

## Curriculum Vitae 2019

**Gideon K. D. Zamba**

Department of Biostatistics

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### Education

- 01–1999 : 09–2003 Ph.D Statistics  
School of Statistics, University of Minnesota, Twin Cities  
Area of concentration: Change Point Theory–Control
- 01–1999 : 09–2001 M.S. Statistics  
School of Statistics, University of Minnesota, Twin Cities
- 09–1990 : 08–1995 B.S.—M.S. Applied Mathematics  
Département de Mathématiques, Université du Bénin, Lomé-Togo

### Current Position and Appointments

Professor, Biostatistics, University of Iowa, Since July 2018 (Primary)

Professor, Radiology & Nuclear Medicine, University of Iowa, Since July 2018 (Secondary)

- Director, Iowa Biostatistics ISIB, Since January 2009
- Biostatistician for the Holden Comprehensive Cancer Center HCCC, Since August 2005
- Biostatistician for the Biostatistical Consulting Center BCC, Since 2004

### Previous Positions

- 08–2012 : 07–2018 Associate Professor, Department of Biostatistics, University of Iowa
- 08–2006 : 07–2012 Assistant Professor, Department of Biostatistics, University of Iowa
- 08–2004 : 08–2006 Clinical Assistant Professor, Dept of Biostatistics, University of Iowa
- 08–2003 : 08–2004 Visiting Assistant Professor, Dept of Biostatistics, University of Iowa
- 09–2001 : 06–2003 Primary Instructor, School of Statistics, University of Minnesota
- 09–2000 : 05–2001 Lab Instructor, School of Statistics, University of Minnesota
- 01–2000 : 09–2000 Research Assistant, Consulting Center, School of Statistics, University of Minnesota
- 09–1999 : 01–2000 Teaching Assistant, School of Statistics, University of Minnesota
- 09–1994 : 05–1997 Primary Math Instructor, Lycée Kouvahey, Lomé-Togo

## Courses Instructed

Course Title	Institution	Terms	Level
Theory of Biostatistics I	The University of Iowa	4	G
Biostatistical Methods I	The University of Iowa	2	G
Biostatistical Computing (Honors)	The University of Iowa	6	G
General Biostatistics	The University of Iowa	10	U
Radiation Oncology Biostatistics Seminar	The University of Iowa	1	G
Research Data Management	The University of Iowa	1	G
Intro to Biostatistical Computing	The University of Iowa	2	G
Introduction to Biostatistics	The University of Iowa	3 <sup>†</sup>	U/G
Design and Analysis of Biomed Studies	The University of Iowa	1	G
Statistical Methods in Clinical Trials	The University of Iowa	1	G
Intro to Statistical Analysis (Honors)	University of Minnesota	4 <sup>‡</sup>	U
Data Analysis	University of Minnesota	2 <sup>‡</sup>	U
Applied Regression Analysis w/Computing	University of Minnesota	2	G
Math: Analysis, Algebra, Geometry (Honors)	Lycée Kouvahey, Lomé Togo	6	

<sup>†</sup> Instructed large lecture sections ( $\geq 70$  students)

<sup>‡</sup> Instructed large lecture sections ( $\geq 100$  students)

U/G : Undergraduate/Graduate level

## Professional Development

- Improving Student Writing and Critical Thinking Skills Through Peer Assessment with Calibrated Peer Review–CPR. The University of Iowa, Center for Teaching (2015)
- University of Iowa Carver College of Medicine Teaching Scholar Program (January 2012–December 2014)
- University of Iowa Carver College of Medicine Teaching Scholar Program: Certificate of Teaching Skills Course Completion (January–December 2012)
- Non-Western Ways of Learning and Teaching. The University of Iowa, Center for Teaching (2009)
- Creating a Professional Portfolio. The University of Iowa, Center for Teaching (2009)
- Applying Problem-Based Learning across Curricula. The University of Iowa, Center for Teaching (2008)
- International Biometric Society New Investigator Conference. Crystal City, VA (March 2008)
- Institute of Mathematical Statistics New Researchers Conference. University of Minnesota, Minneapolis, Minnesota (August 2–6, 2005)

## Awards & Honors

- The American Statistical Association Travel Award for the 6<sup>th</sup> AIC Meeting in Arsi (2019)
- Dr. Carol S. Gleich Development Award. College of Public Health, The University of Iowa (2018)
- CPH Faculty Service Award. College of Public Health, The University of Iowa (2018)
- Inducted to the Delta Omega Honorary Society in Public Health (2016)

- University of Iowa Carver College of Medicine Teaching Scholar (2014)
- CPH Faculty Teaching Award. College of Public Health, The University of Iowa (2011)
- Thank a Teacher note of appreciation. The University of Iowa Center for Teaching (2009)
- Excellence in Teaching Award. School of Statistics, University of Minnesota (2002)
- Distinguished Instructor Award. Lycée Kouvahey, Lomé Togo (1997)

### Research Interests: Methodology

Biostatistics	Computational Statistics	Multivariate Statistics
Syndromic Surveillance	Dynamic Processing	Reliability & Recurrence
Change Point Problems	Sequential Analysis	6 $\sigma$ Health Management

### Research Interests: Collaborative

Cancer	Emphysema	Glaucoma	Influenza
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### Refereed Publications: Methodology

- **Zamba, K. D.**, Adekpedjou, A. (2019). A Khmaladze-Transformed Test of Fit with ML Estimation in the Presence of Recurrent Events. *Sequential Analysis*, To appear.
- Adekpedjou, A., Olbricht G. R., **Zamba, K. D.** (2018). Confidence Bands for Quantiles as a Function of Covariates in Recurrent Event Models. *Canadian Journal of Statistics*, 46(4), 610–634.
- VanBuren, J. M., Oleson, J. J., **Zamba, K. D.**, Wall, M., (2016). Integrating Independent Spatio-Temporal Replication to Assess Population Trends in Disease Spread. *Statistics in Medicine*, 35(28), 5210–5221.
- Adekpedjou, A., Withanage De-Mel, A., **Zamba, K. D.** (2015). Data Dependent Cells Chi-Square Test with Recurrent Events. *Scandinavian Journal of Statistics*, 42(4), 1045–1064.
- Yang, M., Cavanaugh, J. E., **Zamba, K. D.** (2015). State-Space Models for Count Time Series with Excess Zeros. *Statistical Modelling*, 15(1), 70–90.
- Yang, M., **Zamba, K. D.**, Cavanaugh, J. E. (2013). Markov Regression Models for Count Time Series with Excess Zeros: A Partial Likelihood Approach. *Statistical Methodology*, 14, 26–38.
- **Zamba, K. D.**, Tsiamyrtzis P., Hawkins, D. M. (2013). A Three-State Recursive Sequential Bayesian Algorithm for Biosurveillance. *Computational Statistics and Data Analysis*, 58, 82–97.
- Adekpedjou, A., **Zamba, K. D.** (2012). A Chi-Squared Goodness of Fit Test for Recurrent Event Data. *Journal of Statistical Theory and Application*, 11(2) 97-119.
- **Zamba, K. D.**, Adekpedjou, A., Yang, M. (2012). Inter-event Times Estimation for Correlated Recurrent Event Data under Informative Monitoring. *South African Journal of Statistics*, 46, 155–184.

- **Zamba, K. D.**, Adekpedjou, A. (2010). Parameter Estimation for Correlated Recurrent Events under Informative Monitoring. *Statistical Methodology*, 8, 273-290.
- **Zamba, K. D.**, Hawkins, D. M. (2009). A Multivariate Change Point Model for Change in Mean Vector and/or Covariance Structure. *Journal of Quality Technology*, 41(3), 285–303.
- **Zamba, K. D.**, Tsiamyrtizis, P., Hawkins, D. M. (2008). Sequential Bayesian Control Model for Influenza-like-illness and Early Detection of Intentional Outbreaks. *Health Edition, Quality Engineering*, 20(4), 495–507.
- **Zamba, K. D.**, Hawkins, D. M. (2006). A Multivariate Change Point Model for Statistical Process Control. *Technometrics*, 48(4), 539–549.
- Hawkins, D. M., **Zamba, K. D.** (2005). Statistical Process Control for Shifts in Mean or Variance using a Change Point Formulation. *Technometrics*, 47(2), 164–173.
- Hawkins, D. M., **Zamba, K. D.** (2005). A Change Point Model for a Shift in Variance. *Journal of Quality Technology*, 37(1), 21–31.
- Hawkins, D. M., **Zamba, K. D.** (2004). On Small Shifts in Quality Control. *Quality Engineering*, 16, 143-149.

#### **Publications: Statistical Packages**

- Yang, M., **Zamba, K. D.**, Cavanaugh, J. E. (2013). Statistical Model for Count Time Series with Excess Zeros *The R project for Statistical Computing, Comprehensive R Archive Network (CRAN)*.

