

THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM

VOLUME 91, NUMBER 6

JUNE 2006

Special Features

- CLINICAL PRACTICE GUIDELINE: Testosterone Therapy in Adult Men with Androgen Deficiency Syndromes: An Endocrine Society Clinical Practice Guideline** 1995
Shalender Bhasin, Glenn R. Cunningham, Frances J. Hayes, Alvin M. Matsumoto,
Peter J. Snyder, Ronald S. Swerdloff, and Victor M. Montori
- CLINICAL REVIEW: Testosterone Use in Men and Its Effects on Bone Health. A Systematic Review and Meta-Analysis of Randomized Placebo-Controlled Trials** 2011
Michal J. Tracz, Kostandinos Sideras, Enrique R. Boloña, Rudy M. Haddad,
Cassie C. Kennedy, Maria V. Uruga, Sean M. Caples, Patricia J. Erwin, and
Victor M. Montori
- CLINICAL CASE SEMINAR: Maternal and Infant Outcome after Pamidronate Treatment of Polyostotic Fibrous Dysplasia and Osteogenesis Imperfecta before Conception: A Report of Four Cases** 2017
Brendan Chan and Margaret Zacharin
- CLINICAL CASE SEMINAR: Antiphospholipid Antibodies Syndrome Associated with Hyperhomocysteinemia Related to MTHFR Gene C677T and A1298C Heterozygous Mutations in a Young Man with Idiopathic Hypoparathyroidism (DiGeorge Syndrome)** 2021
Carmelo Nucera, Mario Vaccaro, Mariacarla Moleti, Carmen Priolo, Gaetano Tortorella,
Adriano Angioni, Riccardo Ientile, Maria Antonia Violi, Massimo Loda, Francesco Trimarchi,
and Francesco Vermiglio
- CLINICAL REVIEW: Adrenocortical Carcinoma: Clinical Update** 2027
Bruno Allolio and Martin Fassnacht

Editorials

- Editorial: Nocturnal Hypoglycemia—An Unrelenting Problem** 2038
H. Peter Chase
- Editorial: RET/PTC Rearrangement—A Link between Hashimoto's Thyroiditis and Thyroid Cancer. . . or Not** 2040
Yuri E. Nikiforov

THE JOURNAL OF CLINICAL ENDOCRINOLOGY & METABOLISM (ISSN 0021-972X; IPM 0059676) is the official journal of The Endocrine Society, published monthly by The Endocrine Society, 8401 Connecticut Avenue, Suite 900, Chevy Chase, MD 20815-5817. Periodicals postage paid at Chevy Chase, MD and at additional mailing offices. Subscription rates are \$428 (\$569 international); institutions \$769 (\$892 international); institutions on-line only \$694 (U.S. and international); in training \$233 (\$321 international); single copy \$61 (\$69 international). Society member dues of \$266 (\$334 international) includes print and online access to one primary journal and online access to an additional two primary journals. Subscription prices subject to change. All subscriptions start with the January issue. To order call (301) 941-0210. All subscription orders for customers in Japan must be placed through our exclusive agent, USACO Corporation, 17-12, Higashi-Azabu, Minatu-ku, Tokyo 105, Japan. Telephone 03-3505-6161. Please contact USACO for 2006 yen rates. Printed in the U.S.A. POSTMASTER: send address changes to *The Journal of Clinical Endocrinology & Metabolism*, 8401 Connecticut Avenue, Suite 900, Chevy Chase, MD 20815-5817. Indexed by *Index Medicus*, *Current Contents*, *BIOSIS*, *CAB ABSTRACTS*, *CAB HEALTH*, *Elsevier BIOBASE/Current Awareness in Biological Sciences*, *National Biological Service*, *EMBASE/Excerpta Medica*, and *Sociedad Iberoamericana de Información Científica (SIIC)*. Printed on acid-free paper. Table of Contents and abstracts for each issue available on the issue mail date on The Endocrine Society Home Page at <http://jcem.endojournals.org>. Copyright © 2006 by The Endocrine Society.

