

Griffin Kutler Dodd

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Education

Utrecht University 2025 – Present
MSc Bioinformatics and Biocomplexity

Utrecht University 2022 – 2025
Honours BSc Molecular and Biophysical Life Sciences, Complex Systems Minor

- GPA: 9.5/10 (*cum laude*)
- **Selected Coursework:** Bioinformatics & Dynamical Modeling, Genome Bioinformatics, Computational Biology, Machine Learning, Omics for the Life Sciences, Methods and Models in Complex Systems
- Teaching assistant and course developer for Host-Microbe Interactions
- Created course materials for Bioinformatics & Dynamical Modeling, Genome Bioinformatics

Davidson Academy / University of Nevada, Reno Dual Enrollment 2018 – 2022

- GPA: 4.0/4.0
- Dual enrollment in a local university during high school, taking courses in biology, chemistry, mathematics, and computer science

Research Experience

Research Internship, Dr. Artem Kaznatcheev Dec 2024 – Present
Utrecht University

- Studying the interplay between computational complexity and evolutionary dynamics using theoretical computer science

Bachelor's Thesis, Prof. Dr. Rob de Boer Nov 2024 – Jan 2025
Utrecht University

- Created a mathematical model to analyze the use of genetically modified virus particles (therapeutic interfering particles) for treating HIV-1 infection
- **Final grade:** 9.8/10

Research Internship, Dr. Can Keşmir Dec 2022 – Dec 2024
Utrecht University

- Created a pipeline to analyze *in silico* MHC epitope prediction data
- Compared viral peptide presentation between human, gorilla, and chimpanzee MHC molecules to analyze the influence of viral infections on the evolution of MHC genes

Student Researcher, Lombardi Lab Aug 2019 – Aug 2022
University of Nevada, Reno

- Studied the autoimmune component of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) using experimental biochemistry
- Used bioinformatics to analyze changes in the microbiome composition in patients with Alzheimer's disease

Publications

Immune Responses May Make HIV-1 Therapeutic Interfering Particles Less Effective

Griffin Kutler Dodd, Rob J. de Boer

Under review in *Journal of Theoretical Biology*:

***In silico* functional analysis of the human, chimpanzee, and gorilla MHC-A repertoires** Jan 2025

Griffin Kutler Dodd, Can Keşmir

Immunogenetics: [10.1007/s00251-024-01369-1](https://doi.org/10.1007/s00251-024-01369-1) [↗](#)

Mucosal Immunity and the Gut-Microbiota-Brain-Axis in Neuroimmune Disease

Nov 2022

Kathryn Sterling, *Griffin Kutler Dodd*, Shatha Alhamdi, Peter Asimenios, Ruben Dagda, Kenny de Meirleir, Dorothy Hudig, Vincent Lombardi

International Journal of Molecular Sciences: [10.3390/ijms232113328](https://doi.org/10.3390/ijms232113328) [↗](#)

Conference Presentations

The Mathematics of Molecular Thievery: Therapeutic Interfering Particles for Treating HIV-1 Infection

June 2025

NVTB Meeting 2025

Awards

NVTB Early-Career Presentation Award

June 2025

Early-career best presentation award at the 2025 annual meeting of the Dutch Society for Theoretical Biology (NVTB)

Skills

Programming: Python, R, Bash, Javascript

Modeling: ODE analysis, agent-based modeling, evolutionary game theory

Tools: Git, \LaTeX