#### **Refereed Publications: Collaborative**

- Umesalma, S., Kaemmer, C., Kohlmeyer, J., Letney, B., Schab, A., Reilly, J., Sheehy, R., Hagen, J., Tiwari, N., Zhan, F., Leidinger, M., O’Dorisio, T., Dillon, J., Merrill, R. A., Meyerholz, D. K., Perl, A. L., Brown, B., Braun, T. A., Scott, A., Ginader, T., **Zamba, K. D.**, Howe, J. R., Strack, S., Bellizzi, A., Goutham Narla, G., Darbro, B., Quelle, F., Quelle D. (2019). RABL6A Inhibits Tumor-suppressive PP2A/AKT Signaling to Drive Pancreatic Neuroendocrine Tumor Growth. *Journal of Clinical Investigation*, DOI: 10.1172/JCI123049
- Tsai, R.J., Dennis L.K., Lynch, C.F., Snetselaar, L.G., **Zamba, K. D.**, Scott-Conner C. (2018). Lymphedema Following Breast Cancer: The Importance of Surgical Methods and Obesity. *Frontier in Women’s Health*, 3(2), 1-6.
- Monga, V., Kaleem, H., Mott, S. C., Button, A. M., **Zamba, K. D.**, Milhem M. M. (2018). Discrepancy between Treatment Goals Documentation by Oncologists and their Understanding among Cancer Patients. *Journal of Clinical Oncology*, DOI: 10.1111/ecc12973
- Menda, Y., Madsen, M. T., O’Dorisio, T. M., Sunderland, J. J., Watkins, G. L., Dillon J. S., Mott, S., **Zamba, K. D.**, Schultz, M. K., Bushnell, D. L., O’Dorisio, M. S. (2018). <sup>90</sup>Y-DOTATOC Dosimetry-Based Personalized Peptide Receptor Radionuclide Therapy. *Journal of Nuclear Medicine*, To appear
- Wall, M., **Zamba, K. D.**, Johnson, C. (2018). SITA-Standard Perimetry has Better Performance than FDT2 Matrix Perimetry for Detecting Glaucomatous Progression. *British Journal of Ophthalmology*. To appear

- Wall, M., **Zamba, K. D.**, Artes, P. (2017). The Effective Dynamic Range for Visual Field Progression with Standard Automated Perimetry and Stimulus Sizes III and V. *Investigative Ophthalmology and Visual Science*, 59(1), 439–445 .
- Abongwa, C., Mott, S., McNeely, P., Ghada, A., O’Dorisio, T. M., **Zamba, K. D.**, O’Dorisio, S. M., Menda, Y. (2017). Safety and Accuracy of <sup>68</sup>Ga-DOTATOC PET/CT in Children and Young Adults with Solid Tumors *American Journal of Nuclear Medicine and Molecular Imaging*, 2017. To appear.
- Menda, Y., O’Dorisio, T. M., Howe, J. R., Schultz, M., Dillon, J. S., Dick, D., Watkins, G. L., Ginader, T., Bushnell, D. L., Sunderland, J. J., **Zamba, K. D.**, Graham, M., O’Dorisio, S. M. (2017). Localization of Unknown Primary Site with <sup>68</sup>Ga-DOTATOC PET/CT in Patients with Metastatic Neuroendocrine Tumor. *The Journal of Nuclear Medicine*, 2017 Epub Ahead of Print PMID 28153957.
- Wall, M., Johnson, C. A., Cello, K. E., **Zamba, K. D.**, Keltner, J. L. (2015). Visual Field Outcomes for the Idiopathic Intracranial Hypertension Trial (IIHTT). *Investigative Ophthalmology and Visual Science*, 2016 57(3), 805-812.
- Romitti, P. A., Zhu, Y., Puzhankara, S., Nabukera, S. K., **Zamba, G.K. D.**, Ciafaloni, E., Cunniff, C., Druschel, C. M., Matthews, K. D., Matthews, D. J., Meaney, F. J., Mann, S., Miller, L. A., Andrews, J. G., Caspers Conway, K. M., Fox, D. J., Scollon, S., Street, N., Adams, M. M., Bolen, J., On behalf of STARnet (2014). Prevalence of Duchenne and Becker Muscular Dystrophies in the United States. *Pediatrics*, 135(3), 513–521.
- Santillan, M. K., Santillan, D. A., Scroggins, S. M., Min, J. Y., Sandgreen, J. A., Pearson, N. A., Leslie, K. K., Hunter, S. K., **Zamba, K. D.**, Gibson-Corley, K. N., Grobe, J. L. (2014) Vaso-pressin in Preeclampsia: A Novel Very-Early Human Pregnancy Biomarker Clinically Relevant Mouse Model. *Hypertension*, 64(4), 852–859.
- Derksen, B. J., Duff, M. C., Weldon, K., Zhang, J., **Zamba, K. D.**, Tranel, D., Denburg, N. L. (2014). Older Adults catch up to Younger Adults on a Learning and Memory Task that Involves Collaborative Social Interaction. *Memory*, 23(4), 612–624.
- Engelman, E. S., Leon-Ferre, R., Naraev, B. G., Sharma, N., Sun, S., O’Dorisio, T. M., Howe, J., Button, A., **Zamba, G. K. D.**, Halfdanarson, T. R. (2014). Comparison of transarterial liver-directed therapies for low-grade metastatic neuroendocrine tumors in a single institution. *Pancreas*, 43(2), 219–25.
- Bhatt, S. P., Sieren, J. C., Dransfield, M. T., Washko, G. R., Newell, Jr. J. D., Stinson, D. S., **Zamba, K. D.**, Hoffman, E. A. (2014). Comparison of Spirometric thresholds in diagnosing smoking-related airflow obstruction. *Thorax*, 69, 409–414.
- Tikkanen, S., Button, A., **Zamba, G. K. D.**, Hardy-Fairbanks, A. J. (2013). Effect of Chlorhexidine skin prep and subcuticular skin closure on post-operative infectious morbidity and wound complications following cesarean section. *Proceedings of Obstetric Gynecology*, 3(2), 10.
- Hrabe, J. E., Byrn, J. C., Kapadia, M. R., Button, A., **Zamba, K. D.**, Mezhir, J. J. (2013). A Matched Case-Control Study of IBD-Associated Colorectal Cancer: IBD Portends Worse Outcome. *Journal of Surgical Oncology*, 109(2), 117–121 PMID 24132737.

- Kummet, C., **Zamba, K. D.**, Doyle, C. K., Johnson, C., Wall, M. (2013). Refinement of Pointwise Linear Regression Criteria for Determining Glaucoma Progression. *Investigative Ophthalmology and Visual Sciences*, 54, 9, 6234–41.
- Wall, M., Doyle, C. K., Artes, P., Johnson, C., **Zamba, K. D.** (2013). The Repeatability of Mean Defect with Size III and Size V Standard Automated Perimetry. *Investigative Ophthalmology & Visual Science*, 54(2) 1345–1351.
- Abusin, G., Abu-Arja, R., Gingrich, R., Silverman, M., **Zamba, Gideon K. D.**, Schlueter, A., (2013). An Algorithm for Utilizing Peripheral Blood CD34 Count as a Predictor of the need for Autologous Stem Cell Mobilization–Cost Effectiveness Analysis. *Journal of Clinical Apheresis*, 28(4), 293–300.
- Menda, Y., Boles Ponto, L. L., Scultz, M. K., **Zamba Gideon, K. D.**, Watkins, G. L., Bushnell, D. L., Madsen, M. T., Sunderland, J. J., Graham, M. M., O’Dorisio, T. M., O’Dorisio, S. M. (2013). Repeatability of 68Ga-DOTATOC PET Imaging in Neuroendocrine Tumors. *Pancreas*, 42(6) 937–43.
- Krishna, I. S., Grout, R. W., Wilson, J. M., Cook-Granroth, J. E., **Zamba, K. D.**, Hoffman, E. A. (2012). Repeatability and Sample Size Assessment Associated with Computed Tomography-Based Lung Density Metrics. *Chronic Obstructive Pulmonary Diseases*, 1(1) 97–104 PMC4278434 PMID 25553338.
- Sullivan, R. M., Zhang, J., **Zamba Gideon, K. D.**, Lip, G. Y-H., Zimmerman, M. B., Olshansky, B. (2012). Relation of Gender Specific Risk of Ischemic Stroke in Patients with Atrial Fibrillation to Differences in Warfarin Anticoagulation Control (from AFFIRM). *American Journal of Cardiology*, 110(12), 1797–1802 PMID 22995971.
- Santillon, M., Santillon, D., Fleener, D., Stegmann, B., **Zamba, K. D.**, Hunter, S., Yankowitz, J. (2012). Single Umbilical Artery: Does Side Matter? *Fetal Diagnosis and Therapy*, 32(3), 207–208 PMID 22678110.
- Lemke, C., Graham, J., Geary, S., **Zamba, K. D.**, Lubaroff, D., Salem, A. (2011). Chitosan is a surprising negative modulator of cytotoxic CD8+ T cell responses elicited by adenovirus cancer vaccines. *Molecular Pharmaceutics*, 8(5) 1652-1661.
- Muniz, V., Barnes, J., Paliwal, S., Zhang, X., Tang, X., Chen, S., **Zamba, K. D.**, Cullen, J., Meyerholz, D., Meyers, S., Davis, N., Grossman, S., Henry, M., Quelle, D. (2011). The ARF tumor suppressor inhibits tumor cell colonization independent of p53 in a novel mouse model of pancreatic ductal adenocarcinoma metastasis. *Molecular Cancer Research*, 9(7) 867–877.
- Kay, C. N., Pavan, P. R., Small, L. B., Zhang, T., **Zamba, K. D.**, Cohen, S. M. (2011). Familial Trends in a Population with Macular Holes. *Retina*, 32(4), 754–759.
- Shamshirsaz, A. A., Buekers, T., DeGeest, K., Bender, D., **Zamba, K. D.**, Goodheart, M. J. (2011). A Single Institution Evaluation of Factors Important in Fallopian Tube Carcinoma Recurrence and Survival. *International Journal of Gynecological Cancer*, 21(7), 1232–1240.
- Botond, B., Lorentzen, D., Durairaj, L., Pezzulo, A. A., Nakano, Y., Launspach, J., Stoltz, D. A., **Zamba, K. D.**, McCray, P. B., Zabner, J., Welsh, M. J., Nauseef, W. M. (2011). Concentration of the antibacterial precursor thiocyanate in cystic fibrosis airway secretions. *Free Radical Biology & Medicine*, 50(9), 1144–1150.

