SENIOR LABORATORY TECHNICIAN (II-MEDICAL TECHNOLOGY)

DISTINGUISHING FEATURES OF THE CLASS: Under supervision of a higher level technician, incumbents of this class perform complex and advanced tests in a clinical laboratory in one or more fields, including: hematology, immunology, pathology, microbiology, biochemistry, histology, bacteriology, virology, cytogenetics, or related field as assigned. Work is performed in coordination with and responsive to other areas of the hospital or Department of Labs and Research, including referring physicians, nurses, and other health professionals. Training and instruction of junior positions and resident interns is a regular responsibility of this position. Does related work as required.

EXAMPLES OF WORK: (Illustrative Only)

General:

Receives, records and accesses clinical specimens;

Performs pre-operative services, including blood transfusion services and hematology tests;

Prepares specimens for analyses;

Performs urinalyses and stool tests;

Prepares standards and reagents;

Prepares reports, records test results, reports findings, and compiles related information as required;

Maintains and prepares adequate supplies of reagents, chemicals, stains, buffers, etc., and orders supplies as needed;

Performs quality control tests on test reagents, organisms, specimens and equipment;

Enters and retrieves lab data and compiles reports using an automated system and equipment;

Trains, instructs and assists subordinate staff in laboratory procedures;

Ensures compliance to standard laboratory practices in maintenance of general cleanliness and safety conditions in the laboratory;

May participate in the New York State Department of Health Proficiency Testing Program in the assigned discipline;

Monitors, tests and maintains laboratory equipment in proper running condition, arranging for maintenance and repair as necessary;

Uses computer applications or other automated systems such as spreadsheets, word processing, calendar, e-mail and database software in performing work assignments;

EXAMPLES OF WORK: (Illustrative Only) (con't)

General:

May perform other incidental tasks, as needed.

Hematology:

Performs complete blood counts, e.g., red and white cell counts, differential counts, hemoglobin determinations, hemacrit tests, platelet counts, peripheral smears, etc.

Pathology:

Prepares various types of specialized sections and stains in histopathology and cytopathology including, but not limited to, preparation of paraffin sections, epon and araldite sections, and frozen sections, following appropriate fixation and processing of tissue blocks;

Prepares cytological slides by routine process, cytospin, Millipore filter and Saccomono sputum techniques; stains of slide preparations by classical histologic and cytological techniques, using organic dyes and heavy metal precipitations; by histochemical and cytochemical techniques, including enzyme histochemical techniques used in diagnosis of neuromuscular disease; and by immunohistochemical methods (direct and indirect immunoperoxidase, PAP, ABC-peroxidase, and alkaline phosphatase equivalents);

Selects appropriate control tissue specimens to perform in parallel with all the above methods.

Microbiology:

Prepares buffers, stains, media and other reagents required in lab;

Processes clinical specimens for inoculation in different media;

Inoculates specimens into media using aseptic techniques;

Prepares and examines smears of slides for identification of microorganisms;

Interprets results of smears and keeps records of data;

Prepares tissue culture media and performs quality control checks on prepared media;

Performs immunofluorescence and enzyme linked immunosorbent assays for detection and identification of viruses and chlamydia;

EXAMPLES OF WORK: (Cont'd)

Biochemistry:

Performs clinical analyses on blood specimens, gastric contents, spinal fluids, ascitic fluids, urines, stools, pancreatic juices, bladder and kidney calculi;

Prepares microscopic slides involving tissue processing, cutting of paraffin sections, routine and special staining and processing of frozen sections;

Freezes tissue with nitrogen-isopentane, cyostat sectioning and performs other necessary fixation techniques for epoxy-resin histology;

Supervises the proper filing of histologic slides and blocks;

Processes specimens for epoxy-resin histology and light microscopy;

Maintains the upkeep of the laboratory in accordance with ASCP guidelines for surgical pathology services;

Investigates new histological and histochemical procedures through reading of professional literature and through the testing of new methods.

Cytogenetics:

Processes cell cultures for cytogenetic analyses;

Performs microscopic analyses of cell cultures including appropriate staining and photography to document cytogenetic diagnosis;

Functions as resource person to genetic counselors by clarifying technical data and test results;

Performs biomedical procedures, in conjunction with or to augment cytogenetic analyses.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Thorough knowledge of modern laboratory techniques and procedures; good knowledge of the branch of science assigned as indicated by the area of specialization; good knowledge of the basic principles of the biological and chemical sciences; good skills in the operation of standard laboratory devices, instrumentation and equipment; ability to understand, follow and convey technical instruction; ability to communicate effectively, both orally and in writing; ability to supervise; ability to establish and maintain effective working relationships; ability to effectively use computer applications such as spreadsheets, word processing, e-mail and database software; ability to read, write, speak, understand and communicate in English sufficiently to perform the essential tasks of the position; accuracy; thoroughness; dependability; alertness; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: High school or equivalency diploma and at time of permanent appointment, must posses license and current registration issued by the New York State Department of Education as a Clinical Laboratory Technologist, or at time of temporary appointment, must possess a limited permit issued by the New York State Department of Education as a Clinical Laboratory Technologist, and either: (a) a Bachelor's Degree* in Medical Technology and one year of clinical laboratory experience in an approved medical, hospital or public health laboratory; or (b) a Bachelor's Degree* in one of the chemical, physical or biological sciences and two years of experience and/or training as stated in (a); or (c) completion of three years of study (90 credits*) in a college or university and successful completion of a course of training of at least 12 months in a school of Medical Technology approved by the Council on Medical Education of the American Medical Association, and one year of experience as described in (a); or (d) any combination of academic study and training and/or experience outlined in Section 58-1.5 of Title 10 of the New York State Public Health Law, plus one additional year of experience as described in (a).

*SPECIAL NOTE: Education beyond the secondary level must be from and institution recognized or accredited by the Board of Regents of the New York State Education Department as a post-secondary, degree-granting institution.

NOTE: Unless otherwise noted, only experience gained after attaining the minimum education level indicated in the minimum qualifications will be considered in evaluating experience.