

**Immersion Phase  
Class of 2024**

**Planning Your Phase:  
Registration Fair and Elective Counseling**



# What we'll cover tonight:


- Video with Dean Fleming (watch this!)
- Immersion Phase requirement reminders
- Student representative tips on Immersion Phase planning
- Integrated Science Course (ISC) introductions
- Meet with subspecialty advisors (30 min: via Zoom)



# Curriculum 2.0: Immersion Phase

A highly individualized post-clerkship phase that uses clinical context to build upon prior learning

Advanced Clinical Experiences   
rigorous clinical rotations

Integrated Science Courses   
mixed didactic and clinical experiences

Acting Internships   
supervised intern-level responsibilities

Research   
mentored research project



## IMMERSION PHASE GOALS

- Deepen **FOUNDATIONAL SCIENCE KNOWLEDGE** during meaningful clinical engagement
- Solidify **CLINICAL SKILLS**
- Enhance **PRACTICE-BASED LEARNING SKILLS**
- Ensure readiness for **INTERN ROLE/RESIDENCY**
- Expand knowledge and skills regarding **SCHOLARSHIP**
- Further grow knowledge and skills regarding **LEADERSHIP**
- Encourage **PROFESSIONAL DEVELOPMENT**

## C 2.0 Immersion Phase (IP) Requirements (traditional path)

Minimum C2.0 Requirements (in Months)		
On-Campus	4	Integrated Science Courses (ISCs)
	1	Acting Internship (AI)
	4	Advanced Clinical Electives (ACEs)
On-Campus or Away (away with approval)	3	Research Immersion
	3	Competency and Interest-Driven Rotations* (can be ISCs, ACEs, AIs or Electives)
15 required months	Must include: 1 Primary Care course (either ACE or ISC) 1 Acute Care course (EM or ICU-based course)	
<i>4+2+1 (7 total)</i>	<i>Flex months (4 + 2 month for Step 1 + 1 month for interviews)</i>	

*Students can register for up to 19 months*

*\*At least one must be clinical rotation.*

# C2.0 Longitudinal Requirements Summary

Longitudinal Course Requirements				
Foundations of Health Care Delivery – 10 units		Learning Communities – 8 units	Research – 3 months	
5 self-enrolled, taken with a primary course	5 units completed during week-long FHD Immersions	All self-enrolled, taken with a primary course	PLAN Required	3-6 block Research Immersion

Students must be present for face-to-face sessions:

- FHD has one or two on Tuesdays from 1-5p
- LC has one on a Monday from 1-3p or 3-5p

Immersion Weeks are mandatory. Do not submit abstracts to meetings during these weeks:

- Aug. 22-25, 2022 (Immersion Orientation and FHD AC1 and PHP)
- Feb. 27-March 3, 2023 (EPA week)
- May 1-5, 2023 (FHD AC2 and IPE1)
- TBD between February and March 2024

# Resources

- Class of 2024
  - <https://medschool.vanderbilt.edu/md-gateway/grad-requirements/>
- MD/PhD C2.0
  - <https://medschool.vanderbilt.edu/md-gateway/mstp-c20-requirements/>
- MIDP
  - <https://medschool.vanderbilt.edu/md-gateway/midp-requirements/>
- Dual Degree
  - <https://medschool.vanderbilt.edu/md-gateway/dual-degree-requirements/>



# Approach to IP Planning

- Ideally, plan for 3 ISCs in Year 3 with a minimum of 2
  - Please do not enroll for more than 3 during initial registration
- Acting Internships (AI) will be taken between March of Y3 and September of Y4 by most students
  - Students will work with IP team to register
  - In approx. November, we will send out a separate survey for AI preferences
- QI must be completed by November of Y4
- RI must be completed by March of Y4



# Approach to IP Planning

- Have several schedules planned and recognize that you will make many changes to your schedule
  - Make sure to register through June 2023
  - Leave spots for Research Immersion (you register after PLAN)
- Be mindful of your peers as you plan
- Discuss your IP Plan with your advisors, mentors, coach:
  - Plan ahead for the full 2 years
  - Year 3 should be approached as exploratory and to attain required competencies
  - Balance general medical education vs specialization



