

Case Western Reserve University – University Program Medical School

Block 2: Action Plan 2018-2019

Year 1 (July – May) 2018-2019

Becoming A Doctor Block 1 (5 Weeks) Population Health, Epidemiology, Biostatistics, Health Disparities Field Experiences Assessment Week	2 Weeks Steps2Success	The Human Blueprint Block 2 (11 Weeks) Endocrinology, Reproduction, Development, Genetics, Molecular Biology, Cancer Biology <u>Integrative Week</u> 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 <u>Clinical Immersion Week</u> Assessment Week
Structure (Anatomy, Radiology and Histopathology) <u>Foundations of Clinical Medicine</u> (Tuesday Seminars, Communications, Physical Diagnosis, Patient Based Experiences)				

1. Course Description:

Block 2 tells the story of cellular and tissue development in the context of the replication, transmission, and differential expression of the ‘human blueprint’. This block integrates basic and clinical concepts from six disciplines: Molecular and Cellular Biology, Genetics, Development, Endocrinology, Reproduction, and Cancer Biology. Three overarching concepts, Development, Regulation, and Mis-regulation, underscore much of the content in the block, unifying the six disciplines and providing a conceptual framework for understanding the basic cellular mechanisms that underlie health and disease.

2. Block Co-Leaders:

- Jonatha Gott, Ph.D. (Molecular Biology)
- Joseph Bokar, M.D., Ph.D. (Cancer Biology)
- Nivo Hanson (Block manager)

3. Design Team:

- Ron Conlon, Ph.D. (Development)

- George Dubyak, Ph.D. (Cell Biology)
- Sherif El-Nashar, M.D. (Reproductive Biology)
- Insoo Hyun, Ph.D. (Bioethics)
- Laure Kassem, M.D. (Endocrinology)
- Smitha Krishnamurthi, M.D. (Cancer Biology)
- James Liu, M.D. (Reproductive Biology)
- Anna Mitchell, M.D. (Genetics)
- Aditi Parikh, M.D. (Genetics)
- JoAnn Wise, Ph.D. (Molecular Biology)

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

Competency and Definition	Educational Program Objective (EPO)	Block Goals Block 2	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 and apply their knowledge of the patterns of inheritance.	Updates to inheritance lectures. Minor changes to application exercises in TBL#2
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	Describe the flow of genetic information from gene to phenotype	Minor changes to lectures and application exercises in TBL#1
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	Apply their knowledge of the physiology of reproduction and development.	Changes when appropriate in response to student feedback

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 their knowledge of hormone synthesis, targets, action, and regulation. Describe cell cycle control. Outline the principles and pathways of signal transduction.	Sequence of Endocrinology lectures will be adjusted Conversion of TBL#3 to interactive lecture format
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	Describe the fundamentals of cancer. Explain how dysregulation can lead to disease. Describe how this knowledge can be used to determine treatment options	Changes when appropriate in response to student feedback Revisions to application exercises in TBL#4 (which will be TBL#3 in 2019)
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 their knowledge of methods of clinically testing of DNA and genes to solve hypothetical problems.	Minor changes to application exercises in TBL#1
Common to all Blocks:			
Knowledge for Practice Demonstrates knowledge of established and evolving biomedical,	Demonstrates ability to apply knowledge base to clinical and research questions	Recognize and analyze ethical problems in clinical medicine and biomedical research using the principles of	Discuss integration and degree to which bioethics should be emphasized in individual IQ cases during IQ facilitator

clinical, epidemiological and social-behavioral sciences as well as the application of this knowledge to patient care	Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician	autonomy, beneficence, nonmaleficence and justice.	prep meetings on Fridays
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.	Adaptations will likely be necessary this year as TBL sessions move from 4 smaller to 2 large rooms in the HEC
Professionalism Demonstrates commitment to high standards of ethical, respectful, compassionate, reliable and responsible behaviors in all settings, and recognizes and addresses lapses in behavior	Commonly demonstrates compassion, respect, honesty and ethical practices Meets obligations in a reliable and timely manner Recognizes and addresses lapses in behavior	Understand and practice the behaviors of an ethical, respectful, compassionate, reliable, and responsible physician.	Watch for issues that may arise during the transition to the HEC and support their resolution
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.	Watch for issues that may arise during the transition to the HEC and support their resolution
Research &	Analyses and	Analyze, critique and	Update papers used

