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| **Abigail (Lauer) Kelly , M.S.** Curriculum Vitae |
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| College of Dental Medicine |
| 173 Ashley Avenue BSB 128 |
| Charleston SC 29403 |
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| Work Email : lauera@musc.edu |

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| Home Email : [alauer44@gmail.com](mailto:alauer44@gmail.com)  Office Phone: (843) 792-1725 |
| Cell Phone : (240) 893-0469 |

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EDUCATION

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| **Year** | **Institution** | **Degree** | **Major** |
| 2009 | Elon University | B.A. | Mathematics |
| 2011 | University of South Carolina | M.S. | Statistics |

FACULTY APPOINTMENTS

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| **Year** | **Institution** | **Role** |
| 2018- Present | Medical University of South Carolina, Public Health Sciences | Research Instructor |
| 2014 - 2018 | Medical University of South Carolina, Public Health Sciences | Research Associate |
| 2013 - 2014 | George Washington University, Biostatistics Center | Research Associate |
| 2011 - 2013 | Wake Forest University School of Medicine, Public Health Sciences | Biostatistician II |

CONTRACTS AND GRANTS

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| --- | --- | --- | --- | --- |
| **Year** | **Funding Source** | **PI/CO-PI** | **% Effort** | **Grant Title** |
| 2019 - 2020 | VAMC | Biostatistician | 9 | A Novel Mechanics-Based Intervention to Improve Post-stroke Gait Stability |
| 2017 - 2020 | NIH/NICHD | Statistician | 4 | Mechanism-Based Strategies to Restore Post-Stroke Gait Stability Through Targeted Motor Adaption |
| 2015 - 2019 | Dentaquest | Statistician | 8 | ROADS |
| 2014 - 2020 |  | Statistician | 13.15 | MUSC Center for Oral Health Research |
| 2014 - 2020 | NIH/NIDA | Co-Investigator | 4.45 | Longitudinal Study of Functional Connectivity Among Cocaine Users in Treatment |
| 2017 - 2022 | NIH/NINDS | Statistician | 0.5 | Molecular Mechanisms Underlying Obesity-Related Memory Deficits |
| 2019 - 2020 | NIH/NIGMS | Statistician | 13.5 | SC Research Center for Recovery from Stroke: CORE E- Clinical and Translational Tools and Resource |
| 2018 - 2022 | NIH/NIDA | Statistician | 25 | Translational Approaches to TMS Treatment Development for Smoking |
| 2019 - 2020 | VAMC | Statistician | 12.4 | Incline Training to Personalize Motor Control Interventions After Stroke |
| 2019 - 2021 | DHHS | Statistician | 10 | Medicaid |

TEACHING EXPERIENCE/CURRICULUM DEVELOPMENT

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| 2019 | Co-Director- GDENT 807 Statistical Methods (6 classes), 1.5 s.h |
| 2019 | Guest Lecturer- Guest Lecturer- GENDT-888: Independent Projects- Statistical Considerations in Experimental Design |
| 2018 | Guest Lecturer- CDM Junior Faculty Club |
| 2018 | Guest Lecturer- GDENT 807 Statistical Methods (5 classes), 1.5 s.h |
| 2018 | Guest Lecturer- GENDT-888: Independent Projects- Statistical Considerations in Experimental Design |
| 2018 | Guest Lecturer- DPHS Summer Institute on Longitudinal Analysis Short Course |
| 2018 | Guest Lecturer- Research Methods for Behavioral Sciences |
| 2017 | Guest Lecturer- STOMA 904:  Evaluating Dental Literature |
| 2017 | Guest Lecturer- GENDT-888: Independent Projects- Statistical Considerations in Experimental Design |
| 2017 | Guest Lecturer- DPHS Summer Institute on Longitudinal Analysis Short Course: SPSS Lecture |
| 2017 | Department of Oral Health Sciences Journal Club- Design and Analysis of Oral Medicine Studies: Common Pitfalls |
| 2017 | Guest Lecturer- GENDT-888: Independent Projects- Statistical Considerations in Experimental Design |
| 2016 | Guest Lecturer- Introduction to Evidence Based Dentistry- Evaluating the Research |
| 2016 | Guest Lecturer- GENDT-888: Independent Projects- Statistical Considerations in Experimental Design |
| 2015 | MUSC COHR Clinical Studies Design Summer 2015 Course , 6 CE credits |

