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Clinical Chemistry is pleased to announce a special upcoming theme issue on Cancer edited by Drs. Eleftherios P. Diamandis, Robert C. Bast and Carlos Lopez-Otin titled, “Conquering Cancer in Our Lifetime: New Diagnostic and Therapeutic Trends.” Clinical Chemistry, published by the American Association for Clinical Chemistry, is the most highly cited forum for peer-reviewed, original research in the fields of clinical chemistry and laboratory medicine.

The purpose of this issue is to highlight recent advances in diagnosis and therapy of cancer and will include diverse themes such as cancer genomics, proteomics, chemoprevention, early diagnosis, biomarker discovery and validation, drug resistance, cancer stem cells, cancer epigenetics, antiangiogenic therapies, mechanisms of cancer metastasis, and the tumor microenvironment.

Clinical Chemistry invites authors to submit original articles related to cancer to be considered for publication in this special issue. Manuscripts are most likely to be favorably received if they address novel technologies to diagnose, treat or prevent cancer or its complications.

Potential topics of interest include:

- Discovery and validation on novel biomarkers for early diagnosis, prognosis, and monitoring of cancer therapies
- Role of cancer genomics, proteomics, and epigenetics in personalized medicine
- Mechanisms of cancer metastasis and the tumor microenvironment
- Cancer chemoprevention
- Drug resistance and how it can be overcome
- The cancer stem cell hypothesis and its application to diagnostics and therapeutics
- Cancer subclassification by using genomics, proteomics, metabolomics, and other omics
- Novel approaches for therapeutics, diagnosis and monitoring, such as circulating cancer cells, and circulating free DNA and micro-RNAs

Be a part of this exciting issue!

Submissions must be received through our online submission system at http://submit.clinchem.org no later than July 1, 2012. Your cover letter should express your interest in submitting your paper for consideration for the Cancer theme issue. Journal guidelines for submission apply as described in the Information for Authors on the submission website.
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Our leading lab experts will show you:
- Advantages and challenges of mass spec
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- Therapeutic drug monitoring
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- Steroid, thyroid, and vitamin D analyses

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24th International Symposium
October 4-6, 2012
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Abstract Submission Deadline: May 1, 2012

Abstracts are invited in the following categories:
- Benefits and Outcomes of Tight Glycemic Protocols in Critical Care Patients
- Understanding the Sources of Error and Limitations in Point-of-Care Testing
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- Developing Effective Strategies to Achieve Quality POCT Results
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The CPOCT Division will award two travel grants of $500 each for best abstracts. One of the listed authors must attend the meeting.

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6-8 abstracts will be selected for oral presentation during the symposium.

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Posters of accepted abstracts will be displayed throughout the symposium.

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Edited by Steven J. Soldin, Edward C. Wong, Carlo Brugnara, and Offie P. Soldin

2011, 304 pages, softcover
ISBN 9871594251016
Product # 6116

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The seventh edition of Pediatric Reference Intervals is a valuable reference providing instant and accurate reference intervals for over 250 chemistry and hematology analytes in an alphabetized, user-friendly format. New analytes to this edition include C-peptide, haptoglobin, insulin, hemoglobin A, hemoglobin A2, hemoglobin F, immature platelet fraction, and reticulocyte hemoglobin equivalent. Reference intervals for steroids, free thyroxine, and free triiodothyronine measured by tandem mass spectrometry have been added, as well as reference intervals employing new platforms such as the Abbott Architect® ci8200 and the Roche cobas® 6000 analyzer.

Since the first edition was published in 1995, Pediatric Reference Intervals (formerly Pediatric Reference Ranges) has been a must-have for clinical chemists, hematologists, pathologists, endocrinologists, and pediatricians. It enhances interpretation of patient results, allows comparison of test results using different methods, and helps optimize patient care.

Pediatric Reference Intervals provides the following information: age- and sex-related reference ranges, methodology, type of specimen, references, statistical basis, population sources, and, in most cases, SI units.
Biomarkers of Cardiovascular Disease  
October 1-2, 2012 ~ Singapore  

Abstracts are welcome on all areas of cardiovascular disease prevention, diagnosis and management! Abstract submission deadline is July 1, 2012.

