


## EDITORIALS

-  **Lipoprotein(a) and Cardiometabolic Diseases: The Mystery Continues** M. Karakas and W. Koenig  
(see article on page 1252) 1207

- Cell-Free DNA in Maternal Plasma: Has the Size-Distribution Puzzle Been Solved?** S. Hahn and B.G. Zimmermann (see article on page 1279) 1210

## PERSPECTIVES

- Will Emerging Prostate Cancer Markers Redeem Themselves?** K. Hotakainen and U.-H. Stenman 1212

- Can Chemoprevention Reduce the Risk of Prostate Cancer?** E.P. Diamandis 1214

## Q&A

- Epigenomics-Based Diagnostics** E.P. Diamandis 1216

## CLINICAL CASE STUDY

- Opiate-Positive Immunoassay Screen in a Pediatric Patient** J.A. Straseski, A. Stolbach, and W. Clarke 1220

## COMMENTARIES

- W.H. Porter 1223

- J.A. Lowry 1224

## CLINICAL CHEMISTRY GUIDE TO SCIENTIFIC WRITING

- If an IRDAM Journal Is What You Choose, Then Sequential Results Are What You Use** P.A. Derish and T.M. Annesley 1226

- Put Your Best Figure Forward: Line Graphs and Scattergrams** T.M. Annesley 1229


## REVIEWS

- Pitfalls Associated with the Use of Liquid Chromatography–Tandem Mass Spectrometry in the Clinical Laboratory** M. Vogeser and C. Seger 1234

- Monitoring of Therapy in Congenital Adrenal Hyperplasia** A. Dauber, M. Kellogg, and J.A. Majzoub 1245

## ARTICLES


### LIPIDS, LIPOPROTEINS, AND CARDIOVASCULAR RISK FACTORS

- Lipoprotein(a) and Risk of Type 2 Diabetes** S. Mora, P.R. Kamstrup, N. Rifai, B.G. Nordestgaard, J.E. Buring, and P.M. Ridker (see editorial on page 1207)  1252

### DRUG MONITORING AND TOXICOLOGY

- Disposition of Cannabinoids in Oral Fluid after Controlled Around-the-Clock Oral THC Administration** G. Milman, A.J. Barnes, D.M. Schwoppe, E.W. Schwilke, W.D. Darwin, R.S. Goodwin, D.L. Kelly, D.A. Gorelick, and M.A. Huestis 1261

### AUTOMATION AND ANALYTICAL TECHNIQUES

- Integration of Sperm Motility and Chemotaxis Screening with a Microchannel-Based Device** L. Xie, R. Ma, C. Han, K. Su, Q. Zhang, T. Qiu, L. Wang, G. Huang, J. Qiao, J. Wang, and J. Cheng  1270

### MOLECULAR DIAGNOSTICS AND GENETICS

- Analysis of the Size Distributions of Fetal and Maternal Cell-Free DNA by Paired-End Sequencing** H.C. Fan, Y.J. Blumenfeld, U. Chitkara, L. Hudgins, and S.R. Quake (see editorial on page 1210)  1279

- Methylation-Specific Loop-Mediated Isothermal Amplification for Detecting Hypermethylated DNA in Simplex and Multiplex Formats** F. Zerilli, C. Bonanno, E. Shehi, G. Amicarelli, D. Adlerstein, and G.M. Makrigiorgos 1287

- Evaluation of Oligonucleotide Sequence Capture Arrays and Comparison of Next-Generation Sequencing Platforms for Use in Molecular Diagnostics** N. Hoppman-Chaney, L.M. Peterson, E.W. Klee, S. Middha, L.K. Courteau, and M.J. Ferber 1297

### PROTEOMICS AND PROTEIN MARKERS

- Development of a Qualitative Sequential Immunoassay for Characterizing the Intrinsic Properties of Circulating Cardiac Troponin I** Y. Lin, Q. Fu, J. Zhu, J.M. Miller, and J.E. Van Eyk 1307

*continued*

## ARTICLES, *continued*

### ENDOCRINOLOGY AND METABOLISM

- A Multiplex Immunoassay for Human Adipokine Profiling** H.S. Schipper, W. de Jager, M.E.A. van Dijk, J. Meerding, P.M.J. Zelissen, R.A. Adan, B.J. Prakken, and E. Kalkhoven 1320

### GENERAL CLINICAL CHEMISTRY

- Estimation of the Minimal Preanalytical Uncertainty for 15 Clinical Chemistry Serum Analytes** M. Sverresdotter Sylte, T. Wentzel-Larsen, and B.J. Bolann 1329

