|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Holly McQueary, PhD  |  | | --- | |  | | hmcqueary11@gmail.com | |  | | xxx-xxx-xxxx | |  | | https://www.linkedin.com/in/holly-mcqueary/ | | https://github.com/hollygene | | Objective Driven recent PhD graduate with strong computational biology skills. Highly experienced in NGS data analysis, genomics and transcriptomics. Talented in designing experiments, troubleshooting, and developing new protocols. 5+ years of experience managing a research laboratory and training new research assistants. Experienced in experimental design and protocol development. Highly motivated and a self-starter. Experience teaching undergraduate laboratory and discussion sections of genetics, biology, and evolutionary biology for 9 semesters. | | Skills R programming, Python, Linux/Unix, bash scripting, high-performance cluster computing, JMP, Bioconductor, Github, Geneious, Docker, Atom, Integrative Genomics Viewer, GATK, SAMtools, BWA, Tuxedo Suite, test-driven development, quantitative analysis, predictive models,  Time management, organization, inventory management, training of new personnel, teaching  animal models, cell culture, DNA extraction, RNA extraction, genomic library prep, flow cytometry, CRISPR, PCR, primer design, plasmid isolation, transformation, quantification of nucleic acids  Manuscript writing, data visualization, statistics, public speaking, science communication, experimental design | | Activites and involvement **Genetics Graduate Student Association**  *Travel Award Committee Chair* 2018  **Georgia Junior Science & Humanities Symposium**  *Paper Reader* 2016, 2018  **Clarke County Science and Engineering Fair**  *Science Fair Judge* 2016, 2018  **Clarke Middle School**  *Reptile Education Assistant* 2017  **2017 National Science Bowl**  *Timekeeper/Rules Judge* 2017  **Genetics Graduate Student Association**  *Social Chair* 2016 – 2017  **Genetics Graduate Student Association**  *Travel Award Reviewer* 2016  **Athens Science Observer**  *Blog Contributor* 2016  **American Society of Naturalists**  *Member* 2016 – present  **Society for the Study of Evolution**  *Member* 2016 – present  **Genetics Society of America**  *Member* 2018 – present | | Awards/Honors **Genetics Graduate Student Association Travel Award**  2019  Department of Genetics  **SEPEEG Travel Award**  2019  American Society of Naturalists  **Mary E. Case Award for**  **Excellence in Teaching**  2018  Department of Genetics  **Outstanding Teaching Assistant Award**  2018  Graduate School, University of  Georgia  **Robin Hightower Graduate Support Fund**  2018  Department of Genetics,  University of Georgia  **Graduate Travel Award for Submission of NSF GRFP Proposal**  2016, 2017  Graduate School, University of  Georgia  **Rosemary Grant Award**  2016  Society for the Study of Evolution | |  | |  | | --- | | Research ExperienceGraduate Research AssistantAugust 2015 – August 2020  * Supervise and train undergraduate research assistants in preparation of media, cleaning of glassware, maintenance of samples, and timeline of experiments * Organize and maintain records of experimental protocols * Update and add new experimental protocols as needed * Submit maintenance requests for lab equipment and organize timing of maintenance * Oversee maintaining inventory of freezers and lab supply rooms * Manage inventory and ordering of lab supplies * Oversee maintenance of lab supplies and cleaning of lab glassware * Maintain records of ordering lab supplies * Maintain records of safety training of laboratory personnel * Analyzed and curated short-read NGS genomic sequencing data to identify loss of heterozygosity in diploid mutation accumulation progenitor lines of *Saccharomyces cerevisiae* * Produced an experimental plan for future dissertation work in the form of an NSF grant and orally defended the research plan * Produced, curated, and analyzed short-read NGS whole-transcriptome datasets for 45 aneuploid and euploid yeast mutation accumulation lines * Designed and carried out a 200-day mutation accumulation experiment with 192 individual lines of *Saccharomyces paradoxus* in order to determine the effect of transposon load on mutation rate and