Editorial: Micropapillary Thyroid Cancer: Should We Aspirate All Nodules Regardless of Size? 2043
 Kenneth D. Burman

Endocrine Care

Effect of Growth Hormone (GH) Treatment on the Near-Final Height of 1258 Patients with Idiopathic GH Deficiency: Analysis of a Large International Database 2047
 Edward O. Reiter, David A. Price, Patrick Wilton, Kerstin Albertsson-Wikland, and Michael B. Ranke

Sensitivity of Fibroblast Growth Factor 23 Measurements in Tumor-Induced Osteomalacia. 2055
 Erik A. Imel, Munro Peacock, Pisit Pitukcheewanont, Howard J. Heller, Leanne M. Ward, Dorothy Shulman, Moustapha Kassem, Paula Rackoff, Mark Zimering, Alan Dalkin, Elaine Drobny, Giacomo Colussi, Joseph L. Shaker, Elizabeth H. Hoogendoorn, Siu L. Hui, and Michael J. Econs

Effects of Fat on Gastric Emptying of and the Glycemic, Insulin, and Incretin Responses to a Carbohydrate Meal in Type 2 Diabetes. 2062
 Diana Gentilcore, Reawika Chaikomin, Karen L. Jones, Antonietta Russo, Christine Feinle-Bisset, Judith M. Wishart, Christopher K. Rayner, and Michael Horowitz

Metformin Therapy during Puberty Delays Menarche, Prolongs Pubertal Growth, and Augments Adult Height: A Randomized Study in Low-Birth-Weight Girls with Early-Normal Onset of Puberty 2068
 Lourdes Ibáñez, Carme Valls, Ken Ong, David B. Dunger, and Francis de Zegher

Randomized, Controlled Trial of Metformin for Obesity and Insulin Resistance in Children and Adolescents: Improvement in Body Composition and Fasting Insulin 2074
 Shubha Srinivasan, Geoffrey R. Ambler, Louise A. Baur, Sarah P. Garnett, Mirijana Tepsa, Fabian Yap, Glenn M. Ward, and Christopher T. Cowell

Evidence for Hypermetabolism in Boys with Constitutional Delay of Growth and Maturation. 2081
 Joan C. Han, Prabharakan Balagopal, Shawn Sweeten, Dominique Darmaun, and Nelly Mauras

Nocturnal Hypoglycemia in Type 1 Diabetes: An Assessment of Preventive Bedtime Treatments 2087
 Bharathi Raju, Ana Maria Arbelaez, Suzanne M. Breckenridge, and Philip E. Cryer

Lack of Evidence of Premature Atherosclerosis in Untreated Severe Isolated Growth Hormone (GH) Deficiency due to a GH-Releasing Hormone Receptor Mutation 2093
 Joselina Luzia Menezes Oliveira, Celi Marques-Santos, José Augusto Barreto-Filho, Roberto Ximenes Filho, Allan Valadao de Oliveira Britto, Anita Herminia Oliveira Souza, Clarisse Miranda Prado, Carla Raquel Pereira Oliveira, Rossana Maria C. Pereira, Tábita de Almeida Ribeiro Vicente, Catarine Teles Farias, Manuel Hermínio Aguiar-Oliveira, and Roberto Salvatori

Heritability of Polycystic Ovary Syndrome in a Dutch Twin-Family Study. 2100
 J. M. Vink, S. Sadrzadeh, C. B. Lambalk, and D. I. Boomsma

High Risk of Hypopituitarism after Traumatic Brain Injury: A Prospective Investigation of Anterior Pituitary Function in the Acute Phase and 12 Months after Trauma 2105
 Fatih Tanriverdi, Hakan Senyurek, Kursad Unluhizarci, Ahmet Selcuklu, Felipe F. Casanueva, and Fahrettin Kelestimur

Predictors of Tumor Shrinkage after Primary Therapy with Somatostatin Analogs in Acromegaly: A Prospective Study in 99 Patients. 2112
 Annamaria Colao, Rosario Pivonello, Renata S. Auriemma, Francesco Briganti, Mariano Galdiero, Fabio Tortora, Ferdinando Caranci, Sossio Cirillo, and Gaetano Lombardi

Adiponectin, Adiposity, and Insulin Resistance in Children and Adolescents. 2119
 Zubin Punthakee, Edgard E. Delvin, Jennifer O'Loughlin, Gilles Paradis, Emile Levy, Robert W. Platt, and Marie Lambert

