EDITORIALS

Fasting and Nonfasting LDL Cholesterol: To Measure or Calculate? B.G. Nordestgaard and M. Benn (see article on page 888) 845

Assay Configuration and Analytic Specificity May Have Major Effects on Prediction of Clinical Outcomes—Implications for Reference Standards G.G. Klee (see article on page 895) 848

Stabilization of Glucose in Blood Samples: Why It Matters D.E. Bruns and W.C. Knowler (see Brief Communication on page 1019) 850

PERSPECTIVE

Grading Quality of Evidence and Strength of Recommendations for Diagnostic Tests and Strategies A.R. Horvath 853

REVIEWS

Metagenomic Pyrosequencing and Microbial Identification J.F. Petrosino, S. Highlander, R.A. Luna, R.A. Gibbs, and J. Versalovic 856


Genetic Polymorphisms of the Natriuretic Peptide System in the Pathogenesis of Cardiovascular Disease: What Lies on the Horizon? C. Vassalle and M.G. Andreassi 878

ARTICLES

LIPIDS, LIPOPROTEINS, AND CARDIOVASCULAR RISK FACTORS

Comparison of LDL Cholesterol Concentrations by Friedewald Calculation and Direct Measurement in Relation to Cardiovascular Events in 27 331 Women S. Mora, N. Rifai, J.E. Buring, and P.M Ridker (see editorial on page 845) 888

CANCER DIAGNOSTICS

New Dual Monoclonal ELISA for Measuring Plasma Osteopontin as a Biomarker Associated with Survival in Prostate Cancer: Clinical Validation and Comparison of Multiple ELISAs P.H. Anborgh, S.M. Wilson, A.B. Tuck, E. Winquist, N. Schmidt, R. Hart, S. Kon, M. Maeda, T. Uede, L.W. Stitt, and A.F. Chambers (see editorial on page 848) 895

Quantitative Analysis of Human Kallikrein 5 (KLKS) Expression in Prostate Needle Biopsies: An Independent Cancer Biomarker D. Korbakis, A.K. Gregorakis, and A. Scorilas 904

Salivary Leptin as a Candidate Diagnostic Marker in Salivary Gland Tumors M. Schapher, O. Wendler, M. Groschl, R. Schafer, H. Iro, and J. Zenk 914

PROTEOMICS AND PROTEIN MARKERS


Role of Monitoring Changes in Sensitive Cardiac Troponin I Assay Results for Early Diagnosis of Myocardial Infarction and Prediction of Risk of Adverse Events F.S. Apple, L.A. Pearce, S.W. Smith, J.M. Kaczmarek, and M.M. Murakami 930

Autoantibodies to Cardiac Troponin Associate with Higher Initial Concentrations and Longer Release of Troponin I in Acute Coronary Syndrome Patients K. Pettersson, S. Eriksson, S. Wittfoth, E. Engstrom, M. Nieminen, and J. Sinisalo 938


AUTOMATION AND ANALYTICAL TECHNIQUES


continued
**ARTICLES, continued**

**Prostate Specific Antigen Detection Using Microgapped Electrode Array Immunosensor with Enzymatic Silver Deposition**
964

**ENDOCRINOLOGY AND METABOLISM**

**Day 5 Morning Serum Cortisol Predicts Hypothalamic-Pituitary-Adrenal Function after Transsphenoidal Surgery for Pituitary Tumors**
C.N. Jayasena, K.A. Gadhvi, B. Gohel, N.M. Martin, N. Mendoza, K. Meeran, and W.S. Dhillo  
972

**CLINICAL IMMUNOLOGY**

**New ELISA for Detecting Primary Biliary Cirrhosis–Specific Antimitochondrial Antibodies**
978

**DRUG MONITORING AND TOXICOLOGY**

**Effect of Mycophenolate Acyl-Gluconoride on Human Recombinant Type 2 Inosine Monophosphate Dehydrogenase**
O. Gensburger, N. Picard, and P. Marquet  
986

