IAN PAPAUTSKY – BIOGRAPHICAL SKETCH

a) Professional Preparation

University of Utah	Bioengineering	Ph.D., 1999
Boston University	Biomedical Engineering	B.S., 1995

b) Appointments

Director	Ohio Center for Microfluidic Innovation	2012-present
Director	Univ. Cincinnati, Center for Micro/Nano Fab.	2008-2012
Associate Professor	Univ. of Cincinnati, Electrical Engr.	2006-present
Adjunct Professor	Univ. of Cincinnati, Biomedical Engr.	2002-present
Assistant Professor	Univ. of Cincinnati, Electrical Engr.	2000-2006
Graduate Assistant	Univ. of Utah, Bioengineering	1995-1999

c) Awards and Honors

- Distinguished Engineering Researcher, College of Engineering, Univ. of Cincinnati (2009)
- Master Engineering Educator, College of Engineering, Univ. of Cincinnati (2007-2008)
- Ohio Bioscience 30 in Their 30s (2007)
- Excellence and Service Award, International Society for Optical Engineering (SPIE) (2007, 2005)
- William E. Restenmeyer Teaching Excellence Award, University of Cincinnati (2006, 2002)
- William H. Middendorf Research Excellence Award, University of Cincinnati (2004)
- Professor of the Quarter Award, College of Engineering, University of Cincinnati, Spring 2003

d) Publications

(i) Directly Related to Project

1. N. Nivedita, P. Ligrani, I Papautsky, “Spiral Inertial Microfluidic Devices for Continuous Blood Cell Separation,” *Proc. SPIE*, vol. 8251, 2012.
2. S. Li, J. Hagen, I. Papautsky, “Point-of-care colorimetric detection with a smartphone,” *Lab Chip,* vol. 12, pp. 4240–4243, 2012.
3. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, and I. Papautsky, “Inertial microfluidics for sheath-less high-throughput flow cytometry,” *Biomed. Microdev.*, vol. 12, pp. 187-195, 2010.
4. S. S. Kuntaegowdanahalli, A. S. S. Bhagat, G. Kumar, and I. Papautsky, “Inertial microfluidics for continuous particle separation in spiral microchannels,” *Lab Chip*, vol. 9, pp. 2973-2980, 2009.
5. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, and I. Papautsky, “Inertial microfluidics for continuous particle filtration and extraction,” *Microfluid. Nanofluid.,* vol. 7, pp. 217–226, 2009.

(ii) Additional Significant Publications

1. A. Banerjee, E. Kreit, Y. Liu, J. Heikenfeld and I. Papautsky, “Reconfigurable virtual electrowetting channels,” *Lab Chip,* vol. 12 (4), pp. 758 – 764, 2012.
2. P. Jothimuthu, R. A. Wilson, J. Herren, E. Haynes, W. R. Heineman, and I. Papautsky, “Lab-on-a-chip sensor for detection of highly electronegative heavy metals by anodic stripping voltammetry,” *Biomed. Microdev.*, vol. 13, pp. 695-703, 2011.
3. L. Shen, M. Ratterman, D. Klotzkin, and I. Papautsky, “A CMOS optical detection system for point-of-care chemical sensors,” *Sensors Actuators B*, 2011, vol. 155, pp. 430-435, 2011.
4. M. Dhindsa, J. Heikenfeld, S. Kwon, J. Park, P. D. Rack, I. Papautsky, “Virtual electrowetting channels: electronic liquid transport with continuous channel functionality,” *Lab Chip*, vol. 10, pp. 832–836, 2010.
5. A. A. S. Bhagat, S. S. Kuntaegowdanahalli, and I. Papautsky, “Continuous particle separation in spiral microchannels using Dean flows and differential migration,” *Lab Chip*, vol. 8, pp. 1906-1914, 2008.
6. A. Pais, A. Banerjee, D. Klotzkin, and I. Papautsky, “High-sensitivity, disposable lab-on-a-chip with thin-film organic electronics for fluorescence detection,” *Lab Chip*, vol. 8, pp. 794-800, 2008.
7. A. A. S. Bhagat, S. Kuntaegowdanahalli, and I. Papautsky, “Enhanced particle filtration in straight microchannels using shear-modulated inertial migration,” *Physics Fluids*, vol. 20, 101702, 2008.

