



## Molecular Diagnostics Laboratory – Summer Internship @ FBRI

**A 5-weeks, paid (\$2,000), hands-on summer internship opportunity** is opened to highly motivated individuals interested in gaining experience in molecular diagnostic tools relevant to SARS-CoV-2 detection and diagnostics. Interns will work in a biomedical laboratory level 2 environment and learn how to collect clinical specimens, process samples, data logging, purification of viral RNA, RT-qPCR, and data collection, analysis, and reporting. As part of this project, interns will use state-of-the-art equipment including multiplex instrumentation for PCR and ELISA testing and robotic platforms for liquid handling.



**Additional internship content (selected topics):** Overview of FDA’s regulatory requirements for Emergency Use Authorization, overview of testing for SARS-CoV-2 (CDC), CMS/CLIA laboratory guidance for SARS-CoV-2 testing, rapid tests and public health responses, interpreting diagnostic tests for SARS-CoV-2, types of assays (serological, molecular, antigen), clinical performance of tests, concepts on sensitivity, specificity, limit of detection, amplification and sequence analysis, bioinformatic tools for identification of virus variants.

**Where:** Located in Roanoke, the Molecular Diagnostics Laboratory – Fralin Biomedical Research Institute (MDL-FBRI), <https://healthcenter.vt.edu/virginia-tech-schiffert-health-center-covid-19-lab-.html>, is housed in the newest facility with ~9,000 sq. ft. fully dedicated to testing and additional space and instrumentation for training.

**When: Option A:** May 24<sup>th</sup> – June 25<sup>th</sup>, 2021, 8 AM to 11 AM, M/Th

**Option B:** June 28<sup>th</sup> – July 30<sup>th</sup>, 2021, 1 PM to 4PM, M/Th

**Qualifications:** Junior-Senior major in life sciences (e.g., Biology, Biochemistry, Nanomedicine or related area) or laboratory technologists (or equivalent) with proven laboratory experience, knowledge and understanding of laboratory operations, excellent communication and organization skills, must be detail oriented, and capable of working independently and as part of a team. Must pass EHS required training.

**Application deadline: March 30<sup>th</sup>.** Please upload the following material here: <http://fralinbiomed.info/MDLapplication> cover letter explaining why you are interested in this internship and career goals, updated cv/resume, and if enrolled in classes, copy of unofficial transcript.

**Instructor:** Dr. Carla Finkelstein will lead guided mentoring for the program (<https://fbri.vtc.vt.edu/people-directory/primary-faculty/finkelstein.html>)

*This opportunity is funded by a GoVA Grant Program to MDL-FBRI.*