**EVIDENCE-BASED MEDICINE AND TEST UTILIZATION**

**Dealing with Missing Predictor Values When Applying Clinical Prediction Models**
994

**GENERAL CLINICAL CHEMISTRY**

**A New Principle for Measurement of Cobalamin and Corrinoids, Used for Studies of Cobalamin Analogs on Serum Haptocorrin**
T.F. Hardlei and E. Nexø  
1002

**Toward Standardization of Insulin Immunoassays**
W.G. Miller, L.M. Thiempont, K. Van Uytfanghe, P.M. Clark, P. Lindstedt, G. Nilsson, and M.W. Steffes, for the Insulin Standardization Work Group  
1011

**BRIEF COMMUNICATIONS**

**Acidification of Blood Is Superior to Sodium Fluoride Alone as an Inhibitor of Glycolysis**
R. Gambino, J. Piscitelli, T.A. Ackattupathil, J.L. Theriault, R.D. Andrin, M.L. Sanfilippo, and M. Etienne (see editorial on page 850)  
1019

**Abundance of Immunologically Active Alanine Aminotransferase in Sera of Liver Cirrhosis and Hepatocellular Carcinoma Patients**
H.J. Kim, S.W. Oh, D.J. Kim, and E.Y. Choi  
1022

**CLINICAL CASE STUDY**

**Chronic Diarrhea in a 5-Year-Old Girl: Pitfall in Routine Laboratory Testing with Potentially Severe Consequences**
J.J. Wenzel, H. Rossmann, U. Kullmer, B. Oberman, E. Mengel, K.J. Lackner, and J. Lotz  
1026

**COMMENTARIES**

C.M.F. Kneepkens  
1030

D.A. Rudnick  
1031

**CITATION CLASSIC**

**Serum-Based Test of the Pathologic Breakdown of Type I Collagen Fibers**
J. Risteli and L. Risteli  
1032

**LETTERS TO THE EDITOR**

**Changes in Dried Blood Spot Hb A₁c, with Varied Postcollection Conditions**
O.M. Buxton, K. Malarick, W. Wang, and T. Seeman  
1034

**S-Nitrosothiols in Blood: Does Photosensitivity Explain a 4-Order-of-Magnitude Concentration Range?**
R. Rossi and D. Tsikas  
1036

**In Reply**
Y. Wu, W. Cha, F. Zhang, and M.E. Meyerhoff  
1038

**Interference from Rose Bengal with Total Bilirubin Measurement**
G. Dimeski, B. Jones, and J.P.J. Ungerer  
1040

**Some Notes on Visinin-Like Protein 1 and Alzheimer Disease**
H.-G. Bernstein and K.-H. Braunewell  
1041

*continued*
LETTERS TO THE EDITOR, continued

Comparison of a New Procalcitonin Assay from Roche with the Established Method on the Brahms Kryptor 1043
H.K. de Wolf, J.K. Gunnewiek, Y. Berk, J. van den Ouweland, and M. de Metz

Familial Dysalbuminemic Hyperthyroxinemia: A Persistent Diagnostic Challenge 1044
D. Cartwright, P. O’Shea, O. Rajanayagam, M. Agostini, P. Barker, C. Moran, E. Macchia, A. Pinchera, R. John, A. Agha, H.A. Ross, V.K. Chatterjee, and D.J. Halsall

CLINICAL CHEMIST

Lily Robinson and Death Outside the Box 1047
Introduces 3 New Features 1049
Editors’ Note 1049

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ON THE COVER This image combines microscopy and genomic mapping of Lactobacillus reuteri. The central fluorescent image was generated by confocal fluorescent microscopy of Lactobacillus reuteri stained with acridine orange. The colorful circular image is the optical map of the L. reuteri genome. The other circular images represent genome maps of two L. reuteri strains.

This issue of Clinical Chemistry contains a review by Petrosino and colleagues, who nicely describe the application of next-generation DNA pyrosequencing to metagenomics and human microbiome research. Advances in DNA sequencing are providing new capabilities for sequencing the collective genomes of microbial communities. By coupling sequencing with improved annotation and bioinformatics approaches, scientists will be able to understand the functional genomics of the human microbiome. See pages 856–866. Image reproduced with permission by J. Versalovic, M.D.

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