

Lucas Ralls

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SUMMARY

Dynamic, versatile, and detail-oriented professional possessing a strong academic background, including coursework in advanced biology, chemistry, and data analysis. Seeking opportunity to apply academic knowledge and research experience in a lab role, with hopes of applying it to scientific discovery and innovation in the medical field.

Laboratory Skills

CRISPR • PCR • Immunofluorescence • Gel electrophoresis • Gram staining • ELISA • General microscopy

Computational Proficiency

Python • R • MATLAB • Stata • QGIS • Microsoft Office

Other Competencies

Laboratory operations • Research and analysis • Follow SOPs • Project management • Troubleshooting and problem solving • Leadership capabilities • Teamwork and collaboration • Interpersonal skills and conflict resolution • Excellent communication skills

EDUCATION

University of North Carolina at Chapel Hill

Graduating in May 2024

- **Bachelor of Science in Biology with a Minor in Data Science**
- **Bachelor of Arts in Political Science**
- **Dean's List**

Relevant Coursework: Personalized Quantitative Genetics, Medical Microbiology, Advanced Cell Biology, Analytical Chemistry, Organic Chemistry, Inorganic Chemistry, Developmental Biology, Molecular Biology and Genetics, Foundations of Statistics and Data Science, Calculus, Financial Accounting

WORK EXPERIENCE

University of North Carolina at Chapel Hill - Good Lab

Undergraduate Lab Technician

February 2024-Present

- Supported Necrotizing Enterocolitis (NEC) Research: Established an RNA sequencing pipeline to analyze gene expression in NEC mouse model ileum tissue, contributing to understanding the mechanisms of intestinal development and the mucosal immune response in NEC, a gut disease affecting premature infants
- Enhanced Laboratory Proficiency: Acquired and refined advanced laboratory skills, including animal handling, feeding, and care of newborn mice in NEC studies, as well as utilized mammalian cell culture techniques, RNA extraction, cDNA synthesis, and qPCR analysis to measure expression of various target genes

IQVIA Real World Solutions

Local Site ID Intern for North American Division of Global Site Activation

May 2022 – February 2023

- Worked to match 25+ clinical sites for 20+ studies and 10 pharmaceutical companies
- Served as first line of communication for 250+ clinical sites as they began clinical studies
- Created, delivered, and filed 700+ regulatory and start-up documents to accommodate 500+ private investigators to late-stage pharmaceutical clinical studies

Moondance Adventures

South Africa/Mozambique Trip Leader

May – August 2023

- Led 34 high school students on 3-part adventure travel through South Africa and Mozambique; trip consisted of land/ocean safaris and conservation projects with local ecologists on Mabula Private Game Reserve, as well as community beautification projects with Little Mongena Game Lodge
- Coordinated with local veterinarians and ecologists to dart, collar, and tag white rhinos with goal of increasing southern white rhino population; conducted tasks, including, but not limited to, administering supplemental oxygen and steroidal muscle relaxants, notching ears, and collecting fecal samples of multiple white rhinos under anesthesia in the wild
- Delegated and coordinated beautification projects of local homes, daycares, and elderly community centers over the course of summer, in addition to assisting build new home for family of 7 during Nelson Mandela's Day of Service in Hammanskraal, South Africa

Jackson Hole Fine Dining Restaurant Group

Seasonal Staff

February – August 2021

- Provided personalized comprehensive experience in luxury Jackson Hole restaurants Il Osteria Villagio and Rendezvous Bistro for 175+ guests nightly
- Assisted with closing-night festivities for 250+ patrons for Rendezvous Bistro after 20-year run
- Cultivated welcoming room service experience for Hotel Terra and Caldera House
- Spearheaded food and beverage sales at JHMR Commons Tent centered in Teton Village

CURRENT ORGANIZATIONS

ASA DataFest - Duke University

UNC Team Member

- Participant in team-based data analysis competition sponsored by the American Statistical Association (ASA), intended to find and share meaning in a complex, randomized, real-world, surprise data set
- Included intensive 48-hours of data wrangling, analysis, and presentation design focused on critical thinking and collaboration

Carolina Scientific

Student Writer/Copy Editor

- Writer and editor for UNC's Online Science Magazine, which highlights groundbreaking UNC research and engages students in a wide array of science-related news

Science Days

Mentor

- Lead science experiments for local elementary and middle schoolers via UNC student-led initiative dedicated to improving disparities in STEM education; efforts have reached hundreds of students across four schools and various outreach programs

Undergraduate Law Association at Carolina

Student Writer

- Writer selected for the inaugural issue of UNC's student-led undergraduate law review, highlighting and analyzing overlooked contemporary law issues

PREVIOUS VOLUNTEER WORK

Global Leadership Adventures

Bali Global Health Initiative

- Administered primary medical checkups for 25+ Balinese households
- Designed and spearheaded hygienic health education workshops for grade school students
- Observed birth practices aimed at reducing maternal and child mortality at Bumi Sehat birth clinic
- Explored modern medicine and indigenous practices in the developing society of rural, agrarian Bali

Duke Cancer Center Raleigh

Junior Volunteer Duke Raleigh Hospital Oncology Center

- Supported hospital staff and patients through lunch deliveries, cleaning, and stocking supplies