Subclinical Hypothyroidism, Arterial Stiffness, and Myocardial Reserve 2126
 P. J. D. Owen, C. Rajiv, D. Vinereanu, T. Mathew, A. G. Fraser, and J. H. Lazarus

| | |
|--|-------------|
| Serum C-Reactive Protein and Its Relation to Cardiovascular Risk Factors and Adipocytokines in Japanese Children | 2133 |
| Tomohide Yoshida, Takuya Kaneshi, Tadao Shimabukuro, Makoto Sunagawa, and Takao Ohta | |
| Insulin Sensitivity, Glucose Effectiveness, and Free Fatty Acid Dynamics after Human Islet Transplantation for Type 1 Diabetes | 2138 |
| Michael R. Rickels, Ali Naji, and Karen L. Teff | |
| Efficacy and Safety of Oral Conivaptan: A V_{1A}/V_2 Vasopressin Receptor Antagonist, Assessed in a Randomized, Placebo-Controlled Trial in Patients with Euvolemic or Hypervolemic Hyponatremia | 2145 |
| Jalal K. Ghali, Michael J. Koren, James R. Taylor, Esther Brooks-Asplund, Kaisheng Fan, Walker A. Long, and Neila Smith, for the Conivaptan Study Group | |
| Early Development of Adiposity and Insulin Resistance after Catch-Up Weight Gain in Small-for-Gestational-Age Children | 2153 |
| Lourdes Ibáñez, Ken Ong, David B. Dunger, and Francis de Zegher | |
| Mortality and Vascular Outcomes in Patients Treated for Thyroid Dysfunction. | 2159 |
| R. W. V. Flynn, T. M. MacDonald, R. T. Jung, A. D. Morris, and G. P. Leese | |
| Mitotane Has an Estrogenic Effect on Sex Hormone-Binding Globulin and Corticosteroid-Binding Globulin in Humans | 2165 |
| Nancy Nader, Gérald Raverot, Agnès Emptoz-Bonneton, Henri Déchaud, Marc Bonnay, Eric Baudin, and Michel Pugeat | |
| Clinical and Histological Characteristics of Papillary Thyroid Microcarcinoma: Results of a Retrospective Study in 243 Patients | 2171 |
| Elio Roti, Roberta Rossi, Giorgio Trasforini, Fiorenza Bertelli, Maria Rosaria Ambrosio, Luciano Busutti, Elizabeth N. Pearce, Lewis E. Braverman, and Ettore C. degli Uberti | |
| Serum 21-Deoxycortisol, 17-Hydroxyprogesterone, and 11-Deoxycortisol in Classic Congenital Adrenal Hyperplasia: Clinical and Hormonal Correlations and Identification of Patients with 11β-Hydroxylase Deficiency among a Large Group with Alleged 21-Hydroxylase Deficiency | 2179 |
| Vania Tonetto-Fernandes, Sofia H. V. Lemos-Marini, Hilton Kuperman, Luciane M. Ribeiro-Neto, Ieda T. N. Verreschi, Claudio E. Kater, and the Brazilian Congenital Adrenal Hyperplasia Multicenter Study Group | |
| The Role of Endogenous Growth Hormone-Releasing Hormone in Acromegaly | 2185 |
| Eleni V. Dimaraki, William F. Chandler, Morton B. Brown, Craig A. Jaffe, Soo Y. Kim, Ronald Taussig, Vasantha Padmanabhan, and Ariel L. Barkan | |
| The Natural History of Partial Growth Hormone Deficiency in Adults: A Prospective Study on the Cardiovascular Risk and Atherosclerosis | 2191 |
| Annamaria Colao, Carolina Di Somma, Stefano Spiezia, Francesca Rota, Rosario Pivonello, Silvia Savastano, and Gaetano Lombardi | |
| BRIEF REPORT: Phase II Study of Celecoxib in Metastatic Differentiated Thyroid Carcinoma | 2201 |
| Ewa Mrozek, Richard T. Kloos, Matthew D. Ringel, Laura Kresty, Paulette Snider, Daria Arbogast, Merrill Kies, Reginald Munden, Naifa Busaidy, Mary Jean Klein, Steven I. Sherman, and Manisha H. Shah | |
| BRIEF REPORT: Thyrotoxicosis after Denileukin Diftitox Therapy in Patients with Mycosis Fungoides | 2205 |
| Farah Ghorri, Kristel D. Polder, Lauren C. Pinter-Brown, Ana O. Hoff, Robert F. Gagel, Steven I. Sherman, and Madeleine Duvic | |
| BRIEF REPORT: Phytoestrogens and Lipoproteins in Women | 2209 |
| C. Noel Bairey Merz, B. Delia Johnson, Glenn D. Braunstein, Carl J. Pepine, Steven E. Reis, Maura Paul-Labrador, Georgina Hale, Barry L. Sharaf, Vera Bittner, George Sopko, and Sheryl F. Kelsey, for the Women's Ischemia Syndrome Evaluation Study Group | |

