EDITORIAL

60 YEARS OF POMC: POMC: the consummate peptide hormone precursor
Adrian J L Clark & Philip Lowry

THEMATIC REVIEWS

60 YEARS OF POMC: Purification and biological characterization of melanotrophins and corticotrophins
Philip Lowry

60 YEARS OF POMC: Lipotropin and beta-endorphin: a perspective
D G Smyth

60 YEARS OF POMC: The proopiomelanocortin gene: discovery, deletion and disease
Adrian J L Clark

60 YEARS OF POMC: N-terminal POMC peptides and adrenal growth
Andrew B Bicknell

60 YEARS OF POMC: From the prohormone theory to pro-opiomelanocortin and to proprotein convertases (PCSK1 to PCSK9) - T49-T62
Michel Christen & Majambu Mbikay

60 YEARS OF POMC: From POMC and α-MSH to PAM, molecular oxygen, copper, and vitamin C
Dhivya Kumar, Richard E Mains & Betty A Eipper

60 YEARS OF POMC: Biosynthesis, trafficking, and secretion of pro-opiomelanocortin-derived peptides
Nahir X Caeloy, Zhaojin Li & Y Peng Loh

60 YEARS OF POMC: Transcriptional and epigenetic regulation of POMC gene expression
Jacques Drouin

60 YEARS OF POMC: POMC: an evolutionary perspective
Sandra Navarro, Lucia Soletto, Sara Puchol, Josep Rotllant, Jose Luis Saengas & Jose Miguel Cerdà-Reverter

Contents continued on the inside back cover
The Society for Endocrinology is one of the world’s leading authorities on hormones. Established in 1946, the Society’s aims are to support the advancement of scientific and clinical knowledge and increase research in endocrinology for the public benefit. It also plays a vital role in promoting and supporting endocrinology worldwide.

The Society for Endocrinology offers a range of journals including Journal of Endocrinology, Journal of Molecular Endocrinology, Endocrine-Related Cancer, Endocrine Connections (open access) and Clinical Endocrinology.

For more information visit www.endocrinology.org

**COVER ART COMPETITION**

Readers are invited to submit their endocrinology images for entry into the Journal of Molecular Endocrinology cover art competition. Winners will be selected by the Editor-in-Chief and will have their imagery featured on the cover of an issue of Journal of Molecular Endocrinology, both in print and online. Winners will be cited in the journal and will receive a professionally printed copy of the journal cover featuring their scientific image.

To enter the competition please email your images to jme@endocrinology.org accompanied with a short caption of 25-30 words explaining what the image depicts, its magnification and who should be acknowledged for its production. Images should be of high quality and resolution of at least 300 dpi at final published size 220 mm (W) × 100 mm (H).

By submitting an image you warrant that you own the copyright and agree that images may be used in promotional material. Images not selected for use may still be used by the Society for Endocrinology and Bioscientifica for promotional purposes.

**THIS ISSUE’S COVER**

The image depicts the regulatory sequences of the rat POMC gene. In addition to the promoter, three enhancer sequences contribute to either pituitary or hypothalamic expression of POMC. The diagrams depict current knowledge on DNA binding transcription factors acting on these enhancers. From Drouin 2016 56 T99–T102.

Credit: J Drouin, Institut de recherches cliniques de Montréal (IRCM), Montréal, Canada

**CONTENTS continued from outside back cover**

60 YEARS OF POMC: Melanocortin receptors: evolution of ligand selectivity for melanocortin peptides
Robert M Dores, Liang Liang, Perry Davis, Alexa L Thomas & Bogdana Petko

60 YEARS OF POMC: Adrenal and extra-adrenal functions of ACTH
Nicole Gallo-Payet

60 YEARS OF POMC: Regulation of feeding and energy homeostasis by α-MSH

SGK1 inhibitor reverses hyperglycemia partly through decreasing glucose absorption
Ping Li, Yan Hao, Feng-Hui Pan, Min Zhang, Jian-Giang Ma & Da-Long Zhu

3,5-T alters murine genes relevant for xenobiotic, steroid, and thyroid hormone metabolism
Julika Lietzow, Janine Golcher, Georg Homuth, Uwe Völker, Wenke Jonas & Josef Köhrle

Prohibitin regulates the FSH signaling pathway in rat granulosa cell differentiation
Indrajit Chowdhury, Kelwyn Thomas, Anthony Zeleznik & Winston E Thompson

Foxo3b but not Foxo3a activates cyp19a1a in Epinephelus coioides
Qiongyou Liu, Yang Zhang, Boyang Shi, Huijie Lu, Lihong Zhang & Weimin Zhang

**RESEARCH**

Autophagy protects osteoblasts from advanced glycation end products-induced apoptosis through intracellular reactive oxygen species
Lai Yang, Hongzhong Meng & Maowei Yang

301–309

311–323

325–336

337–349

For more information visit www.endocrinology.org

Readers are invited to submit their endocrinology images for entry into the Journal of Molecular Endocrinology cover art competition. Winners will be selected by the Editor-in-Chief and will have their imagery featured on the cover of an issue of Journal of Molecular Endocrinology, both in print and online. Winners will be cited in the journal and will receive a professionally printed copy of the journal cover featuring their scientific image.

To enter the competition please email your images to jme@endocrinology.org accompanied with a short caption of 25-30 words explaining what the image depicts, its magnification and who should be acknowledged for its production. Images should be of high quality and resolution of at least 300 dpi at final published size 220 mm (W) × 100 mm (H).

By submitting an image you warrant that you own the copyright and agree that images may be used in promotional material. Images not selected for use may still be used by the Society for Endocrinology and Bioscientifica for promotional purposes.

The image depicts the regulatory sequences of the rat POMC gene. In addition to the promoter, three enhancer sequences contribute to either pituitary or hypothalamic expression of POMC. The diagrams depict current knowledge on DNA binding transcription factors acting on these enhancers. From Drouin 2016 56 T99–T102.

Credit: J Drouin, Institut de recherches cliniques de Montréal (IRCM), Montréal, Canada