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**FELLOWSHIP PROGRAM
of the
MIAMI-DADE COUNTY MEDICAL EXAMINER DEPARTMENT**

INTRODUCTION

The Miami-Dade County Medical Examiner Department is located across the street from the Jackson Memorial Hospital/Ryder Trauma Center and adjacent to the Miami-Dade Community College Medical Campus. About two blocks south of the Medical Examiner Department is the medical library of the University of Miami Leonard M. Miller School of Medicine. The professional staff of the Medical Examiner Department has faculty appointments at the medical school and participates in freshmen class instruction of both general and forensic pathology. Access to the Miami-Dade Police Crime Laboratory (recognized as one of the most complete in North America) provides another source of mutual consultation and teaching experience.

The population base served by the Medical Examiner Department is approximately 2.5 million people. The Department investigates 13,000 deaths annually and approximately 2,200 medicolegal autopsies are performed each year. Approximately one half of these are natural deaths. Our caseload provides a large data base for the studies of the pathophysiology of disease processes associated with sudden death. Accidents comprise nearly 850 of the autopsies, followed by about 200 suicide deaths and 250 homicides.

Particular emphasis is placed upon the correlation of scene observations and circumstances of death with autopsy findings. Medical Examiners respond to more than 350 scenes per year.

Fellow Candidates must be a Diplomate of the National Board of Medical Examiners or hold an ECFMG certification and have successfully completed an ACGME (or equivalent) accredited residency in anatomic pathology. Fellowship positions are open to U.S. Citizens and permanent residents.

PHILOSOPHY, PURPOSE, AND GOALS

The mission of the Miami-Dade County Medical Examiner Department is to provide accurate, timely, dignified, compassionate and professional death investigative services for the citizens of Miami-Dade County, together with education, consultation and research for local and national medical, legal, academic and law enforcement communities. These investigations form a large and current database for statistical and research purposes, often in collaboration with investigators from Jackson Memorial Hospital, the Ryder Trauma Center and a number of local colleges and universities. This Fellowship Program is therefore designed to furnish an already trained pathologist the fundamental philosophy, skills, and knowledge needed to conduct proper medicolegal death investigations.

The pathologist will appreciate that the autopsy is a laboratory exercise or a tool and is thus only a part of the entire investigation. The year focuses on the data acquisition and documentation processes from medical and non-medical sources. Final opinions will depend upon cooperation between investigative agencies, correlation of derived data, and awareness of the resources and limitations of all agencies. Particular emphasis is placed on the correlation of scene observations with autopsy and toxicologic findings. Thus the program will enable the graduate to carry out efficient investigations with expediency, accuracy and precision by the appropriate cognitive use of correlative interpretations and associated interagency cooperation.

COURSE OF STUDY

The accredited Fellowship is 12 months of study. The initial week is one of general governmental orientation, and introduction to the Medical Examiner Department procedures and staff.

NOTE: County regulations require that a urine sample of a prospective employee be free of illicit drugs prior to full hire. This applies to all employees regardless of job category. The urine drug test is considered a part of the physical examination which must be completed prior to the first full day of scheduled employment. In addition to a physical examination, a background check must also be performed. These are scheduled by our department's personnel representative within 30 days of employment.

Fellows will receive lectures regarding the following topics:

Corpus Delicti, Investigative Principles, Death Certification, Natural Deaths, Electrocution, Water, Fire, Explosion, Blunt Trauma, Cutting/Stabbing, Sexual Battery, Postmortem Changes, Skeletal Appraisal, Poisons, Forensic Odontology, Firearms, Child Death and Homicide, Motor Vehicles, Aircraft, Disaster Management, Asphyxia, Drugs, Suicides, Crime Laboratory Procedures, and Firearms Training.

For the first 6-8 weeks, the Fellow is assigned to autopsy and scene investigation duties along with a designated staff member. A series of lectures and demonstrations by the professional staff also commences at this time.

