FOCUSED REVIEWS

Improvements in IVF in women of advanced age  F1–F6
Norbert Gleicher, Vitaly A Kushnir, David F Albariño & David H Barad

Obesity, hypertension and aldosterone: is leptin the link?  F7–F11
Ding Xie & Wendy B Bollag

REVIEWS

Endocrine regulation of circadian physiology  R1–R11
Anthony H Tsang, Mariana Astiz, Maureen Friedrichs & Henrik Oster

Plasma steroid-binding proteins: primary gatekeepers of steroid hormone action  R13–R25
Geoffrey L Hammond

Collective timekeeping among cells of the master circadian clock  R27–R49
Jennifer A Evans

RESEARCH

Adipocyte glucocorticoid receptor has a minor contribution in adipose tissue growth  1–11
Sébastien Desarzens & Nourdine Faresse

Loss of Mrap2 is associated with Sim1 deficiency and increased circulating cholesterol  13–26
T V Novoselova, R Larder, D Rimmington, C Lelliott, E H Wynn, R J Gorrigan, P H Tate, L Guasti, The Sanger Mouse Genetics Project, S D Rahilly, A J L Clark, D W Logan, A P Coll & L F Chan

HPA axis and vagus nervous function are involved in impaired insulin secretion of MSG-obese rats  27–38
Rossana A Miranda, Rosana Tormazian, Julio C de Oliveira, Luz P Barella, Claudimínia C da Silva Franco, Patrícia C Llóboa, Egberto G Moura & Paulo C M Mathias

Depot- and sex-specific effects of maternal obesity in offspring’s adipose tissue  39–53
Simon Leocardi, Barbara Darancio, Christine Labrie, Delphine Ebetê, Célime Guineu, Polina E Panchenko, Jean Lesage, Didier Vrasoiu, Claudine Junien, Anne Gabory & Christophe Breton

The role of GPR1 signaling in mice corpus luteum  55–65
Yi-Li Yang, Li-Rong Ren, Li-Feng Sun, Chen Huang, Tian-Xia Xie, Bao-Bei Wang, Jie Chen, Brian A Zabel, Peigen Ren & Jian V Zhang

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

THIS ISSUE’S COVER

Readers are invited to submit their endocrinology images for entry into the Journal of 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 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 joe@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 the 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.

CONTENTS continued from outside back cover

Prenatal hyperandrogenism induces alterations that affect liver lipid metabolism 67-79
Giselle Adriana Abruzzese, Silvana Rocio Ferreira, Leandro Martin Vellez, Rosana Reynoso, Omar Pedro Pignataro & Alicia Beatriz Motta

Precise expression of Fis1 is important for glucose responsiveness of beta cells 81-91
Julia Schlutz, Rita Watershoft, Tobias Kantowski, Annekatrin Rickmann, Florian Reinhardt, Vladimir Shangayko, Hindrik Mulder, Markus Tiedge & Simone Baltrusch

Excessive training impairs the insulin signal transduction in mice skeletal muscles 93-104
Bruno C Pereira, Alisson L da Rocha, Ana P Pinho, José P Pauli, Leandro P de Moura, Rania A Nakary, Ellen C de Freitas & Adelmo S R da Silva

Elevation of circulating serotonin improves calcium dynamics in the periparturient dairy cow 105-123
Samantha P Weaver, Austin P Crump, Matthew S Alkins, Thomas D Orenshaw, Rupert M Bruckmaier & Laura L Hernandez

Elevating circulating serotonin improves calcium dynamics in the periparturient dairy cow 105-123
Samantha P Weaver, Austin P Crump, Matthew S Alkins, Thomas D Orenshaw, Rupert M Bruckmaier & Laura L Hernandez

Contents continued from outside back cover

Prenatal hyperandrogenism induces alterations that affect liver lipid metabolism 67-79
Giselle Adriana Abruzzese, Silvana Rocio Ferreira, Leandro Martin Vellez, Rosana Reynoso, Omar Pedro Pignataro & Alicia Beatriz Motta

Precise expression of Fis1 is important for glucose responsiveness of beta cells 81-91
Julia Schlutz, Rita Watershoft, Tobias Kantowski, Annekatrin Rickmann, Florian Reinhardt, Vladimir Shangayko, Hindrik Mulder, Markus Tiedge & Simone Baltrusch

Excessive training impairs the insulin signal transduction in mice skeletal muscles 93-104
Bruno C Pereira, Alisson L da Rocha, Ana P Pinho, José P Pauli, Leandro P de Moura, Rania A Nakary, Ellen C de Freitas & Adelmo S R da Silva