## BRIEF COMMUNICATIONS

- Analytical Performance of 4 Automated Assays for Measurement of Cystatin C** J. Li, W. Dunn, A. Breaud, D. Elliott, L.J. Sokoll, and W. Clarke 1336

- Rapid Detection of Reassortment of Pandemic H1N1/2009 Influenza Virus** L.L.M. Poon, P.W.Y. Mak, O.T.W. Li, K.H. Chan, C.L. Cheung, E.S. Ma, H.-L. Yen, D. Vijaykrishna, Y. Guan, and J.S.M. Peiris 1340

- C-Reactive Protein Adversely Alters the Protein-Protein Interaction of the Endothelial Isoform of Nitric Oxide Synthase** S. Valleggi, S. Devaraj, M.R. Dasu, and I. Jialal 1345

## CITATION CLASSIC

- Discovery of the Wonder Drug: From Cows to Cortisone** A.K. Saenger 1349

## LETTERS TO THE EDITOR

- Validity of Carcinoembryonic Antigen and Carbohydrate Antigen 19-9 Measurements in Pancreatic Cyst Fluid with a Serum-Based Immunoassay** C.S. Boot, B.S. Mahon, S.R. Bramhall, and P.M. Clark 1351

- The Osmolal Gap: What Has Changed?** J.E. Whittington, S.L. La'ulu, J.J.H. Hunsaker, and W.L. Roberts 1353

- First- and Second-Trimester ADAM12s in Down Syndrome Screening** G. Baviera, S. Chemicata, R. De Domenico, R. Granese, C. Carbone, N. Dugo, and R. D'Anna 1355

- The Effect of Sample Hemolysis on Cardiac Troponin I and T Assays** R. Bais 1357

- Assessing the Performance of Point-of-Care Hemoglobin A<sub>1c</sub> Systems** B. Irvin, J. Knaebel, and D. Simmons 1359

- In Reply** E. Lenters-Westra and R.J. Slingerland 1360

## PREAMBLE

- 2010 Consensus Statement on the Worldwide Standardization of the Hemoglobin A<sub>1c</sub> Measurement** R. Hanas and G. John, on behalf of the International HbA<sub>1c</sub> Consensus Committee 1362

## CLINICAL CHEMIST

- Lily Robinson and Ready, on the Set, Go: Recollections** 1365
- Research Opportunities for the Clinical Chemist** 1367

### WHAT IS YOUR GUESS?

- Detecting Only Light Chains, Now What?** J.F.M. Jacobs, I. Joosten, and I.S. Klasen 1368

### UNVEILING THE RIGHT SIDE

- Coagulation Casade: A Series of Limericks** M.A. Vande Haar and K.A. Fay 1369

- Important 2010 AACC Election Notice** 1372

- Editor's Note** 1372

## ACCENT®—CONTINUING EDUCATION CREDIT FOR READERS OF CLINICAL CHEMISTRY

For more information go to <http://www.aacc.org/applications/ccaccent>

*continued*



**ON THE COVER** The synthesis of human DNA. This month's issue of *Clinical Chemistry* contains an editorial and 2 articles on new techniques for DNA analysis. In 1 research article, Fan et al. report on the analysis of the size distributions of fetal and maternal cell-free DNA by paired-end sequencing. This research article is accompanied by an editorial by Han and Zimmermann, who discuss whether the DNA size distribution puzzle has been solved. In a second research article, Zerilli et al. describe the use of methylation-specific loop-mediated isothermal amplification for detecting hypermethylated DNA. (See pages 1210, 1279, and 1287.) Image reproduced with permission.

*Color figures for Reviews sponsored by Department of Laboratory Medicine, Children's Hospital Boston.*



Clinical Chemistry podcast available at <http://www.clinchem.org/>



Video available by accessing the online article.

## **Clinical Chemistry Journal Club**

Selected articles made freely available, including helpful slides and key points for discussion in your Journal Club.

**Quantification of Galactose-1 Phosphate Uridyltransferase Enzyme Activity by Liquid Chromatography–Tandem Mass Spectrometry** Y. Li, A.S. Ptolemy, L. Harmonay, M. Kellogg, and G.T. Berry

<http://www.clinchem.org/cgi/reprint/56/5/772>

Access the article by using the link above and by selecting *Supplemental Data and Journal Club* in the right-hand column.



*Clinical Chemistry* is now on Twitter, Facebook, and LinkedIn. Be a part of our community and receive updates on the latest issues, upcoming articles, podcasts, and more!