Immersion Phase
Class of 2020
Careers in Medicine Fair
What we’ll cover tonight:

• Immersion Phase requirement reminders
• Student representative tips on Immersion Phase
• Integrated Science Course (ISC) introductions
• Students meet with College Mentors (15 min)
  (4th floor rooms)
  – MSTP Students will meet with Dean Fleming
• Students meet with subspecialty advisors (30 min)
  (4th floor rooms)
**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

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**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 Requirements

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

Students can register for up to 19 months

*At least one must be clinical rotation.*
Approach for your IP Planning

• Plan for a minimum of 2 (ideally 3) ISCs in year 3
• 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
• Have several schedules planned and recognize that you will make many changes to your schedule
• Be mindful of your peers as you plan
• Discuss with your Mentors:
  – 3rd year should be approached as exploratory and to attain required competencies
  – Balance general medical education vs specialization
Learning Communities

Registration needed in YES for all 8 LC units over your Immersion Phase

- 8 units
  - Mondays from 1-3 (odd units) and 3-5 pm (even units)
  - 6 – 8 hours effort per unit
    (2 of those hours in face-to-face session)
- Months offered:
  - Sept & Jan: Units 1 & 2
  - Oct & Feb: Units 3 & 4
  - Nov & March: Units 5 & 6
  - Dec & April: Units 7 & 8
- Pass/fail

Face-to-face meeting, typically on 3rd Monday of rotation
Inquiry Program:
Courses During the Immersion Phase

• PLAN
• Research Immersion
FHD Immersion Course Information

• 5 units as a class during three one-week Immersion Weeks
  – You don’t register for these
  – Attendance is mandatory

• 5 units longitudinally, mostly during 3rd year
  – Paired with a primary rotation
  – Cannot take FHD when you take PLAN
  – Tuesdays from 1-5 pm
  – 20 hours effort per unit
  – Primarily self-directed, asynchronous learning
  – **One or two face-to-face meetings (varies by course)**

https://medschool.vanderbilt.edu/fhd/fhd-immersion-phase-courses
Advanced Communications 1 and Public Health and Prevention (Intro to Immersion Phase week)

Healthcare Economics and Policy (4th year winter FHD Immersion)

QI 1-3/PS longitudinally during 3rd year IPE2 fulfilled either via one month longitudinal or other approved experience*

*Such as Nicaragua, Shade Tree, VPIL, or other approved interprofessional experience
VMS2 Registration Timeline

- **March 22**: Rising VMS3 IP Requirements Meeting
- **March 29**: How-to Register Meeting
  - March 29 at 5 pm
  - LH 512
- **April 9**: Registration opens for rising VMS4
  - April 9 at 6 pm
- **April 16**: Registration opens for rising VMS3
  - April 16 at 6 pm
- **April 26**: Registration reopens for ALL
  - April 26 at midnight
- **February 21**: Rising VMS3 IP Requirements Meeting
- **March 22**: Careers in Medicine ISC Fair
  - March 22 at 5 pm
  - LH 202
- **April 2**: Registration opens for rising VMS4 MSTPs
  - April 2 at 6 pm
- **August 27-31**: Immersion Phase 2018-19 begins

**Dates**
- **February**: 2/21
- **March**: 3/22, 3/29
- **April**: 4/2, 4/9, 4/16, 4/26
- **August**: 8/27-31
Resources

• Class of 2020
  – https://medschool.vanderbilt.edu/ume/class-2020-requirements

• MD PhD Pre-C2.0
  – https://medschool.vanderbilt.edu/ume/md-phd-prec2o

• Make sure to pick up the appropriate printed packet at the back of the room
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
- Lesbian, Gay, Bisexual, and Transgender (LGBT) Health
- Neurodevelopmental Disabilities
Careers in Medicine

https://medschool.vanderbilt.edu/cim/pathway-match

Your guide to succeeding in the residency application process with info such as
Cost of Applying
Fourth-Year Scheduling
Away Rotations
Calendar to Match
Faculty Advisor Lists
Checklist for Match
Workshops
Application Process
Letters of Recommendation
Integrated Science Course Presentations
(please hold all questions until the end)
Cardiovascular Disease
David Meoli, MD, Steven Eskind, MD, Lisa Mendes, MD, Julie Damp, MD, Ash Shah, MD, Robert Deegan, MD

