MARSHALL UNIVERSITY SCHOOL OF MEDICINE

ENDOCRINOLOGY FELLOWSHIP TRAINING PROGRAM

LETTER OF AGREEMENT FOR THE COOPERATIVE TRAINING OF FELLOWS FROM MARSHALL UNIVERSITY JOAN C. EDWARDS SCHOOL OF MEDICINE (MUSOM) AND CABELL HUNTINGTON HOSPITAL (CHH).

This letter of agreement is an educational statement that sets forth important points of agreement between Marshall University School of Medicine (MUSOM) and Cabell Huntington Hospital (CHH). This statement of educational purpose does not affect current contracts and institutional affiliation agreements between the two institutions.

This Letter of Agreement is effective from July 1, 2015, and will remain in effect for three (3) years, or until updated, changed, or terminated by the MUSOM Endocrinology Fellowship Program and/or Cabell Huntington Hospital (CHH). Such changes must be communicated with the MUSOM Office of Graduate Medical Education.

1. Persons Responsible for Education and Supervision

At MUSOM: John Leidy, M.D., Program Director, Endocrinology Fellowship Program

At CHH: Omolola Olajide, M.D. – Site Director
         Henry K. Driscoll, MD, Ayman Elkadry, MD,
         Rodhan Khthir, MD., Prasanna Santhanam, MD,
         Muhammad Mahmood, MD.

The above mentioned people are responsible for the education and supervision of the fellows while rotating at the Participating Site.

2. Responsibilities

The faculty at the Participating Site must provide appropriate supervision of fellows in patient care activities and maintain a learning environment conducive to educating the fellows in the ACGME competency areas. The faculty must evaluate fellow performance in a timely manner during each rotation or similar educational assignment and document this evaluation at completion of the assignment.
3. Content and Duration of the Educational Experiences

The content of the educational experiences has been developed according to ACGME Residency/Fellowship Program Requirements and are delineated in the attached goals and objectives for each rotation.

As program director, Dr. John Leidy is ultimately responsible for the content and conduct of the educational activities at all sites, including CHH. The Program Director, Participating Site Director and the faculty are responsible for the day-to-day activities of the fellows to ensure that the outlined goals and objectives are met during the course of the educational experiences.

Rotations may be in monthly blocks, but generally rotations are in a block of 6-month duration.

The day-to-day supervision and oversight of fellow activities will be determined by the specialty service where they are assigned. Amanda Jones, Program Coordinator, is responsible for oversight of some fellow activities, including coordination of evaluations, arrangements of conferences, sick leave, annual leave and benefits.

4. Assignments

MUSOM will provide to CHH the name of the fellow(s) assigned to the site, the service they will be training on and other relevant information. Fellows will remain on MUSOM's payroll; remain eligible for all fellow benefits, including annual leave, sick leave, and health insurance, etc. Fellows will be covered under MUSOM'S malpractice policy in the amount of one million dollars per occurrence. The policy also provides tail coverage and legal defense.

5. Responsibility for supervision and evaluation of fellows

Fellows will be expected to behave as peers to the faculty, but be supervised in all their activities commensurate with the complexity of care being given and the fellow's own abilities and level of training. Such activities include, but are not limited to the following:

- Patient care in clinics, inpatient wards and emergencies
- Conferences and lectures
- Interactions with administrative staff and nursing personnel
- Diagnostic and therapeutic procedures
- Intensive Care unit or Ward patient care

The evaluation form will be developed and administered by the MUSOM Endocrinology Fellowship Program. Fellows will be given the opportunity to evaluate
the teaching faculty, clinical rotation and Participating Site at the conclusion of the assignment.

6. Policies and Procedures for Education

During assignments to CHH, fellows will be under the general direction of MUSOM's Graduate Medical Education Committee's and MUSOM Endocrinology Fellowship Program's Policy and Procedure Manual as well as the policies and procedures of the Participating Site for patient confidentiality, patient safety, medical records, etc.

