

Lindsay Ann Legendre, Ph.D.

Current Position:

Post-doctoral Fellow
Department of Chemistry
University of Virginia
Charlottesville, VA 22904
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Education:

Ph.D., University of Virginia, Charlottesville, VA	2002 – 2007
Research Advisor: James P. Landers	
Field: Bioanalytical Chemistry	
Richard Stockton College of NJ	1997 – 2002
B. S. Chemistry: May 2002	
B. S. Mathematics: December 2002	

Research:

<i>Graduate Research</i>	2003 – 2006
University of Virginia, Charlottesville, VA	
<ul style="list-style-type: none">• Developed microfluidic methods for infrared-mediated PCR, extraction of DNA from biological sources, and integration of multiple sample processing steps on a single microdevice.• Adapted molecular diagnostic techniques onto microfluidic devices for clinical applications• Directed and supervised 4 undergraduate researchers.	

Awards:

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| <ul style="list-style-type: none">• ACS Women Chemists Committee Travel Award Sponsored by Eli Lilly & Company | 2005 |
| <ul style="list-style-type: none">• 2nd place at the 4th Annual Robert J. Huskey Graduate Research Exhibition | 2004 |
| <ul style="list-style-type: none">• College Scholars Scholarship – funded by The Richard Stockton College of NJ Foundation | 1997-2001 |
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Teaching:

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|---|-----------|
| <ul style="list-style-type: none">• General chemistry T.A. (University of Virginia) | 2002-2003 |
| <ul style="list-style-type: none">• Organic chemistry T.A. (Richard Stockton College) | 2000 |
| <ul style="list-style-type: none">• Grader for Calculus I & II (Richard Stockton College) | 1999-2001 |
| <ul style="list-style-type: none">• General chemistry T. A. (Richard Stockton College) | 1999 |

Publications in Peer-Reviewed Journals:

Michael G. Roper, Christopher J. Easley, **Lindsay A. Legendre**, James P. Landers. "Completely Non-Contact Temperature Control and Sensing on a Microfluidic Chip" *Analytical Chemistry* 2007, 79(4), 1294-1300.

Lindsay A. Legendre*, Christopher J. Easley*, James M. Karlinsey*, Joan M. Bienvenue*, Michael G. Roper, Molly Hughes, Tod Merkel, Eric Hewlett, Jerome P. Ferrance, and James P. Landers. "A Fully-Integrated Microfluidic Genetic Analysis System with Sample in-Answer out Capability". *Proceedings of the National Academy of Sciences* 2006, 109(51), 19272-19277.

The above article was covered by the following journals:

Science as an Editor's Choice 19 January 2007; 315, 5810.

Nature Biotechnology as a Research Highlight January 2007; 25, 69.

Analytical Chemistry as an Editor's Choice 1 February 2007; 79, 809.

Lindsay A. Legendre, Joan M. Bienvenue, Michael G. Roper, Jerome P. Ferrance, James P. Landers. "A Valveless Microfluidic Sample Preparation Device for DNA Extraction and Amplification Using Conventional Instrumentation". *Analytical Chemistry* 2006, 78, 1444-1451.

Lindsay A. Legendre*, Christopher J. Easley*, Michael G. Roper, Thomas A. Wavering, Jerome P. Ferrance, James P. Landers. "Extrinsic Fabry-Perot Interferometry for Noncontact Temperature Control of Nanoliter-Volume Enzymatic Reactions in Glass Microchips". *Analytical Chemistry*, 2005, 77, 1038-1045.

Lindsay A. Legendre*, Joan M. Bienvenue*, Jerome P. Ferrance and James P. Landers. "An Integrated Microfluidic Device for DNA Purification and PCR Amplification of STRs: Interfacing Microfluidics and Conventional Instrumentation", *Submitted 2007*.

*Authors contributed equally to this manuscript

Patents:

James P. Landers, Joan M. Bienvenue, **Lindsay A. Legendre**, Christopher J. Easley, and James M. Karlinsey. "Method and System for Integrated Sample Processing with Real Time PCR for Microchip Forensic Analysis." U.S. Patent (Provisional), 2005.

Christopher J. Easley, **Lindsay A. Legendre**, Michael G. Roper, Jerome P. Ferrance, and James P. Landers. "Semi-Reflective Coatings in Microdevices for Measuring Distance and Related Method Thereof." U.S. Patent (Provisional), 2004.

Non-Peer Reviewed Publications:

Lindsay A. Legendre, Jerome P. Ferrance and James P. Landers. Microfluidic Devices for Electrophoretic Separations: Fabrication and Use. In *The Handbook of Capillary and Microchip Electrophoresis and Associated Microtechniques (3rd Edition)*, James P. Landers, Eds; CRC Press: to be released August 2007.

Christopher J. Easley, **Lindsay A. Legendre**, James P. Landers, and Jerome P. Ferrance. Rapid DNA Amplification in Glass Microdevices. In *Methods in Molecular Biology*, 339, Charles S. Henry, Eds; Humana Press: New Jersey, 2006; pp 217-231.