

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.

2. Employee's Name (Last, First, M.I.)	8. Department/Agency MDHHS-COM HEALTH CENTRAL OFF
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission) Bureau of Laboratories
4. Civil Service Position Code Description Laboratory Scientist-E	10. Division Infectious Disease
5. Working Title (What the agency calls the position) Laboratory Scientist - E	11. Section Virology Section
6. Name and Position Code Description of Direct Supervisor JACOB, KRISTIN; LABORATORY SCIENTIST MANAGER-3	12. Unit
7. Name and Position Code Description of Second Level Supervisor MARGULIEUX, KATIE R; STATE ADMINISTRATIVE MANAGER-1	13. Work Location (City and Address)/Hours of Work 3350 N. Martin Luther King Jr., Lansing, MI. / 8-5

14. General Summary of Function/Purpose of Position

This position has primary responsibility of performing a full range of molecular microbiological assignments in the Virology Section. The general function of this position is to process and perform diagnostic testing of human and animal specimens for the presence of diseases of public health concern. Testing assays include, but are not limited to, RT-PCR to detect Influenza, COVID-19, Measles, Mumps, Norovirus, and HCV; RT-PCR and Next Generation Sequencing of Norovirus and Hepatitis A Virus; and other genotyping assays. Rabies testing is a requirement of this position, including participation in weekend on-call duties on a rotational basis. This position uses considerable independent judgment to assure the reliability of assays performed and is aware of pre-analytical, analytical, and post-analytical errors and take corrective measures when required, completes documentation needed to maintain CAP compliance, and maintains competencies for all performed testing.

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1

General Summary:

Percentage: 68

Test a variety of specimens for infectious agents by utilizing both automated and manual molecular diagnostic methods. This includes high complexity molecular testing and analysis activities related to the diagnosis of viral infections relevant to public health interests.

Individual tasks related to the duty:

- Prepare a variety of human specimens (e.g. blood, urine, NP swabs, sputum, CSF) for diagnostic or surveillance analysis by following established Bureau of Laboratories (BOL) procedures.
- Perform test protocols and analysis by following written protocols.
- Perform PCR, RT-PCR, and sequencing procedures according to BOL written protocols.
- Perform testing for surveillance programs such as but not limited to mosquito arboviral RT-PCR testing.
- Operate equipment used in the unit, including, but not limited to, Qiagen EZ1 and EZ2, Qiagen KingFisher Apex, ABI 7500 Fast Dx PRISM, QuantStudio 5 DX, GeneXpert, BioFire FilmArray, Tecan Fluent, analytical balance, automatic readers, centrifuges, water baths, incubators, fluorescent microscope, pH meter, autoclave, automatic plate washers, incubators, Type II water system, and biological safety cabinets.
- Enter patient information and test date into StarLIMS.
- Document test data using worksheets.
- Review test QC results daily and notify the Unit Manager when the results are unacceptable.
- Perform new reagent lots verifications and document results.
- Maintain record logs (e.g., equipment logs, external control logs).
- Notify the Unit Manager with any testing issues and assist in troubleshooting efforts.

Duty 2

General Summary:

Percentage: 10

Work with Senior Microbiologists and the Unit Manager with the verification/validation and implementation of new molecular diagnostic assays for the identification and characterization of viral pathogens of public health importance. The employee trains new employees and student interns on established diagnostic techniques performed by the Virology Section. This position engages with internal and external partners to ship and receive specimens and participate in training opportunities.

Individual tasks related to the duty:

- Participate in research and evaluation of new instrumentation, test methods, and test procedures.
- Participate in assay verification/validations of new diagnostic assays.
- Write and review test procedures following QA and CAP guidelines in consultation with senior microbiologists and Unit Manager.
- Train new employees or student interns on established molecular testing methods.
- Coordinate with the BOL DASH Unit to ship and receive specimens with state and external partners such as the CDC and other state public health laboratories.
- Engage in training opportunities both internal and external.

