Research

Publications, projects, and academic work

Table of contents

## 1 Publications

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| Note |
| **Topic Color Legend & Filters:** Click any tag to filter publications by topic. Click again to remove filter.  Military/Defense Medical/Clinical Technical/Neuroimaging Healthcare/Pandemic General Research  Clear All Filters |

### 1.1 2024

Cory McEvoy, Adam Crabtree, John Case, Gary E. Means, Peter Muench, **Ronald G. Thomas**, Rebecca A. Ivory, Jason Mihalik, and James S. Meabon, “Cumulative blast impulse is predictive for changes in chronic neurobehavioral symptoms following low level blast exposure during military training,” *Military Medicine* (2024): e2069-e2077, doi: 10.1093/milmed/usae206

Military health Traumatic brain injury Biomarkers Longitudinal studies

[🔗 Article](https://doi.org/10.1093/milmed/usae206) • [📄 PDF](https://doi.org/10.1093/milmed/usae206)

Douglas Galasko, Martin R. Farlow, Brendan P. Lucey, Lawrence S. Honig, Donald Elbert, Randall Bateman, Jeremiah Momper, **Ronald G. Thomas**, Robert A. Rissman, Judy Pa, et al., “A multicenter, randomized, double-blind, placebo-controlled ascending dose study to evaluate the safety, tolerability, pharmacokinetics (PK) and pharmacodynamic (PD) effects of Posiphen in subjects with Early Alzheimer’s Disease,” *Alzheimer’s Research & Therapy* 16, no. 1 (2024): 151, doi: 10.1186/s13195-024-01540-z

Alzheimer’s disease Clinical trials Drug development Pharmacokinetics

[🔗 Article](https://doi.org/10.1186/s13195-024-01540-z) • [📄 PDF](https://doi.org/10.1186/s13195-024-01540-z)

Garth Terry, Kathleen F. Pagulayan, Mark Muzi, Cynthia Mayer, Daniel R. Murray, Abigail G. Schindler, Todd L. Richards, Cory McEvoy, Adam Crabtree, Chris McNamara, **Ronald G. Thomas**, et al., “Increased [18F] Fluorodeoxyglucose Uptake in the Left Pallidum in Military Veterans with Blast-Related Mild Traumatic Brain Injury: Potential as an Imaging Biomarker and Mediation with Executive Dysfunction and Cognitive Impairment,” *Journal of Neurotrauma* (2024), doi: 10.1089/neu.2024.0142

Neuroimaging PET imaging Military health Brain injury

[🔗 Article](https://doi.org/10.1089/neu.2024.0142) • [📄 PDF](https://doi.org/10.1089/neu.2024.0142)

### 1.2 2023

Rebecca C. Hendrickson, Catherine A. McCall, Aaron F. Rosser, Kathleen F. Pagulayan, Bernard P. Chang, Ellen D. Sano, **Ronald G. Thomas**, and Murray A. Raskind, “The relative contribution of COVID-19 infection versus COVID-19 related occupational stressors to insomnia in healthcare workers,” *Sleep Medicine: X* 5 (2023): 100067, doi: 10.1016/j.sleepx.2022.100067

COVID-19 Healthcare workers Sleep disorders Occupational health

[🔗 Article](https://doi.org/10.1016/j.sleepx.2022.100067) • [📄 PDF](https://doi.org/10.1016/j.sleepx.2022.100067)

Samantha A. Keil, Abigail G. Schindler, Marie X. Wang, Juan Piantino, Lisa C. Silbert, Jonathan E. Elliott, Madeleine L. Werhane, **Ronald G. Thomas**, Sherry Willis, Miranda M. Lim, et al., “Longitudinal Sleep Patterns and Cognitive Impairment in Older Adults,” *JAMA Network Open* 6, no. 12 (2023): e2346006, doi: 10.1001/jamanetworkopen.2023.46006

Sleep patterns Cognitive decline Aging Longitudinal studies

[🔗 Article](https://doi.org/10.1001/jamanetworkopen.2023.46006) • [📄 PDF](https://doi.org/10.1001/jamanetworkopen.2023.46006)

Murray A. Raskind, Tammy Williams, Hollie Holmes, Kim Hart, Laura Crews, Eileen L. Poupore, **Ronald G. Thomas**, Jolee Darnell, Colin Daniels, Kevin Goke, et al., “A randomized controlled clinical trial of prazosin for alcohol use disorder in active duty soldiers: Predictive effects of elevated cardiovascular parameters,” *Alcoholism: Clinical and Experimental Research* 47, no. 2 (2023): 348-360, doi: 10.1111/acer.15008

Clinical trials Military health Substance abuse Cardiovascular risk

[🔗 Article](https://doi.org/10.1111/acer.15008) • [📄 PDF](https://doi.org/10.1111/acer.15008)