Each Fellow is provided with a copy of: Basic Competencies in Forensic Pathology, prepared by the College of American Pathologists Forensic Pathology Committee in conjunction with the National Association of Medical Examiners. The following are available for loan through the Program Coordinator: Forensic Pathology Principles and Practice by David Dolinak, Evan Matshes, and Emma Lew, Death Investigation in America: Coroners, Medical Examiners, and the Pursuit of Medical Certainty by Jeffrey M. Jentzen, Baselt's Disposition of Toxic Drugs and Chemicals in Man, Pathology of Drug Abuse by Steven Karch and Olaf Drummer, DiMaio's Gunshot Wounds, DiMaio and DiMaio's Forensic Pathology, the AFIP Histopathology Atlas for the Sudden Infant Death Syndrome, Human and Nonhuman Bone Identification by Diane L. France, and Practical Forensic Pathology by Wetli, Mittleman and Rao. These books constitute an excellent core for a forensic pathology library.

In addition, each Fellow will be loaned a Nikon SLR (D7000) digital camera with flash attachment. Photographic skills should be proficient to the point that both daylight and flash photography are reliable. Skylight and polarizing filters are provided photographic accessories. Our Forensic Imaging Bureau staff will assist in improvement of photographic skills.

Orientation visits to the Miami-Dade Crime Laboratory have the following objectives:

1. Proper techniques of collection, preservation, and transmittal of evidence.
2. Avoidance of evidence contamination.
3. Rudiments of the techniques utilized in forensic serology and DNA, fingerprint identification, chemistry, firearms, questioned documents, forensic art, and fibers.

Orientation by an Assistant State Attorney and a Public Defender are expected to teach the basic legal components of homicide cases. The practical aspects of legal procedures (depositions, courtroom demeanor, witness exclusionary rule, etc.), and the meanings of various terms, are given at this time. Most importantly, Fellows will learn what the prosecuting and the defense attorneys expect from the medical examiner. Subsequent practical experience will reinforce the concept of neutral witness testimony to assist all parties at legal interest.

Toxicology laboratory orientation includes an appreciation of the services offered and demonstration of economical, pragmatic laboratory use. The Fellow will become familiar with toxicological evidence procedures, and learn the fundamentals of the common methods used to identify drugs, volatiles, and other poisons. Most importantly, the Fellow will develop a sense of when to consider poisoning and drug overdose by recognizing the circumstances and societal subsets at risk.

DAILY WORK SCHEDULE

When the Fellow is assigned to a duty roster for scene call and autopsies, the roster is shared with the permanent medical examiner staff. Scene call is for 24 hours, commencing at 7:00 a.m. Generally, the schedule is such that the Fellow will be assigned for autopsies and scene call once or twice per week and one weekend per month. A staff pathologist provides the Fellow with backup help or advice for scene call, and is assigned for autopsies at the same time as the Fellow.

After the first 6-8 weeks when Fellows are accompanied to scenes by a staff medical examiner, the scene call schedule will then rotate between Fellows and staff on a daily basis. In other words, when a staff medical examiner is on scene call, the Fellow will be the backup and when the Fellow is the primary on-call person, a staff medical examiner will be the backup.

During the year, the Fellow will perform at least 200 autopsies (on all manners of death, including homicides) and conduct approximately 35 scene investigations. Routine scene investigation is required for all homicides and high profile motor vehicle fatalities when the body is at the scene, industrial accidents, and electrocutions. Attending scenes is a requirement. Fellows must have a valid driver's license and be able to drive themselves to scenes throughout Miami-Dade County. Vehicles are provided.

Depending on events, circumstances, and police requests, other cases may also require scene investigation. Fellow evaluations are conducted quarterly by attending staff and the program director on an individual basis.

MEETINGS AND CONSULTATIONS

A case review conference is held at the beginning and end of each weekday, and on two afternoons during the week. Attendance is mandatory for all available medical examiners and Fellows. All cases are reviewed where a Fellow has visited the scene. Problem cases, cases of interest, and pending cases are also presented. The Fellow may also research a current case or review a forensic topic.

Specialized consultations are available: neuropathologist (reviews cases twice each month and is always available for in-house consultation); cardiac pathologist (provides consultations with Fellows and staff on a regular basis); anthropologist (reviews skeletal remains at least four times per year and more often when necessary); forensic odontologist (on constant call and interacts with medical examiners on a regular basis).