Duty 3

General Summary:

Percentage: 10

Completes tasks and maintains records for preventative maintenance, quality assurance, and quality control purposes. Enters, maintains, validates, communicates, analyzes, and reports patient testing data utilizing email, telephone, and the StarLIMS laboratory information system.

Individual tasks related to the duty:

- Assist in the performance of regularly scheduled preventative maintenance tasks on laboratory equipment.
- Perform required quality control/quality assessment measures specific to the test being performed.
- Produce quality assured testing reagents for specified diagnostic testing purposes to be used within the Virology Section.
- Prints and fills in monthly preventative maintenance forms.
- Generate monthly quality control reports as needed.
- Participate in proficiency testing as assigned.
- Maintain competency assessments on all testing performed.
- Maintain records of reagent and media production.
- Perform, document, and file quality control testing.
- Monitor, maintain, and analyze quality assurance data in consultation with senior scientists.
- Participate in continuing education activities.
- Communicate preliminary / final test results to other laboratory units and managers.
- Document communications using the StarLIMS communication log when needed.

Duty 4

General Summary:

Percentage: 5

Completes rabies virus testing by organizing, preparing, and analyzing specimens. Participates in regular duty hours and rotational weekend rabies on-call responsibilities. These responsibilities include performing necropsy of suspect animals, preparation of slides and performance of DFA to identify animals infected with the rabies virus.

Individual tasks related to the duty:

- Process rabies specimens received in the laboratory.
- Perform necropsies on domestic animals and wildlife submitted for rabies testing following written BOL procedures.
- Prepare impression smears of appropriate brain areas.
- Fix impression smears with acetone.
- Perform fluorescent antibody staining of fixed smears.
- Read smears and compare to positive and negative controls.
- Prepare any required reagents, controls, and aliquots to ensure uninterrupted testing.
- Decontaminate work area and equipment and dispose of all hazardous waste as required.
- Record results.
- Enter results into LIS computer system.
- Performs molecular rabies testing as needed.

Duty 5

General Summary:

Percentage: 5

Performs related work duties as assigned.

Individual tasks related to the duty:

- Perform miscellaneous assignments or duties as directed by management.
- Assist in the maintenance of inventory, supplies, and reagents for the unit.
- Autoclave and/or dispose of biohazardous material generated by the section as needed.
- Organize specimens and reagents located in freezers, refrigerators, and cabinets.
- Maintain a clean, safe, and efficient worksite by disposing of biohazardous material generated by the section as needed, decontaminating workspaces and instruments, and returning items to their original storage site.
- Attend/complete mandatory training required by various regulatory agencies or BOL.

Duty 6

General Summary:

Percentage: 2

This position functions as a member of the Michigan Bioterrorism Public Health Response Team as needed.

Individual tasks related to the duty:

- Respond as necessary to a possible bioterrorism incident or event, to provide laboratory testing to assist health care professionals, law enforcement investigation, and public health control efforts.
- In preparation for this duty assignment, receive immunizations such as but not limited to the smallpox vaccination, or other agents as determined necessary by the department.
- Maintain competency in laboratory procedures to test for and identify the agents of bioterrorism.
- Understand that possible occupational exposure to smallpox virus, other bioterror agents, and toxins could occur.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

- All work that pertains to the operation of laboratory tests including timing, reagent volume, and evaluation of results.
- Determine when to order supplies or make new reagents required for uninterrupted performance of assigned tasks.
- Determine the acceptability and accuracy of test results.
- Determining when to re-test specimens due to quality control failures.
- Perform instrument preventative maintenance as required.
- Perform testing, report and validate patient test results provided quality control parameters are acceptable and results are not highly unusual.

