

Ryan Dale, M.S., Ph.D., is a Biologist in the bioinformatics group in the Laboratory of Cellular and Developmental Biology (LCDB) in the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH). From experimental design to final manuscript submission, Dr. Dale is heavily involved in projects performed by the six principal investigators and 40 postdoctoral fellows in LCDB and is responsible for most of the laboratory's published bioinformatics analyses.



Dr. Dale supports the idea that math, statistics, and programming transfer easily across scientific disciplines. He is a certified Software Carpentry instructor and has taught Software and Data Carpentry workshops at the NIH to principal investigators, postdoctoral fellows, postbaccalaureate students, and other researchers. These multi-day workshops teach basic computational analysis skills (i.e. Bash, Python, R, git) to scientists to help them be productive in a data-centric world. Dr. Dale is a mentor for the NIH Data Science Mentorship program, has lectured as an instructor in the FAES Bio-Trac RNA-Seq program, and teaches bioinformatics analysis to postdoctoral fellows and students in the laboratory setting. Dr. Dale has also taught marine biology and intro biology as an adjunct professor at Florida Keys Community College and has developed and taught a Blender for a 3D printing workshop for the NIH Library training program.

Dr. Dale is a strong proponent of open-source software, reproducible research (which is surprisingly difficult in the field of bioinformatics), and empowering scientists with the computational skills they need to take advantage of the growing number of data sources. He has developed widely-used open-source genomics tools (i.e. pybedtools, gffutils, metaseq, hubward) that have been collectively downloaded more than 10,000 times. In 2015, Dr. Dale co-founded the Bioconda project, which streamlines the installation of bioinformatics software packages. The project now has over 2,500 packages available and 200 contributors worldwide. You can view his contributions to open-source software at <https://github.com/daler>. Dr. Dale received his graduate degrees at the University of Delaware in oceanography and marine biology.