Eric M. Reiman, Jeremy J. Pruzin, Silvia Rios-Romenets, Chris Brown, Margarita Giraldo, Natalia Acosta-Baena, Carlos Tobon, Nan Hu, Yinghua Chen, Valentina Ghisays, **Ronald G. Thomas**, et al., “A public resource of baseline data from the Alzheimer’s Prevention Initiative Autosomal-Dominant Alzheimer’s Disease Trial,” *Alzheimer’s & Dementia* 19, no. 5 (2023): 1938-1946, doi: 10.1002/alz.12923

Alzheimer’s disease Prevention trials Open data Genetic risk

[🔗 Article](https://doi.org/10.1002/alz.12923) • [📄 PDF](https://doi.org/10.1002/alz.12923) • [💾 Data](https://doi.org/10.1002/alz.12923)

### 1.3 2022

Rebecca C. Hendrickson, Roisín A. Slevin, Katherine D. Hoerster, Bernard P. Chang, Ellen Sano, Catherine A. McCall, Gillian R. Monty, **Ronald G. Thomas**, and Murray A. Raskind, “The impact of the COVID-19 pandemic on mental health, occupational functioning, and professional retention among health care workers and first responders,” *Journal of General Internal Medicine* 37, no. 2 (2022): 397-408, doi: 10.1007/s11606-021-07252-z

COVID-19 Healthcare workers Mental health Occupational stress

[🔗 Article](https://doi.org/10.1007/s11606-021-07252-z) • [📄 PDF](https://doi.org/10.1007/s11606-021-07252-z)

Clara Vila-Castelar, Pierre N. Tariot, Kaycee M. Sink, David Clayton, Jessica B. Langbaum, **Ronald G. Thomas**, Yinghua Chen, Yi Su, Kewei Chen, Nan Hu, et al., “Sex differences in cognitive resilience in preclinical autosomal-dominant Alzheimer’s disease carriers and non-carriers: baseline findings from the API ADAD Colombia Trial,” *Alzheimer’s & Dementia* 18, no. 11 (2022): 2272-2282, doi: 10.1002/alz.12571

Alzheimer’s disease Sex differences Cognitive resilience Prevention trials

[🔗 Article](https://doi.org/10.1002/alz.12571) • [📄 PDF](https://doi.org/10.1002/alz.12571)

Aladdin H. Shadyab, Andrea Z. LaCroix, Genevieve Matthews, Daniel Bennett, Alexandre A. Shadyab, Donna Tan, **Ronald G. Thomas**, Jennifer Mason, Alex Lopez, Brianna Askew, et al., “T2 Protect AD: Achieving a rapid recruitment timeline in a multisite clinical trial for individuals with mild to moderate Alzheimer’s disease,” *Alzheimer’s & Dementia: Translational Research & Clinical Interventions* 8, no. 1 (2022): e12265, doi: 10.1002/trc2.12265

Clinical trials Recruitment strategies Alzheimer’s disease Study design

[🔗 Article](https://doi.org/10.1002/trc2.12265) • [📄 PDF](https://doi.org/10.1002/trc2.12265)

### 1.4 Working Papers & Preprints

*Coming soon: Links to preprints, working papers, and manuscripts under review*

## 2 [White Papers & Technical Reports](../research/white-papers/)

In-depth technical analyses, methodological frameworks, and implementation guides covering research workflows, statistical computing environments, and data science applications.

[View All White Papers →](../research/white-papers/)

## 3 Current Projects

### 3.1 Statistical Methods Development

* Novel approaches to clinical trial design
* Bayesian methods for biomarker analysis
* Reproducible research workflows

### 3.2 Collaborative Research

* Multi-institutional studies
* Open science initiatives
* Methodological consulting

## 4 Data and Code

Reproducible research materials, datasets, and computational resources supporting published work.

### 4.1 Open Science Contributions

* R packages for statistical analysis
* Data analysis pipelines
* Methodology implementations

## 5 Comprehensive Tag Collection

Based on analysis of leading R/biostatistics blogs, here are the most relevant research tags for data science and biostatistics:

**Core R & Data Science:** R Programming, Data Science, Statistics, Data Analysis, Data Visualization, Predictive Modeling, Statistical Learning, Computational Methods, Simulation

**Biostatistics & Medical:** Biostatistics, Clinical Trials, Epidemiology, Survival Analysis, Medical Research, Drug Development, Pharmacokinetics, Prevention Trials

**Advanced Methods:** Machine Learning, Neural Networks, Bayesian Methods, Forecasting, Ecological Statistics, Genomics

**Specialized Areas:** Military Health, Healthcare, COVID-19, Neuroimaging, Alzheimer’s Disease, Sleep Research, Cognitive Assessment