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Keynote Speaker: K. Srinath Reddy, MD

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Inflammation and Cardiovascular Disease: from Lab Bench to Bedside Peter Libby, MD  
HDL, Risk Assessment and Interventional Strategies Phillip Barter, MD  
Development of National Guidelines for the Prevention of Cardiovascular Disease Jacques Genest, MD

**Genomics, Proteomics and Biomarkers of Cardiovascular Disease**  
The Use of Genetic Testing for Risk Assessment, Diagnosis and Treatment of Cardiovascular Disease Kári Stefánsson, MD  
Proteomics Exploration of Cardiovascular Disease Robert E. Gerszten, MD

**Biomarkers in the Diagnosis and Management of Cardiovascular Disease**  
Biomarkers in Acute Coronary Syndromes David A. Morrow, MD, MPH  
Biomarkers of Heart Failure Torbjørn Omland, MD, PhD  
Pre-analytical and Analytical Considerations of Cardiac Biomarkers for Use in Clinical Practice Fred Apple, PhD

Three Independent Expert Discussion Sessions - join the discussion and contribute to the conference:

1. Omics and Cardiovascular Disease: Success, Failure and Future Direction Drs. Stefánsson and Gerszten
2. hs-Troponin and Cardiovascular Disease: How Useful Are Old Data? Drs. Morrow, Omland and Apple
3. Prevention of Cardiovascular Disease: The Clinician’s Perspective Drs. Genest and Barter

This program is currently co-sponsored by the American Association for Clinical Chemistry, Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine, Indonesian Heart Association, Japan Atherosclerosis Society, Japanese Society of Clinical Chemistry, Singapore Association of Clinical Biochemists, Singapore Cardiac Society and Taiwan Society of Cardiology.  
The conference is offered under the auspices of the IFCC.

This program is currently supported by DENKA SEIKEN CO., LTD., Health Diagnostic Laboratory, Inc., Randox Cardiology and Roche Diagnostics.

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- **DIABETES/GLUCOSE CONTROL 3-PACK**—April, May and June programs address using Hba1c for diabetes diagnosis, glucose in tight glycemic control and lab testing for gestational diabetes.

- **KIDNEY DISEASE/AKI 3-PACK**—July, August and September webinars examine biomarkers for GFR, urinary albumin, and laboratory test strategies for diagnosing acute kidney injury (AKI).

- **THYROID DISEASE 3-PACK**—October, November and December programs focus on evaluating immunoassays and mass spec platforms for thyroid testing, thyroid testing in pregnancy, and the lab's role in diagnosing and managing thyroid cancer.

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¹Central Hospital, Department of Cardiology, Izmir, TURKEY
²Ege University Faculty of Medicine, Department of Clinical Biochemistry, Izmir, TURKEY
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Principles in Clinical Practice

May 7-8, 2012
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Designed at the intermediate to advanced level, this course is intended for professionals who are presently working in or have prior experience and/or education in the field of molecular pathology testing.

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Help accurately assess future risk of cardiovascular disease with our Lp(a) assay.
Drug and alcohol abuse is a serious public health and safety issue, resulting in losses of $100 billion annually in the United States. Workplace drug testing programs have been instituted to deter employees from abusing drugs.

Written in less technical language than comparable reference books in this field, Pre-Employment Drug and Alcohol Testing: A Pocket Guide examines all topics related to testing for drug and alcohol abuse, including:

- pre-employment and workplace drug and alcohol testing programs;
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- impact of prescription and non-prescription medicines on drug tests;
- impact of foods, industrial hemp products, herbal teas, and passive marijuana inhalation on drug tests;
- ways individuals try to beat the system;
- legal issues in pre-employment and workplace alcohol testing programs; and
- guidance on avoiding the sources of false-positive drug test results.

Medical professionals such as medical technologists, toxicologists, clinical chemists, and laboratory administrators, as well as human resources professionals, will find Pre-Employment Drug and Alcohol Testing: A Pocket Guide a useful reference.
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Quick Guide to Renal Disease Testing

George A. Fritsma

2011, 76 pages, spiral binding
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The time-honored “routine” urinalysis test is perhaps the humblest of laboratory assays, yet it provides a wealth of renal and metabolic information when appropriately performed and applied. Likewise, creatinine clearance, urea, glomerular filtration rate, and osmolality assays generate irreplaceable results.

The Quick Guide to Renal Disease Testing assists physicians, nurses, physician assistants, nurse practitioners, clinical laboratory scientists, and office personnel to properly collect, manage, and analyze urine and to apply and perform renal function tests. The Guide is a useful teaching reference for fellows, residents, and students, and is a quick-access reference for practitioners who order, collect, perform, or interpret urinalysis and renal disease laboratory tests.

The author is a member of the University of Alabama (UAB) Department of Pathology Division of Laboratory Medicine. The Guide arose from experiences in teaching clinical laboratory science students and practitioners, medical students, residents, fellows, and physicians at the UAB University Hospital. AACC Press and UAB make no warranties concerning contents of the Guide.

