

Lavanya Vasudevan

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PROFESSIONAL SUMMARY

Public health researcher with masters in epidemiology and biostatistics, as well as doctoral and postdoctoral experience in molecular and cell biology. Interested in the design, deployment and evaluation of mHealth technologies (i.e., use of mobile phones for delivering public health interventions) for maternal and child health applications, especially in resource-limited settings.

PROFESSIONAL HISTORY

Faculty Associate	2014-present
Center for Health Policy and Inequities Research, Duke University	
Research Scholar	2013-present
Duke Global Health Institute, Duke University	
Associate	2012-2014
Department of International Health, Johns Hopkins Bloomberg School of Public Health	
Visiting Scholar	2012-2013
Duke Global Health Institute, Duke University	
Consultant	
Department of Reproductive Health and Research (RHR), World Health Organization	2012-2014
Plan International	2013-2014

EDUCATION

Masters in Public Health (MPH)	2011-2012
Johns Hopkins Bloomberg School of Public Health Concentration: Epidemiologic and Biostatistical Methods for Public Health and Clinical Research.	
Postdoctoral Scholar Brodsky Lab	2008-2011
University of California, San Francisco	
Doctor of Philosophy (Ph.D.) Baird-Holowka Lab	2003-2008
Department of Molecular Biology and Genetics, Cornell University Major: Biochemistry, Molecular and Cell Biology; Minor: Pharmacology	
Bachelor of Pharmaceutical Sciences (B.Pharm. Sci)	1999-2003
Prin. K. M. Kundnani College of Pharmacy, Mumbai, India Major: Pharmaceutical Science	

CERTIFICATIONS AND AWARDS

- **31 Inspiring People**, Vaccine Ambassadors **2013**
- **Certified in Public Health (CPH)**, National Board of Public Health Examiners **2012**
- **MPH Capstone Award for Outstanding Achievement** for thesis titled **2012**
 “Maternal, Household and Infant Determinants of Vaccination Coverage among Infants in Rural Bangladesh”, Johns Hopkins Bloomberg School of Public Health
- **Peter Jay Sharp Scholarship**, Mailman School of Public Health (declined) **2011**
- **Travel Award**, American Society for Biochemistry and Molecular Biology (EB 2008) **2008**
- **Travel Award**, American Society for Cell Biology **2007**
- **Young Investigator Award**, Cornell University **2007**
- **Fellowship**, Cornell University **2003-2004**
- **Dr. M. K. Rangnekar Medal**, University of Mumbai **2003**
- **Academic Merit Award**, Indian Pharmaceutical Association **2003**
- **Late Shri H. G. Advani Gold Medal**, Prin. K. M. Kundnani College of Pharmacy **2003**
- **Jewel of KMK**, Prin. K. M. Kundnani College of Pharmacy **2003**
- **Jethibai Hirdaram Jagtiani Award**, Prin. K. M. Kundnani College of Pharmacy **2003**

SELECTED PROFESSIONAL EXPERIENCES AND ACTIVITIES

- **Expert Panelist**, WHO mHealth Technical Evidence Review Group (mTERG) **2014-present**
- **Advisor**, mHealth@Duke **2014-present**
- **Reviewer**, Journal of Health Communication **2013-present**
- **Reviewer**, Health Informatics Journal **2013**
- **Lead coordinator**, mHealth@Duke **2012-2014**
- **WHO secretariat**, WHO mHealth Technical Evidence Review Group (mTERG) **2012-2014**
- **President**, JHU Student Initiative for mHealth Research & Innovation (SIMRI) **2011-2012**
- **Volunteer and Lead Implementer**, mPACT project, Ghana **2010-2011**
- **Mentoring Chair**, Postdoctoral Scholars Association, UCSF, CA **2008- 2009**
- **Department Representative**, Graduate and Professional Student Assembly
 Department of Molecular Biology and Genetics, Cornell University **2006-2007**