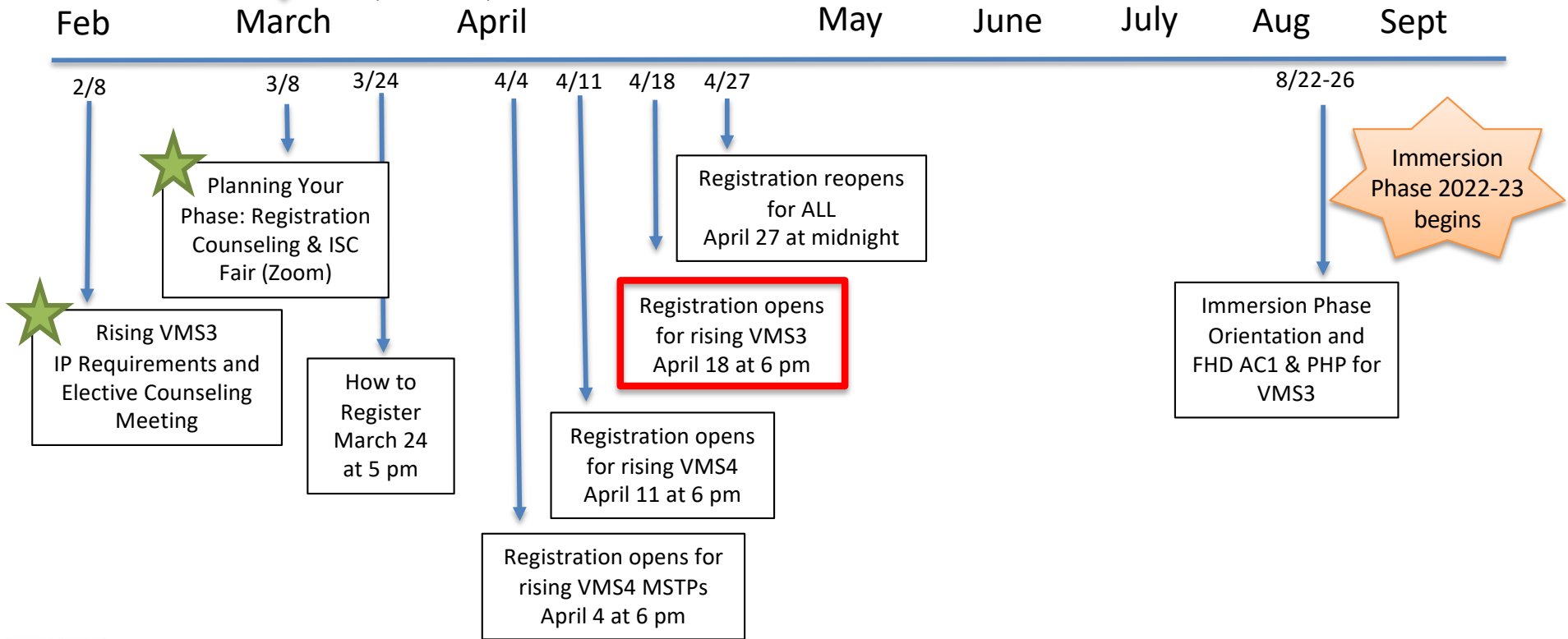


# VMS2 Registration Timeline

You are here



Meet with  
your Coach  
(3/7 to 4/1)



Opportunities for course/elective counseling

# Certificate Programs

The School of Medicine offers graduate certificate programs to its students who wish to gain focused expertise in a specific area.

- Each program has its own admission and completion requirements.
- Students **must submit an “Intent to Enroll” form** to document their intention to pursue a certificate, as well as other documentation as needed.
- Permission of the degree program director and the certificate program director are required to pursue a certificate.



# Certificate Programs

- Biomedical Ethics
- Global Health
- Health Equity
- Lesbian, Gay, Bisexual, and Transgender (LGBT) Health
- Neurodevelopmental Disabilities



# Careers in Medicine

<https://medschool.vanderbilt.edu/md-gateway/pathway-to-match/>

*Your guide to succeeding in the residency  
application process with info such as*

Calendar to Match

Checklist for Match

Fourth-Year Scheduling

Away Rotations

Faculty Advisor Lists

Writing Your Curriculum Vitae

Workshops

Application Process

Letters of Recommendation



Leland Dunwoodie



# Integrated Science Course Presentations

(please hold all questions until the end)



# Cardiovascular Disease

David Meoli, MD, PhD and Lisa Mendes, MD

**Science:** Lecture, Anatomy Lab, CELA (code and echo simulators), ECG workshops, CBL

- CV gross anatomy and imaging
- Cardio-oncology
- CV hemodynamics
- Acute and chronic CHF treatment
- Vascular emergencies
- Pharmacology of CV drugs
- Echo: U/S physics
- Vascular biology of stress testing
- ECG interpretation
- Pulmonary vascular disease
- Coronary/valvular surgery
- Mental health and CV disease

**Clinical Settings:** Three one-week experiences

- CT Surgery
- Vascular Surgery
- Card Anesthesia
- HF/transplant
- General Cardiology/Imaging
- Interventional Cardiology
- Electrophysiology