INVITED PRESENTATIONS

1. Ottenbacher K, Ward M, Knight H, Kelly A, Karmark R, Graham J, Redman, S. IC23: How to Find and Access Secondary Data for Your Research. The 95th American Congress of Rehabilitation Medicine conference. September 30 2018. (Oral).
2. Boynes SG, Lauer A, Deutchman M, Martin AB. An Assessment of Participant-Described Interprofessional Oral Health Referral Systems Across Rurality. National Network of Oral Health Access Meeting, San Diego, CA. November 14, 2017. (Oral).
3. Feldman EL, Martin CL, Bell RA, Lauer A, Divers J, Dabelea D, Pettitt DJ, Saydah S, Linder B, Pihoker C, Standiford DS, Rodriguez BL, and Pop-Busui R, for the SEARCH for Diabetes in Youth Study. Peripheral Neuropathy in the SEARCH for Diabetes in Youth Cohort: A Pilot Study. Abstract Book: O: 58, the 22nd Annual NEURODIAB Meeting, Dresden Germany, September 27 - 29 2012. (Oral)

POSTER PRESENTATIONS

1. Pop-Busui R, Martin CL, Bell RA, Lauer A, Divers J, Dabelea D, Pettitt DJ, Saydah S, Linder B, Pihoker C, Standiford DS, Rodriguez BL, Feldman EL, For the SEARCH for Diabetes in Youth Study Group. Cardiovascular Autonomic Neuropathy in the SEARCH for Diabetes in Youth Cohort: A Pilot Study. A Pilot Study. Abstract Book: P21: 107, the 22nd Annual NEURODIAB Meeting, Dresden Germany, September 27 - 29 2012.

