported by various levels of expertise:

- Guidance from an Editorial Board consisting of leading authorities from a variety of endocrine disciplines.
- Invited contributors who are recognised authorities from their respective fields.
- Peer review conducted by experts appointed for their experience and knowledge of a specific topic.
- An experienced team of editors and technical editors.

#### Peer Review

- On submission, all articles are assessed by the Managing Editor to determine their suitability for inclusion and appropriateness for peer review.
- The Managing Editor identifies at least two appropriate reviewers, who are selected on the basis of their specialist knowledge in the relevant area, following consultation with a member of the Editorial Board where necessary.
- We aim to have the final peer review decision within 4 weeks.
- Following review, papers are either accepted without modification, returned to the author(s) to incorporate required changes or not accepted for publication.
- The Managing Editor reserves the right to accept or reject any proposed amendments on the advice of the Editorial Board and reviewers

#### **Submissions and Instructions for Authors**

- The Managing Editor commissions articles with guidance from the Editorial Board and unsolicited articles are welcomed.
- The Managing Editor is always keen to hear from authors wishing to discuss potential submissions, and will give due consideration to any proposals. Please contact the Managing Editor for further details.
- The 'Instructions for Authors' information is available for download at www.touchENDOCRINOLOGY.com

#### **Distribution and Readership**

touchREVIEWS in Endocrinology is distributed bi-annually through controlled circulation to healthcare and pharmaceutical professionals in the field in Europe.

#### **Abstracting and Indexing**

touchREVIEWS in Endocrinology is abstracted, indexed and listed in PubMed Central, Embase, Genamics JournalSeek, Google Scholar, IndexCopernicus and Summon by Serial Solutions.

#### Free-to-access

All articles are free-to-access, which allows everyone in the endocrinology field to download published articles for free.

#### Online

www.touchmedicalmedia.com provides clinicians and other industry professionals with a free resource of articles from over nine titles, spanning seven therapy areas including cardiology, endocrinology, immunology, neurology, oncology, ophthalmology and respiratory. Also available online at www.touchENDOCRINOLOGY.com is touchREVIEWS in Endocrinology's sister publication, US Endocrinology.

### Society Partners

touchENDOCRINOLOGY.com has developed very valuable society partnerships with the most respected not-for-profit medical societies both in Europe and the USA. These partnerships are key as touchENDOCRINOLOGY.com helps to promote awareness of these medical societies while also providing free-to-access, peer-reviewed articles and multimedia content to the society members, which ensures that the community is kept up-to-date with the latest cutting-edge content and opinion from world-renowned doctors.

### About Touch Medical Media

Touch Medical Media publishes a rich and diverse portfolio of free-to-access, peer-reviewed journals across the clinical and pharmaceutical arenas. Touch Medical Media aims to assist in the education and practice of healthcare and pharmaceutical professionals.

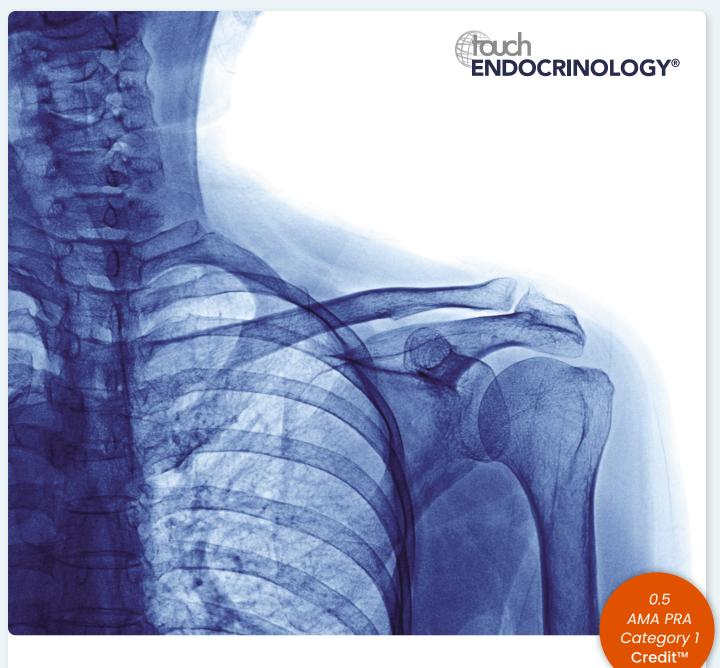




## touchSYMPOSIUM

Learn about management strategies for menopausal vasomotor symptoms and personalizing treatment for each patient