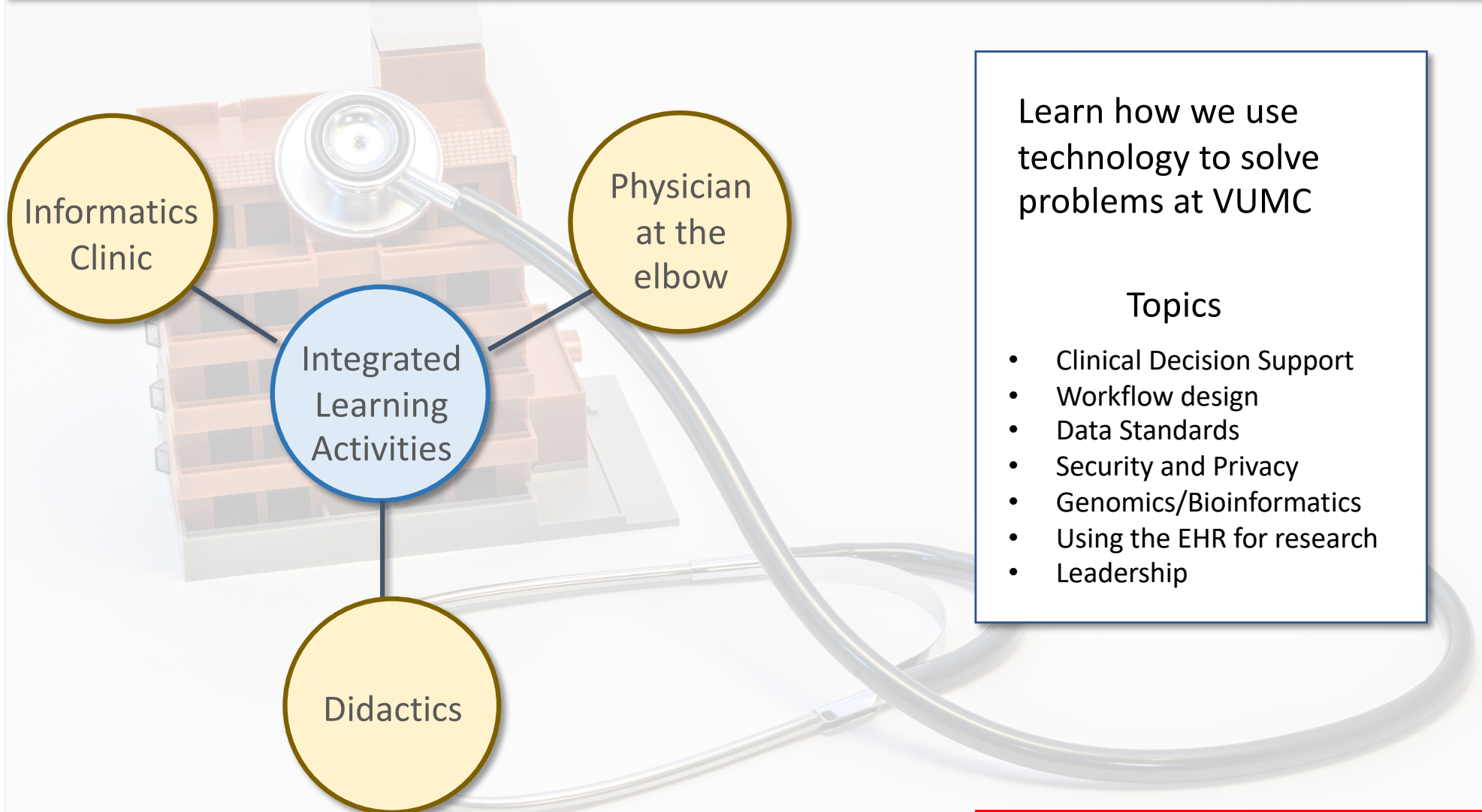
**Specialty Interests:** All are welcomed!

Internal Medicine, Cardiology, Critical Care, Surgery (CT, Vascular)  
Anesthesiology, Emergency Medicine

# Clinical Informatics

Dara Mize, MD, MS and Travis Osterman, DO, MS

The healthcare system is your patient



Learn how we use technology to solve problems at VUMC

## Topics

- Clinical Decision Support
- Workflow design
- Data Standards
- Security and Privacy
- Genomics/Bioinformatics
- Using the EHR for research
- Leadership

No coding/programming experience required

# Community Healthcare

M. Cooper Lloyd, MD and Tiffany Israel, MSSW

## Goals:

- Investigate the SDOH in the lives of individual patients, the Nashville community, and populations at large
- Hear from community resources and advocates in Nashville
- Develop skills working with and advocating for underserved populations

Clinical settings: outpatient clinics working with underserved communities. Some ex:

- Matthew Walker
- St. Thomas Family Clinic
- Maternal Addiction Program
- Comprehensive Care Clinic
- Faith Family Medical Center

Specialties: Students entering primary care fields as well as specialties welcome

## Science:

- Social determinants of health
- Population health
- Community engagement
- Public health
- Health policy
- Stress biology





# Critical Illness

Jennifer King, MD, PharmD, Meredith Pugh, MD, Jeremy Walco, MD



Critical Care Skills Week

Simulation, team management, CVCs



ICU team experience

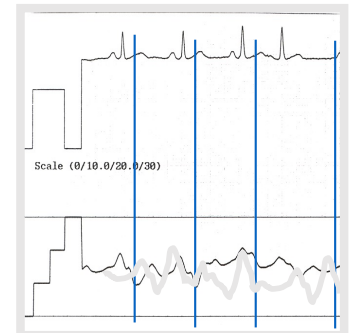
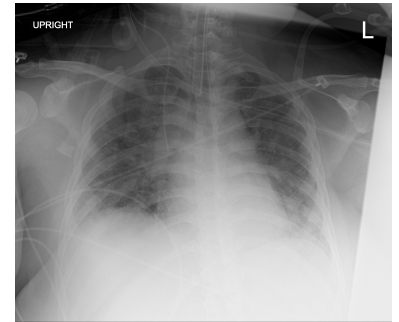
Burn, CV, MICU, Neuro, Peds, SICU



