

Case Western Reserve University – University Program Medical School

Block 2: Action Plan 2020-2021

1. C

2. **Block Leadership:**

xLeader: Jo Ann Wise, Ph.D. (Molecular Biology, CWRU)
xCo-leader Laure Sayed Kassem, M.D. (Endocrinology, VA)
xBlock manager: Nivo Hanson

3. **Other Design Team Members:**

xRon Conlon, Ph.D. (Development; Genetics & Genome Sciences CWRU)
xGeorge Dubyak, Ph.D. (Cell Biology; Physiology & Biophysics, CWRU)
xSherif El-Nashar, M.D. (Reproductive Biology; University Hospitals)
xJonathan Gott, Ph.D. (Molecular Biology, CWRU)
xMark Jackson, Ph.D. (Cancer; Pathology, CWRU)*
xSmitha Krishnamurthi, M.D. (Cancer Biology, CCLCM)
xJames Liu, M.D. (Reproductive Biology; University Hospitals)
xSam Mesiano (Reproductive Biology, University Hospitals)
xMarcia Michie, Ph.D. (Bioethics, CWRU)
xAditi Parikh, M.D. (Genetics; University Hospitals)
xJacob Scott, M.D./Ph.D. (Cancer, CCLCM)
xShashirekha Shetty, Ph.D. (Genetics, University Hospitals)
xJennifer Yoest, M.D. (Cancer; Pathology, University Hospitals)

A new co-leader replaced Joe Bokar and several new members joined the Design Team during the 2020-21 academic year including replacements for Joe; another member joined during the 2019-20 academic year. *Indicates a member who recently resigned due to other commitments.

4.

<p>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</p>	<p>Demonstrates ability to apply knowledge base to clinical and research questions</p> <p>Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician</p>	<p>Understand the mechanisms through which gene expression is regulated at multiple steps including transcription, RNA processing and translation and the impact of mutations that lead to disease as a result of dys- or mis-regulation</p>	<p>None</p>
--	---	--	-------------

tranta 8 Tm Tw 0.43 (le)76 w-3.2

Knowledge: r07 Tw 1ref52r5.

<p>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</p>	<p>Demonstrates ability to apply knowledge base to clinical and research questions</p> <p>Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician</p>	<p>Understand the principles and pathways of signal transduction and how disruption of intra- or intercellular communication leads to diseases including endocrine disorders and cancer</p>	<p>None</p>
<p>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</p>	<p>Demonstrates ability to apply knowledge base to clinical and research questions</p> <p>Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician</p>	<p>Understand the normal synthesis, targets, regulation and mechanisms of action of hormones and the molecular, cellular and tissue changes that accompany diseases that result from dysregulation of hormone production or targeting</p>	<p>None</p>

Knowledge for Practice
Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological

dn21 Tc -k4 r5sed an (i)7.6 (o)t[(o)-9h p-7.6 (s)-4.3 (i-5.9 (d)6 (s)6. Tw T*[(th)5.3 (a)2.1 (1.7 0.7 (o)-9.6 (r)-52 546.82r -0

wo mwllin2l*92ce

gaoe

e(p)2.2 (h 0.481 a06 Tw -3(c)8w 4.663 -1.217 Td-J-11l*i)2ih3.6631.-08.(i)-3.3cinis3.3cine (s) (p)2.37w -3wl ant.37w -30.0
c (-)1r.04 8-1ot-3.5 (in)22.8nT*[(c2.6 () t-3.5 h.6 ()e)Tw[(c)nT*[(co) BT0inrwdhp-7.6 (m)(o Td)6 (s3.3t h)-0.8 (f)-4.3 0.0

emtratQ-2 450emtrat

<p>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</p>	<p>Demonstrates ability to apply knowledge base to clinical and research questions</p> <p>Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician</p>	<p>Understand how DNA sequence alterations and epigenetic changes, defects in DNA repair pathways and dysregulation of signal transduction pathways lead to cancer, as well as the impact of cancer on public health</p>	<p>None</p>
<p>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</p>	<p>Demonstrates ability to apply knowledge base to clinical and research questions</p> <p>Demonstrates appropriate level of clinical and basic science knowledge to be an effective starting resident physician</p>	<p>Understand cancer treatment options including surgery and radiation; cytotoxic chemotherapy; targeted therapies</p>	

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 ph ale a p, aal, iar. 0 Tw 3.163 0 T8.913TjETEMC E

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

At the time that last year's report was written, we did not anticipate making significant changes to the curriculum. However, in response to the global pandemic and specific suggestions and feedback provided subsequently, Block 2 underwent substantive modifications. Anticipated changes are described first followed by unanticipated changes.