PEER-REVIEWED PUBLICATIONS

1. Kelly AL, Horsman E, Ziegler L, Hipp C, Martin AB. An alternative early childhood caries risk surveillance methodology for public policy and practice advancements. [J Public Health Dent.](https://www.ncbi.nlm.nih.gov/pubmed/31359430) 2019 Jul 29. doi: 10.1111/jphd.12330.
2. Seo NJ, Crocher V, Spaho E, Ewert CR, Fathi MF, Hur P, Lum SA, Humanitzki EM, Kelly AL, Ramakrishnan V, Woodbury ML. Caputring Upper Limb Gross Motor categories Using the Kinect Sensor. Am J Occup Ther. 2019 Jul/Aug;73(4):7304205090p1-7304205090p10. doi: 10.5014
3. Bocklet C, Renne W, Mennito A, Bacro T, Latham J, Evans Z, Ludlow M, **Kelly A**, Nash J. Effect of scan substrates on accuracy of 7 intraoral digital impression systems using human maxilla model. Orthod Craniofac Res. 2019 May. Doi: 10.1111
4. Mennito A, Evans Z, Nash J, Bocklet C, **Lauer A**, Bacro T, Cayouette M, Ludlow M, Renne W. Evaluation of the trueness and precision of complete arch digital impressions on a human maxilla using seven different intraoral digital impression systems and a laboratory scanner. Journal of Esthetic and Restorative Dentistry. 2019 May 06. Doi: 10.1111
5. Latham J, Ludlow M, Mennito A, **Kelly A**, Evans Z, Renne W. Effect of Scan Pattern on Complete-Arch Scans with 4 Digital Scanners. J Prosthet Dent. 2019 Apr 11. Doi: 10.1016
6. Tregerman I, Renne W, **Kelly A**, Wilson D. Evaluation of Removable Partial Denture Frameworks Fabricated Using 3 Different Techniques. J Prosthet Dent. 2019 April 1. Doi: 10.1016
7. Seo NJ, Woodbury M, Bonilha L, Ramakrishnan V, Kautz SA, Downey R, Dellenbach BHS, **Lauer A**, Roark CM, Landers LE, Phillips SK, Vatinno AA. TheraBracelet Stimulation During Task-Practice Therapy to Improve Upper Extremity Function After Stroke: A Pilot Randomized Control Study. Phys Ther. 2019 Jan 28. Doi: 10.1093
8. Renne W, Ludlow M, Fryml J, Schurch Z, Mennito A, Kessler R, **Lauer A**. Effect of scan substrates on accuracy of 7 intraoral digital impression systems using human maxilla model. Journal of Orthodontics & Craniofacial Research.
9. Seo NJ, Lakshminarayanan K, **Lauer AW**, Ramakrishnan V, Schmit BD, Hanlon CA, George MS, Bonilha L, Downey RJ, DeVries W, Nagy T (2019). Use of imperceptible wrist vibration to modulate sensorimotor cortical activity, Experimental Brain Research. 2019 Jan 3. Doi: 10.1007
10. Bell SJ, **Lauer A**, Lench DH, Hanlon CA. Visual Attention Affects the Amplitude of the Transcranial Magnetic Stimulation-associated Motor-evoked Potential: A Preliminary Study with Clinical Utility. J Psychiatr Pract. 2018 Jul; 24(4) 220-229. Doi: 10.1097
11. Parrilla-Carrero J, Buchta WC, Goswamee P, Culver O, McKendrick G, Harlan B, Moutal A, Penrod A, **Lauer A**, Ramakrishnan V, Khanna R, Kalivas P, Riegel AC. Restoration of Kv7 Channel-Mediated Inhibition Reduces Cued-Reinstatement of Cocaine Seeking. Journal of Neuroscience 25 April 2018, 38 (17) 4212-4229. doi: 2767-17.2018
12. Renne W, Ludlow M, Fryml J, Schurch Z, Mennito A, Kessler R, **Lauer A**. Evaluation of the accuracy of 7 digital scanners: An in vitro analysis based on 3-dimensional comparisons.J Prosthet Dent. 2017 Jul;118(1):36-42. doi: 10.1016/j.prosdent.2016.09.024. Epub 2016 Dec 23. PMID: 28024822
13. Boynes, SG. **Lauer A**, Deutchman M, Martin AB. An Assessment of Participant-Described Interprofessional Oral Health Referral Systems Across Rurality. J Rural Health. 2017 Sep: 33(4): 427-437. doj: 10.1111/jrh.12274., PMID: 28913876
14. Argula RG, Karwa A, **Lauer A,** Gregg D, Silver RM, Fehali-Bostwick C, Schanpp LM, Egbert K, Usher BW, Ramakrishnan V, Hassoun PM, Strange C. Differences in Right Ventricular Functional Changes during Treatment between Systemic Sclerosis-associated Pulmonary Arterial Hypertension and Idiopathic Pulmonary Arterial Hypertension.  Ann Am Thorac Soc. 2017 May: 14(5): 682-689. doi: 10. 1513/ AnnalsATS. 201608-655OC., PMID: 28282243