- Jacobson, G., **Zamba, K. D.**, Betts, V., Muruganandham, M., Buechler, J. (2011). Image-based treatment planning of the post-lumpectomy breast utilizing CT and 3TMRI. *International Journal of Breast Cancer*, EPUB 2011, 2011 : 246265 PMC 3562499, PMID 21780831.
- Navalkele-Chiwane, P., O'Dorisio, T., Lynch, C., **Zamba, K. D.**, O'Dorisio, S. (2010). Incidence, Survival and Prevalence of Neuroendocrine Tumors versus Neuroblastoma in Children and Young Adults: Nine Standard SEER Registries, 1975–2006. *Pediatric Blood and Cancer*, 56(1) 50–57.
- Wall, M., Woodward, K. R., Doyle, C. K., **Zamba, K. D.** (2010). The Effective Dynamic Ranges of Standard Automate Perimetry Sizes III and V, Motion and Matrix Perimetry. *Archives of Ophthalmology*, 128 (5), 570–576.
- Prybil, L., Peterson, R., Brezinski, P., Roach, W., **Zamba, K. D.** (2010). Board Oversight of patient care Quality in Community Health System. *American Journal of medical Quality*, 25, 1, 34–41.
- Kwon, S., Jamal, M., **Zamba, K. D.**, Stumbo, P., Samuel, I. (2010). Validation of a novel physical activity assessment device in morbidly obese females. *Journal of Obesity*, 2010, 10.1155/2010/856376 PMC 2925378, PMID 20798844.
- Dawson, J. D., Cavanaugh, J. E., **Zamba, K. D.**, Rizzo, M. (2010). Modeling lateral control in driving studies. *Accident Analysis & Prevention*, 42 (3), 891-897.
- McNamara, A., Piester, L., Meyerholz, D. K., **Zamba, K. D.**, Sokolich, J. C., Jaskille, A. D., Griffin, M. A., Light, T. D. (2009). Apoptosis is differentially regulated by burn severity and dermal location. *Journal of Surgical Research*, 162(2), 258–263.
- Meyerholz, D. K., Piester, T. L., Sokolich, J. C., Light, T. D., **Zamba, K. D.** (2009). Morphologic parameters for assessment of burn severity in an acute burn injury rat model. *International Journal of Experimental Pathology*, 90(1):26-33.
- Jacobson, G., Lampli, J., **Zamba, K. D.**, Hua, L., Goodheart, M. J. (2009). Thromboembolic events in patients with cervical carcinoma: Incidence and effect on survival. *Gynecologic Oncology*, 113: 2, 240-44.
- Tsai, R., Dennis, L., Lynch, C. F., Snetelaar, L., **Zamba, K. D.**, Scott-Conner, C. (2009). The risk of developing arm lymphedema among breast cancer survivors: a meta-analysis of treatment factors. *Annals of Surgical Oncology*, 16, 7, 1959-72.
- Meyerholz, D. K., McNamara, A., Piester, T., Orion, K., **Zamba, K. D.**, Light, T. (2009). Pharmacologic modification to resuscitation fluid following thermal injury-is Drotrecogin alpha the answer to arrest burn depth progression? *The Journal of Trauma, Injury, Infection and Critical Care*, 67(5), 996-1003.
- Staffey, K. S., Raghuvver, D., Leonard, A., Brooks, B. A., Andrew, M., Pretorius, B. S., Laynez, W., Ackermann, B. S., **Zamba, K. D.**, Dickson, E., Kerber, R. E. (2008). Liquid ventilation with perfluorocarbons facilitates resumption of spontaneous circulation in a swine cardiac arrest model. *Elsevier Resuscitation*, 78, 77-84.
- Ahmed, A., **Zamba, K. D.**, DeGeest, K., Lynch, C. F. (2008). The impact of surgery on survival of elderly women with endometrial cancer in the SEER Program from 1992-2002. *Gynecologic Oncology*, 111(1), 35-40.

- Berger, K. L., Barriga, F., Lace, M. J., Turek, L., **Zamba (Gideon), K. D.**, Domann, F., Lee, J. H., Klingelutz, A. J. (2006). Cervical keratinocytes containing stably replicating episomal HPV-16 are refractory to transform by oncogenic H-Ras. *Journal of Virology*, 356 (1-2), 68-78.

### **Publications: Encyclopedia, Book Chapter, Book Review, Report**

- Romitti, P., Puzhankara, S., Mathews, K., **Zamba, K. D.**, Cunniff, C., Andrews, J., Matthews, D. James, K., Miller, L., Druschel, C., Fox, D., Pandya, S. Ciafolini, E., Adams, M., Mandel, D., Ouyang, L., Constantin, C., Costa, P. (2009). Prevalence of Duchenne/Becker Muscular Dystrophy Among Males Aged 5–24 Years - Four States 2007. *CDC Morbidity and Mortality weekly Report* 58, 40.
- Prybil, L., Levey, S., Peterson, R., Brezinski, P., **Zamba, K. D.**, Amendola, A., Price, J., and Roach, W. (2009). Governance in High-Performing Community Health Systems: A Report on Trustee and CEO Views. *Grant Thornton LLP*, Chicago, IL.
- **Zamba, K. D.** (2008). Statistical development of quality in medicine. *The American Statistician* 62(4), 359-360.
- Prybil, L. Levey, S., Peterson, R., Dennis, H., Brezinski, P., Price, J., **Zamba, K. D.**, Roach, W. (2008). A governance in non-profit community health systems. *Grant Thornton LLP*, Chicago Illinois.
- Hawkins, D. M., Qiu, P., **Zamba, K. D.** (2007). Change Point Problems. *Encyclopedia of Statistics in quality and reliability* John & Wiley.

### **Manuscripts in Submission**

- Menda, Y., Madsen, M. T., O’Dorisio, T. M., Sunderland, J. J., Watkins, G. L., Dillon J. S., Mott, S., Schultz, M. K., Bushnell, D. L., O’Dorisio, M. S. (2018). <sup>90</sup>Y-DOTATOC Dosimetry-Based Personalized Peptide Receptor Radionuclide Therapy. *Journal of Nuclear Medicine*
- Wall, M., **Zamba, K. D.**, Johnson, C. (2017). SITA-Standard Perimetry has Better Performance than FDT2 Matrix Perimetry for Detecting Glaucomatous Progression. *British Journal of Ophthalmology*. Resubmitted following favorable initial review.
- Adekpedjou, A, **Zamba, K. D.** (2017). Confidence Bands for Quantiles as a Function of Covariates in Recurrent Event Models. *Canadian Journal of Statistics*. Revision following favorable initial review.
- Wall, M., **Zamba, K. D.**, Artes, P. (2017). The Effective Dynamic Range for Visual Field Progression with Standard Automated Perimetry and Stimulus Sizes III and V. *Investigative Ophthalmology and Visual Science*. Revision following favorable initial review.
- Schumacher, A., Morris, C. M., Foster, E. O., Parker, E., Sewell, D. K., **Zamba, K. D.**, Daniel-Ulloa, J., Baquero, B. (2017). Residents’ Neighborhood Perceptions and their Relation to Health Behaviors and General Health: Evidence from a Micropolitan Community in Iowa. *Preventing Chronic Disease*. Under review.
- Abu Hejleh, T., Abushahin, L., Keech, J., Allen, B. G., Parekh, K. R., Furqan, M., Iannettoni, M., **Zamba, K. D.**, Mott, S. L., Clamon, G. (2017). Screening Esophageal Cancer Patients after Completing Trimodality Therapy for Enrollment on an Adjuvant Paclitaxel Tolerability Trial: Impact of Timing the Screening of Adjuvant Treatment Completion. *Anticancer Research-International Journal of Cancer Research and treatment*. Under review.



- **Zamba, K. D.** (2017). A Generalized  $\chi^2$  Goodness-of-fit Test with ML Estimation in the Presence of Recurrent Events. *Journal of the Royal Statistical Society, Series B*. In submission.

