## Metabolism

## Clinical and Experimental

Vol 57, No 2, February 2008

## **CONTENTS**

Serum Resistin Is Reduced by Glucose and Meal Loading in Healthy Human Subjects  Junko Yamauchi, Haruhiko Osawa, Tomomi Takasuka, Masaaki Ochi, Akiko Murakami, Wataru Nishida,  Hiroshi Onuma, Yasunori Takata, Yasuharu Tabara, Tetsuro Miki, Jun Ohashi, and Hideichi Makino	149
Significance of Leptin and High–Molecular Weight Adiponectin in the General Population of Japanese Male Adolescents  Hiroshi Nakatani, Hiroshi Hirose, Yukihiro Yamamoto, Ikuo Saito, and Hiroshi Itoh	157
Glycated Fetal Calf Serum Affects the Viability of an Insulin-Secreting Cell Line In Vitro Giorgio Luciano Viviani, Alessandra Puddu, Gianni Sacchi, Anna Garuti, Daniela Storace, Arianna Durante, Fiammetta Monacelli, and Patrizio Odetti	163
Effect of Aerobic Exercise Training on Oxidative Stress in Patients With Type 2 Diabetes Mellitus  Hideki Nojima, Hiroshi Watanabe, Kiminori Yamane, Yoshihiro Kitahara, Kiyokazu Sekikawa,  Hideya Yamamoto, Akihito Yokoyama, Tsutomu Inamizu, Toshimasa Asahara, Nobuoki Kohno,  and the Hiroshima University Health Promotion Study Group	170
Intima-Media Thickness of the Carotid Artery and the Distribution of Lipoprotein Subclasses in Men Aged 40 to 49 Years Between Whites in the United States and the Japanese in Japan for the ERA JUMP Study Akira Sekikawa, Hirotsugu Ueshima, Kim Sutton-Tyrrell, Takashi Kadowaki, Aiman El-Saed, Tomonori Okamura, Tomoko Takamiya, Yoshiki Ueno, Rhobert W. Evans, Yasuyuki Nakamura, Daniel Edmundowicz, Atsunori Kashiwagi, Hiroshi Maegawa, and Lewis H. Kuller	177
Hypovitaminosis D in Obese Children and Adolescents: Relationship With Adiposity, Insulin Sensitivity, Ethnicity, and Season  Ramin Alemzadeh, Jessica Kichler, Ghufran Babar, and Mariaelena Calhoun	183
Effect of Weight Loss on Cytokine Messenger RNA Expression in Peripheral Blood Mononuclear Cells of Obese Subjects With the Metabolic Syndrome  Vanessa D.F. de Mello, Marjukka Kolehmainen, Ursula Schwab, Ursula Mager, David E. Laaksonen,  Leena Pulkkinen, Leo Niskanen, Helena Gylling, Mustafa Atalay, Rainer Rauramaa, and Matti Uusitupa	192
The Relationship Between Cardiometabolic and Hemostatic Variables: Influence of Race Arlette Perry, Xuewen Wang, Ronald Goldberg, Robert Ross, and Loreto Jackson	200
Serum C-Reactive Protein Is an Independent Risk Factor Predicting Cardiometabolic Risk Altan Onat, Günay Can, and Gülay Hergenç	207
Determination of Asymmetric Dimethylarginine, an Endogenous Nitric Oxide Synthase Inhibitor, in Umbilical Blood Hirokazu Tsukahara, Naoko Ohta, Shuko Tokuriki, Koji Nishijima, Fumikazu Kotsuji, Hisako Kawakami, Norihito Ohta, Kyouichi Sekine, Hironori Nagasaka, and Mitsufumi Mayumi	215
Increases in Ghrelin and Decreases in Leptin Without Altering Adiponectin During Extreme Weight Loss in Male Competitive Bodybuilders  Jarek Mäestu, Jaak Jürimäe, Ivo Valter, and Toivo Jürimäe	221
Participation in Road Cycling vs Running Is Associated With Lower Bone Mineral Density in Men R. Scott Rector, Robert Rogers, Meghan Ruebel, and Pamela S. Hinton	226
Dietary n-3 Polyunsaturated Fatty Acids and Endothelium Dysfunction Induced by Lysophosphatidylcholine in Syrian Hamster Aorta  Anthony Lucas, Alain Grynberg, Bernard Lacour, and Françoise Goirand	233
2	

## (Contents continued)

A Randomized Controlled Trial of Therapeutic Lifestyle Modification in Rural Women With Metabolic Syndrome: A Pilot Study  Eui-Geum Oh, Sa Saeng Hyun, Soo Hyun Kim, So-yeoun Bang, Sang Hui Chu, Justin Y. Jeon, and Myung Sook Kang  2: Comparison of Two Consecutive Fat-Rich and Carbohydrate-Rich Meals on Postprandial Myeloperoxidase Response in Women With and Without Type 2 Diabetes Mellitus Roger K. Schindhelm, Marjan Alssema, Michaela Diamant, Tom Teerlink, Jacqueline M. Dekker, Astrid Kok, Piet J. Kostense, Giel Nijpels, Robert J. Heine, and Peter G. Scheffer  The Ratio of Leptin to Adiponectin Can Be Used as an Index of Insulin Resistance Naohisa Oda, Shigeo Imamura, Takashi Fujita, Yuka Uchida, Kazumichi Inagaki, Hiroaki Kakizawa, Nobuki Hayakawa, Atsushi Suzuki, Jun Takeda, Yukio Horikawa, and Mitsuyasu Itoh  Adiponectin Gene Polymorphism 45T>G Is Associated With Carotid Artery Plaques in Patients With Type 2 Diabetes Mellitus So Hun Kim, Eun Seok Kang, Kyu Yeon Hur, Hyun Joo Lee, Seung Jin Han, Jung Young Kwak, Chung Mo Nam, Chul Woo Ahn, Bong Soo Cha, and Hyun Chul Lee  2: Correlations of Visceral Fat Accumulation and Atherosclerosis in Japanese Patients With Type 2 Diabetes Mellitus Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima, Tetsunori Saikawa, and Hironobu Yoshimatsu  Association Between Serum Estradiol Concentrations and Carotid Atherosclerosis in Men With Type 2 Diabetes Mellitus Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid-Free Bovine Serum Albumin Walter S. Zawalich and Kathleen C. Zawalich Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Metabolic Effects of Alcohol in the Form of Wine in Persons With Type 2 Diabetes Mellitus  Anne E. Bantle, William Thomas, and John P. Bantle	241
A Pilot Study  Eui-Geum Oh, Sa Saeng Hyun, Soo Hyun Kim, So-yeoun Bang, Sang Hui Chu, Justin Y. Jeon, and Myung Sook Kang  2:  Comparison of Two Consecutive Fat-Rich and Carbohydrate-Rich Meals on Postprandial Myeloperoxidase Response in Women With and Without Type 2 Diabetes Mellitus Roger K. Schindhelm, Marjan Alssema, Michaela Diamant, Tom Teerlink, Jacqueline M. Dekker, Astrid Kok, Piet J. Kostense, Giel Nijpels, Robert J. Heine, and Peter G. Scheffer  2:  The Ratio of Leptin to Adiponectin Can Be Used as an Index of Insulin Resistance Naohisa Oda, Shigeo Imamura, Takashi Fujita, Yuka Uchida, Kazumichi Inagaki, Hiroaki Kakizawa, Nobuki Hayakawa, Atsushi Suzuki, Jun Takeda, Yukio Horikawa, and Mitsuyasu Itoh  2:  Adiponectin Gene Polymorphism 45T>G Is Associated With Carotid Artery Plaques in Patients With Type 2  Diabetes Mellitus So Hun Kim, Eun Seok Kang, Kyu Yeon Hur, Hyun Joo Lee, Seung Jin Han, Jung Young Kwak, Chung Mo Nam, Chul Woo Ahn, Bong Soo Cha, and Hyun Chul Lee  2:  Correlations of Visceral Fat Accumulation and Atherosclerosis in Japanese Patients With Type 2 Diabetes Mellitus Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima, Tetsunori Saikawa, and Hironobu Yoshimatsu  Association Between Serum Estradiol Concentrations and Carotid Atherosclerosis in Men With Type 2  Diabetes Mellitus Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid–Free Bovine  Serum Albumin Walter S. Zawalich and Kathleen C. Zawalich  Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Subjects With Type 2 Diabetes Mellitus With Marked Hypertriglyceridemia  Jean-Charles Hogue, Benoît Lamarche, Yves Deshaies, André J. Tremblay, Jean Bergeron, Claude Gagné,	246
in Women With and Without Type 2 Diabetes Mellitus  **Roger K. Schindhelm, Marjan Alssema, Michaela Diamant, Tom Teerlink, Jacqueline M. Dekker, Astrid Kok, Piet J. Kostense, Giel Nijpels, Robert J. Heine, and Peter G. Scheffer  The Ratio of Leptin to Adiponectin Can Be Used as an Index of Insulin Resistance  **Naohisa Oda, Shigeo Imamura, Takashi Fujita, Yuka Uchida, Kazumichi Inagaki, Hiroaki Kakizawa, Nobuki Hayakawa, Atsushi Suzuki, Jun Takeda, Yukio Horikawa, and Mitsuyasu Itoh  Adiponectin Gene Polymorphism 45T>G Is Associated With Carotid Artery Plaques in Patients With Type 2  Diabetes Mellitus  **So Hun Kim, Eun Seok Kang, Kyu Yeon Hur, Hyun Joo Lee, Seung Jin Han, Jung Young Kwak, Chung Mo Nam, Chul Woo Ahn, Bong