15. Renne W, Ludlow M, Fryml J, Schurch Z, Mennito A, Kessler R, **Lauer A**. Evaluation of the accuracy of 7 digital scanners: An in vitro analysis based on 3-dimensional comparisons.J Prosthet Dent. 2017 Jul;118(1):36-42. doi: 10.1016/j.prosdent.2016.09.024. Epub 2016 Dec 23. PMID: 28024822
16. Poston CJ, Pierce TC, Li Y, Brinson CW, Lu Z, **Lauer AW**, Leite RS, Huang Y. Statin intake is associate with MMP-1 level in gingival crevicular fluid of patients with periodontitis. Oral Dis. 2016 Mar 14. Doi: 10.1111/odi.12474.
17. Seo NJ, Lakshminarayanan K, Bonilha L, **Lauer AW**, Schmit BD. Effect of imperceptible vibratory noise applied to wrist skin on fingertip touch evoked potentials - an EEG study. Physiol Rep. 2015; 311 PMCID: PMC4673650.
18. Motawar B, Stinear JW, **Lauer AW**, Ramakrishnan V, Seo NJ. Delayed grip relaxation and altered modulation of intracortical inhibition with aging.Exp Brain Res. 2016 Apr;234(4):985-95. doi: 10.1007/s00221-015-4527-y. Epub 2015 Dec 21. PMID: 26686531
19. Lakshminarayanan K, **Lauer AW**, Ramakrishnan V, Webster JG, Seo NJ. Application of vibration to wrist and hand skin affects fingertip tactile sensation. Physiological Reports Jul 2015, 3 (7) DOI: 10.14814/phy2.12465
20. Jaiswal M, **Lauer A**, Martin CL, Bell RA, Divers J, Dabelea D, Pettitt DJ, Saydah S, Pihoker C, Standiford DA,Rodriguez BL, Pop-Busui R, Feldman EL, SEARCH for Diabetes in Youth Study Group. Peripheral Neuropathyin Adolescents and Young Adults with Type 1 and Type 2 Diabetes from The SEARCH for Diabetes in Youth Follow-up Cohort: a Pilot Study. Diabetes Care 2013;36:3903-8. PMID:24144652.http://www.ncbi.nlm.nih.gov/pubmed/24144652
21. Mottl AK, **Lauer A**, Dabelea D, Maahs DM, D'Agostino RB Jr, Dolan LM, Gilliam LK, Lawrence JM, RodriguezB,Marcovina SM, Imperatore G, Kanakatti Shankar R, Afkarian M, Reynolds K, Liese AD, Mauer M,Mayer-Davis EJ,SEARCH for Diabetes in Youth Study Group. Albuminuria According to Status of Autoimmunity and InsulinSensitivity Among Youth with Type 1 and Type 2 Diabetes. Diabetes Care 2013;36:3633-8. PMID: 23846811.
22. Shah AS, Dolan LM, **Lauer A**, Davis C, Dabelea D, Daniels SR, Hamman RF, Marcovina S, Wadwa RP, Urbina EM. Adiponectin and Arterial Stiffness in Youth with Type 1 Diabetes: The SEARCH for Diabetes in Youth Study. Journal of Pediatric Endocrinology & Metabolism : JPEM 2012;25:717-21. PMID: 23155699. http://www.ncbi.nlm.nih.gov/pubmed/23155699
23. Pop-Busui R, Martin CL, Bell RA, **Lauer A**, Divers J, Dabelea D, Pettitt DJ, Saydah S, Linder B, Pihoker C, Standiford DS, Rodriguez BL, Feldman EL, For the SEARCH for Diabetes in Youth Study Group. Cardiovascular Autonomic Neuropathy in the SEARCH for Diabetes in Youth Cohort: A Pilot Study. Diabetes 2012;61(Supplement1):A146.
24. Feldman EL, Martin CL, Bell RA, **Lauer A**, Divers J, Dabelea D, Pettitt DJ, Saydah S, Linder B, Pihoker C, Standiford D, Rodriguez BL, Pop-Busui R, For the SEARCH for Diabetes in Youth Study. Peripheral Neuropathy in the SEARCH for Diabetes in Youth Cohort: A Pilot Study. Diabetes 2012;61(Supplement1):A144

AWARDS

[Renne W](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Renne%20W%5BAuthor%5D&sort=ac&from=/28024822/ac), [Ludlow M](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Ludlow%20M%5BAuthor%5D&sort=ac&from=/28024822/ac), [Fryml J](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Fryml%20J%5BAuthor%5D&sort=ac&from=/28024822/ac), [Schurch Z](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Schurch%20Z%5BAuthor%5D&sort=ac&from=/28024822/ac), [Mennito A](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Mennito%20A%5BAuthor%5D&sort=ac&from=/28024822/ac), [Kessler R](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Kessler%20R%5BAuthor%5D&sort=ac&from=/28024822/ac), [Lauer A](https://www.ncbi.nlm.nih.gov/m/pubmed/?term=Lauer%20A%5BAuthor%5D&sort=ac&from=/28024822/ac). Evaluation of the accuracy of 7 digital scanners: An in vitro analysis based on 3-dimensional comparisons. J Prosthet Dent 207 won the Judson C. Hickey award in the Journal of Prosthetic Dentistry.