7. Authorized Signatures

CABELL HUNTINGTON HOSPITAL

Omolola Olajide, M.D.
Site Director

Hoyt Burdick, M.D.
Vice President for Medical Affairs

Kevin Fowler, CEO

MUSOM

John Leidy, M.D.
Program Director

Paulette S. Wehner, M.D., DIO
Vice Dean of Graduate Medical Education

Joseph Shapiro, MD
Dean
Goals and Objectives for the MUSOM Endocrinology Fellowship Program

Core Clinical Rotation

Educational Curriculum:

Overview:
Each year of training is divided into 2 equal blocks with trainees assigned either to Core Clinical Rotation or to the Research-VAMC Clinical Rotation. While assigned to the Core Clinical Rotation, fellows have their continuity/ambulatory clinics at the Byrd Clinical Center and see in-patient consults at Cabell Huntington Hospital (CHH) and St. Mary's Medical Center (SMMC).

Teaching Sites:
The ambulatory care experience during this rotation will occur at the medical clinics and the Diabetes Center at the Byrd Clinical Center, an 88,000 square-foot, $24 million facility located at 1249 15th Street nearby the Marshall University Medical Center-Cabell Huntington Hospital complex. The Clinical Center houses the Department of Medicine, the Department of Cardiovascular Services as well as teaching facilities for medical students.

The in-patient patient care experience will occur at Cabell Huntington Hospital (CHH) and St. Mary's Medical Center (SMMC), both of which are teaching hospitals affiliated with the School of Medicine. Cabell Huntington Hospital and St. Mary's Medical Center have 300 and 400 beds respectively and provide a vast array of medical services to patients.

Ambulatory Care Experience:
Since most endocrine care is delivered in an ambulatory setting, the ambulatory experience is emphasized throughout the entire duration of the program. Fellows are assigned to 3-half day ambulatory clinics during their 6-month rotation in each year of the fellowship.

Educational Purpose: To learn about a variety of diseases of endocrinology and metabolism, through consultation and provision of continuing care.

Teaching Methods: Ambulatory care is both consultative and continuing. For each interaction, the trainee will spend sufficient time with the patient to carry out an appropriate history and physical examination and then to interact with and be directly supervised by the endocrine faculty assigned to that ambulatory activity. The learning experience surrounding a patient interaction evolves from review of history, physical examination and laboratory results with the faculty, taking direction from the faculty and being provided with references or other learning materials that can be used for self-instruction and subsequent review with the faculty.

Clinic Characteristics: Byrd Clinical Center, Huntington, WV

<table>
<thead>
<tr>
<th>Location of the clinic</th>
<th>Byrd Clinical Center</th>
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<tbody>
<tr>
<td>Frequency</td>
<td>3 half day clinics per week</td>
</tr>
<tr>
<td>Duration during training</td>
<td>12 months out of 24 months of training</td>
</tr>
<tr>
<td>Number of fellows/session</td>
<td>One fellow assigned to each session</td>
</tr>
<tr>
<td>Number of faculty/session</td>
<td>One faculty assigned to supervise each clinic</td>
</tr>
<tr>
<td>Number of exam rooms/fellow</td>
<td>2-3 rooms/fellow clinic</td>
</tr>
<tr>
<td>Number of patients/fellow/session</td>
<td>1-3 new patients &amp; 4-6 follow-up visits/session</td>
</tr>
</tbody>
</table>

Allied health professionals in clinic:
- Nurses (RN or LPN)
- Certified diabetic educator
- Dietician

1 assigned to each clinic session

Disease Mix and Patient Characteristics: Patients are 15 years of age or older including adequate representation of geriatric patients. The distribution of ages and sex in our clinics approximates their
distribution among the general population with endocrine disease. At least 25% of all patients will be either gender. Trainees care for patients with a wide range of clinical problems in stages of illness appropriate to the ambulatory setting.

**Procedures and Services:** Dynamic endocrine studies and fine needle aspiration biopsy of the thyroid will be taught and performed by the trainees in the ambulatory setting. Appropriate laboratory testing, including imaging, will be ordered and results reviewed as part of the doctor/patient/attending interaction. Cytological and pathological material will be reviewed and analyzed when appropriate.

**Reading Lists and Educational Resources:** These are listed below under the disease specific sections of the curriculum.

**Evaluation:** See section on evaluation, below.

Trainees follow their continuity clinic/ambulatory patients for the entire 6-month block rotation. By means of the ambulatory experience provided in this program, the trainee has the opportunity to observe and learn the course of endocrine diseases and their treatments.

