

PATHOLOGY GRAND ROUNDS



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“Proteome-Based Diagnostics: The Next Frontier in Precision Pathology”

Thursday, October 31st, 2019

12:30 p.m.

Fitkin Amphitheater – LMP 1094

Host: Joanna Gibson, MD, PhD



There is no corporate or grant support for this activity. This course will fulfill the licensure requirement set forth by the State of Connecticut.

ACCREDITATION

The Yale School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

TARGET AUDIENCE

Attending physicians, researchers, house staff, fellows, residents, medical students, nurses.

NEEDS ASSESSMENT

Proteome research has transformed the way how we understand health and disease, with a particular focus on the dynamics of signaling and the perturbation by pharmacologic agents. It is now clear that many processes cannot be captured by nucleic-acid-based approaches (genome sequencing, transcriptome), and thus a quantitative analysis of the proteome and its posttranslational modification will afford unique and dy-

namic views into human disease. Pathology is uniquely positioned to champion proteomics in medical care for diagnosis, risk stratification, therapy guidance, response monitoring, and recurrence detection. Recent advances in mass spectrometry, pre-analytics, and computational data analyses have transformed deep proteome-based diagnostics into a technology that is ready to transform patient care. My talk will highlight specific examples from the lab and their translation into near-clinical use, using examples from GI cancers and others, and also highlighting our brand new concept of autoantigen-omics in autoimmune disease.

LEARNING OBJECTIVES

At the conclusion of this activity, participants will be able to:

- Understand the fundamental technological and computational aspects of proteomics and proteogenomics.

- Understand specific applications of proteome-based diagnostics and mass spectrometry in cancer and autoimmunity.

- Understand how proteome-based approaches are transforming the central role of pathology in precision healthcare.

DESIGNATION STATEMENT

The Yale School of Medicine designates this live activity for 1 AMA PRA Category 1 Credit(s)[™]. Physicians should only claim credit commensurate with the extent of their participation in the activity.

FACULTY DISCLOSURES

Speaker Name: — Michael H.A. Roehrl, MD, PhD - Proscia, Trans-Hit, Janssen; Gerson Lehrman Group

Course Directors: Manju Prasad, MD - NONE

Kurt Schalper, MD, PhD - NONE

Pallavi Gopal, MD, PhD - NONE

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