Other Original Articles

- Aldosterone Blockade Attenuates Urinary Monocyte Chemoattractant Protein-1 and Oxidative Stress in Patients with Type 2 Diabetes Complicated by Diabetic Nephropathy** 2214
 Kohzo Takebayashi, Sachiko Matsumoto, Yoshimasa Aso, and Toshihiko Inukai
- Selective Activation of Somatostatin Receptor Subtypes Differentially Modulates Secretion and Viability in Human Medullary Thyroid Carcinoma Primary Cultures: Potential Clinical Perspectives.** 2218
 Maria Chiara Zatelli, Daniela Piccin, Federico Tagliati, Arianna Bottoni, Andrea Luchin, Cristina Vignali, Angelo Margutti, Marta Bondanelli, Gian Carlo Pansini, Maria Rosa Pelizzo, Michael D. Culler, and Ettore C. degli Uberti
- Ghrelin Is Produced by and Directly Activates Corticotrope Cells from Adrenocorticotropin-Secreting Adenomas** 2225
 Antonio J. Martínez-Fuentes, Jesús Moreno-Fernández, Rafael Vázquez-Martínez, Mario Durán-Prado, Andrés de la Riva, Manuel Tena-Sempere, Carlos Diéguez, Luis Jiménez-Reina, Susan M. Webb, Alfonso Pumar, Alfonso Leal-Cerro, Pedro Benito-López, María M. Malagón, and Justo P. Castaño
- Inhibiting Endogenous Cortisol Blunts the Meal-Entrained Rise in Serum Leptin** 2232
 Blandine Laferrère, Cynthia Abraham, Marianne Awad, Stephanie Jean-Baptiste, Allison B. Hart, Pilar Garcia-Lorda, Peter Kokkoris, and Colleen D. Russell
- The Role of Luteinizing Hormone/Human Chorionic Gonadotropin Receptor-Specific mRNA Binding Protein in Regulating Receptor Expression in Human Ovarian Granulosa Cells.** 2239
 Anil K. Nair, Helle Peegel, and K. M. J. Menon
- Adiponectin in Umbilical Cord Blood Is Inversely Related to Low-Density Lipoprotein Cholesterol But Not Ethnicity** 2244
 Narinder Bansal, Valentine Charlton-Menys, Philip Pemberton, Patrick McElduff, John Oldroyd, Avni Vyas, Abir Koudsi, Peter E. Clayton, J. Kennedy Cruickshank, and Paul N. Durrington
- Diagnostic Criteria for Polycystic Ovary Syndrome and Ovarian Morphology in Women with Type 1 Diabetes Mellitus** 2250
 Ethel Codner, Nestor Soto, Patricia Lopez, León Trejo, Alejandra Ávila, Francisca C. Eyzaguirre, Germán Íñiguez, and Fernando Cassorla
- Cortistatin Inhibits Growth Hormone Release from Human Fetal and Adenoma Pituitary Cells and Prolactin Secretion from Cultured Prolactinomas.** 2257
 Hadara Rubinfeld, Moshe Hadani, Gad Barkai, John E. Taylor, Michael D. Culler, and Ilan Shimon
- Clinical and Functional Characteristics of the Human Arg59Ter Insulin-Like Growth Factor I Receptor (*IGF1R*) Mutation: Implications for a Gene Dosage Effect of the Human *IGF1R*** 2264
 K. Raile, J. Klammt, A. Schneider, A. Keller, S. Laue, R. Smith, R. Pfäffle, J. Kratzsch, E. Keller, and W. Kiess
- The Role of Endocrine Counterregulation for Estimating Insulin Sensitivity from Intravenous Glucose Tolerance Tests** 2272
 Attila Brehm, Karl Thomaseth, Elisabeth Bernroider, Peter Nowotny, Werner Waldhäusl, Giovanni Pacini, and Michael Roden
- Glycosylphosphatidylinositol-Specific Phospholipase D in Nonalcoholic Fatty Liver Disease: A Preliminary Study.** 2279
 Naga Chalasani, Raj Vuppalanchi, Nandita S. Raikwar, and Mark A. Deeg
- Thyrotropin Receptor Epitopes and Their Relation to Histocompatibility Leukocyte Antigen-DR Molecules in Graves' Disease** 2286
 Hidefumi Inaba, William Martin, Anne S. De Groot, Shuwen Qin, and Leslie J. De Groot
- Genetic Variation in 11 β -Hydroxysteroid Dehydrogenase Type 1 Predicts Adrenal Hyperandrogenism among Lean Women with Polycystic Ovary Syndrome** 2295
 Alessandra Gambineri, Valentina Vicennati, Silvia Genghini, Federica Tomassoni, Uberto Pagotto, Renato Pasquali, and Brian R. Walker