**In-patient experience:**

Since endocrine specialists are frequently required to consult on and manage endocrine aspects of care in hospitalized patients, the training program also emphasizes training in the inpatient setting.

**Educational Purpose:** To learn about a variety of diseases of endocrinology and metabolism as they occur in the hospitalized patient.

**Teaching Methods:** Hospital care is both consultative and continuing. For each interaction, the trainee will spend sufficient time with the patient to carry out an appropriate history and physical examination and then to interact with and be directly supervised by the endocrine faculty assigned to that activity. The learning experience surrounding a patient interaction evolves from review of history, physical examination and laboratory results with the faculty, taking direction from the faculty and being provided with references or other learning materials that can be used for self-instruction and subsequent review with the faculty. Consultation is frequently requested to determine the impact of endocrine disease on coexisting illnesses that necessitated hospitalization. The trainee will also learn, under supervision, how to interact not only with the patient and family, but also with other physicians caring for the patient.

Trainees evaluate patients by history, physical examination, and review of available laboratory and other data. The trainee is encouraged to formulate a differential diagnosis, plan for further evaluation and management. These are reviewed with faculty assigned to teaching rounds. Learning occurs by an iterative process through continuing interaction with faculty, review of pertinent literature and further discussion as new data emerges or changes in the patient’s condition occurs as a consequence of recommended treatment.

Experience in the inpatient setting will include preparation of appropriate patients with endocrine disease for surgery as well as postoperative management, radiation therapy and/or treatment with iodine I-131. Interaction with professionals from other departments is reviewed and evaluated. In-patients who have surgery or biopsy, pathology and cytology are reviewed with appropriate specialists in those departments.

**Practice Setting: In-patient consultative service at St. Mary’s Medical Center and Cabell Huntington Hospital**

<table>
<thead>
<tr>
<th>Number of consults/week</th>
<th>15-20 new consults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fellows/team</td>
<td>2</td>
</tr>
<tr>
<td>Are students/residents included in the team</td>
<td>Yes</td>
</tr>
<tr>
<td>Average duration of rounds (hours)</td>
<td>4</td>
</tr>
<tr>
<td>Duration of rotation (weeks)</td>
<td>26</td>
</tr>
</tbody>
</table>

**Disease Mix and Patient Characteristics:** On request, trainees provide consultation to the Internal Medicine service and other departments such as surgery, vascular surgery, obstetrics and gynecology, psychiatry, ophthalmology, neurosurgery, orthopedic surgery, etc. Patients will have a variety of diseases that impact on the endocrine system, diseases of other systems with coexisting endocrine disease, or manifestations of primary endocrine disease such as diabetes mellitus, thyroid or parathyroid disease that warrant hospitalization. Patients will be adults of all ages, including the geriatric age group and both sexes. Sex and age of patients will parallel their distribution among the variety of endocrine disease that occurs in hospitalized patients. The severity of illness will be much greater than in the ambulatory setting.
Procedures and Services: Trainees will coordinate the evaluation and management of the endocrine aspects of the patient's illness. After interaction with the endocrine-attending physician, the trainee will order appropriate laboratory tests, biopsies, imaging and infusion studies, as dictated by the patient's problem. Data will be reviewed and treatment recommended.

Reading Lists and Educational Resources: These are listed below under the disease specific sections of the curriculum.

Facilities and Resources:
Our program has full-time secretarial support, which facilitates scheduling, arranging consultations, preparing conference schedules and referrals. Fellows have office space that contains computer facilities that can be used for email and internet services, including literature searches. The faculty regularly receives a number of journals and books, all of which are available to the trainee. Fellows have full time around-the-clock access to library during each rotation. Trainees are encouraged to participate in local and national endocrine meetings. In general, each trainee attends one national meeting per year.