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Increasing Demand for Vitamin D Testing Requires Accurate Results and Improved Workflow

New Vitamin D Total Test from Siemens Demonstrates Concordance with LC/MS/MS

Vitamin D testing volumes continue to grow, making it one of the most commonly requested assays. Current testing methods for vitamin D include manual immunoassays, automated immunoassays, and direct detection methods (liquid chromatography tandem mass spectrometry (LC/MS/MS) and high performance liquid chromatography). Automated assays are typically the best choice for many laboratories.

When considering an automated vitamin D testing solution, clinical concordance to LC/MS/MS is a key question that must be considered:

- **Will the test measure total 25(OH) vitamin D?**
  Labs need to provide accurate assessment of vitamin D status through the equimolar measurement of total 25(OH) vitamin D—the sum of 25(OH) vitamin D$_3$ and 25(OH) vitamin D$_2$.  
- **How will this test improve the turnaround time to clinicians?**
  Effective workflow management of high-volume testing includes fast turnaround time, minimal labor, and high instrument throughput. The additional ability to test in-house can significantly improve turnaround time.
- **How does the test provide reproducible results?**
  Laboratories have reported discrepancies between assays. In one lab, 60% of the results from an immunoassay method indicated insufficiency, compared to only 30% by LC/MS/MS. Another laboratory had similar discrepancies for sample classification: 80% of samples had levels below 32 ng/mL by immunoassay, but only 46% of samples by LC/MS/MS. In the absence of an international standard for vitamin D, it is important that assays be traceable to LC/MS/MS.

French and Australian Method Comparison Studies Demonstrate Concordance between the Siemens ADVIA Centaur Vitamin D Total Assay and LC/MS/MS

Two independent method comparison studies evaluated concordance to LC/MS/MS by comparing the ADVIA Centaur Vitamin D Total assay to LC/MS/MS, DiaSorin 25-OH Vitamin D radioimmunoassay, and DiaSorin LIASON 25-OH Vitamin D TOTAL assays. The data were evaluated by Deming regression and Pearson correlation coefficient analyses.

French method comparison study results

113 samples with known DiaSorin 25-OH Vitamin D radioimmunoassay (DiaSorin RIA) values were sent for ADVIA Centaur measurement at Siemens Healthcare Diagnostics (Tarrytown, NY, USA), DiaSorin LIASON 25-OH Vitamin D TOTAL assay (DiaSorin LIASON) measurement at the Research and Development Institute, Calabasas, CA, USA, and to a U.S. accredited laboratory for LC/MS/MS.

The ADVIA Centaur and DiaSorin RIA demonstrated good agreement with LC/MS/MS: Pearson correlation coefficients, 0.92 and 0.94, and Deming regressions, -1.80 ng/mL + 0.98x and 1.86 ng/mL + 0.88x, respectively (Table 1 and Figure 1).

The DiaSorin LIASON assay demonstrated a Pearson correlation coefficient of 0.77 and a Deming regression of -0.8 ng/mL + 0.87x (Table 1 and Figure 1).

<table>
<thead>
<tr>
<th>Sample</th>
<th>ADVIA Centaur XP</th>
<th>DiaSorin RIA</th>
<th>DiaSorin LIASON</th>
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<tbody>
<tr>
<td>1</td>
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<td>52.5</td>
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<td>71.6</td>
<td>57.5</td>
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<tr>
<td>7</td>
<td>53.7</td>
<td>131.0</td>
<td>77.5</td>
</tr>
</tbody>
</table>

Table 1. Pearson correlation coefficient and Deming regression results by method compared to LC/MS/MS.

New Vitamin D Total test from Siemens provides highly accurate, reproducible results in 18 minutes

Vitamin D test volumes continue to grow rapidly, requiring laboratories to adopt a robust solution to meet their vitamin D testing needs. When laboratories consider implementing a new methodology, it is important to include clinical concordance to LC/MS/MS as an acceptable evaluation criteria to ensure correct assessment of vitamin D status—deficiency, insufficiency, sufficiency, or toxicity.

In two studies, vitamin D results from Siemens’ ADVIA Centaur systems demonstrated concordance to LC/MS/MS. Additionally, the Siemens’ Vitamin D Total assay can be run on a routine analyzer with results in 18 minutes.

References:

To learn more about the Siemens ADVIA Centaur Vitamin D Total assay, please visit www.siemens.com/vitaminDtotal
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