### Ph.D. Dissertation

- **Zamba, K. D.** (2003). “Issues in Statistical Process Control : Change Point Theory”  
Dissertation advisor: Professor **Douglas M. Hawkins**.

### Invited Presentations: Departmental Colloquium

- Zamba, K. D. (2019) Applied Mathematics in Action through Biostatistics: A closer Look at the Mathematical Sciences. University of Hawaii at Manoa, Honolulu HI, January 17, 2019.
- Zamba, K. D. (2018) Recurrence of Subsequent Malignancies Following the Diagnosis of and the Treatment for Hodgkin Lymphoma. Department of Mathematics, University of Hawaii at Manoa, January 18<sup>th</sup>, 2018. University of Hawaii at West O’ahu, January 19<sup>th</sup>, 2018.
- Zamba, K. D. (2017) A Semiparametric Random-cell type Goodness-of-fit Test when Observations are Recurrent. Department of Mathematics, University of Hawaii at Manoa, January 27<sup>th</sup>, 2017.
- Zamba, K. D. (2017) Applied Mathematics in Action through Biostatistics. Department of Mathematics, University of Hawaii at Hilo, January 25<sup>th</sup>, 2017. Department of Mathematics, University of Hawaii at Manoa, January 27<sup>th</sup>, 2017.
- Zamba, K. D. (2016) A Semiparametric Test for Goodness-of-Fit in the Presence of Recurrent Event Data. Department of Mathematical University of Puerto Rico at Mayaguez, March 03, 2016.
- Zamba, K. D. (2016) Data-Driven Sciences: Another Way to Bring Math to the World and the World to the World. Department of Mathematics, University of Hawaii at Manoa, January 28<sup>th</sup>, 2016. University of Hawaii at West O’ahu, January 29<sup>th</sup>, 2016.
- Zamba, K. D. (2015) Assessing Goodness-of-fit in the presence of Recurrent Event Data. Laboratoire Equippe, Maison de la recherche, Université de Lille 3, France, May 29<sup>th</sup>, 2015.
- Zamba, K. D. (2015) A Signal Detection Approach to Surveillance using Recursive Sequential Bayesian Thinking. Institute of Mathematical Finance, Universität Ulm, Ulm Germany, May 23<sup>rd</sup>, 2015.
- Zamba, K. D. (2015) Is this Math All There is? Responding to the Demand for Data-Based Evidence. Department of Mathematics, Kean University, Elizabeth NJ, April 6<sup>th</sup>, 2015.
- Zamba, K. D. (2015) Applied Mathematics, Biostatistics and Graduate School. Department of Mathematics & Computational Mathematic, Universidad De Puerto Rico en Humacao, February 26<sup>th</sup>, 2015.
- Zamba, K. D. (2014) A Flexible Test for Longitudinal Data: The Case of Recurrent Events. Department of Math and Statistics, Athens University of Economics and Business, Athens Greece, February 6, 2014.

- Zamba, K. D., Adraghi K.P. (2013). Preparations for Successful Graduate Studies in Mathematical and Statistical Sciences. Département de Mathématiques, Université Catholique de l'Afrique de l'Ouest, UCAO Lomé, Togo West Africa, August 7, 2013.
- Zamba, K. D. (2013) A Statistical Test for Distribution Functions in the Presence of Recurrent Event Data : Mathematics Applied to Medicine. Département de Mathématiques, Université de Lomé, Togo West Africa, August 2, 2013.
- Zamba, K. D. (2013) Why Consider Biostatistics for Graduate Studies? Universidad Metropolitana, San Juan, Puerto Rico, March 2, 2013.
- Zamba, K. D. (2013). A Type of Goodness-of-fit Test in the Presence of Recurrent Events Data. Department of Mathematics and Statistics, University of Maryland at Baltimore County, Baltimore, MD Feb 15, 2013.
- Zamba, K. D. (March 2011). Mathematics in Action through Statistics and Biostatistics. Université Catholique de l'Afrique de l'Ouest; UCAO Lomé Togo, March 21, 2011.
- Zamba, K. D. (Dec 2008) A Bayesian Analytical Tool for Influenza-Like-Illnesses and Detection of Intentional Releases. Department Colloquium, Department of Statistics, The University of Iowa, Iowa City, IA.
- Zamba, K. D. (Dec, 2007). Bayesian Analytical Tool for ILI Control and Detection of Intentional Outbreaks. Department Colloquium, Department of Biostatistics, The University of Iowa, Iowa City, IA.
- Zamba, K. D. (Sept, 2007). The Role of a Biostatistician: Boundless Window of Opportunities. Seminar, Department of Mathematics and Biological Sciences, Lincoln University, Chester, PA.
- Zamba, K. D. (2003). A Change Point Problems. School of Statistics, University of Minnesota, Minneapolis, MN.
- Zamba, K. D. (July, 2003). Some Issues in SPC : Change Point Problems. Department Colloquium, Department of Biostatistics, The University of Iowa, Iowa City, IA.

### Invited Presentations: Conferences

- Zamba, K. D. (2019) A Martingale-transformed Test-of-fit with ML Estimation in the Presence of Recurrent Events. **Keynote Speaker**. The 6<sup>th</sup> African International Conference on Statistics. Arsi University, Assela/Amada, Ethiopia, May 27-30, 2018.
- Zamba, K. D. (2018) Data-Driven Inference: A closer Look at the Mathematical Sciences. New York City Regional Math Alliance Conference, Kean University, New Jersey, September 15, 2018.
- Zamba, K. D., Ahrens, M., Carter, K., Wall, M. (2018) Divergence Measures Between Normal Subjects and Glaucoma Patients with Mild Visual Loss using Threshold Automated Perimetry of the Full Visual Field. 23<sup>rd</sup> International Visual Field and Imaging Symposium, Ishikawa Ongakudo, Kanazawa, Japan, May 11-13, 2018.
- Zamba, K. D. (2018) Aberration Detection in Influenza-like Illnesses' Dynamics: A Bayesian Perspective. **Keynote Speaker**. The 5<sup>th</sup> African International Conference on Statistics. University of Botswana, Botswana, March 19-22, 2018.

- Zamba, K. D. (2018) Utilisation des Techniques Statistiques de Bayes dans la Detection des Aber-  
rations en Bio-Surveillance. **Keynote Speaker**. International Conference Santé-Environnement-  
Communauté. Université de Lomé, January 3-5, 2018.
- Zamba, K. D. (2017) A Step Toward Useful Research Collaboration with Heavy Teaching Load  
Institutions. Panel Discussion, ASA Joint Statistical Meetings, Baltimore MD, August 2, 2017.
- Zamba, K. D. (2017) Confidence Bands Estimation for the Quantile Process in the Presence of  
Recurrent Event Models. The 4<sup>th</sup> African International Conference on Statistics. *New Methods of  
Data Analysis & Statistical Applications to Big Data*, University of Limpopo, South Africa (ZA),  
March 20–23, 2017.
- Zamba, K. D., Parker, Edith (2017) Aspects of Collaboration towards Global Health Initiative:  
Overview of the CPH–UI. Workshop at the Univerité de Lomé and the Centre Omnithérapeutique  
Africain, Lomé Togo, January 3–5, 2017.
- Zamba K. D. (2016) Goodness-of-fit Test for Distribution Function in the Presence of Recurrent  
Event Data. The 10<sup>th</sup> International Chinese Statistical Association Conference, Shanghai, China,  
December 19–22, 2016 (Session organizer and chair).
- Zamba, K. D., Mott, S. L., Ginader, T. (2016) Effect of Treatment and Prognostic Factors on the  
Development of Subsequent Malignancies Following Hodgkin Lymphoma Diagnosis. Workshop on  
Statistical Methods for Recurrent Data. Laboratoire Equipe, Maison de la recherche, Université  
de Lille 3, Lille France, November 7, 2016.
- Zamba, K. D. (2016) Useful Dynamic Range of Standard Automated Perimetry for Progression in  
Glaucoma: Size III and Size V. 22<sup>nd</sup> International Visual Field Imaging Symposium, Udine-Italy,  
September 27–30, 2016.
- Zamba, K. D. (2016) A Random Cell Type Goodness-of-fit Test in the Presence of Recurrent  
Event Data. Cameroon International Conference on Recent Development in Applied Statistics  
(CICDAS), Yaounde Cameroon, March 14–18, 2016.
- Zamba, K. D. (2014) Another Way to Bring Math to the World and the World to Math. **Keynote  
Speaker**. Seminario Interuniversidad de Investigación en Ciencias Matemáticas, Pontificia Uni-  
versidad Católica de Puerto Rico, Ponce, PR, March 1<sup>st</sup>, 2014.
- Zamba, K. D., Mitchell, C. (2013) The professions of Mathematical Biology and Biostatistics, ‘Tu  
Futuro en las Matemáticas’, Universidad Metropolitana, San Juan, Puerto Rico, March 1, 2013  
(Panel discussion).
- Zamba, K. D., Adekpedjou, A., Johnson, C. A., Wall, M. (2012). Diffusion Injection Model for  
Visual Field Change, Poster presentation, ARVO, Fort Lauderdale, Florida, May 6–10, 2012.
- Zamba, K. D. (March 2012). The Work of Biostatisticians: Graduate School Requirements in  
Biostatistics for Students with Math Background. SIDIM 2012, UPR Mayagüez, February 29–  
March 1, 2012.
- Zamba, K. D., Adekpedjou, A., Doyle, C., Johnson, C., Wall, M. (January 2012). Performance  
of a Series of Glaucoma Change Probability Criteria. International Visual Field and Imaging  
Symposium. The University of Melbourne, Victoria, Australia, January 22–25, 2012.