Case-based learning, Radiology, Palliative care

Workshops in ultrasound, echo, surg. airway

Anesthesia, EM, IM, Pediatrics, Surgery and surgical subspecialties



# Diabetes

Alvin Powers, MD and Tiffanie Marksbury, NP

## Science

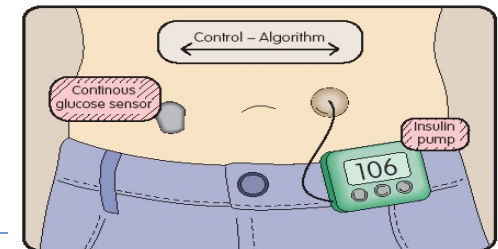
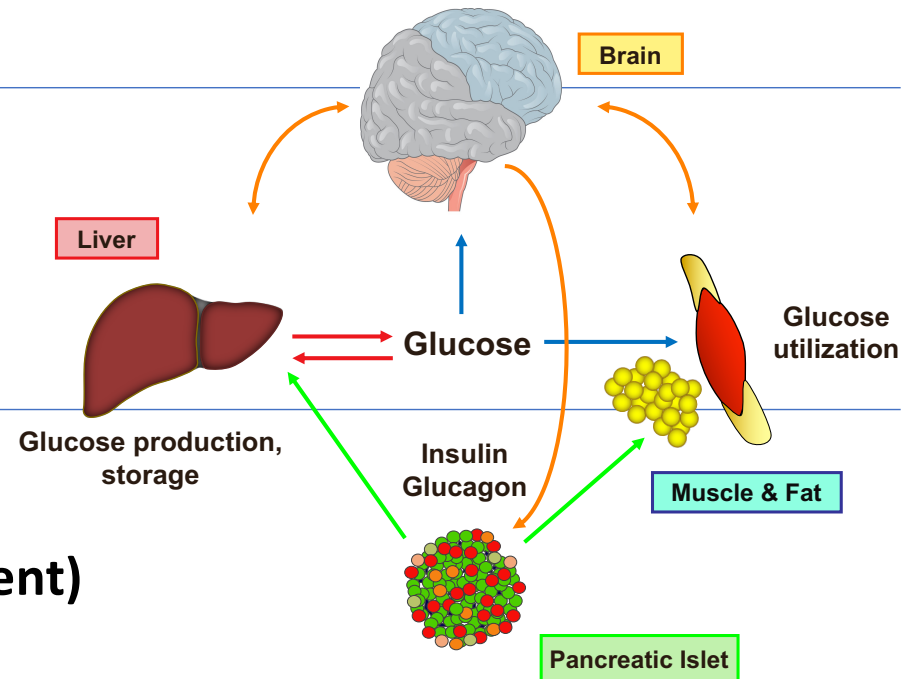
- Foundational Science
- Quality Improvement
- Longitudinal Scientific Project

## Clinical Settings

- Diabetes Boot Camp
- Glucose Management Service (in-patient)
- Outpatient Clinic
- Patient education
- Minimum observational learning, maximal "doing"
- Multi-disciplinary

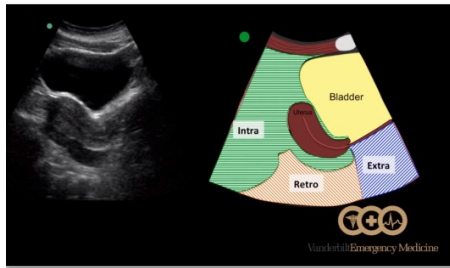
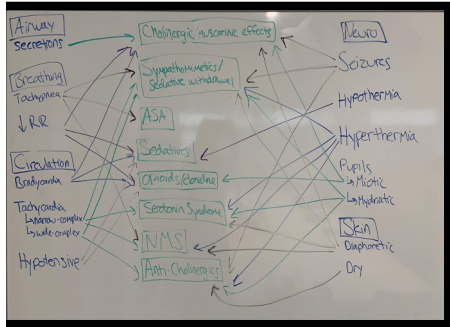
## Specialty Interests

- Anyone who will see individuals with diabetes (that's just about everyone)
- Practical approaches to insulin, nutrition, and glucose monitoring



# Emergency Care

Kendra Parekh, MD, and Saralyn Williams, MD



## Systems of Care/Operations



Toxicology



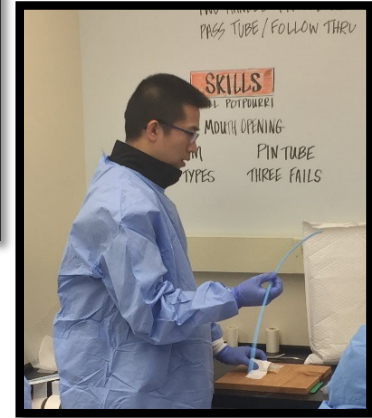
Anatomy



Ultrasound



Teamwork

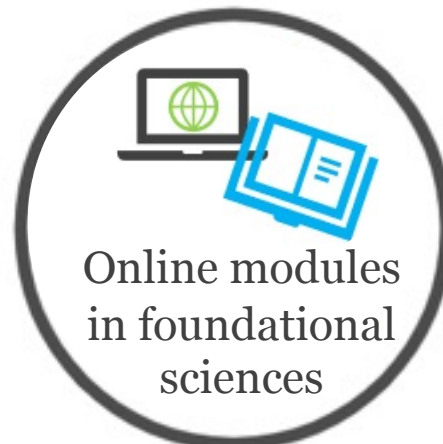


Designed for students with interests in: anesthesia, critical care, EM, family medicine, IM, neurology, orthopedics, pediatrics, psychiatry, radiology, surgery and surgical subspecialties

# Global Health

Marie Martin, PhD, MEd; Eiman Jahangir, MD, MPH; Elizabeth Rose, EdD, MEd, MPH

Focus on health systems and health disparities with opportunities for rotations in various specialties



<https://tinyurl.com/ISCGlobalHealth>



# Healthy Aging & Quality Dying

Mariu Duggan, MD, MPH & Andy Wooldridge, MD



## Science

Physiology, biochemistry, immunology, pharmacology, neuroscience, psychology, epidemiology, preventive health, public health, social sciences, philosophy, ethics, science of healthcare systems

## Clinical Settings

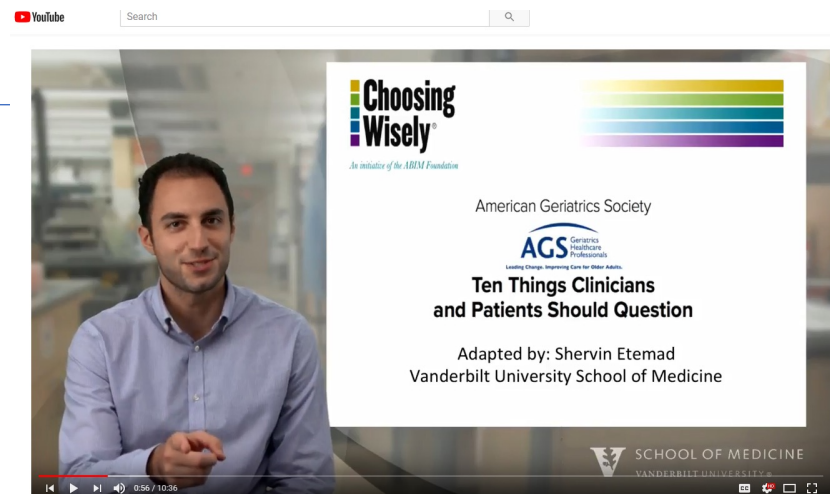
Skills week

1-week inpatient (geriatrics wards/consults, geri-psych, nursing home, PCU)

1-week outpatient (primary care, specialty clinics)

## Specialty Interests

Internal Medicine and subspecialties,  
Surgery, Family Medicine, Neurology,  
Psychiatry, Emergency Medicine

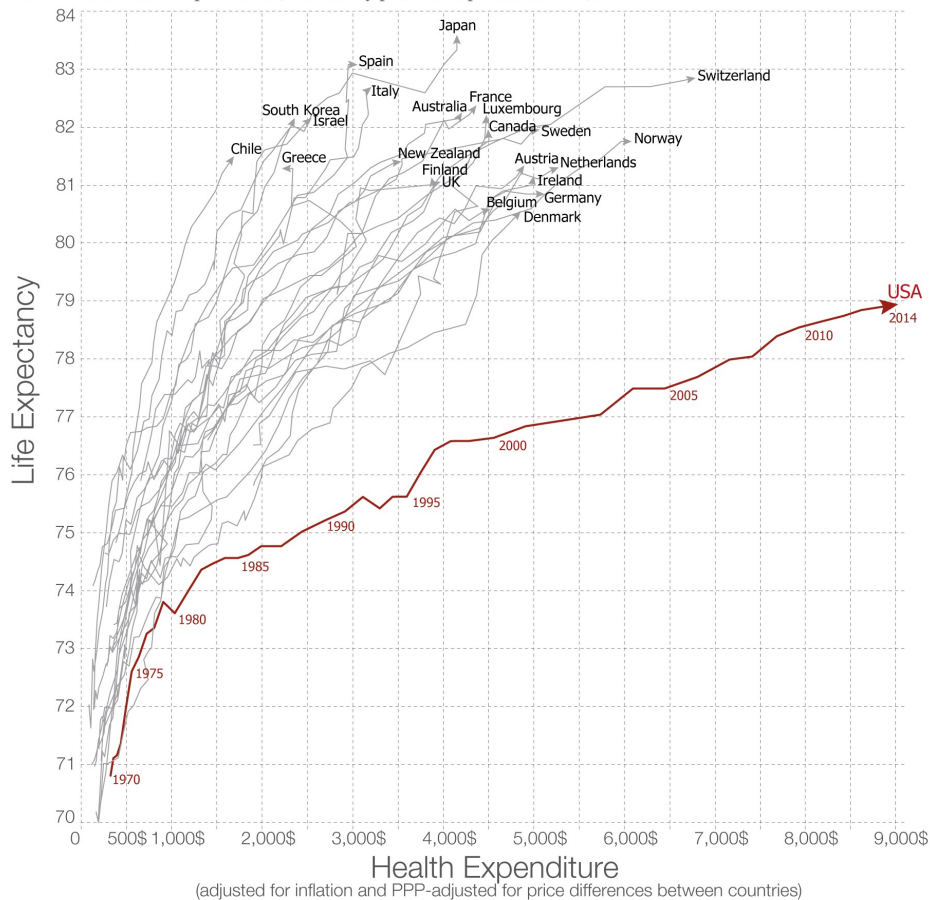


# High Value Care

Krista Suojanen, MD, Miklos Kertai, MD, PhD, and Jim Powers, MD

## Life expectancy vs. health expenditure over time (1970-2014) Our World in Data

Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments. Shown is total health expenditure (financed by public and private sources).



Data source: Health expenditure from the OECD; Life expectancy from the World Bank. Licensed under CC-BY-SA by the author Max Roser. The interactive data visualization is available at [OurWorldinData.org](http://OurWorldinData.org). There you find the raw data and more visualizations on this topic.

- Foundational Science: health systems science, ethics, implementation science, population health
- Didactics: lectures and discussion from variety of specialties and health policy faculty
- Case-based Learning: team-based work on real-world examples of implementing high value care
- Clinical setting: individualized clinic experience based on students' desires, VFF, utilization management, HiRISE clinic, patient centered medical home
- Specialty Interests: ANYONE!!

# Infectious Diseases

Holly Algood, PhD, Christina Fiske, MD MPH  
Cody Chastain MD, Isaac Thomsen, MD MPH

## Science

Microbiology, molecular biology, immunology, pathophysiology, pathology, antimicrobial stewardship, infection prevention, pharmacology

## Clinical Settings

Inpatient consult service (Pediatric or Adult), Outpatient clinics (Pediatric, General Adult, HIV), Microbiology lab, Tennessee Department of Health

## Other Learning Modalities

Didactic lectures, case based learning, debate activity, journal clubs

## Specialty Interests

ANYONE!!!



# Injury, Repair & Rehabilitation (IRR)

Shannon Eastham, MD

## Science

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Anatomy, Cell and Developmental Biology, Epidemiology, Ethics, Immunology, Implementation Science, Neuroscience, Nutrition sciences, Pathology, Pathophysiology, Pharmacology, Radiology, Social Sciences, Speech Sciences, and System Sciences

## Clinical Settings

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**Trauma (ICU/Admits):** 2 Nights and 2 Days

**Wound Team:** 0.5 Day

**Medical Examiner's (Coroner's) Office:** 2 Days

**Stallworth Rehabilitation Hospital:** 0.5 Day

## Specialty Interests

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Surgery & Subspecialties, Emergency Medicine, Anesthesiology, and Aspiring MDs

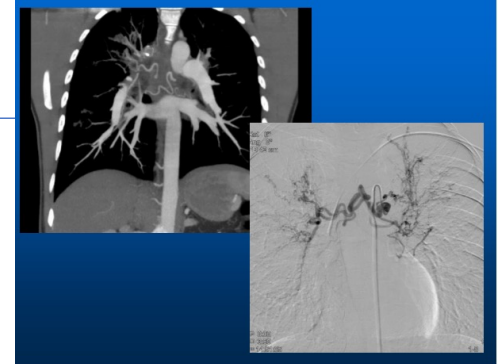


# Medical Imaging & Anatomy

Will Laxton, MD and Scott Pearson, MD

## Science

Advanced Clinical Anatomy labs\*, radiation basics, contrast use, appropriate ordering



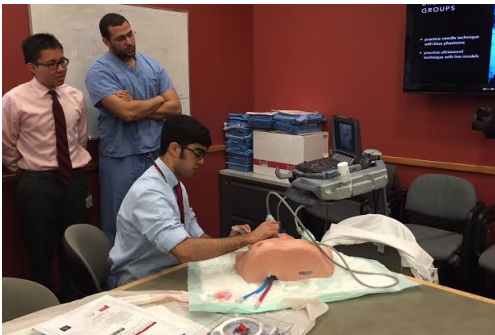
## Clinical Settings

See MRI in action & procedures in fluoroscopy;  
Hands-on Ultrasound in CELA: SP & image-guided CVC placement;  
Practice being a Radiology resident; Radiology reading room  
experience\*

## Specialty Interests

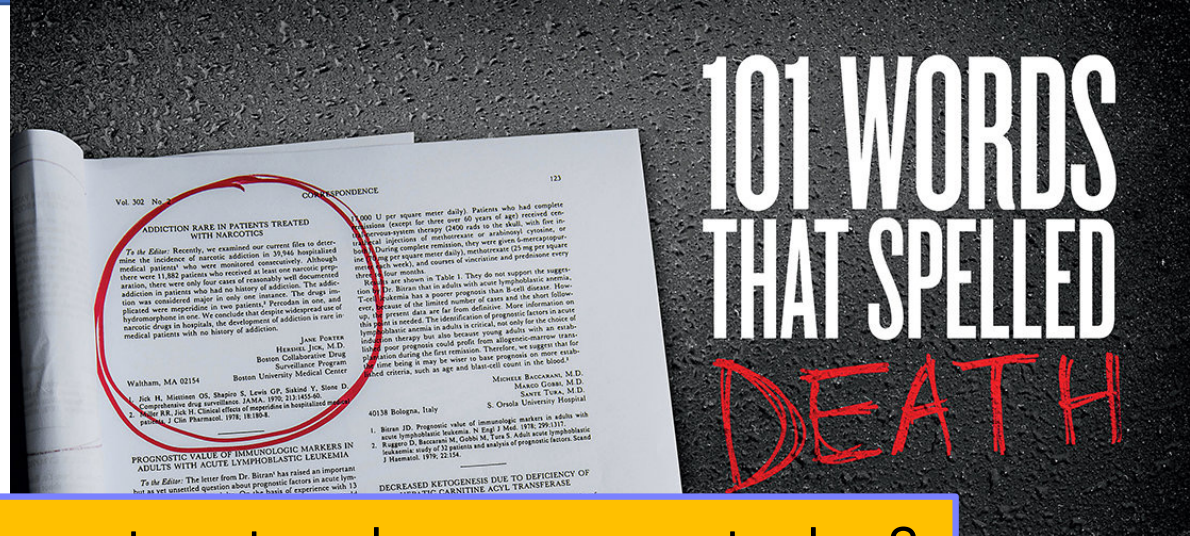
**\*Individualized based on your interest:**

Internal Medicine, General Surgery, Emergency Medicine,  
Orthopedic Surgery,  
Pediatrics, Neurology,  
Neurosurgery, Ophthalmology,  
Ob-Gyn, ENT,  
Radiology, Radiation Oncology,



# The National Opioid Crisis: Pain, Policy, and Addiction

## David Edwards MD, PhD & Rebecca Donald, MD



How did these two things get us to where we are today?

### Science:

- Neurobiology
- Physiology
- Pharmacology
- Psychology
- Epidemiology
- Public Health
- Preventative Health
- Science of Health Care Systems
- Complementary and alternative medicine
- Ethics
- Social determinants of health

Didactics

Hands-On Sessions

Guest Speakers

Clinical Experiences

Book Club

Student Led Discussions

Inpatient Chronic Pain Service

Pediatric Pain Clinic

Spine Clinic

Inpatient Pediatric Pain Service

Women's Health

Interventional Pain Clinic

Addiction Psychiatry

Consult Service

Cedar Recovery

Bridge Clinic (Suboxone Initiation & Stabilization)

Firefly Clinic (pregnant women and new moms)

Politics, Humanism, and How to Move Forward

### Specialty Interests:

- Psychiatry
- Anesthesiology
- Pediatrics
- Internal Medicine & subspecialties
- Surgery & subspecialties
- Ob/Gyn
- Orthopedics
- Family Medicine
- Neurology
- Emergency Medicine
- PM&R

# Sexual Medicine and Reproduction

Melissa Kaufman, MD and Mary Romano, MD

## Science

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Embryology and development, Anatomy, Neurophysiology, Sexual function and response, Sexual orientation, Intimacy and behavior, Treatment of sexual dysfunction, Sexually transmitted infections, Infertility

Special emphasis is placed on interviewing techniques and skills for both adolescents and adults with a simulated patient encounter at CELA at the conclusion of the course.

## Clinical Settings

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Students will spend time in outpatient clinics including Adolescent Medicine, Urologic Surgery, Comprehensive Care Clinic, Adult Transgender Clinic and OB/GYN Family Planning Clinic.

## Specialty Interests

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Adolescent Medicine, Family Medicine, Internal Medicine, Obstetrics/Gynecology, Pediatrics, Psychiatry, Urology

# The Skinny on Obesity

Gisella Carranza Leon, MD and C. Robb Flynn, PhD

## Highlights of the course

- Obesity boot camp
- Food analysis project
- Journal clubs on obesity interventions

## Clinical Settings

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- Medical Weight Loss Clinic
- Surgical Weight Loss
- Vanderbilt Lipid Clinic
- Diabetes Eskind Clinic

## Science

- Adipose tissue physiology
- Gut regulation of metabolism
- Nutrition
- Pathophysiology, pharmacology, diagnosis and treatment of obesity and its complications.

- Physicians
- Nurse practitioners
- Dietitians
- Exercise physiologists

## Specialty Interests

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All specialties must deal with patients with obesity, but critical for Internal Medicine and subspecialties, Pediatrics and subspecialties, Surgery (all types), Neurology, Ob/Gyn

# Clinical Cancer Medicine

Kim Dahlman, PhD and Vicki Keedy, MD, MSCI

**“This is by far the best course that I’ve taken at Vanderbilt”**

**“This was really a unique experience for me in medical school. It’s truly been an eye-opening month for me and is making me question (in a good way) where I may want my career to go.”**

**“I thought that the teaching didactics (CBL and TBL) were a great way to have us independently learn without having to sit in traditional lectures.”**

**“This was an extremely rewarding course.”**

**“I felt it [the course] taught concepts that I was formerly completely unaware and in a way that I could grasp them.”**

# How Doctors Think: Clinical Reasoning & Decision Making

Cody Chastain, MD, Travis Crook, MD  
Kendra Parekh, MD, & Chase Webber, DO

## Science

- **Clinical reasoning & medical epistemology**
- Foundational sciences include *behavioral psychology, biostatistics, epidemiology, epistemology, ethics, pathophysiology, & pharmacology*

## Clinical Settings

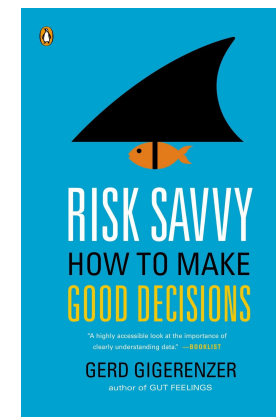
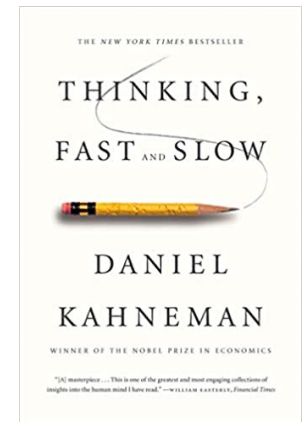
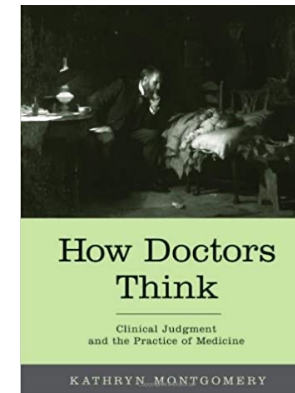
- **Internal Medicine, Pediatrics, & Emergency Medicine**
- 2-3 shifts for Weeks 1-3

## Learning Modalities

- **Meaningful clinical engagement**
- Online asynchronous didactics & independent reading
- Clinical reasoning reports
- Critical analysis of evidence & practice of medicine
- Simulation and more!

## Specialty Interests

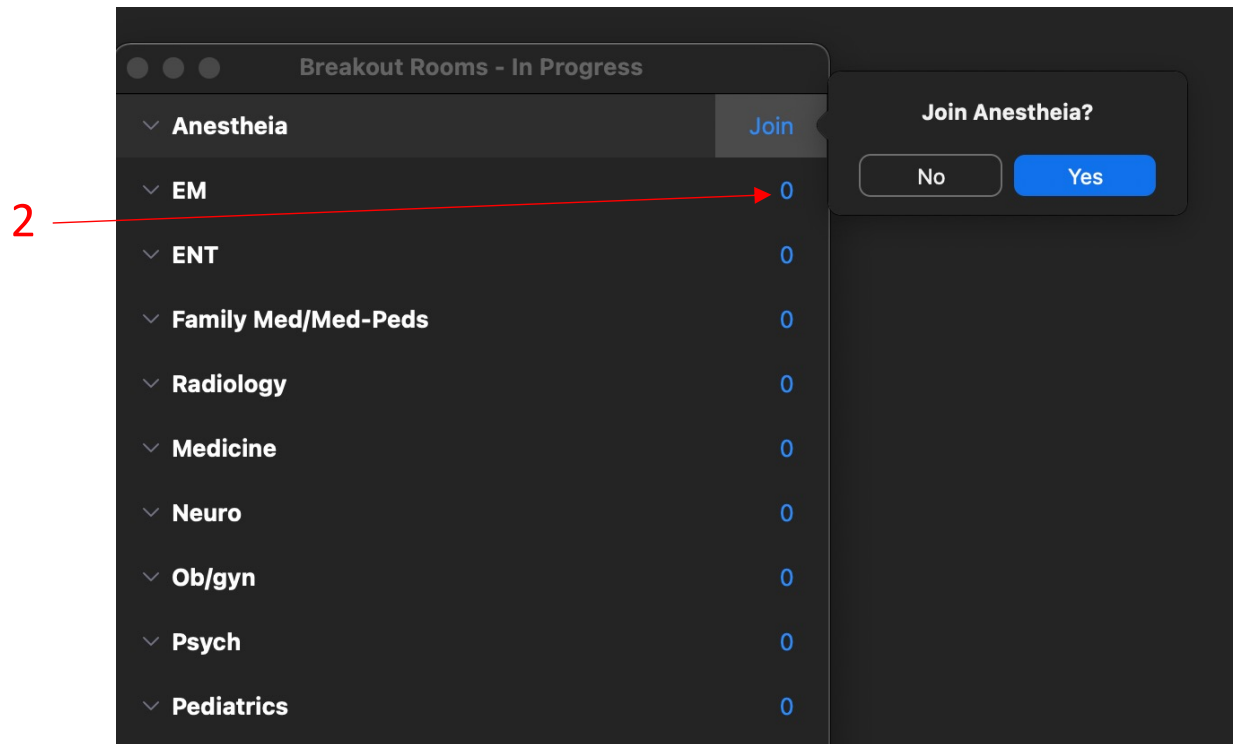
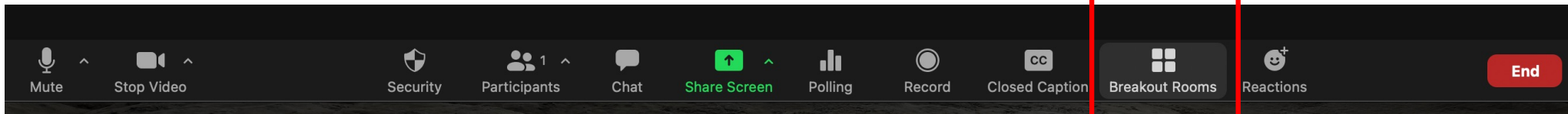
- **Anyone who wishes to think critically & deeply about their practice of medicine**



# ISC Offerings in 2022-23

		Academic Year 2022-23											
Course	Max Capacity	7	8	9	10	11	12	1	2	3	4	5	6
Cancer	10			■					■				
Cardiovascular Diseases	8				■				■				
Clinical Informatics	8			■					■				
Community Healthcare	8			■					■			■	
Critical Illness	24			■					■		■		
Diabetes	4			■	■	■			■	■	■	■	
Emergency Care	6				■			■	■	■			
Global Health	n/a	<i>any month with approval of international travel</i>											
Healthy Aging and Quality Dying	8				■				■				
High Value Care	8				■				■				
How Doctors Think	8			■				■					
Infectious Diseases	8				■				■	■			
Injury, Repair, & Rehabilitation	8			■					■		■		
Medical Imaging and Anatomy	9			■		■		■		■			
Obesity	4			■	■	■		■	■	■			
Opioid	8			■		■					■		
Sexual Medicine & Reproduction	8			■				■			■		

# Joining Breakout Rooms



1. Open the Breakout Rooms dialogue box from the bottom of the Zoom screen.
2. Hover over the number in the far-right column and a “Join” button will appear.