What changes were made in 2020-21?	How did the changes work?	What would you like to change next year 2021-22?
Moved the ½ hour cell cycle lecture, which previously took place on Day 1, to a later date, immediately preceding the Cancer section.	A longer lecture that integrated the concept of checkpoints with a related topic, apoptosis, was well received.	No further changes
Moved the "Medical Genetics and Genomics" lecture back to Week 1, where it had been prior to the advent of Anatomy Boot Camp	This change highlighted the importance of Inheritance as a key concept in Block 2.	No further changes
The plan to replace two of the Molecular Biology lectures with interactive sessions that utilize Poll Everywhere was abandoned	Poll Everywhere was not yet operational in the Zoom format during Block 2, which resulted in the Cancer Cell Biology lecture reverting to standard format	Interactive lectures will be developed or reinstated and lecturers in other disciplines will be encouraged to use Poll Everywhere
Recruited Dr. Shashiresha Shetty PhD, a clinical cytogenecist, to cover meiosis and mitosis from a more medically oriented perspective	Dr. Shetty received outstanding reviews from the students and also joined the Design Team, where she was an extremely valuable member	For the 2021-22 academic year, this lecture will be moved from Week 1 to Week 2 to improve coordination with the Down Syndrome IQ case

Moved the "Evolutionary Medicine" lecture, which had taken place on Day 1, to a later date

<p>A lecture on high throughput sequencing (HTS) was added and the lecture on molecular diagnostics was updated to expand the content related to HTS and other modern testing and screening tools</p>	<p>These changes worked well to highlight the “personalized medicine” theme that has been emphasized increasingly in Block 2, belatedly accommodating a suggestion made in the 2018 PEAC report</p>	<p>This lecture will be moved to a later date to juxtapose it with the cancer section, the disease in which HTS is most commonly used as a diagnostic tool</p>
---	---	--

The plan to move an early Bioethics lectures on reproductive ethics to a later point in the block was not implemented

The rationale, that ethical decisions surrounding reproductive choices are discussed long before students have been exposed to the relevant basic science content, still holds

This plan will be implemented during the 2021-22 academic saled c 0 Tw 6.446 0

<p>We also mapped each exam question (4 per vignette, 5 vignettes total) to a specific LO in an IQ case, lecture, and/or TBL/ALS</p>	<p>All vignettes included questions from multiple disciplines and the vast majority of questions were related to more than one session, generally in more than one format</p>	<p>Ditto</p>
<p>We checked the wording of individual questions for clarity and carefully reviewed the order of questions under each vignette to ensure that the sequence accurately reflects the patient's progression</p>	<p>Ditto</p>	
<p>We were more assiduous about the requirement that graders provide a rubric to explain how they assigned scores</p>	<p>All but one grader adhered to the requirement to take measures to ensure consistency in grading</p>	

<p>Dr. Mark Jackson delivered the lectures on "Oncogenes" and "Tumor Suppressor Genes"</p>	<p>These were very well received</p>	<p>No changes (Mark has agreed to give the lectures despite resigning from the Design Team)</p>
<p>Dr. Steve Fink delivered the lecture on "Carcinogenesis"</p>	<p>This lecture was also well received</p>	<p>No changes</p>
<p>To replace the Cancer TBL on Cancer Diagnostics, two new lecturers who are active clinicians were recruited and paired with Dr. Smitha Krishnamurthi and Dr. Jacob Scott. These lectures used a very open format in which students were encouraged to ask questions</p>	<p>These lectures were very well received</p>	<p>No changes</p>
<p>We (I) modified the end of block survey form to more closely reflect the content and methods of delivery for Block 2 (see Appendix III), with specific changes listed below:</p>		
<p>We requested, and were granted, a separate time slot for the students to evaluate Block 2 vs. Block 7</p>	<p>We believe this change is partly if not entirely responsible for the much larger number of comments received this year</p>	<p>No further changes</p>
<p>The wording of the student prompts was modified to include the phrase "constructive and explicit"</p>	<p>The request was more closely adhered to under the "strengths" section than the "ways to improve" section</p>	

2020-2021)?

to anticipate
the 2021-22
reproductive
the IQ case.

practices that

most notably by not
specifically
locks might

to make to the

ence)

between 4.0 and 5.0 (Block 7 and 8 Instructors were excluded from these counts.) We will continue our efforts to improve coordination between lecturers and to ensure that lecturers are aware of IQ case content and urge them to cross-reference it in their presentations.

11. Response to PEAC Report

Dr. Jonatha Gott, the Block 2 Leader at the time of the 2018 PEAC Report, included a 3.5-page written response to the recommendations as part of her Action Plan presented at the Block Leaders' meeting in February 2019. No new recommendations have been received from PEAC since then, but the current Block leader continue-2 (l) 2f heir pree-0.004 T 0.013 Tw 9.261 0 Td/

(5) 36 (a) Feb 10 10 5 2.8 (cc)-

Class of 2024 was asked questions of Block 2 components. Results are reported below as compared to results of previous three years. Responses/Expected: 180/183 (98%)

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

#rating scale was "Good or Excellent"

* rating scale was "Well" or "Very Well"

**wording was changed to Approachability/accessibility of faculty in 2020-21

Indicates higher rating (>10%)

Block 2: The Human Blueprint				
General Block Aspects				
Block Components	2017-2018 [#] %	2018-2019 %	2019-2020 %	2020-2021 %
Approachability of faculty**	83	72	57	70

Indicates lower rating (>10%)