| | |
|---|------|
| Regulation of Vascular Endothelial Growth Factor Synthesis and Release by Human Luteal Cells <i>in Vitro</i>. | 2303 |
| Anna Tropea, Fiorella Miceli, Francesca Minici, Federica Tiberi, Mariateresa Orlando, Maria Francesca Gangale, Federica Romani, Stefania Catino, Salvatore Mancuso, Pierluigi Navarra, Antonio Lanzone, and Rosanna Apa | |
| Circulating Adiponectin and Expression of Adiponectin Receptors in Human Skeletal Muscle: Associations with Metabolic Parameters and Insulin Resistance and Regulation by Physical Training | 2310 |
| Matthias Blüher, John W. Bullen, Jr., Jennifer H. Lee, Susan Kralisch, Mathias Fasshauer, Nora Klöting, Josef Niebauer, Michael R. Schön, Catherine J. Williams, and Christos S. Mantzoros | |
| Regulation of the Human Oxytocin Receptor by Nuclear Factor-κB and CCAAT/Enhancer-Binding Protein-β | 2317 |
| Vasso Terzidou, Yooni Lee, Tamsin Lindström, Mark Johnson, Steven Thornton, and Phillip R. Bennett | |
| Follicle Luteinization in Hyperandrogenic Follicles of Polycystic Ovary Syndrome Patients Undergoing Gonadotropin Therapy for <i>in Vitro</i> Fertilization | 2327 |
| Shu C. Foong, David H. Abbott, Michael A. Zschunke, Timothy G. Lesnick, Jennifer L. Phy, and Daniel A. Dumesic | |
| The E23K Variant of <i>KCNJ11</i> Encoding the Pancreatic β-Cell Adenosine 5'-Triphosphate-Sensitive Potassium Channel Subunit Kir6.2 Is Associated with an Increased Risk of Secondary Failure to Sulfonylurea in Patients with Type 2 Diabetes. | 2334 |
| Giorgio Sesti, Emanuela Laratta, Marina Cardellini, Francesco Andreozzi, Silvia Del Guerra, Concetta Irace, Agostino Gnasso, Maria Grupillo, Renato Lauro, Marta Letizia Hribal, Francesco Perticone, and Piero Marchetti | |
| The Functional Characterization of Normal and Neoplastic Human Enterochromaffin Cells | 2340 |
| Irvin M. Modlin, Mark Kidd, Roswitha Pfragner, Geeta N. Eick, and Manish C. Champaneria | |
| Estrogen-Mediated Regulation of p38 Mitogen-Activated Protein Kinase in Human Endometrium. | 2349 |
| Yasemin Seval, Hakan Cakmak, Umit A. Kayisli, and Aydin Arici | |
| Extracellular Matrix Metalloproteinase Inducer Regulates Metalloproteinases in Human Uterine Endometrium | 2358 |
| A. G. Braundmeier, A. T. Fazleabas, B. A. Lessey, H. Guo, B. P. Toole, and R. A. Nowak | |
| Thrombin and Interleukin-1β Regulate HOXA10 Expression in Human Term Decidual Cells: Implications for Preterm Labor | 2366 |
| Jennifer L. Sarno, Frederick Schatz, Charles J. Lockwood, S.-T. Joseph Huang, and Hugh S. Taylor | |
| Ribonucleic Acid Interference Targeting S100A4 (Mts1) Suppresses Tumor Growth and Metastasis of Anaplastic Thyroid Carcinoma in a Mouse Model. | 2373 |
| Yufei Shi, Mingjing Zou, Katharine Collison, Essa Y. Baitei, Zaha Al-Makhalafi, Nadir R. Farid, and Futwan A. Al-Mohanna | |
| <i>PRKARIA</i> Mutations and Protein Kinase A Interactions with Other Signaling Pathways in the Adrenal Cortex | 2380 |
| Audrey Robinson-White, Elise Meoli, Sotirios Stergiopoulos, Anelia Horvath, Sosipatros Boikos, Ioannis Bossis, and Constantine A. Stratakis | |
| Treatment with Drugs Able to Reduce Iodine Efflux Significantly Increases the Intracellular Retention Time in Thyroid Cancer Cells Stably Transfected with Sodium Iodide Symporter Complementary Deoxyribonucleic Acid | 2389 |
| Rossella Elisei, Agnese Vivaldi, Raffaele Ciampi, Pinuccia Faviana, Fulvio Basolo, Ferruccio Santini, Claudio Traino, Furio Pacini, and Aldo Pinchera | |