- Zamba, K. D., Kummet, C., Tamegnon, M., Johnson, C., Wall, M. (September 2011). Some Statistical Issues in Visual Field Change Detection. Glaucoma Progression Scholar (GPS) Meeting, Skaneateles, NY, September 23–24, 2011.
- Zamba, K. D. (August 2011). Recursive Dynamic Models : A Bayesian Approach. Joint Statistical Meetings, Miami Beach, Florida, August 1–4, 2011.
- Zamba, K. D., Tsiamyrtizis, P., Hawkins, D. M. (May 2010). Recursive Sequential Bayesian Algorithm for Bio-Surveillance. Joint Research Conference, NIST, Rockville, MD, May 25–27, 2010.
- Zamba, K. D., Tsiamyrtizis, P., Hawkins, D. M. (Jan 2008). Bayesian Analytical Tool for ILI Control and Detection of Outbreaks. International Conference on Statistics and Mathematical Related Fields(including preceding) Hawaii, Honolulu.
- Zamba, K. D., Tsiamyrtizis, P. & Hawkins, D. M. (Oct 2006). Bayesian Analytical Tool for ILI and Detection of Intentional Outbreak, International Society for Disease Surveillance (ISDS), Baltimore, MD.
- Zamba, K. D., Tsiamyrtizis, P. (Oct 2005). Analytical Syndromic Surveillance Tool for ILI and Intentional Release of Biological Agents, Syndromic Surveillance Conference, Seattle, WA.
- Zamba, K. D., Hawkins, D. M. (Aug 2005). A Multivariate Change Point Model for Statistical Control, Joint Statistical Meeting (JSM), Minneapolis, MN.
- Zamba, K. D. (Aug 2005). Quality Control Techniques for Disease Monitoring: An Example in the Area of Syndromic Surveillance. New Researcher Conference, Minneapolis, MN.
- Zamba, K. D., Tsiamyrtizis, P., Hawkins, D. M. (May 2005). Syndromic Surveillance Model for Influenza-Like-Illnesses(ILI) and Intentional Release of Biological Agents Using Sequential Bayesian Technique. Quality and Productivity Research Conference, Carlson School of management, University of Minnesota, MN.
- Zamba, K. D., Hawkins, D. M. (Jan 2005). SPC for Shift in Mean or Variance Using the Change Point Formulation-Its: Application to Evaluate Gold Mine Samplers. Hawaii International Conference on Statistics, Mathematics and Related Fields, Honolulu, HI.
- Zamba, K. D., Hawkins, D. M. (2004). A Change Point Model for Shift in Variance. Annual Meeting of the Institute for Operations Research and the Management Sciences(INFORMS), Denver, CO, Oct 24–27, 2004.

### Contributed Presentations

- Cavanaugh, J. E., Zamba, K. D., Yang, M., Tang F. (2017) Models for Overdispersed Count Time Series with Excess Zeros. Colloquium, Department of Statistics and Actuarial Science, The University of Iowa, Iowa City, November 30, 2017.
- Qing, Li, Zamba, K. D. (2017) Hospital Readmission Time Analysis Based on a  $\chi^2$  Goodness of Fit Test for Recurrent Events. 2017 Joint Statistical Meetings, Baltimore, MD, July 31<sup>st</sup>–August 3<sup>rd</sup>, 2017.

- Qing, Li, Zamba, K. D. (2017) Readmission Time Analysis for Psychiatry Patients Based on a Cox Intensity Process Model for Recurrence. 2017 International Chinese Statistical Association Applied Statistics Symposium, Chicago IL, June 25–28, 2017.
- Wall, M., Zamba, K. D., Artes, P. (2017) The Effective Dynamic Ranges for Visual Field Progression with Standard Automated Perimetry with Stimulus Sizes III and V. The Annual Meeting of the Association for Research in Vision and Ophthalmology (ARVO), Baltimore MD May 7–11, 2017.
- Wall, M., Zamba, K. D., Artes, P. (2017) The Useful Dynamic Ranges for Visual Field Progression with Stimulus Size III and V. The 43<sup>rd</sup> Annual Meeting of the North American Neuro-Ophthalmology Society, Washington DC, April 1–6, 2017.
- Li, Q., Zamba, K. D. (2016) Readmission Time Analysis for Psychiatry Patients Based on a Chi-Squared Goodness of Fit Test for Recurrent Events. The 10<sup>th</sup> International Chinese Statistical Association Conference, Shanghai, China, December 19–22, 2016.
- Wall, M., Johnson, C. A., Plumb, K. E., Zamba, K. D., Keltner, J. L. for the NORDIC IHH Study Group (2015). Pointwise Visual Field Change in the Idiopathic Intracranial Hypertension Treatment Trial Treatment Failures. ARVO, Denver, Colorado May 3–7, 2015.
- Adekpedjou, A., Withanage, De M., Zamba, K. D. (2013).  $\chi^2$  Test Based on Random Cells with Recurrent Events. 7<sup>th</sup> International Conference of the ERCIM WG on Computational and Methodological Statistics, University of Pisa, Italy, December 6–8, 2014.
- Cavanaugh, J. E., Yang, M., Zamba, K. D. (2013). State-Space Models for Count Time Series with Excess Zeros. Invited Paper, Frontiers in Methodological and Applied Statistics: A Celebration of 50 Years of Missouri University Department of Statistics, University of Missouri, Columbia MO, September 2013.
- Withanage, De M., Adekpedjou, A., Zamba, K. D. (2013). On the  $\chi^2$  test Based on Random Cells with Recurrent Events. Joint Statistical Meetings, Montreal Canada, CA, August 4, 2013.
- Yang, M., Cavanaugh, J. E., Zamba, K. D. (2013). State-Space Models for Count Time Series with Excess Zeros ENAR, Orlando FL, March 10–13, 2013.
- Bhatt, S. P., Hoffman, E., Newell, J. D., Sieren, J. C., Washko, G. M. D., Stinson, D., Zamba, K. D. (2013). Comparison of Spirometric Thresholds in Diagnosing Smoking Related Airflow Obstruction. American Thoracic Society International Conference, Philadelphia, PA May 17–22, 2012.
- Kawaguchi, E., Harper, K., Zamba, K. D. (2012). Survival Function Estimation with Recurrent Events: Case of Retinal Neural Firing. ABRCMS, San Jose, CA, November 2012.
- Withanage, De M., Adekpedjou, A., Zamba, K. D. (2012). A Generalized Chi-Squared Goodness of Fit Test for Recurrent Failure Time Data. Joint Statistical Meetings, San Diego, CA, July 28–August 2, 2012.
- Adekpedjou, A., Zamba, K. D. (2012). Recurrent Events: Modeling and Inference. Laboratoire Equipe, Maison de la recherche, Université de Lille 3, France, May 10, 2012.
- Wall, M., Doyle, C. K., Eden, T. L., Johnson, C. A., Zamba, K. D. (2012). Detection of Glaucomatous Progression Using Stimulus Size V, Poster presentation, ARVO, Fort Lauderdale, Florida May 6–10, 2012.

