

## EDITORIAL

- There's Nothing to Winning, Really** S.T. Bennett  
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- National Academy of Clinical Biochemistry Laboratory Medicine Practice Guidelines for Use of Tumor Markers in Clinical Practice: Quality Requirements** C.M. Sturgeon, B.R. Hoffman, D.W. Chan, S.-L. Ch'ng, E. Hammond, D.F. Hayes, L.A. Liotta, E.F. Petricoin, M. Schmitt, O.J. Semmes, G. Söletormos, E. van der Merwe, and E.P. Diamandis e1

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- Within-Subject Variability and Analytic Imprecision of Insulinlike Growth Factor Axis and Collagen Markers: Implications for Clinical Diagnosis and Doping Tests** T.V. Nguyen, A.E. Nelson, C.J. Howe, M.J. Seibel, R.C. Baxter, D.J. Handelsman, R. Kazlauskas, and K.K. Ho (see editorial on page 1265) 1268

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## BOOKSHELF

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Evidence-Based Laboratory Medicine: Principles, Practice, and Outcomes, 2nd ed., by Christopher P. Price and Robert H. Christenson. E. Magid 1411

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**ON THE COVER** As the 2008 Summer Olympics begin in Beijing, this issue of Clinical Chemistry highlights one aspect of maintaining the integrity of the Olympic Games—testing for use of performance enhancing compounds. Many substances such as growth hormone, testosterone, and hemoglobin occur naturally in the body, and individuals may have normal endogenous amounts of these compounds that are at the low or high end of the population reference range. To help ascertain whether the concentrations of markers measured in serum or urine reflect normal within-subject variability, or instead result from doping, international anti-doping agencies are making use of Bayesian models to estimate the expected concentrations of these markers for a given individual. In this issue, Nguyen and colleagues measured the within-subject variability and analytical imprecision of IGF axis and collagen markers to estimate the long-term ‘probable’ value of each of the markers by applying the Bayesian approach. Such an application can increase the reliability and decrease the cost of detecting growth hormone doping (see article by Nguyen et al. on page 1269 and editorial by Bennett on page 1265). Reproduced with permission from Yamagata Studio.

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