| | |
|--|-------------|
| Nerve Growth Factor-Dependent Activation of <i>trkA</i> Receptors in the Human Ovary Results in Synthesis of Follicle-Stimulating Hormone Receptors and Estrogen Secretion | 2396 |
| C. Salas, M. Julio-Pieper, M. Valladares, R. Pommer, M. Vega, C. Mastronardi, B. Kerr, S. R. Ojeda, H. E. Lara, and C. Romero | |
| Gonadoblastoma Arising in Undifferentiated Gonadal Tissue within Dysgenetic Gonads. . . | 2404 |
| Martine Cools, Hans Stoop, Anne-Marie F. Kersemaekers, Stenvert L. S. Drop, Katja P. Wolffenbuttel, Jean-Pierre Bourguignon, Jolanta Slowikowska-Hilczer, Krzysztof Kula, Sultana M. H. Faradz, J. Wolter Oosterhuis, and Leendert H. J. Looijenga | |
| RET/Papillary Thyroid Cancer Rearrangement in Nonneoplastic Thyrocytes: Follicular Cells of Hashimoto's Thyroiditis Share Low-Level Recombination Events with a Subset of Papillary Carcinoma | 2414 |
| Kerry J. Rhoden, Kristian Unger, Giuliana Salvatore, Yesim Yilmaz, Volodymyr Vovk, Gennaro Chiappetta, Mazin B. Qumsiyeh, Jay L. Rothstein, Alfredo Fusco, Massimo Santoro, Horst Zitzelsberger, and Giovanni Tallini | |
| BRIEF REPORT: Relation between Circulating Angiotensin II Type 1 Receptor Agonistic Autoantibodies and Soluble <i>fms</i>-Like Tyrosine Kinase 1 in the Pathogenesis of Preeclampsia | 2424 |
| H. Stepan, R. Faber, N. Wessel, G. Wallukat, H.-P. Schultheiss, and T. Walther | |
| BRIEF REPORT: A Novel Point Mutation in P450c17 (CYP17) Causing Combined 17α-Hydroxylase/17,20-Lyase Deficiency | 2428 |
| A. M. Brooke, N. F. Taylor, J. H. Shepherd, M. E. Gore, T. Ahmad, L. Lin, G. Rumsby, M. Papari-Zareei, R. J. Auchus, J. C. Achermann, and J. P. Monson | |
| BRIEF REPORT: Allelic Variants of the γ-Aminobutyric Acid-A Receptor α1-Subunit Gene (<i>GABRA1</i>) Are Not Associated with Idiopathic Gonadotropin-Dependent Precocious Puberty in Girls with and without Electroencephalographic Abnormalities | 2432 |
| Vinicius Nahime Brito, Berenice Bilharinho Mendonca, Laura M. F. F. Guilloto, Karina Cocco Monteiro Freitas, Ivo J. Prado Arnhold, and Ana Claudia Latronico | |
| BRIEF REPORT: The <i>INS VNTR</i> Locus Does Not Associate with Smallness for Gestational Age (SGA) but Interacts with SGA to Increase Insulin Resistance in Young Adults | 2437 |
| Thuy-Ai Vu-Hong, Emmanuelle Durand, Samia Deghmoun, Philippe Boutin, David Meyre, Didier Chevenne, Paul Czernichow, Philippe Froguel, and Claire Levy-Marchal | |
| BRIEF REPORT: Ghrelin Potentiates Growth Hormone Secretion Driven by Putative Somatostatin Withdrawal and Resists Inhibition by Human Corticotropin-Releasing Hormone | 2441 |
| Johannes D. Veldhuis, Ali Iranmanesh, Kristi Mielke, John M. Miles, Paul C. Carpenter, and Cyril Y. Bowers | |
| BRIEF REPORT: Elevated Serum Levels of Pigment Epithelium-Derived Factor in the Metabolic Syndrome | 2447 |
| Sho-ichi Yamagishi, Hisashi Adachi, Akio Abe, Takako Yashiro, Mika Enomoto, Kumiko Furuki, Asuka Hino, Yuko Jinnouchi, Katsuhiko Takenaka, Takanori Matsui, Kazuo Nakamura, and Tsutomu Imaizumi | |

