

Andrew D. Nguyen, PhD, Biostatistician

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Career Profile

I am a Biostatistician with three years of relevant clinical experience at the Orlando Health Cancer Institute, where I lead clinical trials and observational studies using state of the art causal inference techniques. In addition to my PhD training, my previous experiences include holding a statistical analyst position at a non-profit in the field of regulatory toxicology and a research scientist position focused on randomized experiments of agricultural pests. The culmination of my experiences has led me to be skilled in constructing narratives from data about ways to enhance patient outcomes and care. These patient-focused narratives are best told through Bayesian inference.

My go-to tool is R (RStudio), where I have the most experience in data wrangling (cleaning, parsing, transforming), data analysis, simulations (Monte Carlo), and data visualization.

Career Highlights

- Biostatistician at the Orlando Health Cancer Institute that leads clinical research aiming to improve patient care
- Flexible and quick learner as exemplified by diverse professional experiences post PhD (9 years)
- Excellent scientific achievements as exemplified in 17 peer-reviewed publications (and 5 in prep)

Professional Experience

Orlando Health Cancer Institute, Oncology Quality | Orlando, FL, USA

2024–Present

OHCI aims to provide exceptional and compassionate care to cancer patients.

Biostatistician

I lead study design and analyses for quality improvement studies, observational studies, and clinical trials.

- Published four manuscripts with six in preparation related to enhancing patient outcomes in areas of surgical and medical oncology within OHCI and external institutions (NHS)
- Consult diverse stakeholders including doctors, pharmacists, and public health personnel on observational study design and clinical trial design
- Lead statistical analyses using state of the art Bayesian methods, including Causal Inference techniques within a target trial emulation framework
- Develop and designed over 30 databases for data collection and management through REDCap, including an international registry ([NCT07351994](#))
- For over 40 projects, served as project manager by maintaining regular meetings, timelines, and was responsible for IRB submissions
- Saved OHCI over \$100,000 by improving operational workflows with PowerBI dashboards spanning different service lines (patient services, nurse navigation, oncology quality) that impact business decisions

PSCI, Regulatory Toxicology Department | Virginia, USA

2019–2024

PSCI aims to promote human health and the environment by modernizing tests that are required by law.

Statistical Analyst

I managed 3-5 projects simultaneously to reach key milestones. For the analytical projects, I designed the experiments, analyzed the results, and disseminated the findings.

- Developed a database and analyzed chronic toxicity studies in collaboration with the U.S. Environmental Protection Agency (EPA) to inform risk assessments to pesticide exposure
- Designed experiments, analyzed results, and submitted proposals to the US Food and Drug Administration (FDA) in support of regulatory use of *in vitro* methods for medical device evaluations

Research Scientist

I organized research activities independently and collaboratively with multiple stakeholders.

- Analyzed transcriptomic data using a gene network approach (WGCNA) and multivariate statistics to determine species divergence in metabolic depression
- Fitted functions to metabolic rates and conducted survival analyses to draw inferences about optimal seasonal timing of agricultural pests
- Published in peer-reviewed journals and presented research findings at national and international conferences

Skills

Technical: R/Rstudio (expert data wrangling, analysis, and visualization in the *tidyverse*), REDCap, PowerBI, Unix, GitHub, Python (intermediate), SQL (intermediate)

Statistical: Causal Inference and Target Trial Emulation, Bayesian analyses (*brms*, *INLA*), Monte Carlo simulations, Power analysis, Survival analysis, Generalized linear models, Hierarchical models

Clinical operations: Study design, IRB submissions, Project management, Database design and management, Case report forms, OnCore, Advarra EDC

Education

University of Vermont, Department of Biology | Burlington, Vermont

2012–2017: **Ph.D., Biology**

Thesis title: *Evolutionary Innovations in Ants to Thermally Stressful Environments*

- Fitted functional response curves of transcriptomic and proteomic data to understand environmental damage to whole organisms
- Used machine-learning techniques to predict species presence or absence over heterogeneous climatic landscapes
- Applied quantitative genetics approaches such as fitting mixed-effects models to understand gene by environmental interactions

Drexel University | Philadelphia

2004–2009: **B.S., Biology**

Held two internships spanning six months each in biotech industries in the area of reproductive toxicology (GlaxoSmithKline, 2007-2008), and monoclonal antibody drug development (Morphotek Inc., 2008-2009)