Soo Cha, and Hyun Chul Lee  **Correlations of Visceral Fat Accumulation and Atherosclerosis in Japanese Patients With Type 2 Diabetes Mellitus  **Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima, Tetsunori Saikawa, and Hironobu Yoshimatsu  **Association Between Serum Estradiol Concentrations and Carotid Atherosclerosis in Men With Type 2  Diabetes Mellitus  **Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid–Free Bovine Serum Albumin  **Walter S. Zawalich and Kathleen C. Zawalich**  Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	A Pilot Study Eui-Geum Oh, Sa Saeng Hyun, Soo Hyun Kim, So-yeoun Bang, Sang Hui Chu, Justin Y. Jeon,	255
Naohisa Oda, Shigeo İmamura, Takashi Fujita, Yuka Uchida, Kazumichi Inagaki, Hiroaki Kakizawa, Nobuki Hayakawa, Atsushi Suzuki, Jun Takeda, Yukio Horikawa, and Mitsuyasu Itoh  20.  Adiponectin Gene Polymorphism 45T>G Is Associated With Carotid Artery Plaques in Patients With Type 2  Diabetes Mellitus So Hun Kim, Eun Seok Kang, Kyu Yeon Hur, Hyun Joo Lee, Seung Jin Han, Jung Young Kwak, Chung Mo Nam, Chul Woo Ahn, Bong Soo Cha, and Hyun Chul Lee  21.  Correlations of Visceral Fat Accumulation and Atherosclerosis in Japanese Patients With Type 2 Diabetes Mellitus Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima, Tetsunori Saikawa, and Hironobu Yoshimatsu  22.  Association Between Serum Estradiol Concentrations and Carotid Atherosclerosis in Men With Type 2  Diabetes Mellitus Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  23.  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid—Free Bovine Serum Albumin Walter S. Zawalich and Kathleen C. Zawalich  24.  Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	in Women With and Without Type 2 Diabetes Mellitus Roger K. Schindhelm, Marjan Alssema, Michaela Diamant, Tom Teerlink, Jacqueline M. Dekker, Astrid Kok,	262
Diabetes Mellitus  So Hun Kim, Eun Seok Kang, Kyu Yeon Hur, Hyun Joo Lee, Seung Jin Han, Jung Young Kwak, Chung Mo Nam, Chul Woo Ahn, Bong Soo Cha, and Hyun Chul Lee  Correlations of Visceral Fat Accumulation and Atherosclerosis in Japanese Patients With Type 2 Diabetes Mellitus Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima, Tetsunori Saikawa, and Hironobu Yoshimatsu  Association Between Serum Estradiol Concentrations and Carotid Atherosclerosis in Men With Type 2  Diabetes Mellitus Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid–Free Bovine Serum Albumin Walter S. Zawalich and Kathleen C. Zawalich  Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Naohisa Oda, Shigeo Imamura, Takashi Fujita, Yuka Uchida, Kazumichi Inagaki, Hiroaki Kakizawa,	268
Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima, Tetsunori Saikawa, and Hironobu Yoshimatsu  Association Between Serum Estradiol Concentrations and Carotid Atherosclerosis in Men With Type 2  Diabetes Mellitus Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid–Free Bovine Serum Albumin Walter S. Zawalich and Kathleen C. Zawalich  Pactors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Diabetes Mellitus So Hun Kim, Eun Seok Kang, Kyu Yeon Hur, Hyun Joo Lee, Seung Jin Han, Jung Young Kwak, Chung Mo Nam,	274
Diabetes Mellitus  Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa, and Naoto Nakamura  Enhanced Activation of Phospholipase C and Insulin Secretion From Islets Incubated in Fatty Acid–Free Bovine  Serum Albumin  Walter S. Zawalich and Kathleen C. Zawalich  Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men  Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Futoshi Anan, Takayuki Masaki, Yoshikazu Umeno, Tetsu Iwao, Hidetoshi Yonemochi, Nobuoki Eshima,	280
Serum Albumin  Walter S. Zawalich and Kathleen C. Zawalich  29  Factors Responsible for Age-Related Elevation in Fasting Plasma Glucose: A Cross-Sectional Study in Japanese Men  Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Diabetes Mellitus  Michiaki Fukui, Yoshihiro Kitagawa, Kenji Kamiuchi, Goji Hasegawa, Toshikazu Yoshikawa,	285
Kentaro Toyoda, Mitsuo Fukushima, Rie Mitsui, Norio Harada, Hidehiko Suzuki, Tomomi Takeda, Ataru Taniguchi,	Serum Albumin	290
Toshikaisa Pakai, Toshiko Kawakia, Tutchiro Tahada, Poolaya Inagaki, ana Tutka Selio		299