Our teaching hospitals have modern facilities and services, including in-patient, ambulatory care and laboratory resources and these are readily available to all trainees. In addition, complete biochemistry laboratories and hormone assays are available 24 hours per day. The hospital has facilities for karyotyping. The Department of Radiology provides MRI, CT, PET scanning, ultrasound, DEXA and radiologic imaging services that can conduct studies for endocrine diseases. The hospital supports a dietary/nutritional service. There is a fully staffed surgical pathology laboratory for the interpretation of surgical and cytologic specimens, including immunohistologic studies. Cytologic interpretation of thyroid aspirations is available within a few days and fellows review these specimens with the Department of Pathology staff. Nuclear Medicine provides all routine radionuclide imaging methods including radioiodine thyroid scanning and ablation, adrenal and parathyroid scanning as well as MIBG and technetium pyrophosphate bone scans.

Competency Based Goals and Objectives at each level of training:
Core Clinical Rotation:

Patient care:
First Year of Fellowship:
During the first year of training, endocrinology fellow assigned to the clinical rotation should be able to
1. Correctly identify the purpose of consultation requested
2. Gather complete and reliable history from the patient
3. Perform a thorough physical examination of patient especially relevant to the reason for the consultation
4. Develop an appropriate and reasonable differential diagnosis for patient's main complaint or problem
5. Present a working diagnosis to the patient
6. Discuss appropriate follow-up and/or discharge plan
7. Consider ramification of treatment including drug interactions, side effects, and potential complications
8. Provide documentation of patient encounter that is legible, concise with a problem list for each patient
9. Acquire required procedural skills in performing fine needle aspiration biopsy of the thyroid under direct supervision
10. Document procedures performed appropriately in the fellow portfolio.

Second Year of Fellowship:
During the second year of training, endocrinology fellow assigned to the clinical rotation, in addition to achieving the goals achieved during the first year of training, should be able to
1. Implement a negotiated management plan with the patient
2. Address sensitive issues of patient care appropriately such as those related to compliance with recommended regimen, identifying barriers to implementation of appropriate care and mental health issues etc.
3. Arrange appropriate medical and ancillary referrals
4. Incorporate health maintenance and preventive care when appropriate
5. Respond appropriately to emergent/urgent situations
6. Work with patient and caregivers to develop a collaborative management plan that includes care of acute and chronic issues, disease prevention and continuity of care
7. Able to work in the role of 'teaching attending' in clinic and on hospital service
8. Complete all patient care tasks in a timely, organized and professional manner (including phone calls and laboratory data)
9. Able to perform fine needle aspiration biopsy of the thyroid with a degree of independence and competence expected of a consultant in field of endocrinology
10. Able to practice independently and competently as a consultant in field of endocrinology

**Medical Knowledge:**
The endocrinology fellowship program is designed to provide advanced training and experience at a level for the trainee to acquire the knowledge skills, attitudes and experience required for all of the competencies needed by a consultant. Please refer to section 1a and 1b of ‘Specific goals and objectives’ detailed elsewhere in this document for description of specific goals and measurable knowledge objectives for the educational endeavors.

**First Year of Fellowship:**
During the first year of training, endocrinology fellow assigned to the clinical rotation should be able to
1. Learn basic and advanced endocrine biochemistry, physiology and pathophysiology which provide the basis for understanding the endocrine disease
2. Develop skills in treating adult patients with disorders of carbohydrate metabolism, thyroid, pituitary, adrenal glands, gonads, mineral and growth.
3. Develop teaching skills in dissemination of knowledge to medical students and residents
4. Develop knowledge and skills required to supervise medical students and residents in providing care to endocrine fellows
5. Develop formal presentation skills in organizing and delivering lectures to medical students, residents, endocrine fellows and faculty
6. Attend greater than 80% of core curriculum lectures and other educational conferences.

**Second Year of Fellowship:**
During the second year of training, endocrinology fellow assigned to the clinical rotation, in addition to achieving the goals achieved during the first year of training, should be able to
1. Demonstrate technical and practical skills that are required by a consultant in endocrinology, diabetes and metabolism
2. Demonstrate knowledge and skills necessary for providing cost-effective, ethical and humanistic care of patients with endocrine disorders
3. Demonstrate the required teaching skills in dissemination of knowledge to medical students and residents
4. Demonstrate knowledge and skills required to supervise medical residents and first year fellows in providing care to endocrine fellows
5. Demonstrate adequate formal presentation skills in organizing and delivering lectures to medical students, residents, endocrine fellows and faculty
6. Attend greater than 80% of core curriculum lectures and other educational conferences.

**Interpersonal and Communication Skills:**
**First Year of Fellowship:**
During the first year of training, endocrinology fellow assigned to the clinical rotation should be able to
1. Properly introduce himself/herself to the patient and identify the purpose of visit
2. Demonstrate ability to establish therapeutic relationship with patient through listening, narrative or nonverbal skills
3. Educate patient about the prescribed medications
4. Effectively explain the rationale for diagnostic testing to patient
5. Educate and counsel patients about their disease and plan of management
6. Show sensitivity to patient’s feelings, needs or wishes
7. Demonstrate empathy and concern to patient’s problems
8. Effectively communicate with peers, junior colleagues and faculty to maintain a friendly and healthy working environment

**Second Year of Fellowship:**
During the second year of training, endocrinology fellow assigned to the clinical rotation, in addition to achieving the goals achieved during the first year of training, should be able to
1. Appreciate patients’ and families’ special needs for care
2. Implement a negotiated management plan with patient
3. Address sensitive issues of patient care appropriately such as those related to compliance with recommended regimen, identifying barriers to implementation of appropriate care and mental health issues etc.
4. Works with non-physician professionals in a way that garners mutual respect and excellent patient care
5. Work with patient and family to develop a collaborative relationship that fosters ample patient care
6. Work with and motivate all staff in a way that garners mutual respect and efficient patient care
7. Effectively communicate plan of management to other physicians involved in patient’s care (i.e. writing letters, sending copies of clinic notes)
8. Works with physician colleagues in a way that garners mutual respect and excellent patient care.

**Professionalism:**

**First Year of Fellowship:**
During the first year of training, endocrinology fellow assigned to the clinical rotation should be able to
1. Demonstrate a commitment to carrying out professional responsibilities
2. Demonstrate respect, compassion, integrity and honesty
3. Recognize his/her limitations and to seek help appropriately
4. Accept feedback well and should not be defensive or resistant in accepting criticism
5. Arrive at clinical assignments in a timely manner
6. Adopt an appearance or attire that is professional and acceptable to patients and colleagues

**Second Year of Fellowship:**
During the second year of training, endocrinology fellow assigned to the clinical rotation, in addition to achieving the goals achieved during the first year of training, should be able to
1. Demonstrate sensitivity to patient’s culture, age and disability
2. Complete all patient care tasks in a timely, organized and professional manner (documentation, phone calls and laboratory data)
3. Fully accept responsibility for own actions and decisions
4. Demonstrate commitment to ethical principles, patient confidentiality and informed consent
5. Recognize that patient’s needs supersedes his/her own needs
6. Understand the patients’ perspectives regarding their accomplishments, progress, challenges and treat them with respect

**Practice-based learning and improvement:**
**First Year of Fellowship:**
During the first year of training, endocrinology fellow assigned to the clinical rotation should be able to
1. Use information about self-errors to improve practice and change behavior
2. Demonstrate understanding and use of an evidence-based approach in providing patient care
3. Address the patient care issues with the primary physician who requested the consultation
4. Freely admit and seek help in remedying error
5. Readily seek formative feedback on performance
6. Appropriately differentiate endocrinology care delivered in the clinic setting from that in the hospital setting
7. Review old records, surgical findings, and pathology reports to understand patient’s illness to effectively improve patient care
8. Actively participate in quality improvement practices pertaining to patient care (e.g., diabetes care committees, medical grand rounds, educational conferences)
9. Locate, appraise and assimilate evidence from scientific studies related to their patients’ health problems
10. Use information technology to manage information, access on-line medical information to support their own education

**Second Year of Fellowship:**
During the second year of training, endocrinology fellow assigned to the clinical rotation, in addition to achieving the goals achieved during the first year of training, should be able to
1. Analyze practice experience and perform practice-based improvement activities using a systematic methodology
2. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
3. Teach medical students, medical residents and junior fellows at the level of research and preparation expected by the program
4. Critically evaluate medical literature during presentations
5. Acquire and use evidence-based information for the consultation
6. Assess patient compliance to treatment regimens and accordingly modify prescribing practice
7. Use interaction with nursing staff and other professionals as two-way educational opportunities
8. Voluntarily (without prompting or assignment) discuss and research relevant medical literature to support decision making processes
9. Effectively use consulting services to improve both patient care and self-knowledge
10. Deliver educational presentations indicating a thorough and systematic review of topic.