8. A. A. S. Bhagat, A. Pais, P. Jothimuthu, and I. Papautsky, “Re-usable quick-release interconnect for characterization of microfluidic systems,” *J. Micromech. Microeng*., vol. 17, pp. 42-49, 2007.
9. A. Banerjee, A. Pais, I. Papautsky, and D. Klotzkin, “A polarization isolation method for high-sensitivity, low cost on-chip fluorescence detection for microfluidic lab-on-a-chip,” *IEEE Sensors J.,* vol. 8, no. 5, pp. 621-627, 2008.
10. A. A. S. Bhagat, E. Peterson, and I. Papautsky, “A passive planar micromixer with obstructions for mixing at low Reynolds numbers,” *J. Micromech. Microeng*., vol. 17, pp. 1017-1024, 2007.

(iii) Cumulative Publications (since 1998)

Book Chapters (8), Journal Articles (52), Conference Proceedings (102), Invited Presentations (46), Educational Conference Articles (12)

e) Synergistic Activities

- Associate Editor, *Journal of Microlithography, Microfabrication, and Microsystems (JM3)*, 2006 – present.
- SPIE *Microfluidics, BioMEMS, and Medical Microsystems Conference*, Conference Chair, San Jose, CA, 2003-2007.
- *Journal of Microlithography, Microfabrication, and Microsystems (JM3)*, Guest Editor, Special Issue on BioMEMS and Microfluidics, April 2006.
- *Biomedical Microdevices*, Guest Editor, Special Issue on Microfluidics, vol. 3, no. 3, 2001.
- Keynote address at *TechnoInnova 2007*, Congreso de Ingenieria Mecatronica, Tecnologico de Monterrey, Querétaro, Mexico, September 20-21, 2007.
- Invited speaker, *Recent Advances in Sensors for Environmental Monitoring* workshop, Environmental Chemistry Division, 234th American Chemical Society Meeting, Boston, MA, August 20, 2007.
- Invited speaker, Ecole Supérieure d’Ingénieurs en Electronique et Electrotechnique (ESIEE), Paris, France, October 11, 2007.
- National Science Foundation, Reviewer & Panelist, 2002 - present.
- Department of Homeland Security, Reviewer & Panelist, 2003.
- National Institutes of Health, Reviewer & Panelist, 2004, 2007.
- BMES Conference, Organizing committee for BioMEMS for Cellular/Tissue Engineering Track, Nashville, TN, October 1-4, 2003.
- Keynote speaker, Tau Beta Pi Recruitment Event, Ohio Chapter, May 2002.

f) Collaborators and Other Affiliations (in the last 5 years)

(i) Collaborators and Co-Editors (projects or publications)

Chong Ahn (UC); Richard Azizkhan (Cincinnati Children’s Hospital); Fred Beyette (UC); Paul Bishop (UC); John Brazzle (Sandia National Labs); Donita Bylski-Austrow (CCHMC); Jin-Woo Choi (Louisiana Tech); David Eddington (Univ. Illinois Chicago).; Bruno Frazier (Georgia Institute of Technology); Bruce Gale (Univ. of Utah); Jason Heikenfeld (UC); William Heineman (UC); Brian Kinkle (UC); Abe Lee (UC-Irvine); Phillip Ligrani (StLU); Wanjun Wang (LSU); Gelnn Walker (NCSU); Hector Wong (CCHMC); Peter Woias (IMTECH, Germany)

(ii) Graduate and Postdoctoral Advisor

A. Bruno Frazier, Georgia Institute of Technology

(iii) Thesis Advisor and Postgraduate-Scholar Sponsor

Jian Zhou, Ph.D., 2012; Li Shen, Ph.D., 2012; Preetha Jothimuthu, Ph.D., 2011; Woohyack Choi, Ph. D., 2010; Ali Asgar S. Bhagat, Ph.D., 2009; Jin-Hwan Lee, Ph.D., 2008; Tae-Sun Lim, M.S., 2007; Andrea Pais, M.S., 2007; Erik Peterson, M.S., 2006; Xingtao Wei, M.S., 2005; David Pepples, M.S., 2005; Frank Sauser, M.S., 2005; Gaoshan Jing, M.S., 2004; Hima Bindu Eluru, M.S., 2004; Bongsu Kim, M.S., 2004; Grant Hollis, M.S., 2003; Jagannathan Narasimhan, M.S., 2003; Pradeep Srinivasan, M.S., 2003.