MARSHALL UNIVERSITY SCHOOL OF MEDICINE CARDIOLOGY FELLOWSHIP TRAINING PROGRAM

LETTER OF AGREEMENT FOR THE COOPERATIVE TRAINING OF RESIDENTS/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, 2019, and will remain in effect for five (5) years, or until updated, changed, or terminated by the MUSOM Cardiology Fellowship Training Program and/or Cabell Huntington Hospital. Such changes must be communicated with the MUSOM Office of Graduate Medical Education.

1. Persons Responsible for Education and Supervision

At MUSOM:

Ellen Thompson, M.D., Program Director,

At CHH:

Site Director: Affan Irfan, M.D.; Mark Studeny, MD; Paulette Wehner, MD; Silvestre Cansino, MD; Ellen Thompson, MD; Mehiar ElHamdani, MD; Rameez Sayyed, MD; Melissa Lester, DO; Robert Touchon, MD; Supervising Faculty of the Department of Cardiovascular Services.

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

2. Responsibilities

The faculty at the Participating Site must provide appropriate supervision of residents/fellows in patient care activities and maintain a learning environment conducive to educating the residents/fellows in the ACGME competency areas. The faculty must evaluate resident 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. Ellen Thompson 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 residents/fellows to ensure that the outlined goals and objectives are met during the course of the educational experiences.

Rotations may be in two (2) week blocks, but generally rotations are a month in duration.

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

4. Educational Goals and Objectives

The following goals and objectives will guide resident/fellow training while assigned to CHH.

- The first year Cardiovascular Resident shall complete the following goals and objectives:
 - A. Appropriately evaluate patients for cardiac catheterization procedures.
 - B. Participate in cardiac catheterization procedures including interpretation of angiograms and establishing disposition.
 - C. Appropriately respond to in-patient and emergency department consultations including communication with referring physicians.
 - Develop appropriate use of diagnostic testing, both invasive and noninvasive.
 - E. Develop triage skills for urgent and emergent consultations.
- II. The echocardiography resident shall complete the following goals and objectives:
 - A. Performance of 150 transthoracic echocardiograms.
 - B. Interpretation of all transthoracic echocardiograms.
 - C. Performance and interpretation of transesophageal echocardiogram.

- D. Review daily all studies with attending physician.
- III. The nuclear cardiology resident shall complete the following goals and objectives.
 - A. Performance of all chemical and exercise stress tests under attending supervision
 - B. Interpret all nuclear studies under attending physician with development of interpretive skills.
 - C. Develop understanding of nuclear agents and radiation safety.
- IV. The upper level cardiovascular resident shall complete the following goals and objectives:
 - A. Support the first year resident with assistance with consultation and use of diagnostic testing.
 - B. Evaluate interventional patients for appropriateness of procedure and participate in said procedure.
 - C. Prepare and present bi-monthly cardiac catheterization conference.
 - D. Continue to develop graduated responsibility in the cardiac catheterization suite including radiation safety.

5. Assignments

MUSOM will provide to CHH the name of the resident(s)/fellow(s) assigned to the site, the service they will be training on and other relevant information. Residents/fellows will remain on MUSOM's payroll; remain eligible for all resident benefits, including annual leave, sick leave, and health insurance, etc. Resident's 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.

6. Responsibility for supervision and evaluation of residents

Residents 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 resident'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 Cardiology Fellowship Training Program. Residents will be given the opportunity to evaluate the teaching faculty, clinical rotation and Participating Site at the conclusion of the assignment.

7. Policies and Procedures for Education

During assignments to CHH, residents/fellows will be under the general direction of MUSOM's Graduate Medical Education Committee's and the Cardiology Fellowship Training 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.

8. Authorized Signatures	
Cabell Huntington Hospital	
Dr. Affan Irfan, Site Director	1 31 19 Date
Dr. Hoyt Burdick, Medical Affairs	2/1/19 Date
Mr. Kevin Fowler, CEO	2/25/19 Date
MUSOM	
	1/31/19
MUSOM Dr. Ellen Thompson , Program Director	1/31/19 Date
Dr. Ellen Thompson , Program Director Dr. Papelette S. Wehner, DIO	
Dr. Ellen Thompson , Program Director	Date

Goals and Objectives for the MUSOM Cardiology Fellowship Training Program

LEVEL I

In the first year of the Cardiovascular Disease Fellowship Program, the Fellow is expected to develop understanding and skills in virtually all areas of clinical cardiology. The first year is relatively equally divided between the Veterans Affairs Medical Center, St. Mary's Medical

Center and Cabell Huntington Hospital including the PM Consult Rotation.