Elevation of circulating serotonin improves calcium dynamics in the periparturient dairy cow 105-123
Samantha P Weaver, Austin P Crump, Matthew S Alkins, Thomas D Orenshaw, Rupert M Bruckmaier & Laura L Hernandez

Early-life glucocorticoids programme behaviour and metabolism in adulthood in zebrafish 125-142
K S Wilson, C S Tucker, E A S Al-Dujaili, M C Holmes, P W F Nadoke, C J Kierston & M A Denvir

Progestin increases the expression of gonadotropins in pituitaries of male zebrafish 143-156
Cui Li, Longheng Liu, Weibin Chen, Wei Ge, Wanshu Hong, Yong Zhu & Sh X Chen

Hyperprolactinemia induced by hCG leads to metabolic disturbances in female mice 157-169
Laura D Ratner, Guilhermina Stevens, Maria Ana Mantovani, Victoria A Luc-Lantos, Marti Postieran, Ricardo S Calandra, iapa T Ntshansi & Susana R Rith

Contents continued from outside back cover

Prenatal hyperandrogenism induces alterations that affect liver lipid metabolism 67-79
Giselle Adriana Abruzzese, Silvana Rocio Ferreira, Leandro Martin Vellez, Rosana Reynoso, Omar Pedro Pignataro & Alicia Beatriz Motta

Precise expression of Fis1 is important for glucose responsiveness of beta cells 81-91
Julia Schlutz, Rita Watershoft, Tobias Kantowski, Annekatrin Rickmann, Florian Reinhardt, Vladimir Shangayko, Hindrik Mulder, Markus Tiedge & Simone Baltrusch

Excessive training impairs the insulin signal transduction in mice skeletal muscles 93-104
Bruno C Pereira, Alisson L da Rocha, Ana P Pinho, José P Pauli, Leandro P de Moura, Rania A Nakary, Ellen C de Freitas & Adelmo S R da Silva

Elevation of circulating serotonin improves calcium dynamics in the periparturient dairy cow 105-123
Samantha P Weaver, Austin P Crump, Matthew S Alkins, Thomas D Orenshaw, Rupert M Bruckmaier & Laura L Hernandez

Early-life glucocorticoids programme behaviour and metabolism in adulthood in zebrafish 125-142
K S Wilson, C S Tucker, E A S Al-Dujaili, M C Holmes, P W F Nadoke, C J Kierston & M A Denvir

Progestin increases the expression of gonadotropins in pituitaries of male zebrafish 143-156
Cui Li, Longheng Liu, Weibin Chen, Wei Ge, Wanshu Hong, Yong Zhu & Sh X Chen

Hyperprolactinemia induced by hCG leads to metabolic disturbances in female mice 157-169
Laura D Ratner, Guilhermina Stevens, Maria Ana Mantovani, Victoria A Luc-Lantos, Marti Postieran, Ricardo S Calandra, iapa T Ntshansi & Susana R Rith

Contents continued from outside back cover

Prenatal hyperandrogenism induces alterations that affect liver lipid metabolism 67-79
Giselle Adriana Abruzzese, Silvana Rocio Ferreira, Leandro Martin Vellez, Rosana Reynoso, Omar Pedro Pignataro & Alicia Beatriz Motta

Precise expression of Fis1 is important for glucose responsiveness of beta cells 81-91
Julia Schlutz, Rita Watershoft, Tobias Kantowski, Annekatrin Rickmann, Florian Reinhardt, Vladimir Shangayko, Hindrik Mulder, Markus Tiedge & Simone Baltrusch

Excessive training impairs the insulin signal transduction in mice skeletal muscles 93-104
Bruno C Pereira, Alisson L da Rocha, Ana P Pinho, José P Pauli, Leandro P de Moura, Rania A Nakary, Ellen C de Freitas & Adelmo S R da Silva

Elevation of circulating serotonin improves calcium dynamics in the periparturient dairy cow 105-123
Samantha P Weaver, Austin P Crump, Matthew S Alkins, Thomas D Orenshaw, Rupert M Bruckmaier & Laura L Hernandez

Early-life glucocorticoids programme behaviour and metabolism in adulthood in zebrafish 125-142
K S Wilson, C S Tucker, E A S Al-Dujaili, M C Holmes, P W F Nadoke, C J Kierston & M A Denvir

Progestin increases the expression of gonadotropins in pituitaries of male zebrafish 143-156
Cui Li, Longheng Liu, Weibin Chen, Wei Ge, Wanshu Hong, Yong Zhu & Sh X Chen

Hyperprolactinemia induced by hCG leads to metabolic disturbances in female mice 157-169
Laura D Ratner, Guilhermina Stevens, Maria Ana Mantovani, Victoria A Luc-Lantos, Marti Postieran, Ricardo S Calandra, iapa T Ntshansi & Susana R Rith