Case Western Reserve University – University Program Medical School

Block 4: Action Plan 2017-2018

Year 1 (July - May)

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

1. **Course Description:**
   The Homeostasis Block (Block 4) integrates the following disciplines: Cellular Physiology, Principles of Pharmacology, Bioethics, Physiology and Pathophysiology of the Heart, Lungs and Kidneys. The content areas are introduced individually and then integrated, primarily through IQ cases and SEQs during the second half of the Block

2. **Block Co-Leaders:**
   Amy Wilson-Delfosse, PhD and Jim Finley, MD/PhD

3. **Design Team:**
   Heart: Jim Strainic, MD and Ashish Aneja, MD (section leaders); Bob Bahler, MD, Jose Ortiz, MD, and Brian Hoit, MD.
   Lungs: Vidya Krishnan, MD, MHS and Ziad Shaman, MD (section leaders); Jeffrey Renston, MD
   Kidneys: Mimi Lam, MD (section leader)
   Pharmacology: Philip Kiser, PharmD, PhD (section leader)
   Bioethics: Mark Aulisio, PhD (section leader)
   Cellular Physiology: Steve Jones, PhD. (section leader)

4. **Block Objectives:** Please fill in the table below for your Block Objectives.

Competency and Definition	Educational Program Objective (EPO)	Block Objective	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	Understand how drugs affect the body and how the body handles drugs.	none
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	Understand a) normal cardiovascular physiology and cardiac cell function and b) how cardiovascular diseases alter normal cardiac physiology and function at both the organ and cellular levels.	none
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	Understand a) the role of the kidney in maintaining homeostasis and b) the interaction of the kidneys with other organ systems.	none
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological and	Demonstrates ability to apply knowledge base to clinical and research questions Demonstrates appropriate level of	Integrate the anatomy and pathophysiology of the respiratory system with general homeostasis.	none

social-behavioral sciences as well as the application of this knowledge to patient care	clinical and basic science knowledge to be an effective starting resident physician		
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	Apply principles of cell physiology to understand molecular function of the heart, kidneys and lungs.	none
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	Recognize and analyze ethical problems in clinical medicine and biomedical research using the principles of autonomy, beneficence, nonmaleficence and justice.	none
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.	none
Professionalism Demonstrates commitment to high standards of ethical, respectful, compassionate, reliable and responsible behaviors	Commonly demonstrates compassion, respect, honesty and ethical practices Meets obligations in a reliable and timely	Understand and practice the behaviors of an ethical, respectful, compassionate, reliable, and responsible physician.	none

in all settings, and recognizes and addresses lapses in behavior	manner Recognizes and addresses lapses in behavior		
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.	none
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.	none

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 2017-2018?	How did the changes work?	How will you follow-up on these changes next year 2018-2019?
We made significant changes to the introduction of cardiovascular	While it is challenging to discern directly from the Block evaluations how well	We received some great feedback from IQ facilitators about how to make

physiology/pathophysiology, particularly in weeks 2 and 3. Lectures were rearranged, Dr. Strainic presented more of the introductory lectures in an effort to build consistency and we added a new IQ case in week 2 that focused on normal cardiovascular physiology.	this change worked, the general tone of the class and information we received from the SCME representative in real time suggested that the changes were positive. This is the first time that students seemed to be able to keep up during the early days of the cardio section of the block. Additionally, experienced IQ facilitators told us that although students did not seem to have an appreciation for the new IQ case in the week it was presented, they were sure the background it provided the students was a major improvement to the block.	improvements to the new normal physiology cardio case and look forward to implementing these improvements.
Dr. Steve Jones was added to the design team as the new section leader of Cellular Physiology.	We are tremendously appreciative of how well Dr. Jones immersed himself into the design team even though his addition came very close to the start of the Block.	Dr. Jones will work to review Cellular Physiology related MCQs and SEQs.

6. What changes do you anticipate making to the Block next year (AY 2018-2019)

We do not anticipate any **major** changes to Block 4 in AY2018-2019. We believe that we have finally moved closer to optimization of the introductory parts of the cardiovascular curriculum.

Unfortunately, the design team will be losing its section leader for Pharmacology, Dr. Philip Kiser. We are, however, pleased to welcome Dr. Jason Mears who will oversee Principles of Pharmacology in Block 4.

We annually review the success and feasibility of the Clinical Immersion week. Although we believe that student feedback is overly critical, we do believe that this week continues to be a good dedication of time and effort. We will make every effort to continue Block 4 Clinical Immersion week in AY2018-2019. Students have requested that we move Clinical Immersion week to the week immediately before exams and we will give this consideration for AY2018-2019.

We received multiple complaints from students that we do not have an integration (aka study) week in Block 4. We will NOT be adding any time to Block 4 for AY2018-2019 and hope that with the deletion of the study week from Block 3, students will be better prepared to not expect this in Block 4.

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

We continue to be pleased with our real-time evaluation results from our TBL sessions but will continue to work to optimize application exercises and facilitator training.

We continue to believe that our end of week Summary & Integration sessions that extensively utilize the audience response system is a best practice of the block.

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)**
Standard yearly updates to IQ case	Normal procedure
Improved alignment of oral presentation addenda to IQ case content	Some imperfections in the addenda

9. **Please review your Block objectives. Have you added or deleted major concept areas to your Block?**

Deletions	**Additions**
none	"Sleep" as it relates primarily to pulmonary physiology was added in AY16-17 and continued in AY17-18

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

Section Leaders attend as many of the lectures in their sections as possible. They also review Block 4 faculty teaching evaluations (lecture and TBL) and if faculty are rated poorly, the possible reasons for this are considered. Faculty in need are referred to the Center for the Advancement of Medical Learning for coaching. Workshops on lecture skills are particularly encouraged. If teaching is particularly poor or efforts to align the lecture content with expectations of the curriculum cannot be achieved, then replacement teachers will be sought.

11. **Response to PEAC Report**

In AY16-17 and AY17-18, the Block 4 exam was shortened by approximately 15%.

12. **Acknowledgements:**

Block 4 continues to be extremely well managed by our course managers. Nivo Hanson returned for the AY2017-2018 and we were pleased to welcome Michele Mumaw for her first managed block in WR2. She performed flawlessly and we are grateful to her and Nivo who served as an outstanding mentor. We are appreciative to Katie Battistone for her support of our formative and summative assessments, Celinda Miller for outstanding IQ program support, and Carol Chalkley for Clinical Immersion scheduling support. These staff members are to be commended for assuring that Block 4 always runs smoothly. They are invaluable.

Class of 2021 was asked questions of Block 4 components. Results are reported below as compared to results of previous three years. Responses/Expected: 181/184 (98%)

Percentage of Students who rated "Good" or "Excellent"

Block 4: Homeostasis				
General Block Aspects				
Block Components	2014-15 %	2015-16 %	2016-17 %	**2017-18*** %
Overall quality of this Block	93	92	100	**85**
Block Concepts/Integration of Block Concepts and Longitudinal Themes				
Pharmacology	75	84	85	**71**
Cell Physiology	66	82	72	**59**
Cardiovascular	85	83	80	**83**
Renal	94	97	100	**92**
Pulmonary	90	88	91	**79**
Gross Anatomy	48	64	44	**44**
Histopathology	74	87	70	**82**
Bioethics	71	69	67	**58**
Radiology	42	76	20	**15**

Rating scale for AY 2017-18 is "very good" or "Excellent"