Announcements and Resources

| | |
|---|------|
| Erratum | 2073 |
| Statement of Retraction | 2118 |
| Endocrine-Related Resources from the National Institutes of Health | 2451 |
| National Hormone & Peptide Program (NHPP): New Recombinant Hormones, Hypothalamic Peptides, Natural Hormones, New Antisera, & Expanded Hormone Assay Services Available . . | 2455 |

The Endocrine Society

| | |
|--|------|
| Editorial Board | 4A |
| Endocrinology & Metabolism News | 17A |
| Author and Subscription Information | 29A |
| Affirmation of Originality and Assignment of Copyright | 30A |
| Employment Opportunities | 2459 |

Indexes

Author Index2465

The Hormone Foundation's Patient Guide to Androgen Deficiency Syndromes in Adult Men

Facing Listing by Interests

COVER: Computer model of CYP17 from a 17-yr-old female presenting with a malignant mixed germ cell tumor and clinical and biochemical features of combined 17-hydroxylase/17,20-lyase deficiency. The protein backbone is shown in a ribbon rendering (*yellow*) illustrating how R96 (*blue*) protrudes into the cleft that separates the β -sheet (*right*) and α -helical domains (*left*). The positively charged guanidinium group of R96 appears to form hydrogen bonds with residues A113 and F114 (*purple*) but not with the side chains. Its removal, which occurs with mutations R96Q or R96W, destabilizes the protein by disrupting the domains' interaction. From the article by Brooke *et al.*, in this issue, pages 2428-2431.

INDEX OF ADVERTISERS

Abbott Laboratories 18A, 39A-40A
Astellas Pharma US Inc. After 40-2A
AstraZeneca Before 33A
Athena Diagnostics 19A
Diagnostic Systems Laboratories After National
Hormone and Peptide Program Section
Eli Lilly & Company 3A, Before 25A, 41A-43A,
50A-53A
GlaxoSmithKline 64A
KRONUS, Inc. 16A
Lifescan, Inc. 33A, 49A
Merck Human Health Division Before 17A-1

Novartis Pharmaceuticals Corporation Cover 2-2A
Novo Nordisk Pharmaceuticals, Inc. 25A, 31A-32A,
35A-36A, After 48A, 55A-56A, 57A-58A
Pfizer U.S. Pharmaceuticals 12A-13A, 23A-24A, 34A,
44A-47A, 60A-63A
Reliant Pharmaceuticals After 56A
Sanofi-Aventis 14A-15A, After 28A, After 40A-1
Serono Laboratories, Inc. Cover 3 & 4
Solvay Pharmaceuticals 26A-28A
Takeda Pharmaceuticals America, Inc. Before 37A, 37A
Tercica, Inc. 20A-22A