**WATCH NOW** 



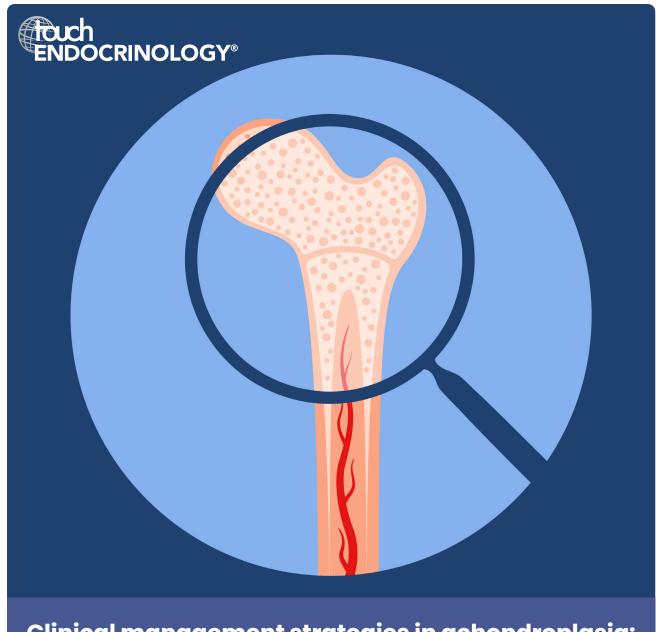
**RARE BONE DISEASES -**

MOVING AWAY FROM DIAGNOSTIC ODYSSEY TOWARDS EFFECTIVE TREATMENTS

# A touchPANEL DISCUSSION - CME Accredited

What advances have been made recently in the diagnosis and treatment of rare bone diseases?

WATCH NOW: touchendocrinology.com/progress-in-rare-bone-diseases-panel



Clinical management strategies in achondroplasia: Current landscape and new horizons

Watch three leading experts explore how the pathophysiology of achondroplasia is being targeted by new and emerging pharmacotherapies to restore endochondral ossification.

**WATCH NOW** 

### **Contents**



### **Foreword**

1 Foreword

**John Doupis** 

Department of Internal Medicine and Diabetes, Salamis Naval and Veterans Hospital, Salamis Naval Base, Attiki, Greece

### **Editorial**

**Diabetes** 

The Role of Individualized Exercise Prescription in Type 2 Diabetes Mellitus Management John Doupis, Konstantinos Karras, Konstantinos Avramidis

Department of Internal Medicine and Diabetes, Salamis Naval and Veterans Hospital, Salamis Naval Base, Attiki, Greece

### **Special Report**

**Diabetes** 

The DFUC 2020 Dataset: Analysis Towards Diabetic Foot Ulcer Detection

Bill Cassidy,¹ Neil D Reeves,² Joseph M Pappachan,²,³,⁴ David Gillespie,¹ Claire O'Shea,⁵ Satyan Rajbhandari,³

Arun G Maiya,⁴ Eibe Frank,² Andrew JM Boulton,⁴ David G Armstrong,³ Bijan Najafi,³ Justina Wu,⁵

Rupinder Singh Kochhar³ and Moi Hoon Yap¹

1. Centre for Applied Computational Science, Faculty of Science and Engineering, Manchester Metropolitan University, Manchester, UK; 2. Research Centre for Musculoskeletal Science & Sports Medicine, Faculty of Science and Engineering, Manchester Metropolitan University, Manchester, UK; 3. Lancashire Teaching Hospitals, Preston, UK; 4. School of Medical Sciences, University of Manchester, Manchester, UK; 5. Waikato District Health Board, Hamilton, New Zealand; 6. Manipal College of Health Professions, Karnataka, India; 7. Department of Computer Science, University of Waikato, Hamilton, New Zealand; 8. Keck School of Medicine, University of Southern California, Los Angeles, CA, USA; 9. Baylor College of Medicine, Houston, TX USA

#### **Reviews**

**Diabetes** 

Dapagliflozin as an Adjunct Therapy to Insulin in Patients with Type 1 Diabetes Mellitus: Efficacy and Safety of this Combination

Johan H Jendle, 1 Francisco J Ampudia-Blasco, 2 Martin Füchtenbusch 3 and Paolo Pozzilli 4

1. Institution of Medical Sciences, Örebro University, Örebro, Sweden; 2. Endocrinology and Nutrition Department, Clinic University Hospital Valencia, INCLIVA Biomedical Research Institute, Valencia, Spain; 3. Diabetes Centre at Marienplatz, Munich, Germany, Diabetes Research Study Group e.V. at Helmholt Zentrum Munich, Germany; 4. University Campus Bio-Medico, Rome, Italy

#### **Endocrine Oncology**

21 Organ-specific Adverse Events of Immune Checkpoint Inhibitor Therapy, with Special Reference to Endocrinopathies

Annu Susan George,1 Cornelius J Fernandez,2 Dilip Eapen2 and Joseph M Pappachan3,4,5

