
2. Block Leadership

Leader: Sam Mesiano, Ph.D. (Reproductive Biology, CWRU) Co-leader: Laure Sayyed Kassem, M.D. (Endocrinology, VA) Block manager: Nivo Hanson

Dr Wise resigned in April/May 2022 and transitioned responsibilities to Dr. Mesiano. Dr Wise supervised the 2022 Block 2 schedule and roster of lecturers. Dr Mesiano was appointed Leader of Block 2 in July 2022.

3. Design Team Members

Ron Conlon, Ph.D. (Development; Genetics & Genome Sciences CWRU) George Dubyak, Ph.D. (Cell Biology; Physiology & Biophysics, CWRU) Jonatha Gott, Ph.D. (Molecular Biology; Biochemistry, CWRU) *Craig Hodges, Ph.D. (Genetics and Genome Sciences, CWRU) Smitha Krishnamurthi, M.D. (Cancer Biology, CCLCM) Sam Mesiano, Ph.D. (Reproductive Biology; CWRU) *Marsha Michie, Ph.D. (Bioethics, CWRU) Aditi Parikh, M.D. (Genetics; CWRU/UHHS) Jacob Scott, M.D./Ph.D. (Cancer Biology, CCLCM) Shashirekha Shetty, Ph.D. (Genetics; CWRU/UHHS) Rachel Weinerman, M.D. (Reproductive Biology, CWRU; Ob/Gyn UHHS) Jennifer Yoest, M.D. (Cancer Biology; Pathology, CWRU/UHHS)

* New members on the Block 2 Design Team in 2022

4. Block Objectives:

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	2.	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 due to faulty regulation	None
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	3.	Understand the genetic basis and inheritance patterns (traditional and non- traditional) that lead to disease states including congenital defects and cancer; these include the consequences of mis-segregation of entire chromosomes, insertions, or deletions of portions of chromosomes, and point mutations that affect single genes	None

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	4.	Understand the technical advances that led to the development of personalized medicine and describe how the results of genetic tests can be used to assess prognosis and treatment options for a growing number of diseases including congenital defects and cancer	None
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	5.	Understand the principles and pathways of signal transduction and how disruption of intra- or intercellular communication leads to diseases including endocrine disorders and cancer	None

Demonstrates knowledge of established and evolving biomedical, clinical, epidemiological,

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 7 apply knowledge base to clinical and research questions Demonstrates appropriate level of clinical and basic science knowledge to be an ^r () ⁻ effective starting resident physician	. Understand the normal development of a human embryo and describe how it is altered in developmental 19042(4)43333 ((19)(06)03(4)(4)(0)19003000200741150(a))43(3)35452 0.2
---	--	---

Demonstrates

material and personal experience is not discouraged provided that it does not soak up too much time and does not distract from core concepts.

Interactive lecture tools:

Block 2 lecturers will be encouraged to include interactive tools into presentations. In 2022 molecular biology and genetics concepts were augmented by Active Learning in Teams (ALT) sessions that students were required to attend. Feedback for ALTs was generally positive and it was clear that the ttes 2.3 (ire9)04 Tc 0.004 Tw C