PEER-REVIEWED PUBLICATIONS

- 1 *L. Vasudevan*, A. Labrique, S. Mehra, L. Wu, O. Levine, D. Feikin, R. Klemm, P. Christian, K. P. West “Maternal determinants of timely vaccination coverage among infants in rural Bangladesh”, **Vaccine**, Volume 32, Issue 42, 22 September 2014, Pages 5514-5519.
- 2 G. S. Bloomfield, R. Vedanthan, *L. Vasudevan*, A. Kithei, M. Were, E. G. Velazquez, “Mobile Health for Non-Communicable Diseases in Sub-Saharan Africa: A Systematic Review of the Literature and Strategic Framework for Research”, **Globalization & Health**, 2014; 10: 49
- 3 S. R. Majeed, *L. Vasudevan*, C-Y. Chen, Y. Luo, J. A. Torres, T. M. Evans, A. Sharkey, A. B. Foraker, M. L. Wong, C. Esk, T. A. Freeman, A. Moffett, J. H. Keen, F. M. Brodsky, “Clathrin light chains are required for the gyrating-clathrin recycling pathway and thereby promote cell migration”, **Nature Communications**, 2014 May 23; 5: 3891¹
- 4 A. Labrique, *L. Vasudevan*, E. Kochi, R. Fabricant, G. Mehl “Articulating mHealth Strategies as Health Systems Strengthening Tools - Twelve Common Applications and a Visual Framework”, **Global Health Science and Practice** 2013 Aug;1(2):160-171
- 5 A. Labrique, *L. Vasudevan*, L. Chang, G. Mehl “H₂pe for mHealth: More ‘y’ or ‘o’ on the horizon?”, **Inter. J. Med. Inform.** 2013 May;82(5):467-469.
- 6 M. Bonazzi, A. Kuhbacher, A. Toledo-Arana, A. Mallet, *L. Vasudevan*, J. Pizzaro-Cerda, F. M. Brodsky, P. Cossart “A common clathrin-mediated machinery coordinates cell adhesion and bacterial internalization”, **Traffic** 2012 Dec;13(12):1653-1666
- 7 M. Bonazzi, *L. Vasudevan*, A. Mallet, M. Sachse, A. Sartori, M. C. Prevost, A. Roberts, S. B. Taner, J. D. Wilbur, F. M. Brodsky, P. Cossart “Clathrin phosphorylation is required for actin recruitment at sites of bacterial adhesion and internalization”, **J. Cell Biol.** 2011 Oct 31;195(3):525-536.
- 8 *L. Vasudevan*, A. Jeromin, L. Volpicelli-Daley, P. DeCamilli, B. Baird, D. Holowka “Beta and Gamma Isoforms of Type I PIP5K Regulate Distinct Stages of the Ca²⁺ signaling in Mast Cells”, **Journal of Cell Science** 2009 Jul 15;122(Pt 14):2567-2574.
- 9 A. Torres, *L. Vasudevan*, D. Holowka, B. Baird “Focal Adhesion Proteins Connect IgE Receptors to the Cytoskeleton as Revealed by Micropatterned Ligand Arrays”, **Proc. Natl. Acad Sci U S A.** 2008 Nov 11;105(45):17238-17244.

TEXTBOOK CHAPTERS

- 1 *L. Vasudevan*, A. Labrique, “Mobile-Enhanced Telemedicine: Transcending barriers to access and care with wireless communications technologies” in textbook titled “Global Health Informatics: Principles and Application of eHealth and mHealth to Improve Quality of Care”, Editors V. Nikore, MIT Press, 2014, in press.

¹Majeed, Vasudevan and Chen are joint first authors.

- 2 G. Mehl, L. Vasudevan, L. Gonsalves, M. Berg, T. Seimon, M. Temmermen, A. Labrique, “Harnessing mHealth in low-resource settings to overcome health system constraints and achieve universal access to health” in textbook titled “Behavioral Healthcare and Technology”, Editors. L. Marsch, S. Lord, J. Dallery, Oxford University press, 2014, ISBN: 9780199314027