spectrum * Troubleshooted both wet-lab experiments and data analysis pipelines * Developed novel protocol for engineering yeast strains to express GFP * Developed protocol for competitive fitness assays using flow cytometry * Trained and mentored 8 undergraduate students in laboratory techniques and bioinformatics approaches * Held yearly committee meetings with 5 members of the faculty in order to evaluate progress towards degree and implemented ways to improve performance * Presented biological research results and technical reports biannually to colleagues * Documented code using version control and kept records of laboratory experiments * Wrote articles of experiments done for publication in scientific journals  Undergraduate Research Assistant2013 - 2015  * Assisted with behavioral studies involving mice * Handled mice prior to experiments, and injected mice with sodium salicylate to induce tinnitus and examine the effects of treatment on the acoustic startle reflex * Placed mice on platforms inside boxes atop arduinos that transmitted the startle reflex of a mouse in response to a loud noise to the computer * Developed vocalization recordings from mouse vocalizations using Adobe Audition * Trained new undergraduate research assistants on basic laboratory techniques | | EducationDoctor of Philosophy (Ph.D.) in GeneticsUniversity of Georgia Dissertation Title: Genomic and Transcriptomic Impacts of Large- and Small-Scale Spontaneous Mutations in Yeasts Bachelor of Science (B.S.) in Cell and Molecular BiologyUniversity of South Florida Thesis: Ultrasonic Mouse Vocalizations Facilitate the Acoustic Startle Reflex in Male CBA/CaJs publications *In prep*  **McQueary, H**, M. Behringer, S. Demario, A. Canas, B. Johnson, A. Tsfoni, J. Chamberlin, D. Hall. Effects of spontaneous aneuploidy on gene expression in yeast mutation accumulation lines | | Selected Presentations **Talk Titled:** “*Effects of Ploidy and Transposon Load on Mutation Rate in* Saccharomyces paradoxus"  GENE 8880, Department of Genetics, University of Georgia, 2019  **Talk Titled:** “*Effects of Differing Transposon Load on Mutation Rate in* Saccharomyces paradoxus”  Southestern Population Ecology and Evolutionary Genetics  Meeting, Clemson Outdoor Lab, SC, 2019  **Talk Titled:** “*Gene expression in aneuploid yeast*”  GENE 8880, Department of Genetics, University of Georgia, 2018  **Poster Titled:** *“Effects on Gene Expression of Spontaneous Aneuploidy in Yeast Mutation Accumulation Lines”*  Southestern Population Ecology and Evolutionary Genetics  Meeting, Mountain Lake Biological Station, VA, 2018  **Talk Titled:** “*Evolution of Dosage Compensation in* Saccharomyces cerevisiae”  3MT Competition, University of Georgia, Athens, GA, 2016  **Poster Titled:** “*Rates and Biases of Mitotic Gene Conversion in* Saccharomyces cerevisiae”  Evolution, Austin, TX, 2016 | | Teaching Experience |   **Graduate Teaching Assistant,** *Evolutionary Biology* 2019   * Lead discussion sections once per week and hold office hours * Upload quizzes and exams for internet-based testing   **Graduate Teaching Assistant,** *Introductory Genetics.*  2017 – 2018   * Lead 2 discussion sections per week for 45 students, and hold office hours during the week * Grade and proctor exams during the semester for 300 students   **Graduate Teaching Assistant,** *Biology I for Non-Majors* 2017   * Coordinate assignments and material for an online course * Grade assignments and give feedback   **Graduate Laboratory Assistant,** *Biology I for Non-Majors* 2016 – 2017   * Lead 3 laboratory classes per week for 20 students, assist students during labs * Grade assignments and hold office hours  |  | | --- | | Professional Development |   **7th Annual Online Career Conference**  Beyond the Professoriate, 2020  **Georgia Bio Career Symposium**  *Georgia Bio, 2019*  **Life Sciences Industry Day 2019**  *UGA Graduate School xPD (Experiential Professional Development)*  **Extern**  UGA Startup Extern Program, Innovation Gateway, 2019  Participated in market research for a company providing services for recycling education.  **Industry Career Exploration Workshop**  *UGA Graduate School xPD (Experiential Professional Development), 2018* |