- Doyle, C. K., Eden, T. L., Zamba, K. D., Johnson, C. A., Wall, M. (2012). Size Threshold Perimetry Performs as well as Standard Perimetry with Stimulus Sizes III, V, and VI for Glaucoma Detection, Poster presentation, ARVO, Fort Lauderdale, Florida May 6–10, 2012.
- Yang, M., Zamba, K. D., Cavanaugh, J. E. (2012). Markov Regression Models for Count Time Series with Excess Zeros: A partial Likelihood Approach, ENAR, Washington DC, April 1–4, 2012.
- Kummert, C., Zamba, K. D., Doyle, C., Johnson, C., Wall, M. (January 2012). Optimal Pointwise Linear Regression Criteria for Detecting Glaucoma Progression. International Visual Field and Imaging Symposium. The University of Melbourne, Victoria, Australia, January 22–25, 2012.
- Wall, M., Doyle, C. K., Zamba, K. D., Artes, P., Johnson, C. A. (January 2012). The Repeatability of Mean Deviation with Size III and V Standard Automated Perimetry. International Visual Field and Imaging Symposium. The University of Melbourne, Victoria, Australia, January 22–25, 2012.
- Wall, M., Doyle, C. K., Zamba, K. D., Johnson, C. A. (September 2011). The Repeatability of MD with Size III and V Standard Automated Perimetry. Ninth Biennial Meeting, North American Perimetric Society, Skaneateles, NY, Sep 22–23, 2011.
- Adekpedjou, A., Zamba, K. D. (September 2011). Chi-Squared Goodness of Fit Test with Recurrent Event Data. Department of Statistics, Kansas-State University, KS, September 15, 2011.
- Yang, M., Zamba, K. D., Cavanaugh, J. E. (August 2011). Analysis of Zero-Inflated Count Time Series : A Partial Likelihood Approach. Joint Statistical Meetings, Miami Beach, Florida, August 1–4, 2011.
- Adekpedjou, A., Zamba, K. D. (August 2011). A Chi-Squared Type Goodness of Fit test for Recurrent Event Data. Joint Statistical Meetings, Miami Beach, Florida, August 1–4, 2011.
- Iyer, K. S. Grout, R. W., Burnette, B., Zamba, K. D., Hoffman, E. A. (2011). Intra-Subject Repeatability of CT-Based Lung Density Measures Following Single Breath-Hold Scans. Poster presentation, American Thoracic Society, ATS, Denver, Colorado.
- Grout, R. W., Iyer, K. S., Burnette, N., Wilson, J. M., Zamba, K. D., Hoffman, E. A. (2011). Repeatability of A Standardized CT-based Metric, Pi10, Used As An Index Of Airway Wall Remodeling. Poster Presentation. American Thoracic Society, ATS, Denver, Colorado.
- Grout, R. W., Iyer, K. S., Egbert, B. P., Burnette, N., Zamba, K. D., Hoffman, E. A. (2011). Airway Metric Intra-subject Repeatability on MDCT Imaging For Normal Smokers And Non-smokers. Poster Presentation. American Thoracic Society, ATS, Denver, Colorado.
- Hasegawa, M., Burnette, N. E., Zamba, K. D., Xie, D., Hoffman, E. A. (2011). Atlas os Normal Human Lung: Exploring Gender difference in Lung Parenchymal Metrics. Poster presentation, American Thoracic Society, ATS, Denver, Colorado.
- Davis, C., Zamba, K. D., Doyle, C. K., Sherman, K., Johnson, C., Wall, M. (May 2011). Bigger is better: Larger stimulus sizes reduce test-retest variability in visual field testing of glaucoma patients. Poster Presentation. ARVO 2011, Fort Lauderdale, Florida.
- Zamba, K. D., Doyle, C. K., Tamegnon, M., Johnson, C. A., Wall, M. (May 2011). Sensitivity Analysis of a Series of Glaucoma Change Probability Criteria. Poster presentation, ARVO 2011, Fort Lauderdale, Florida.

- Doyle, C. K., Zamba, K. D., Johnson, C. A., Artes, P., Wall, M. (May 2011). Repeatability of Mean Deviation with Size III and Size V Standard Automated Perimetry. Poster presentation, ARVO 2011, Fort Lauderdale, Florida.
- Davis, C., Zamba, K. D., Doyle, C. K., Sherman, K., Johnson, C., Wall, M. (Aug 2010). Bigger is better: Larger stimulus sizes reduce test-retest variability and maintain sensitivity in visual field testing of glaucoma patients. Poster presentation, University of Iowa, Iowa City, IA.
- Sullivan, R. M., Zhang, J., Olshansky, B., Zamba, K. D. (May 2010). Is Risk of Stroke in Atrial Fibrillation Gender Specific due to Differences in Anticoagulation? 31<sup>st</sup> Annual Scientific Sessions of the Heart Rhythm Society, Denver, CO.
- Jacobson, G. M., Buechler-Price, J. L., Betts, V., Muruganandham, M., Zamba, K. D. (April 2010). Image-based treatment planning of the post-lumpectomy breast utilizing CT and 3T MRI. The 3<sup>rd</sup> World Congress 2010 Cancer Conference, Shanghai, China, April 25, 2010.
- Wall, M., Doyle, C. K., Zamba, K. D., Johnson, C. A. (March 2010). The Effect of Stimulus Size on Repeatability in Glaucoma using Goldmann Sizes III V and VI. 19<sup>th</sup> Annual Imaging and Perimetry Society Meeting, Tenerife, Spain; March 23–26, 2010.
- Tsiamyrtizis, P., Zamba, K. D., Hawkins, D. M. (July 2009). A Bayesian SPC Approach in Modeling an Epidemic (2009). International Symposium on Statistical Process Control(ISSPC), Nantes, France.
- Orion, K., McNamara, A., Piester, L., Meyerholz, D. K., Zamba, K. D., Xie D., Sokolich, J. C., Jaskille, A. D., Michelle A., Light, T. D. (December 2008). Drotrecogin alpha (activated) decreases the adnexa apoptotic ratio in acute burn resuscitation. American College of Surgeons Committee on Trauma Resident Research Competition, Kansas City, KS. (Research Award winner).
- McNamara, A., Piester, L., Meyerholz, D. K., Zamba, K. D., Sokolich, J. C., Jaskille, A. D., Griffin, M. A., Light T. D. (November 2008). Apoptosis is differentially regulated by burn contact time and dermal location in an acute thermal injury rat model. American Medical Association Medical Student Section/Resident-Fellow Section Interim Meeting, Orlando, FL.
- Orion, K., McNamara, A. Piester, L., Meyerholz, D. K., Zamba, K. D., Sokolich, J. C., Jaskille, A. D., Xie D., Light, T. (October 2008). Drotrecogin alpha (activated) decreases the adnexa apoptotic ratio in acute burn resuscitation. Surgery Postgraduate Conference, Iowa Chapter of the American College of Surgeons Committee on Trauma Resident Research Competition at University of Iowa Carver College of Medicine. (Won Iowa Chapter of ACS-COT resident research award).
- Tsiamyrtizis, P., Zamba, K. D., Hawkins, D. M. (2008). A Sequential Bayesian Control Model for Influenza-Like Illnesses. Bayesian Conference, Austin, TX.
- Piester, T. L., Meyerholz, D. K., Zamba, K. D., Sokolich, J. C., Jaskille, A. D., Light, T. D. (2008). The Histologic Effects of Drotrecogin Alfa (Activated) on Inflammation and Burn Depth in a Rat Burn Model. Proceedings of 2008 Western Trauma Meeting, Squaw Creek, CA.
- Piester, T. L., Meyerholz, D. K., Zamba, K. D., Sokolich, J. C., Jaskille, A. D., Light, T. D. (2007). The Effects of Xigris on Inflammation and Burn Depth in a Rat Burn Model. Medical Student Research Day, College of Medicine, University of Iowa, IA.

- Dawson, J. D., Cavanaugh, J. E., Zamba, K. D. (2007). Modeling Lateral Position and Control in Driving Studies of Elderly Populations. Joint Statistical Meetings, Salt Lake City, UT.
- Dawson, J. D., Cavanaugh, J. E., Zamba, K. D. (2006). Measuring Lateral Control in Driving Studies. Biometric Society (ENAR) Annual Meeting, Tampa, FL.
- Skinstad, A. H., Zamba, K. D. (2005). Alcohol Use and Abuse in a Community Sample of Caucasian Women 60 Years of Age and Over. 28<sup>th</sup> Annual Meeting of the Research Society on Alcoholism, Santa Barbara, CA.
- Wallis, A. B., Zamba K. D. (2004). Predictors for Low Birth Weight for Mexican and Non Mexican Latina Women: Palm Beach County, Florida and Des Moines, Iowa. International Conference of Urban Health in Boston, MA.

## External Research Support

- Currently funded as investigator on a National Institute of Health (NIH) and National Heart Lung and Blood Institute research education grant (R25 NHLBI). Title of proposal: “Iowa Summer Institute for Research Education in Biostatistics (ISIREB)” PI: Gideon Zamba; Amount of funding 20% of salary. Period of funding March 1<sup>st</sup> 2019 to February 28<sup>th</sup> 2022. Award: **\$ 770,257** for 3 years.
- Currently funded as investigator on a National Institute of Health (NIH) grant (261201700036C-IA) on Molecular Targeting. Title of proposal: “Targeted Radionuclide Therapy for Metastatic Melanoma” PI: Michael Shultz. Biostatistician: Gideon Zamba; Amount of funding 5% of salary. Period of funding September 18<sup>th</sup> 2017 to September 17<sup>th</sup> 2019. Award: **\$ 253,916** for 2 years.
- Funded as investigator on a National Institute of Health (NIH) and National Heart Lung and Blood Institute research education grant (R25 NHLBI). Title of proposal: “Iowa Summer Institute for Research Education in Biostatistics (ISIREB)” PI: Gideon Zamba; Amount of funding 20% of salary. Period of funding March 1<sup>st</sup> 2016 to February 28<sup>th</sup> 2019. Award: **\$ 753,930** for 3 years.
- Currently funded as a lead Biostatistician and a Core Director for the first-ever Specialized Program of Research Excellence (SPORE) for Neuroendocrine Tumors–NCI and NHI grant. Title of proposal: “University of Iowa Holden Comprehensive Cancer Center Specialized Program of Research Excellence in Neuroendocrine Tumors.”  
Biostatistics & Bioinformatics Core Director: Gideon Zamba; Amount of funding 20% of salary. Period of funding October 1<sup>st</sup> 2015 to March 31<sup>st</sup> 2020. Award: **\$ 12,972,222** for 5 years.
- Currently funded as a statistician on the American Heart Association (AHA) grant (15SFRN23480000-AHA). Title of proposal: “University of Iowa Strategically Focused Hypertension Research Center” Biostatistician: Gideon Zamba; Amount of funding 10% of salary. Period of funding April 1<sup>st</sup> 2015 to March 31<sup>st</sup> 2019. Award: **\$ 789,737** for 4 years.
- Currently funded as a statistician on the US Department of Veterans Affairs Grant (C1821–R). Title of Proposal: “Testing of the Far Peripheral Visual Field-Obtaining The Full View”. Biostatistician: Gideon Zamba; Amount of funding 25% of salary. Period of funding October 1st 2015 to September 30th 2019. Award: **\$ 33,000** a year for 3 years.
- Funded as investigator on a US Department of Health and Human Services (USDHHS), National Institute of Health (NIH) research training grant (5T15-HL097622 NHLBI). Title of proposal:



“Iowa Summer Institute in Biostatistics II (ISIB-II)” PI: Gideon Zamba; Amount of funding 20% of salary. Period of funding July 1<sup>st</sup> 2015 to February 28<sup>th</sup> 2016. Award: **\$ 246,185** for 1 year.