<p>Scholarship Demonstrates knowledge and skills required to interpret, critically evaluate, and conduct research</p>	<p>effectively critiques a broad range of research papers</p> <p>Demonstrates ability to generate a research hypothesis and formulate questions to test the hypothesis</p> <p>Demonstrates ability to initiate, complete and explain his/her research</p>	<p>present research studies from the primary literature.</p>	<p>for EBIQ as necessary.</p>
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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?	What would you like to change next year 2019-2020?
<p>Revised application exercises in TBLs #1-4 based on student committee on medical education (SCME) and facilitator feedback</p> <p>Significantly revised wording of the Just-in-time feedback form to obtain more specific feedback on changes</p>	<p>Based on Just-in-time feedback, TBLs #1 and #2 worked well and #4 received improved ratings. TBL#3 (signaling pathways in cancer) was still viewed as too challenging</p> <p>Revised form provided very helpful feedback</p>	<p>TBL#3 will be converted to an interactive lecture</p> <p>TBL#1: more time allotted to small group discussion</p> <p>TBL#2: minor changes to pedigrees</p> <p>TBL#4: continued revision based on just-in-time and facilitator feedback</p>
<p>Rearranged lectures to accommodate the insertion of 2 weeks of Anatomy between Blocks 1 and 2</p>	<p>Well overall, except for Endocrinology, whose order had to be changed to accommodate a lecturer's schedule</p>	<p>See #8 below</p>

6. What changes do you anticipate making to the Block next year (AY 2019-2020)?

TBL#3 will be converted to an interactive lecture (see #8 below)

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

Working with SCME members as well as faculty facilitators when revising TBL content.

Revising feedback forms to obtain the specific feedback needed to assess curricular changes and make appropriate adjustments in subsequent years.

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)
TBL#3 will be changed to an interactive lecture, using a think-pair-share format similar to that used successfully in Block 3	TBL#3 Just-in-time feedback indicated that many students find cancer signaling pathways confusing and a bit overwhelming. Facilitator performance also varied considerably between rooms. In contrast, each year the students have commented favorably about the review sessions relating to TBL#3 and that lecturer consistently receives very strong evaluations from students. Therefore, an interactive lecture format would likely be a much more effective means of teaching this important content.
Endocrine lectures will be rearranged	Last year the lecture on Fundamental Principles of Endocrinology followed the lecture on the Pituitary Gland to accommodate changes to faculty schedules. The appropriate order will be reinstated this year.

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

No changes were made to block objectives

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

Overall, faculty teaching evaluations were strong. Exceptions included one new and two more experienced lecturers and a small number of TBL facilitators. The new lecturer (who replaced a departing faculty member who had lectured in Block 2 for many years) failed to adequately review the slides provided by the previous lecturer and made no effort to revise the presentation. His unfamiliarity with the material was immediately apparent to the students, who panned his performance. The block leader contacted both the faculty member and his department chair to discuss both his evaluation and faculty development opportunities. The faculty member took responsibility for his actions and indicated his intention to take corrective

action. Only 3 students evaluated each of the other two lecturers with low ratings; these faculty members were contacted by email to draw attention to the student comments (e.g., “spoke too fast”, too many “um’s”). The TBL facilitators receiving the lowest ratings will not be facilitating a TBL next year since TBL#3 is being converted to an interactive lecture. Some TBL facilitators were also criticized for commenting that students should have done the required preparatory reading. While true, students indicated that such comments discourage discussion. This has been discussed with all TBL facilitators, who will be offered additional training in conjunction with the Block 1 sessions.

11. Response to PEAC Report

The Block 2 design team appreciates the feedback provided by the Program Evaluation and Assessment Committee regarding the Block 2 component of the WR2 curriculum. We are constantly striving to update and improve the content in each of the disciplines covered in our block and the means by which it is disseminated, and such an in-depth analysis is extremely helpful in focusing our efforts. Each of the major recommendations is addressed below, followed by a few comments regarding some of the specific findings of the committee.

12. Acknowledgements: We want to express our sincere gratitude to the members of our design team for their dedication, responsiveness, and hard work. Their largely unheralded contributions are what make this block work so well. Course manager **Nivo Hanson does an incredible job** of supporting us and gently keeping us on track. She is a pleasure to work with and is instrumental in making this block a success. Other faculty members contributing to the block are highly committed and do an excellent job. We also gratefully acknowledge the considerable support received from the office of assessment, especially Dr. Klara Papp and Katie Battistone, as well as IQ program manager Celinda Miller, and the AV and IT technical support teams.