17. Describe the types of decisions that require the supervisor's review.

- Subjective decisions not addressed within laboratory written procedures.
- Approval of written reports.
- Approval of equipment requests and ordering of expensive reagents.
- Prioritization of work assignments.
- Supervisory approval required for submission of specimens that require approval prior to testing.
- Any situation or condition outside the normal daily routine.
- Non-routine decisions that may require policy interpretation or that impact on public perception of departmental policy.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Physical Activities: Work assignments are completed either by standing or sitting at the laboratory bench top or biological safety cabinet. Work requires extensive, repetitive hand manipulations such as holding small tubes or pipetting, sitting at a microscope for long periods of time, holding a bone saw, scalpels, and other instruments. A small portion of time is required to carry supplies from the storage unit to the worksite. Frequent computer activity is necessary to generate written, electronic, and oral reports needed to document the work being performed in the section. Transportation of hazardous chemicals and other waste for proper disposal requiring lifting and bending (rarely). Laboratory work involves frequent contact with potentially harmful caustic chemicals (acids and bases), carcinogens (e.g., ethidium bromide, phenol), and neurotoxins (acrylamide).

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

- | | |
|---|--|
| <input type="checkbox"/> Complete and sign service ratings. | <input type="checkbox"/> Assign work. |
| <input type="checkbox"/> Provide formal written counseling. | <input type="checkbox"/> Approve work. |
| <input type="checkbox"/> Approve leave requests. | <input type="checkbox"/> Review work. |
| <input type="checkbox"/> Approve time and attendance. | <input type="checkbox"/> Provide guidance on work methods. |
| <input type="checkbox"/> Orally reprimand. | <input type="checkbox"/> Train employees in the work. |

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes

23. What are the essential functions of this position?

The position performs a full range of molecular microbiological assignments in the Virology Section. The general function of this position is to process and perform diagnostic testing of human and animal specimens for the presence of diseases of public health concern.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

New position

25. What is the function of the work area and how does this position fit into that function?

The Virology Section performs public health microbiological testing leading to the identification of infectious diseases due to viruses or other pathogens that are of public health importance. This position performs both clinical testing and surveillance testing. Clinical testing is performed for disease diagnosis under the care of the patient's primary caregiver. All clinical testing must comply with regulatory standards under CAP. Surveillance testing is performed to investigate disease prevalence in Michigan and monitor for disease outbreaks. Results of surveillance testing are performed in collaboration with state epidemiologists who perform assessments of the results. The above duties assigned are essential to the continuous operation of the laboratory and timely reporting of results for clinical and public health purposes.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Possession of a bachelor's degree in chemistry, biochemistry, biology, microbiology, forensic science, or a related pure or applied science.

EXPERIENCE:

Laboratory Scientist 9

No specific type or amount is required.

Laboratory Scientist 10

One year of professional experience carrying out a variety of tests, analyses, or production and research activities involving chemical, biochemical and biological samples, specimens, and products equivalent to a Laboratory Scientist 9.

Laboratory Scientist P11

Two years of professional experience carrying out a variety of tests, analyses, or production and research activities involving chemical, biochemical and biological samples, specimens, and products equivalent to a Laboratory Scientist, including one year equivalent to a Laboratory Scientist 10.

KNOWLEDGE, SKILLS, AND ABILITIES:

As listed on the Civil Service job specification. In addition:

- Thorough knowledge of methods and techniques used in clinical high complexity laboratory diagnostics.
- Ability to perform laboratory procedures, tests and analyses accurately in clinical laboratory medicine.
- Ability to work well with others in a team setting, and display maturity, honesty and good attendance.
- Ability to communicate well in English both orally and in writing.

The MDHHS mission is to provide opportunities, services, and programs that promote a healthy, safe, and stable environment for residents to be self-sufficient. We are committed to ensuring a diverse workforce and a work environment whereby all employees are treated with dignity, respect and fairness.

CERTIFICATES, LICENSES, REGISTRATIONS:

None

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

N/A

I certify that the entries on these pages are accurate and complete.

CANDACE EWING

6/22/2026

Appointing Authority

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date