Publications

*Authors contributed equally

- Ploucher, S, **Nguyen, AD**, Styrvoky, K. (2026). Real-World Experience With Artificial Intelligence-Enabled Natural Language Processing for Identification and Management of Incidental Lung Nodules. *Therapeutic Advances in Respiratory Disease*
- Caycedo-Marulanda A, **Nguyen AD**, et al. (2026) Magnetic Compression Anastomosis With Immediate Luminal Patency in Colorectal Surgery: First-in-Human Safety and Feasibility Evaluation of a Self-forming Magnet System. *Diseases of the Colon and Rectum*
- Latam Collaborative Colorectal Surgery Consortium, The European Society of Coloproctology (ESCP) Global Reach Committee, **Nguyen AD**. (2026) Outcomes of urgent gastrointestinal-related procedures in Latin America (LATAM-URG): a prospective multicentre study. *The Lancet Regional Health - Americas*
- Styrvoky K, Levine A, **Nguyen AD**, Vollenweider M, Jiwani A. (2025) Apneic oxygenation during robotic-assisted bronchoscopy: a retrospective study on safety and diagnostic yield. *Journal of Thoracic Disease*
- Cruz Z, **Nguyen AD**, Baker S, et al. (2025) Impact of Nurse Navigation on Overall Survival and Timeliness to Care in Patients With Pancreatic Cancer in Advanced Stages. *Journal of Oncology Navigation & Survivorship*.
- Chin MM, **Nguyen AD**, Jones A, et al.(2025) Electronic Health Record-Enabled Identification and Targeted Multipronged Intervention to Reduce Readmission and Length of Stay Among Patients With Metastatic Cancer. *JCO Oncol Pract*
- Petersen EJ*, **Nguyen AD***, Brown J, et al. (2021) Characteristics to consider when selecting a positive control material for an in vitro assay. *ALTEX*
- Nguyen AD**, Brown M, Zitnay J, et al. Trade-Offs in Cold Resistance at the Northern Range Edge of the Common Woodland Ant *Aphaenogaster picea* (Formicidae). *The American Naturalist*
- Nguyen AD**, DeNovellis K, Resendez S, et al. (2017) Effects of desiccation and starvation on thermal tolerance and the heat-shock response in forest ants. *J Comp Physiol B*
- Nguyen AD**, Gotelli NJ, Cahan SH. (2016) The evolution of heat shock protein sequences, cis-regulatory elements, and expression profiles in the eusocial Hymenoptera. *BMC Evol Biol*

7. Powell THQ, **Nguyen A**, Xia Q, Feder JL, Ragland GJ, Hahn DA. (2020) A rapidly evolved shift in life-history timing during ecological speciation is driven by the transition between developmental phases. *J Evol Biol*
6. Helms Cahan S, **Nguyen AD**, Zhou Y. (2022) Population genomics supports multiple hybrid zone origins of socially hybridogenetic lineages of Pogonomyrmex harvester ants. *Evolution (N Y)*
5. Helms Cahan S, **Nguyen AD**, Stanton-Geddes J, et al. (2017) Modulation of the heat shock response is associated with acclimation to novel temperatures but not adaptation to climatic variation in the ants Aphaenogaster picea and A. rudis. *Comp Biochem Physiol Part A Mol Integr Physiol*
4. Cicconardi F, Krapf P, D'Annessa I, **Nguyen AD**, et al. (2020) Genomic Signature of Shifts in Selection in a Subalpine Ant and Its Physiological Adaptations. *Mol Biol Evol*
3. Stevens L, Lima-Cordón RA, Helms Cahan S, **Nguyen AD**, et al. (2021) Catch me if you can: Under-detection of Trypanosoma cruzi (Kinetoplastea: Trypanosomatida) infections in Triatoma dimidiata s.l. (Hemiptera: Reduviidae) from Central America. *Acta Trop*
2. Lau MK, Ellison AM, **Nguyen A**, et al. (2019) Draft Aphaenogaster genomes expand our view of ant genome size variation across climate gradients. *PeerJ*
1. Stanton-Geddes J, **Nguyen A**, Chick L, et al. (2016) Thermal reactionomes reveal divergent responses to thermal extremes in warm and cool-climate ant species. *BMC Genomics*

Organizational Memberships

2024-Present	Florida Society of Clinical Research (FLASCO)
2024-Present	Florida Association for Healthcare Quality (FAHQ)
2019-2024	American Society for Cellular and Computational Toxicology (ASCCT)
2017-2018	Society for Research on Biological Rhythms (SRBR)

External Reviewer

Computational Toxicology, Innate Immunity, The Journal of Pathology, Genome Biology and Evolution, Molecular Ecology, Journal of Animal Ecology, Journal of Experimental Biology, Scientific Reports, Conservation Physiology, Journal of Insect Physiology, Insectes Sociaux, Insect Science

Date: 2026-10-28

Signature:

