

# PREPARING STUDENTS TO INTEGRATE BASIC SCIENCES INTO THE CLINICAL CLERKSHIP YEARS

- LECOM: Naunihal Zaveri, PhD, Todd Nolan PhD, Jordan Keys DO
- ARCOM: Swapan Nath, PhD
- NYIT COM: Donna McMahon DO, Christine Hutak PhD

- [Nina Zaveri \(nzaveri@lecom.edu\)](mailto:nzaveri@lecom.edu)
- [Todd Nolan \(tnolan@lecom.edu\)](mailto:tnolan@lecom.edu)
- [Jordan Keys \(jordan.keys@lecom.edu\)](mailto:jordan.keys@lecom.edu)
- [Donna Marie McMahon \(dmcmah02@nyit.edu\)](mailto:dmcmah02@nyit.edu)
- [Christine Hutak \(chutak@nyit.edu\)](mailto:chutak@nyit.edu)
- [Swapan Nath \(snath@arcomedu.org\)](mailto:snath@arcomedu.org)



College of  
Osteopathic  
Medicine



# Learning Objectives

- ❖ Demonstrate how we use evidence-based clinical cases to teach basic foundational sciences in 2 different schools/curricula
- ❖ Discuss the use of Standardized Patients and Simulation Exercises in our curricula

# Problem-Based Learning (PBL)

Restructured PBL cases to have format of:

- ❖ Chief Complaint (CC)
- ❖ History (Hx of present illness, Past Medical History, Family History, Social History.....)
- ❖ Physical Exam (PE: OMM included in each case)
- ❖ Laboratory Studies & Imaging
- ❖ Management (including: Treatment Choices) and Outcome

# Problem-Based Learning

- ❖ As they go through CC, Hx, PE, students generate list of Differential Diagnoses
- ❖ After PE, students list their Plan of tests to rule out/in differentials
- ❖ As the students request laboratory study results (clinical data), they are required to explain/justify the foundational basis, encompassing integrated basic science disciplines
- ❖ SOAP notes are required after each completed Hx and PE

# Clinical Exam

- ❖ Standardized Patients (SP) are used for teaching and testing clinical skills
- ❖ Clinical Exam skills correlate with PBL cases - cardiovascular, abdomen, neuro etc
- ❖ In second year, students collaborate with nursing program in a Simulation Lab with mannequins and SPs

## How did we integrate clinical reasoning skills with basic sciences?

- ❖ Responded to students' needs and changed PBL format – use standard text books, create dynamic, integrated exams for PBL, create buy-in from engaging students by allowing them to choose exam topics for each PBL exam
- ❖ Reflect on evaluations of the course and facilitators
- ❖ Re-work the cases and the PBL and CE programs to incorporate changes
- ❖ Repeat the cycle with relevant changes (makes sure changes are delivered in a timely manner)

## How do we enhance leadership skills through this?

- ❖ PBL is done in groups of 7 – 8 students, and students are asked to play roles – doctor, scribe, reader, SOAP note presenter
- ❖ In CE, students work in teams in Simulated Encounters – allows students to play doctor/leader while encounters are video-taped and graded

# COMLEX Level 1 Scores Pre and Post Textbook Standardization