SEMINARS

Three times a year the Medical Examiner Department conducts a week-long seminar on medicolegal death investigation. All Fellows attend during their orientation. Specialized crime laboratory sponsored seminars are also open to the Fellows. Although funding is usually not available for a national meeting outside of Florida, educational leave will be granted (schedules permitting) for the Fellow should they wish to attend at their own expense. Fellows may be sponsored, at the discretion of the Department Director, to attend the American Academy of Forensic Sciences (AAFS) Conference or the National Association of Medical Examiners (NAME) Conference, if they are presenting a paper or poster. Leave can be arranged to take the American Board of Pathology examination.

Specialized lectures in specific topics are available to the Fellows and staff during the year on an ad hoc basis (topics have included radiology, anthropology, funeral practice, religion and ethics, and odontology). During the year, didactic information is available on matters of governmental administration (personnel management, budgeting, and the role of the Medical Examiner Department in local government).

RESEARCH

The Fellow is not required to conduct research projects, and is not required to publish papers, although these activities are encouraged. The medical examiner staff will readily assist the Fellow in any such endeavor. Publications do not mandate a staff pathologist as a coauthor. Ongoing research with departments of the medical school is common practice.

FACILITIES

The department is housed in a modern three-building complex with adequate parking for all staff. It is designed to afford spacious and beautiful surroundings. Each Fellow's office is 13x14 feet with an 11x14 foot work area shared between offices. Each Fellow has a desktop personal computer with complete office database and internet access. Microscopes are provided in the shared work areas. The toxicology laboratory has 20,000 square feet. Three autopsy rooms are fully equipped, one being in a separate building for decomposed and infectious cases and anthropological study. The autopsy work stations are large, well lit, and designed for ease of use and cleanliness. The air handling systems of the entire complex are the ultimate to assure precipitation of odor-causing molecules and filterable dusts.

The Records Bureau contains two research record rooms for study of more than five decades of records. The Forensic Imaging Bureau includes an indoor high speed photographic laboratory with digital motion picture capability of 10,000 frames per second plus a computerized photo-imaging system of the most modern design. That Bureau also conducts an Internship program for photography students from within the U.S. and occasionally other countries. Because the facilities are so unique and all-encompassing, they are best seen rather than described.

SALARY AND BENEFITS

The current Fellow salary is \$120,000 per annum. Group health and life insurance will be obtained upon employment. One week vacation time is allowed after the first six months of employment. A second week is earned during the remaining six months of employment and may be used as it is earned. The County is self-insured and employees therefore are not required to have their own liability coverage for activities within the scope of employment. In order to gain the full educational benefit of the twelve month fellowship, the Program Director does not approve outside employment for Fellows. Fellows and County employees are subject to all benefits and employee procedures in keeping with the County, State and Federal rules.

AUTOPSY PATHOLOGY/NEUROPATHOLOGY

In order to broaden and strengthen their knowledge of the diseases that affect the human central and peripheral nervous systems, the Fellow has the opportunity to attend brain cutting sessions to increase their understanding and interpretation of neurological diseases as they arise in a forensic context.

Our neuropathologist, Dr. Kenneth Hutchins, will provide direct, detailed training in the proper handling and processing of neuropathology specimens, both pediatric and adult. This additional neuropathology education will assist the Fellow in acquiring confidence and competence in approaching and handling neurological specimens and in acquiring the skills to examine and dissect the complete central nervous system in a systematic manner. The Fellow will learn that accurate, detailed report writing will document all abnormalities as well as the absence of abnormalities useful to clinicians, attorneys and families.

AUTOPSY PATHOLOGY/CARDIAC PATHOLOGY

Cardiac related diseases and congenital cardiac anomalies account for the vast majority of sudden, unexpected natural deaths. The Fellow will have the opportunity to consult with Dr. Michael Bell, a recognized cardiac specialist. The Fellow will receive direct training in the proper handling and processing of cardiac specimens, both pediatric and adult. Confidence in evaluating congenital heart disease is an additional valuable asset for a Fellow to acquire.

Cardiac pathology (heart cutting) sessions will assist the Fellow in acquiring confidence and competence in approaching and handling cardiac specimens. The Fellow will learn that accurate, detailed report writing will document all abnormalities as well as the absence of abnormalities useful to clinicians, attorneys and families.