

6th International Conference on Integrating Sample Preparation 2012

Techniques and Applications

Documentation

**Baltimore, Maryland, USA
18-19 October 2012**

ISBN: 978-1-62276-830-1

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2012) by the Knowledge Foundation
All rights reserved.

Printed by Curran Associates, Inc. (2013)

For permission requests, please contact the Knowledge Foundation
at the address below.

Knowledge Foundation
18 Webster Street
Brookline, Massachusetts 02446-4938

Phone: (617) 232-7400
Fax: (617) 232-9171

custserv@knowledgefoundation.com

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Solving the Impedance Mismatch between Patient Sample and POC Diagnostic System	1
<i>John C. Carrano</i>	
Automated Sample Preparation in a Portable Field Unit	3
<i>Michael Connolly</i>	
Addressing Real-World Genomics through Integrated Sample -To Answer Systems	16
<i>Dennis W. Harris</i>	
A Microfluidic Toolbox for Integrated Sample Prep	40
<i>Claudia Gärtner</i>	
Low Cost Sample-to-Sequence Device for Human & Pathogen ID	42
<i>David S. Cohen</i>	
Self-Powered Multiplex Immunoassay Platform	56
<i>Zhenyu Li</i>	
The NCI Cancer Human Biobank (caHUB): A National Center for Biospecimen Science and Standards Development	65
<i>Latarsha Carithers</i>	
No Culture, No Assembly, Direct Sequencing To Microbe Identification	67
<i>John Jakupciak</i>	
Use of a Novel Online Pretreatment and Tandem LCMS Approach for Removal of Anionic Interferences for Analysis of Hormone Active Compounds in Environmental Samples	69
<i>Robert Classon, Tairo Ogura, Yoshiyuki Watabe, Takuya Kubo, Kunimitsu Kaya, Ken Hosoya</i>	
Human Virus Detection by Tissue Culture and Molecular Methods for Reliable Detection of Infective Viral Particles in Sludge	84
<i>Y. Manor, D. Ram, O. Mor, T. Halmut, M. Hindiyeh, E. Mendelson</i>	
Where "Do Voice of Customer" and Open Innovation Fit in Developing a Sample Prep Platform	103
<i>Robert Speziale, Bill Hill</i>	
Quantitative Nanomechanical Diagnostics – Direct Label Free Noncoding RNA Detection from Serum	114
<i>Martin Hegner</i>	
Development and Characterization of a Rapid Pathogen Capture System for Direct Isolation of Microorganisms from Blood	116
<i>Sergey Dryga</i>	
Highly Efficient, Automated miRNA Isolation Method Using Solid Phase Reverse Immobilization (SPRI) Technology and Biomek	132
<i>Bee-Na Lee</i>	
Existing and Emerging Approaches for Pre-Analytical Sample Preparation in Food Microbiology	149
<i>Byron Brehm-Stecher</i>	
Modification of PCR Sample Preparation to Delineate Live and Dead Foodborne Pathogens	156
<i>Teshome Yehualaeshet</i>	
A Novel Membrane-Based System for Fractionation and Concentration of Biological Particles from Complex Environmental Matrices	174
<i>Andy Page</i>	
Simple, Non-Toxic, Automation-Compatible Nucleic Extraction Using A Thermophilic Proteinase	188
<i>Jeffrey Hickey</i>	
Use of the KIM System for Rapid Bio-Detection and Analysis of BWA	197
<i>Vanessa Yu</i>	
Integration of PureLyse® Sample Preparation	215
<i>Bruce Irvine</i>	
Mass Genotyping by Sequencing Technology	231
<i>John D. Curry</i>	
Evaluation of Environmental Sample Processing Technologies for Biological Identifiers	247
<i>Janet L. Betters, Brady W. Redmond, Catherine R. Sabol, Bryan A. Rivers, Peter A. Emanuel, Matthew Caples, Eric M. Schaffer, Robert W. Dorsey</i>	
Sample Preparation and Amplicon Purification Method Evaluation for the Detection of Multiplexed Reactions Using Masstag PCR	248
<i>N/A</i>	
Novel Synthetic Capture Reagents for Improved Detection of Food Pathogens	249
<i>Sandra Laborde, Kathleen Souza, Elaine Rose, Jonathan Broe, Perrine Duval, Emeline Hahn, Sandhya Punreddy, Karen Schlichtmann Schmidt, Robert Carlson, Martha Rook, David Lehmann</i>	
Author Index	