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**Conditions Treated:**

**Research Areas:**

- *RNA-Seq*
- *GWAS*
- *Image Analysis*
- *Spatial Point Processes*
- *Bayesian Hierarchical Models*
- *Generalized Linear Mixed Models*

**Programs & Services:**

- *Center for Genes, Environment and Health*
- *Department of Biomedical Research*

Dr. Vestal has expertise in the analysis of genetic and genomic data, quantitative image analysis with applications in computed tomography and emphysema, Bayesian hierarchical modeling, and computational statistics.

**Education**

2012 - 2017 University of Colorado Denver, Denver, CO, PhD in Biostatistics  
2010 - 2012 California State University Fullerton, Fullerton, CA, MA in Applied Mathematics  
2006 - 2009 Vanguard University, Costa Mesa, CA, BS in Mathematics

**Affiliations with the University of Colorado Denver**

Clinical Assistant Professor, Department of Biostatistics and Informatics, Colorado School of Public Health, University of Colorado Denver

**Professional Memberships**

ASA, IBS, ASHG

**Publications**

Vestal BE, Carlson NE, Estépar RS, Fingerlin T, Ghosh D, Kechris K, Lynch D. Using a spatial point process framework to characterize lung computed tomography scans. *Spatial Statistics*. 2019 Mar 1;29:243-67.

Vestal B, Russell P, Radcliffe RA, Bemis L, Saba LM, Kechris K. miRNA-regulated transcription associated with mouse strains predisposed to hypnotic effects of ethanol. *Brain Behav*. 2018;e00989

Rudra P, Shi WJ, Vestal B, Russell PH, Odell A, Dowell RD, Radcliffe RA, Saba LM, Kechris K. Model based heritability scores for high-throughput sequencing data. *BMC bioinformatics*. 2017

Dec;18(1):143.

Rudra P, Shi WJ, Russell P, Vestal B, Tabakoff B, Hoffman P, Kechris K, Saba L. Predictive modeling of miRNA-mediated predisposition to alcohol-related phenotypes in mouse. BMC genomics. 2018 Dec;19(1):639.

Russell PH, Vestal B, Shi W, Rudra PD, Dowell R, Radcliffe R, Saba L, Kechris K. miR-MaGiC improves quantification accuracy for small RNA-seq. BMC research notes. 2018 Dec;11(1):296.

#### **Doctor's Contact Information**

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#### **Locations**

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