TALKS

- 1 *L. Vasudevan* **2014**
 “Mobile Health (mHealth) for Reproductive, Maternal, Newborn & Child Health”, **13th Annual Global Health mini-University** Washington DC
- 2 *L. Vasudevan* **2014**
 “Maternal Determinants of Timely Vaccination Coverage in Rural Bangladesh”, **11th Annual Global Health & Innovation Conference** New Haven CT
- 3 *L. Vasudevan* **2013**
 “Integrating mobile technology in global health research”, **Duke Global Injury Research Colloquium**, Duke Global Health Institute, Duke University, Durham, NC
- 4 *L. Vasudevan* **2012**
 “WHO mHealth and ICT Framework for Reproductive, Maternal, Newborn and Child Health (RM-NCH)”, **mHealth Technical Advisory Group (mTAG) meeting**, Montreux, Switzerland
- 5 *L. Vasudevan* **2012**
 “Using mobile phones for chronic disease management - Is there an impact?”, **Global Health Journal Club Series**, Duke Global Health Institute, Duke University, Durham, NC
- 6 *L. Vasudevan* **2012**
 “Using mobile phone technology to improve timeliness of vaccination in Bangladesh”, **Global Health Exchange Series**, Duke Global Health Institute, Duke University, Durham, NC
- 7 *L. Vasudevan, A. Labrique* **2012**
 “Maternal, Household and Infant Determinants of Vaccination Coverage among Infants in Rural Bangladesh”, **MPH Capstone Symposium**, JHU Bloomberg School of Public Health, Baltimore, MD
- 8 *L. Vasudevan, C-Y. Chen, F. Brodsky* **2010**
 “Distinct Roles for Clathrin Light Chains, LCa and LCb, in Cell Migration”, **Hooper Lunch series**, UCSF, San Francisco, CA
- 9 *L. Vasudevan, C-Y. Chen, F. Brodsky* **2009**
 “Role of clathrin-mediated trafficking in cell migration”, **Hooper Lunch series**, UCSF, San Francisco, CA
- 10 *L. Vasudevan, B. Baird, D. Holowka* **2007**
 “Dual Regulation of Mast Cell Calcium Response by the Alpha² and Gamma Isoforms of the

²Reflects older nomenclature.

Type I Phosphatidylinositol 4-phosphate 5-kinase.”, (**Young Investigator Award**) **Biological and Biomedical Sciences Symposium, Cornell University**, Ithaca, NY.

- 11 *L. Vasudevan*, B. Baird, D. Holowka **2005-2008**
Annual Student Research Seminar Series, **Dept. of Molecular Biology and Genetics, Cornell University**, Ithaca, NY.
- 12 *L. Vasudevan*, S. S. Poddar **2001**
“Specialization in Pharmacy Graduation- Need of the Day”, **53rd Indian Pharmaceutical Congress**, Delhi, India

PANELS

- 1 *Moderator* **2014**
”Role of Behavior Change in Encouraging the Uptake of Healthcare Innovation”, **SEAD Symposium**, Durham NC
- 2 *Moderator* **2011**
”Health IT Pathways to your Future”, **Eighth Annual Maryland Health Disparities Conference**, College Park, MD

POSTER PRESENTATIONS

- 1 *L. Vasudevan*, A Labrique, et. al **2013**
“mTIKKA - A mobile phone based virtual vaccine registry system to improve timely vaccination coverage in rural Bangladesh”, **Inaugural mHealth@Duke symposium**, Durham, NC
- 2 *L. Vasudevan*, A. Weisner, B. Baird and D. Holowka **2008**
“A polybasic sequence in the cytoplasmic domain of FcεRIγ regulates surface expression and possibly stimulated phosphorylation of the IgE-receptor”, **48th annual meeting of the American Society for Cell Biology**, San Francisco, CA
- 3 *L. Vasudevan*, A. Jeromin, L. Volpicelli-Daley, P. DeCamilli, B. Baird, D. Holowka **2008**
“Alpha and Gamma isoforms of the Type I Phosphatidylinositol 4-phosphate 5-kinase Regulate Distinct Stages of the Calcium Response in Mast Cells”, **Experimental Biology meeting 2008**
- 4 *L. Vasudevan*, A. Jeromin, B. Baird and D. Holowka **2007**
“Different Isoforms of Type I Phosphatidylinositol 4-phosphate 5-kinase Regulate Different Pools of Phosphatidylinositol 4,5-bisphosphate in RBL Mast Cells.”, **47th annual meeting of the American Society for Cell Biology**, Washington D.C
- 5 *L. Vasudevan*, B. Baird, D. Holowka **2007**
“The Alpha and Gamma Isoforms of the Type I Phosphatidylinositol 4-phosphate 5-kinase Regulate Different Pools of Phosphatidylinositol 4,5-bisphosphate in RBL-2H3 Mast Cells.”, (**Honorable Mention**) **Pharmacology Department, Cornell University**, Ithaca, NY.