	GOALS	Patient Care	Medical Knowledge	Practice- Based Learning &	Interpersonal & Communication Skills	Professionalism	Systems- Based Practice
1.	Provide training in general consultative cardiology	х	х	Improvement X	X	X	X
2.	Provide a basic understanding of echocardiography	Х	Х				
3.	Provide a basic understanding of appropriate use of diagnostic testing and use of results	Х	Х				×
4.	Provide adequate exposure to the Cardiac Catheterization Suite to a significant comfort level	х	Х				х
5.	Provide an environment of life-long learning			Х			
6.	Provide strong conference time to apply the basic Cardiovascular Medicine fund of knowledge		Х	Х		:	х
7.	Provide adequate critical care training to be comfortable as a consultative Cardiologist in critically ill patients	х	х		х		Х
8.	Provide one month of research time to design and institute a project			х			

Level I

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	Objectives	Patient Care	Medical Knowledge	Practice- Based Learning & Improvement	Interpersonal & Communication Skills	Professionalism	Systems- Based Practice
1.	The fellow should be comfortable assuming the role of a consultant	Х	Х	X	х	Х	X
2.	The fellow should be able to perform a cardiac catheteri-zation independently.		х				
3.	The fellow should be able to adequately triage and provide appropriate emergency cardiac care	х	Х		Х	Х	Х
4.	The fellow should have committed to become a life-long learner in medicine			Х		Х	
5.	The fellow should have basic echocardiography interpretive skills		Х				
6.	The fellow should have independent skill in EKG interpretation, Holter monitoring interpretation	х	Х				20
7.	The fellow should be comfortable with preoperative consultative assessment	Х	х		Х	Х	Х
8.	The fellow should be comfortable in a Continuity Clinic setting	Х	Х	Х	Х	Х	х
9.	The fellow should be comfortable with communication with consulting				х	х	Х
10.	The fellow will competently complete an EHR note with						

communication to the consulting physician		Х	X
11. The fellow will have either established a basic science research project or completed a basic science project design including IRB approval	X		

LEVEL II

The second year of training in Cardiovascular Disease Fellowship specifically deals with the consultative skills developed in the first year. The Level II Fellow not only moves to more advanced cardiac catheterization studies but also spends a significant amount of time in non-invasive performance of studies as well as interpretation. Electrophysiology is introduced in this year as is nuclear interpretation. The second year Cardiovascular Medicine Fellow is also given additional research time, hopefully to institute the project designed and initiated in the

first year.

	GOALS	Patient Care	Medical Knowledge	Practice- Based Learning & Improvement	Interpersonal & Communication Skills	Professionalism	Systems- Based Practice
1.	Complete rotation in non-invasive testing including tilt table testing, transesophageal and transthoracic echocardiography	X	Х				Х
2.	Develop skills in the appropriate use of nuclear stress studies and their interpretation	Х	Х			·	х
3.	Perform and interpret complicated diagnostic left heart catheterization studies	х	Х				х
4 . 5 .	Expose the fellow to interventional patients and participation in interventional procedures Continue to	х	Х				

	improve cardiovascular consulting skills as derived largely from the electrophysiology rotation including evaluation of syncope, complex dysrhythmias, and tilt table testing	х	Х	X	Х	X	Х
6.	Initiate enrollment and aggressive work on their respective research project			Х	Х		

Level II

	OBJECTIVES	Patient Care	Medical Knowledge	Practice- Based Learning & Improvement	Interpersonal & Communication Skills	Professionalism	Systems- Based Practice
1.	Enrollment in their respective research projects should have been initiated			Х			
2.	Level I to II nuclear interpretive skills	Х	Х				
3.	Complete comfort level with both exercise and pharmacologic stress testing.	х	Х	e e		х	х
4.	Independently performed graft studies and other high-risk cardiac catheterizations such as brachial approach	х	х				х
5.	Appropriately evaluate the interventional patient including pre-procedure and post- procedure care	х	Х	7	X	X	
6.	Fellows should						

	be comfortable in an electrophysiology rotation including appropriate use of studies	х	Х		х
7.	Continued fostering of life-long learning skills		Х	х	
8.	The fellow will complete all medical records in an accurate and timely manner		Х	Х	

LEVEL III

The third year level is a building year and includes marked exposure to non-invasive studies. The third year is somewhat unique in that the Fellow can direct it, for instances, to complete Level III echocardiography skills or focus on pacemaker or AICD implantation. They can also focus on interventional procedures. There is additional research time which will hopefully allow

completion of their research project.

	GOALS	Patient Care	Medical Knowledge	Practice- Based Learning & Improvement	Interpersonal & Communication Skills	Professionalism	Systems- Based Practice
1.	Continue to provide exposure to the noninvasive realm including interpretation of complex studies	х	х				
2.	Increased interventional exposure	х	Х				
3.	Significant time dedicated to research to complete project			Х			
4.	The fellow may complete Level III echocardiography training if they wish, pursue nuclear certification, or hone in on interventional skills.	x	Х	X			Х

Level III

	OBJECTIVES	Patient Care	Medical Knowledge	Practice- Based Learning & Improvement	Interpersonal & Communication Skills	Professionalism	Systems- Based Practice
1.	Completion of research projection with submission. Minimum abstract presentation required			X			
2.	Continue to focus on life-long learning strategies					Х	х
3.	All required numbers of procedures will be completed in this year including 3,500 EKG interpretations	Х	Х			-	
4.	At the end of the third year, the Fellow will be capable as an independent consultant in Cardiovascular Medicine	X	Х	Х	Х	Х	Х
5.	Competency in all key procedures as identified by the Program	х	Х				х
6.	The Fellow will complete all medical records in an accurate and timely manner					Х	Х