1. Department of Medical Oncology, Lakeshore Hospital, Cochin, Kerala, India; 2. Department of Endocrinology, Pilgrim Hospital, United Lincolnshire Hospitals NHS Trust, Boston, UK; 3. Department of Endocrinology & Metabolism, Lancashire Teaching Hospitals NHS Trust, Preston, UK; 4. Manchester Metropolitan University, Manchester, UK; 5. The University of Manchester, Manchester, UK



### **Contents**



### **Reviews**

**Liver Disorders** 

Potential Role of Dexamphetamine in the Treatment of Non-alcoholic Fatty Liver Disease: Hopes and Pitfalls

CS Gautam, 1 Jatin Sharma, 2 Mandeep Singla, 1 Ilmjot Kaur Tiwana 3 and Harmanjit Singh 1

1. Department of Pharmacology, Government Medical College and Hospital, Chandigarh, India; 2. Department of Pharmacology, All India Institute of Medical Sciences, New Delhi, India; 3. Government Medical College and Rajindra Hospital, Patiala, India

**Reproductive Endocrinology** 

37 Assessment of Early Markers of Cardiovascular Risk in Polycystic Ovary Syndrome

Krystallenia I Alexandraki, 1,2 Eleni A Kandaraki, 3,4 Kalliopi-Anna Poulia, 5 Christina Piperi, 6 Eirini Papadimitriou1 and Theodoros G Papaioannou?

1.Medical School, National and Kapodistrian University of Athens, Athens, Greece; 2. Eleitho Practice, Athens, Greece; 3. Medical School, European University Cyprus (EUC), Nicosia, Cyprus; 4. Department of Endocrinology & Diabetes Mellitus, HYGEIA Hospital, Athens, Greece; 5. Department of Nutrition, Laiko General Hospital, Athens, Greece; 6. Department of Biological Chemistry, School of Medicine, National and Kapodistrian University of Athens, Athens, Greece; 7. First Department of Cardiology, Medical School, National and Kapodistrian University of Athens, Athens, Greece.

### **Original Research**

**Reproductive Endocrinology** 

54 Clinical, Metabolic and Hormonal Profiles of Bangladeshi Adolescents with Polycystic Ovary Syndrome

ABM Kamrul-Hasan, 1 Fatema Tuz Zahura Aalpona 2 and Shahjada Selim 3

1. Department of Endocrinology, Mymensingh Medical College, Mymensingh, Bangladesh; 2. Outpatient Department, Gynaecology & Obstetrics, Mymensingh Medical College Hospital, Mymensingh, Bangladesh; 3. Department of Endocrinology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh.

### **Case Reports**

**Bone Disorders** 

59 Renal Tubular Acidosis Manifesting as Severe Metabolic Bone Disease

Hiya Boro, Saurav Khatiwada, Sarah Alam, Suraj Kubihal, Vinay Dogra, Velmurugan Mannar and Rajesh Khadgawat Department of Endocrinology and Metabolism, All India Institute of Medical Sciences, New Delhi, India

Diabetes

68 Diabetes Mellitus of Pituitary Origin: A Case Report

Mandeep Singla and Jaspreet Kaur Saini

Department of General Medicine, Government Medical College and Hospital, Chandigarh, India



### **Contents**



### **Case Reports**

**Endocrine Oncology** 

- 71 Case Report of a Rare Adrenocortical Oncocytoma Suspected to be an Adrenal Carcinoma Inês Isabel Ferreira Barros, <sup>1</sup> Fernando Manso, <sup>2</sup> Margarida Teixeira <sup>3</sup> and Maria Ramires Silva Lopes Pereira <sup>1</sup>
  - 1. Department of Endocrinology, Braga Public Hospital, Braga, Portugal; 2. Department of General Surgery, Braga Public Hospital Braga, Portugal; 3. Department of Anatomic Pathology, Braga Public Hospital, Braga, Portugal
- 75 An Occult Leydig Cell Tumour in a Postmenopausal Woman Presenting with Alopecia and Hirsutism: A Case Report

Shuann Shwana,¹ Natasha Shrikrishnapalasuriyar,¹ Win Yin,¹ Monica Vij² and Atul Kalhan¹

1. Royal Glamorgan Hospital, Llantrisant, Wales, UK; 2. Singleton Hospital, Swansea, Wales, UK

79 Screening for Hereditary Pheochromocytoma in a Patient with Neurofibromatosis Type 1: A Case Report

Inês Isabel Ferreira Barros,¹ Fernando Manso,² Ana Isabel Caldas e Silva³ and Maria Ramires Silva Lopes Pereira¹

1. Endocrinology Department, Hospital de Braga, Braga, Portugal; 2. General Surgery Department, Hospital de Braga, Braga, Portugal; 3. Anatomic Pathology Department, Hospital de Braga, Braga, Portugal

