Case Western Reserve University – University Program Medical School

Block 7: Structure (Histopathology only)

Action Plan 2020-2021

Becoming A Doctor Block 1 (5 Weeks) Population Health, Epidemiology, Biostatistics, Health Disparities Field Experiences Assessment Week	2 Weeks Anatomy Bootcamp	**The Human Blueprint** Block 2 (11 Weeks) Endocrinology, Reproduction, Development, Genetics, Molecular Biology, Cancer Biology Integrative Week Assessment Week	**Food to Fuel** Block 3 (9 Weeks) Gastroenterology, Nutrition, Biochemistry Assessment Week	**Homeostasis** Block 4 (14 Weeks) Cardiovascular, Pulmonary, Renal, Cell Physiology and Pharmacology Clinical Immersion Week Assessment Week
Structure (GARLA and "Systems and Scholarship") Foundations of Clinical Medicine (Tuesday Seminars, Communications, Physical Diagnosis, Patient Based Experiences)				

Summer Break (10 weeks)	**Host Defense & Host Response** Block 5 (13 Weeks) Immunology, Microbiology, Hematology, Oncology, Infectious Diseases, Rheumatology, Dermatology Assessment Week	**Cognition, Sensation & Movement** Block 6 (14 Weeks) Neurology, Mind, Musculoskeletal Integrative Week Assessment Week	**Step 1 Study (6-8 weeks)**
	Structure (GARLA and "Systems and Scholarship") Foundations of Clinical Medicine (Tuesday Seminars, Communications, Physical Diagnosis, Patient Based Experiences)		

1. Course Description:

Block 7, or "Structure", is a longitudinal block that starts in Block 1 and continues through Block 6. The major components of Block 7 and the faculty leader(s) for each include: Gross Anatomy, Radiology and Living Anatomy or GARLA (Dr. Wish-Baratz), Histology/Histopathology or HP (Dr. Ziats). Block 7 integrates basic and clinical concepts of these disciplines and a thorough understanding of each will form the framework for the basic mechanisms that underlie health and disease. *The overall learning objective of this longitudinal block is to develop an understanding of macro-, micro- and ultramicroscopic human structure, nomenclature, imaging techniques, basic physical examination skills related to the topic at hand and the respective functions of normal and diseased organs, tissues and cells and to view these tissues directly and as accomplished in the clinical setting*. It is believed by many that all medical science flows from an instinctive appreciation of physiology and pathophysiology.

However, a sophisticated knowledge of anatomy/radiology, biochemistry, cell biology, and basic genetics are requisite for understanding normal physiology as well as pathophysiology. The knowledge of normal gross and microscopic anatomy, as well as imaging (radiology) of these organs and tissues is necessary for appreciation of the relationships between altered structure and disturbed function. Thus, Block 7 is the bridge from the normal to the diseased, and begins the transition from classroom to ward. If one conceptually masters the principles of anatomy/radiology, cell biology, histology, genetics, physiology and pathology (at least), one will have potentially mastered much of the basic science of medicine. This knowledge will be necessary to differentiate the variability (and artifacts) of normal tissues and organs from diseased ones.

Weekly Schedule: In Blocks 2, 3, and 4, the official class time in Block 7 is: for HP, 10 - noon on Tuesdays; and for GARLA, 10 - noon on either Tuesdays OR Thursdays. During the second year (Blocks 5 and 6), HP class time is: 8-10 a.m. on Tuesdays and GARLA class time is either 8-10 a.m. on Tuesdays OR Thursdays. In addition, faculty experts in Histology and Pathology will be available from 8-10am on alternate Thursdays during the first year for reviews, or content-derived sessions. This schedule varies slightly throughout the year so it is necessary that students consult the weekly schedule on Canvas. (Note: attendance is not required at HP sessions on Thursday mornings, but students are responsible for content.) see Figure 1.