- Funded as a co-investigator on a US Department of Health and Human Services (USDHHS), National Institute of Health (NIH) research training grant (5T15-HL097622 NHLBI). Title of proposal: “Iowa Summer Institute in Biostatistics II (ISIB-II)” PI: Kathryn Chaloner; Key Personnel Gideon Zamba; Amount of funding 20% of salary. Period of funding July 1<sup>st</sup> 2013 to July 31<sup>st</sup> 2015. Award: **\$ 716,285** for 3 years.
- Funded as a biostatistician & co-investigator on the US Department of Veterans Affairs grant number 1R01MH086482 - 01A2. Title of proposal: “Combined Illness Management and Psychotherapy in Treating Depressed Elders” PI: Carolyn Turvey. Amount of funding 15% of salary support. Period of funding February 1<sup>st</sup> 2011 to January 31<sup>st</sup> 2014. Award: **\$ 2,856,673** for 3 years.
- Funded as a biostatistician & co-investigator on the US Agency of Healthcare Research and Quality grant number 1 R18HS018396-01A1. Title of proposal: “Evaluation of TeamSTEPPS Implementation for Community Hospital Patient Safety” PI: Marcia Ward. Amount of funding 5% of salary support. Period of funding 2010 to 2015. Award: **\$ 1,692,436** for 6 years.
- Funded as a biostatistician co-investigator on the US Department of Veterans Affairs grant (VA IPA). Title of proposal: “Improved Assessment of Visual Field Change” PI: Michael Wall. Amount of funding 10% of salary. Period of funding Oct 1<sup>st</sup> 2010 to June 30<sup>th</sup> 2012; . Award: **\$ 18,400** for 2 years.
- Funded as a co-investigator on a National Heart Lung and Blood Institute (NHLBI), National Center for Research Resources (NCRR), National Institute of Health (NIH) research training grant (T15-HL097622-01 NHLBI). Title of proposal: “Iowa Summer Institute in Biostatistics (ISIB)” PI: Kathryn Chaloner. Amount of funding 15% of salary. Period of funding August 20<sup>th</sup> 2009 to July 31<sup>st</sup> 2012. Award: **\$ 673,251** for 3 years.
- Funded as a Biostatistician on a Department of Defense (DOD) research grant (W81XWH-07-1-0032 P00002/DOD). Title of proposal: “Vaccine Immunotherapy for Prostate Cancer” PI: David Lubaroff. Amount of funding 5% of salary. Period of funding February 1<sup>st</sup> 2008 to May 14<sup>th</sup> 2010. Award: **\$ 1,102,802** for 2 years.
- Funded as a Biostatistician mentor on a National Institute of Health (NIH) research grant (1 R03 CA130031-01/NIH). Title of proposal: “Arm Lymphedema in Female Breast Cancer Cases Diagnosed in Iowa” PI: Rebecca Tsai. Amount of funding 0% of salary. Period of funding April 1<sup>st</sup> 2008 to March 31<sup>st</sup> 2010. Award: **\$ 150,000** for 2 years.
- Funded as a Biostatistician on a Cystic Fibrosis Foundation (CFF) research grant (BANFI07A0 / Cystic Fibrosis Foundation). Title of proposal: “Defective SCN-Secretion Impairs Host Defense in CF” PI: Banfi Botond. Amount of funding 5% of salary. Period of funding July 1<sup>st</sup> 2007 to June 30<sup>th</sup> 2010. Award: **\$ 300,729** for 3 years.
- Funded as a Biostatistician on a UI research grant (UI01/DD000189-02). Title of proposal: “Surveillance and Epidemiologic Research of Duchenne and Becker Muscular Dystrophy” PI: Paul Romitti. Amount of funding 10% of salary. Period of funding September 1<sup>st</sup> 2007 to August 30<sup>th</sup> 2008. Award: **\$ 583,277** for 1 year.

- Funded as a Biostatistician mentor on a National Institute of Health (NIH) research training grant (NIH/NIGMS 1 T32 GM077973-01). Title of proposal: “Statistics in Microbiology, Infectious Diseases & Bioinformatics” PI: Kathryn Chaloner. Period of funding August 1<sup>st</sup> 2006 to June 3<sup>th</sup> 2011. Award: **\$ 683,870** for 5 years.
- Funded as a Biostatistician on a National Cancer Institute (NCI) research grant (1 P30 CA086862-10). Title of proposal: “Cancer Center Support Grant” PI: George J. Weiner. Amount of funding 25% of salary. Period of funding August 1<sup>st</sup> 2005 to June 30<sup>th</sup> 2010. Award: **\$ 1,497,916** for 5 years.
- Funded as a Biostatistician on a NIDCD research grant. Title of proposal: “A Comparison of Language Intervention Programs-Data Management Center” PI: William Clarke. Amount of funding 14% of salary. Period of funding August 1<sup>st</sup> 2003 to November 2004. Award: **\$ 371,172** for 1 year.

**Professional Activity: Departmental Collegiate & Universitarian**

Service Committee	Role on Committee	Year of Service
Biostat MS Exam Committee	Member/Chair	04 05 <sup>c</sup> 06 07 <sup>c</sup> 08 09 <sup>c</sup> 10 11 12 13 <sup>c</sup> 14 15 <sup>c</sup> 16 <sup>c</sup>
Biostat PhD Exam Committee	Member/Chair	15 16 17 <sup>c</sup> 18 <sup>c</sup> 19 <sup>c</sup>
Biostat Recruitment/Admission Committee	Member	07-present
Biostat Diversity Committee	Member	07-present
Biostat Computing Committee	Member	04-16
Biostat Self-study Committee	Member	07 08
Biostat Faculty Search Committee	member	07 08
Biostat MPH Committee	Member	07 08
Biostat Student Awards Committee	Member/Chair	04 <sup>c</sup> 05-present
CPH Undergraduate Curricula Innovation	Member	14 15
CPH Faculty Council	Member/Secretary	09-12
CPH MPH Steering Committee	Member	05 06
CPH MPH Curriculum Committee	Member	05 06
CPH Diversity Committee	Member	07 08 14-present
CPH Curriculum Innovations Committee	Member	14
HCCC Protocol Review Board	Member	06-present
HCCC Data Safety Monitoring Board	Member	06-present
U of I AGEP Advisory Board	Member	08-13
U of I Coordinating Council on STEM	Member	11 12

<sup>c</sup>: Chair

CPH: College of Public Health

MPH: Master of Public Health

HCCC: Holden Comprehensive Cancer Center

AGEP: Alliance for Graduate Education and Professoriate

**Professional Activity: Graduate Advising**

- Currently serving as doctoral dissertation advisor for 2 students

- Have served on 18 Ph.D exam committees and 6 master's committees (outside Biostatistics)
- Have served on 16 Ph.D dissertation committees
- Have served as academic advisor for 8 master's students in Biostatistics
- Have served as master's preceptorship advisor for 10 students
- Have served as supervisor for 14 Graduate Research Assistants
- Have served as mentor for 16 ISIB students

### **Professional Activity: Ph.D Dissertation**

- Li, Qin (2018) A Two-stage Pseudo-likelihood Approach to Estimation and Inference for Alternating Recurrent Events Data  
Initial Employment Status: Senior Statistician at Takeda Pharmaceutical, Boston, MA.
- Tamegnon, Monelle (2018). Avoiding the Redundant Effect on Regression Analyses of Including an Outcome in Imputation Models.  
Initial Employment Status: Biostatistician with Johnson and Johnson, New Jersey, NJ.
- Kummert, Colleen (2013). Statistical Modeling to Improve Detection of Glaucoma Progression. December 2013.  
Initial Employment Status: Senior Statistician at General Information Technology. West Des Moines, IA.
- Yang, Ming (2012). Statistical Models for Count Time Series with Excess Zeros. May 2012. Co-supervised with Joseph Cavanaugh.  
Initial Employment Status: Postdoctoral Fellow at Harvard School of Public Health–Center for Biostatistics in AIDS Research. Boston, MA.