**Systems-based Practice:**
**First Year of Fellowship:**
During the first year of training, endocrinology fellow assigned to the clinical rotation should be able to
1. Effectively utilize clinic and hospital resources to achieve appropriate patient care
2. Arrange and provide appropriate follow-up patient care
3. Use and follow practice guidelines when appropriate
4. Appropriately delineate relationship between the consulting services and the primary service
5. Understand coordination of inpatient and subsequent outpatient care
6. Access clinical information systems to enhance patient care

**Second Year of Fellowship:**
During the second year of training, endocrinology fellow assigned to the clinical rotation, in addition to achieving the goals achieved during the first year of training, should be able to
1. Collaborate with third party payers to ensure that patient receive required care
2. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
3. Practice cost-effective health care and resource allocation that does not compromise quality of care
4. Advocate quality patient care and assist patients in dealing with system complexities
5. Know how to partner with health care managers and providers to assess, coordinate and improve health care and know how these activities can affect system performance
6. Assist in developing systems' improvement

**Supervision of fellows learning experience:**
Trainees are directly supervised and continually evaluated by attending physicians assigned to the inpatient and ambulatory settings. Inpatients are reviewed on a daily basis with the attending physician. Attending physicians who are physically in the ambulatory setting review the ambulatory care experience of the trainee on a case by case and real time basis. The continuing interaction between trainee and attending physician is the heart of the educational experience. For each interaction, the trainee will spend sufficient time with the patient to carry out an appropriate history and physical examination and then to interact with and be directly supervised by the endocrine faculty assigned to that activity. The trainee presents the patient to the attending endocrinologist who reviews all aspects of the patient's problem(s). The attending makes modifications in care as appropriate.
Trainees evaluate patients by history, physical examination, and review of available laboratory and other data. The trainee is encouraged to formulate a differential diagnosis, plan for further evaluation and management. These are reviewed with faculty assigned to teaching rounds. Learning occurs by an iterative process through continuing interaction with faculty, review of pertinent literature and further discussion as new data emerges or changes in the patient’s condition occurs as a consequence of recommended treatment. After rounding on each patient and at the completion of rounds, rounds are open to discussion of any specific questions related to the patients seen other patient problems. The trainee will also learn, under supervision, how to interact not only with the patient and family, but also with other physicians caring for the patient.

**Evaluation of fellows learning experience:**
Our program utilizes a multisource/global assessment method in which peers, attending physicians, patients, nursing staff, allied health professionals, research staff, program staff and front desk scheduling staff members all participate in assessment and evaluation of various aspects of fellows’ performance. Fellows also perform self-assessment and evaluation. While the New Innovations system is used to complete and document evaluations from peers, fellows and faculty, the evaluations from other non-physician staff members are obtained in paper format with adequate precautions taken to maintain anonymous nature of these evaluations. Our program utilizes ‘New Innovations’ system to document evaluations from both faculty and fellows. Fellows’ educational experience is structured such that they are assigned to a block rotation (Core Clinical Rotation) for 6 consecutive months. Faculty evaluates fellows every 3 months while assigned to these rotations. Fellows meet with Associate Program Director every at 3 months (mid-rotation) and at 6 months (rotation end) to discuss these evaluations. During these meetings the Program Director goes over each individual evaluation with the fellow.
Based upon these evaluations, a formative report is prepared at the end of 6 months based upon fellows’ performance in each of the ACGME competencies. This formative report focuses on areas of strengths and deficiencies with plan of improvement if needed. At the end of training year, a summative evaluation is prepared which summarizes fellows’ performance over the year. Fellow signs off on each individual evaluation and formative/summative report. These evaluations and reports are placed in fellows educational files which are maintained and stored in the program coordinator’s office and are available for fellows’ review during office hours throughout the year. Fellows also evaluate the faculty every 3 months. Fellows also get an opportunity to evaluate their educational and clinical experience at least once a year.

Revised and Updated: 02/05/2015