Figure 1

	Monday	Tuesday	Wednesday	Thursday	Friday
8-9	Inquiry Group	FCM	Inquiry Group	Interactive Session	Inquiry Group
9-10					
10-12	Interactive Session	**Structure: HP or GARLA session**	Interactive Session	**Structure: HP or GARLA session**	Interactive Session
11-12					Research & Scholarship
12-1					
1-5					

2. **Block Co-Leaders:**
   Nicholas Ziats, Susanne Wish-Baratz (Dr. Karin Herrmann moved to New York and is no longer a Block Co-Leader)

3. **Design Team:**
   Nicholas Ziats, Susanne Wish-Baratz, Anastasia Rowland Seymour, Lisa Navracruz, Navid Faraji, Robert Jones, Greg Nemunaitis, Scott Simpson, Andy Crofton, Darin Croft Patti Quallich, Nivo Hanson, Eva Orzog, Michele Mumaw, Colleen Croninger,

4. **Block Goals:**

Competency and Definition	Educational Program Objective (EPO)	Block Goals Block 7	Recommended Changes
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Develop a three-dimensional understanding of the structure of the human body. Apply this knowledge during their clinical clerkships and, ultimately, in the practice of medicine. Understand the role of various radiological imaging modalities in the diagnosis and treatment follow-up of diseases. Develop a foundation for interpretation of radiological images.	**None, if in-person**
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Be able to compare and contrast normal histology of organs and tissues to diseased organs and tissue. Be able to evaluate organ and tissue histology/histopathology using virtual microscopy.	**Added new VM images and will continue additions, revise Lessons in Aperio system. Replace Flashplayer by December 31, 2020-accomplished by Slidehosting. Restructuring of images done in January 2021-May 2021**

Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Be able to compare and contrast normal physiology versus pathophysiology of organ systems. Understand a) the role of the kidney in maintaining homeostasis, b) the interaction of the kidneys with other organ systems, and c) the pathophysiology of the major categories of renal disease and the pharmacologic agents used to treat them. Understand a) normal cardiovascular physiology and cell function and b) how cardiovascular diseases & pharmacologic therapies alter normal cardiac physiology and function at both the organ and cellular levels.	**No change recommended**
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	Integrate the anatomy, imaging anatomy, pathophysiology and pharmacologic treatment of the respiratory system with general homeostasis.	**No change recommended**
Teamwork & Interprofessional Collaboration Demonstrates knowledge and skills to promote effective teamwork and collaboration with health care professionals across a variety of settings	Performs effectively as a member of a team	Develop and practice the knowledge and skills that promote effective teamwork across a variety of settings.	**No change recommended**
Professionalism	Commonly demonstrates	Understand and practice the behaviors of an ethical,	**No change recommended**

Demonstrates commitment to high standards of ethical, respectful, compassionate, reliable and responsible behaviors in all settings, and recognizes and addresses lapses in behavior	compassion, respect, honesty and ethical practices Meets obligations in a reliable and timely manner Recognizes and addresses lapses in behavior	respectful, compassionate, reliable, and responsible physician.	
Interpersonal & Communication Skills Demonstrates effective listening, written and oral communication skills with patients, peers, faculty and other health care professionals in the classroom, research and patient care settings	Uses effective written and oral communication in clinical, research, and classroom settings Demonstrates effective communication with patients using a patient-centered approach Effectively communicates knowledge as well as uncertainties	Understand and demonstrate effective communication skills for learning and clinical practice environments.	**No change recommended**
Research & Scholarship Demonstrates knowledge and skills required to interpret, critically evaluate, and conduct research	Analyses and effectively critiques a broad range of research papers Demonstrates ability to generate a research hypothesis and formulate questions to test the hypothesis Demonstrates ability to initiate, complete and explain his/her research	Analyze, critique and present research studies from the primary literature.	**No change recommended**

5. **In the grid below, please list the specific course changes you made this year based on last year's report**.