### **Professional Activity: Master's Preceptorship Directed**

- Walser-Kunz, Evan (2019). Evaluation of Glaucoma Change Probability Methods on Clinical Data. Completed in May 2019.
- Ahrens, Monica (2018). Identifying Optimal Visual Field Locations to Detect Glaucoma using Divergence Tests. Completed in May 2018. (Co-advised; Primary: Professor Knute Carter)
- Li, Qing (2015). Hospital Inter-readmission Time Analysis for Psychiatry Patients Based on a Chi-Squared Goodness of Fit Test. Completed in December 2015.
- Wang, Xiayi (2015). A Partial Differential Equation Model for Articular Cartilage Lesion Formation: A Dynamic Spatio-Temporal Approach. Completed in May 2015.
- Bhatia, Shalini (2014). Does Gender Difference in Pulmonary Function and Lung Parenchyma Persist when Males and Females are Comparable? Completed in May 2014.
- Che, Wen (2014). Association Between Lung Parenchymal, Pulmonary Function Measures and Lung Diseases. Completed in May 2014.

- Lin, Xiaolei (2014). Assessing the Effect of Visual Sensitivity in Discriminating between Glaucoma and Normal Subjects. Completed in May 2014.
- Tamegnon, Monelle (2012). Glaucoma Progression Detection in Visual Field: An Adaptation of the Truncated Product Method. Completed in December 2012.
- Wang, Zhenzhen (2012). Diffusion Injection Method for Change Detection in Visual Field. Completed in December 2012.
- Yu, Lixi (2012). Nerve Fiber Layer Pedestal Estimation Using Non-Parametric Jump Regression. Completed in May 2012.
- Szecsei, Denise (2011). Survey administration application for Neurology Trials, The University of Iowa. Completed in May 2011.
- Kummert, Colleen M. (2010). Sensitivity of Point-wise Linear Regression in the Detection of Glaucoma Progression, The University of Iowa, completed in Dec 2010.
- Zhao, Shanshan (2007). Evaluation of Three Entropy Methods in Driving Study. Department of Biostatistics, The University of Iowa. Completed in May 2007.
- Zhang, Jie (2005). Propensity Score Methods for Health Disparity: Florida v.s. Iowa. Department of Biostatistics, The University of Iowa. Completed in April 2005.

### **Professional Activity: ISIB Research Mentorship**

- Alithea Charlson, Mitchell Kinkor (2017). Identifying a Useful Dynamic Range for Perimetry Data Relating to Disease Progression in Glaucoma Patients, Department of Statistics, Oklahoma State University, Department of Biology, Creighton University, completed in July 2017.
- Ariana Cavazos, Rebecca Rasnick (2016). Association Between Initial Treatment and Subsequent Primaries in Hodgkin's Lymphoma Patients, Department of Mathematics, California State University, Fresno & Department of Math, East Tennessee State University, completed in July 2016.
- Londe Michelle, Cotton Eleanor (2015). The Preeclampsia Early Determination for Intervention, Cure, and Therapeutics by Vasopressin (PREDICTV) Study, Department of Statistics, University of Wyoming & Department of Biochemistry and Molecular Biology, Cornell College IA, completed in July 2015.
- Stallworth Philip, Walser-Kuntz Evan T (2014). Identification of Prognostic factors for the Survival in Neuroendocrine Tumor Patients in the presence of Multivariate Missingness, The University of Iowa; Department of Mathematics Reed College Portland OR & Department of Mathematics Haverford College, Haverford PA, completed in July 2014.
- Kawaguchi Eric, Harper Katrina (2012). Survival Function Estimation with Recurrent Events: Case of Retinal Neural Firing. Department of Biostatistics, The University of Iowa; Department of Statistics, California State Polytechnic University, Pomona & Department of Mathematics, Carlton College, Northfield Minnesota, completed in July 2012.
- Rivera-Torres, Paula; T. Leon-Cruz, Jorge (2011). Gender Difference in Airway Tree Assessment, Department of Biostatistics, The University of Iowa, & Department of Mathematics, University of Puerto Rico-Humacao, completed in July 2011.

- Rivera-Quiñones, Vanessa; Cardona-Meléndez, Gloriell (2010). Study of Glaucoma Change Probability for Open-angle Glaucoma, Department of Biostatistics, The University of Iowa, & Department of Mathematics, University of Puerto Rico - Río Piedras, completed in July 2010.
- Pagan-Rivera, Keyla (2009). Stimulus Response Latency Estimation, Department of Biostatistics, The University of Iowa, & Department of Mathematics, University of Puerto Rico - Río Piedras, completed in July 2009.
- Harris, Tenecia (2008). Time Series Modeling in Driving Studies, Department of Biostatistics, The University of Iowa, & Middle Georgia College, GA, completed in July 2008.

### **Professional Activity: Scientific Community**

- Evaluated promotion and/or tenure dossier for faculty in the Department of Mathematics and Statistics at the Air Force Institute of Technology (AFIT AFB Ohio), 2019.
- Evaluated promotion and/or tenure dossier for faculty candidate at the University of Hawaii at Manoa Office of Public Health Studies, 2018.
- Applied Probability and Statistical Inference I Session Chair at the 9<sup>th</sup> International Workshop on Applied Probability, Budapest, Hungary June 18-21, 2018.
- Associate Editor for Sequential Analysis (Statistical Journal), since 2018.
- Program Chair for the International Conference *Santé-Environnement-Communauté*. Université de Lomé, January 3-5 2018.
- Program and Organizing Committee for the 4<sup>th</sup> African International Conference in Statistics; New Methods of Data Analysis and Statistical Applications to Big Data, University of Limpopo, South Africa (ZA), March 20–23, 2017.
- Program Chair and Organizer for Workshop on Global Health Initiative and Collaboration, Université de Lomé and Centre Omnithérapeutique Africain, January 3–5, 2017, Lomé Togo.
- Program Committee for the University of Lille, Laboratoire Equippe, Maison de la Recherche Workshop on Statistical Methods for Recurrent Data, Université de Lille 3, Lille France, November 7, 2016.
- Evaluated promotion and/or tenure cases for faculty candidates at the Mayo Clinic Division of Biomedical Statistics and Informatics, 2014; University of Florida Department of Biostatistics, 2016.
- Advisor for the MARC Scholar Program Advisory Board; Savannah State University, University in Savannah, GA, USA, since 2016.
- Session Organizer and Session Chair for the 10<sup>th</sup> International Chinese Statistical Association Conference, Shanghai, China, December 19–22, 2016.
- Program and Organizing Committee for the 3<sup>rd</sup> African International Conference in Statistics: Cameroon International Conference on Recent Development in Applied Statistics (CICDAS), Yaounde Cameroon, March 14–18, 2016.

- Session Co-Organizer for the Joint Research Conference on New Advances in Statistical Process Control, National Institute of Standard and Technology, NIST, MD 2010.
- Statistics and Biostatistics Doctoral Mentor for the National Alliance for Doctoral Studies in the Mathematical Sciences, since 2009.
- Co-Chair, Statistical Research Committee of the International Society for Disease Surveillance, from November 2006 to December 2008.
- Refereed for the Following Statistical Journals:

Technometrics	Computational Statistics	South African Journal of Statistics
Journal of Quality Technology	Statistical Methodology	Comp. Statistics and Data Analysis
Quality Engineering	Statistics in Medicine	Agricultural, Bio, Envir, Statistics
The American Statistician	Journal of Applied Statistics	Chance

- Reviewed 272 Study Protocols in Cancer Research (prior to August 30, 2017), Including Local University of Iowa Investigator-initiated Projects and National and International Corporate Group Projects.

### Professional Membership

10–2011 : present	Member, International Perimetry Society
01–2008 : present	Member, American Society for Quality
01–2008 : present	Member, The Iowa Society for Quality
01–2007 : present	Member, International Biometric Society (ENAR)
10–2005 : present	Member, International Society for Disease Surveillance (ISDS)
01–2002 : present	Member, Institute of Mathematical Statistics
01–2003 : 01–2009	Member, American Mathematical Association

### Industrial Experience

01–2004 : present	Statistical Consultant; Design and Analysis
01–2003 : 12–2004	Consultant; Expert systems Sylogy software company
06–1997 : 08–1998	QC Operator; on-line QC; Boston Scientific–Scimed

### Language Skills

- English : Fluent (speaking, writing, translating, holding seminars and talks)
- French : Fluent (speaking, writing, translating, holding seminars and talks)
- Eʋe ; Mina ; Anlõa : Fluent (speaking, writing, translating, holding seminars and talks)
- Kiswahili : Basic knowledge
- Deutsch : Knowledge (G1b, Goethe Institut Lomé Togo, July 1996 with honors). Need some polishing up to be fluent though. *“If you don’t use it, you lose it...”*

### Computing Skills

- Operating Systems: Unix, Linux, Macintosh, Windows
- Software & programming: R, S, S-Plus, Arc, Xlisp-Stat, SAS, C++, MacAnova
- Typography: L<sup>A</sup>T<sub>E</sub>X

## References

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