- 6 *L. Vasudevan*, A. Wiesner, A. Jeromin, B. Baird, D. Holowka **2006**
 “Overexpression of the Type I Phosphatidylinositol 4-phosphate 5-kinase Alpha Produces a Defect in Store-Operated Calcium Entry in RBL-2H3 Mast Cells.”, **46th annual meeting of the American Society for Cell Biology**, San Diego, CA
- 7 *L. Vasudevan*, A. Wiesner, A. Jeromin, B. Baird, D. Holowka **2006**
 “Ectopic Expression of Type I Phosphatidylinositol 4-phosphate 5-kinase Alpha Alters IgE Receptor Signaling in RBL-2H3 Mast Cells”, **Pharmacology Department, Cornell University**, Ithaca, NY.
- 8 *L. Vasudevan*, A. Wiesner, A. Jeromin, B. Baird, D. Holowka **2006**
 “Ectopic Expression of Type I Phosphatidylinositol 4-phosphate 5-kinase Alpha Alters IgE Receptor Signaling in RBL-2H3 Mast Cells”, **Vincent Du Vigneaud Memorial symposium, Cornell Weill Medical School**, NYC, NY
- 9 *L. Vasudevan*, A. Wiesner, A. Jeromin, B. Baird, D. Holowka **2005**
 “Ectopic Expression of Type I Phosphatidylinositol 4-phosphate 5-kinase Alpha Alters IgE Receptor Signaling in RBL-2H3 Mast Cells”, **45th annual meeting of the American Society for Cell Biology**, San Francisco, CA
- 10 *L. Vasudevan*, S. S. Poddar **2002**
 “Clinical and Economic Implications of Diabetes Therapy- A Critical Evaluation”, **54th Indian Pharmaceutical Congress**, Pune, India
- 11 *L. Vasudevan*, S. S. Poddar **2002**
 “Improving the Relevance of Disintegration Test”, **54th Indian Pharmaceutical Congress**, Pune, India

TEACHING EXPERIENCE

Instructor:

GLHLTH 590S: Introduction to Mobile Health, Duke University **Spring 2014, 2015**

Guest lectures:

GLHLTH 641: Non-Communicable Diseases in LMICs, Duke University **Fall 2013, 2014**

COMMFAM 448c: Introduction to Informatics, Duke University **Spring 2014**

South Asia’s Youth at Risk-Multimedia Storytelling by Young Journalists, **Spring 2013**

Online trainer and expert, International Center for Journalists, Washington DC

Teaching Assistant:

BioBM 439: Molecular Basis of Human Diseases, Cornell University **Fall 2004**

BioBM 332: Principles of Biochemistry-Molecular Biology, Cornell University **Spring 2005**

THESIS COMMITTEE MEMBERSHIP

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|---|-------------|
| 1 Thesis Committee Co-Chair, Lily Martyn, MScGH | 2016 |
| 2 Thesis Committee Co-Chair, Dorothy Mangale, MScGH | 2015 |
| 3 Thesis Committee member, Jordan Schermerhorn, MScGH | 2015 |
| 4 Thesis Committee member, Amogh Karnik, MScGH | 2014 |

RELEVANT SKILLS

Epidemiology, Biostatistics (Regression, Survival Analysis, STATA), Qualitative Survey Methods, Toxicology & Environmental Risk Assessment, e/mHealth Applications, Geospatial Analysis (ArcGIS), Molecular & Cell Biology (Mammalian cell culture, RNA interference, Real-time Confocal Microscopy), Languages (English, Hindi, and Tamil)

REFERENCES

Available upon request