What changes were made 2020-2021?	How did the changes work?	How will you follow-up on these changes next year 2021-2022?
Histopathology, Blocks 1-6, were done by Zoom,	Zoom seems to work	Will continue under otherwise notified with same faculty, Will be meeting in person as of July 12, 2021
Histopathology, New VM images	Changes acceptable	Will continue to update with new "flashplayer system", PathPresenter is being investigated with options for support with others at UH AND CWRU IT

6. **What changes do you anticipate making to the Block next year (AY 2021-2022)?**

As a longitudinal block, the changes that are implemented to Block 7 due to the COVID-19 pandemic are not contingent on an academic year but rather on real time advisories and regulations. Below are changes we plan on making while we teach remotely:

- Bring students to HEC for HP during Block 1 with Peer Facilitators, i.e., M2's
- Addition of new VM images, deletion of outdated images, addition of working flashplayer system, revision of slides, work with IT

7. **What successful, innovative components of your block are best practices that you would like to share with the other Blocks?**

   We have been able to correlate Histopathology within the context of the blocks as well as IQ cases.

8. **What specific changes (lectures, TBL, IQ cases, other) do you plan to make to the course next year?**

Changes anticipated for next year	Reason for changes (evidence)
Histopathology- new Virtual microscopy system	Current company will no longer support our image base

9. **Please review your Block objectives. Have you added or deleted major concept areas to your Block?**
   - HP objectives had minor modifications based on Virtual Imaging system

10. Did formative and summative assessment in the Block support achievement of block objectives?

Yes

11. What specific changes do you plan to make to the course next year?

Changes anticipated for next year	Reason for changes (evidence)
Histopathology	Minor changes with lecture/review with new faculty, revision of weekly quizzes and EOB exam, revisions due to Virtual Imaging system being replaces Return to HEC for lectures/reviews
Histopathology	Additions of new virtual microscopy images to replace old/outdated images, need support and space on server, revisions due to Virtual Imaging system being replaces

12. Describe how faculty teaching quality was reviewed for your block. What faculty development opportunity was offered in response to student feedback?

Histopathology Faculty evaluations at mid- and end -of block, also at feedback sessions. Faculty evaluations reviewed by Block leader and discussed with individual faculty. Note: very low level of input from students, most often zero evaluations or one to two evaluations. Feedback sessions indicated only minor concerns from students.

13. Response to PEAC Report

No new recommendations from PEAC were received.

14. Scholarly Accomplishments: None

15. Acknowledgements:

We thank Patti Quallich, Eva Orzog and Nivo Hanson for their assistance in Block 7.

We are grateful for the help of all members of UTech and particularly Victor Guinto, Darin Johnson, Megan Slabach and Paul Salzgeber.

AY 2020-21. At the end of each Block we surveyed students on their perceptions of Longitudinal Themes. Numbers reflect the proportion of class who rated each element highly; across a 4-year period. Each survey was sent one initial email with 2 follow-up reminders.
AY 2020-21 Responses/Expected: Block 1: 183/183 (100%); Block 2: 183/183 (100%); Block 3: 183/183 (100%); Block 4: 182/183 (99%); Block 5: 183/187 (98%); Block 6: 185/187 (99%)

Percentage of Students who rated “Very Good” or “Excellent”

Block 7: Longitudinal Themes				
Block 1				
Longitudinal Themes Components	2017-18* %	2018-19 %	2019-20 %	**2020-21 %**
GARLA	--	--	78	**55**
Histopathology	**85**	**70**	**91**	**70**
Bioethics	83	76	81	**71**
Block 2				
GARLA	--	--	58	**56**
Histopathology	**81**	**45**	**65**	**66**
Bioethics	57	52	65	**52**
Block 3				
GARLA	--	--	54	**44**
Histopathology	**100**	**80**	**80**	**85**
Bioethics	51	52	61	**37**
Block 4				
GARLA	--	--	55	**59**
Histopathology	**83**	**81**	**76**	**64**
Block 5				
GARLA	--	--	51	**47**
Histopathology	**75**	**67**	**73**	**75**
Bioethics	42	18	22	**43**
Block 6				
GARLA	--	--	52	**62**
Histopathology	**67**	**71**	**74**	**57**
Bioethics	68	67	62	**67**

* In AY2017-18, the rating scale is “Good or Excellent”.