Science
Cardiovascular anatomy and physiology, Etiology and pathophysiology of atherosclerosis, Hemodynamics of cardiovascular system in health and disease, Pharmacology, Pathophysiology, diagnosis and treatment of acute coronary syndromes, acute myocardial infarction, congestive heart failure, aortic stenosis, atrial fibrillation and wide complex tachycardia, Pathophysiology, diagnosis and treatment of common forms of carotid and peripheral vascular disease, and aortic disease

Clinical Settings
Four, one week clinical experiences in the following areas: CT surgery, Vascular Surgery, CT Anesthesia, General Cardiology/Interventional, General Cardiology/Imaging, Electrophysiology, Heart Failure

Specialty Interests
Internal Medicine, Cardiology, Critical Care, Vascular Surgery, Cardiothoracic Surgery, Anesthesia, Emergency Medicine
## Clinically Applied Immunology

**Daniel Dulek, MD**

**Course Goal:** To reinforce and extend students’ ability to apply immunologic concepts in a clinically-relevant manner using a range of medical subspecialties

<table>
<thead>
<tr>
<th>What’s New for 2018-2019?</th>
<th>Clinical settings tailored to your interests</th>
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<tbody>
<tr>
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<td>Broader clinical application</td>
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</table>

### Clinical Settings

- Rheumatology
- GI/Inflammatory Bowel Disease
- Allergy/Immunology
- Infectious Diseases
- Dermatology
- Solid Organ Transplantation
- Hematopoietic Cell Transplantation
- Pathology

### Clinical Science

- Clinical Problem Solving
- Immunology
- Clinical Flow
- Cytometry and Immunologic Diagnosis
- Pathologic Inflammation
- Microbiology
- Sepsis
- Opportunistic Infections
- Monoclonal Antibody Therapy
- CAR T cells
- Cancer Immunotherapy
- Immunosuppressive Medications
Community Healthcare
Jule West, MD and Tiffany Israel, MSSW

Science
Population health, health policy, health determinants, community engagement, systems engineering, public health, organizational management, health ethics, resource utilization, implementation science, behavioral science, communication science, stress biology, vaccine immunology and policy implementation

Clinical Settings
Students participate in clinical care in a safety net primary care setting including the Neighborhood Health Clinics, Matthew Walker Comprehensive Health Center, or Siloam Health

Specialty Interests
Community and Population/Public Health Medicine, Combined Internal Medicine-Pediatrics, Emergency Medicine, Family Medicine, General Surgery, Internal Medicine and subspecialties, Neurology, Obstetrics & Gynecology, Orthopedic Surgery, Pediatrics, Plastic Surgery, Psychiatry
**Critical Illness**

Tracy McGrane, MD & Meredith Pugh, MD

**Science**

Physiology, pathophysiology, pharmacology, anatomy, microbiology, immunology, neuroscience, nutrition science, imaging, ethics and behavioral medicine

**Clinical Settings**

Critical Care Skills Week (CELA); one week ‘on service’ in either the medical, surgical, burn, neurologic, cardiovascular, or pediatric ICUs

**Specialty Interests**

Anesthesiology, Critical Care Medicine, Internal Medicine and its Subspecialties, General Surgery and its Subspecialties, Emergency Medicine, Pediatrics
Diabetes
Michael Fowler, MD

Science

lipid biology and pharmacology, cardiovascular physiology, molecular biology, genetic medicine, cell biology, and neuroendocrinology

Clinical Settings

Diabetes Bootcamp followed by “sub-fellowship” in the glucose management service and endocrine consult service

Specialty Interests

Internal Medicine and subspecialties, Family Medicine, Emergency Medicine, Surgical Subspecialties, Anesthesia, Radiology
Emergency Care: Cell to System Science
Kendra Parekh, MD & Saralyn Williams, MD

Core Concepts
Deeper Dive
Concepts in Action
Summary

Systems of Care
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
Getting Hooked: Immersion in Addiction

Meg Benningfield, MD and Christine Konradi, PhD

Science

Biological and clinical principles of brain function and behavior: What determines who gets hooked?
How do drugs affect the brain?
How can physicians help patients to quit?

Clinical Settings

Pain clinic, partial hospital program, inpatient addiction treatment

Specialty Interests

Primary Care * Surgery * Pain Management
Adolescent Medicine * Psychiatry * Neurology
Global Health
Doug Heimburger, MD, MS

**Science**

- health systems, population health, pathology & pathophysiology (IDs, NCDs), epidemiology, nutrition, social sciences, and/or public health

**Clinical Settings & Specialty Interests**

**Central America**
- Primary Care, Public Health, IDs, Peds, NCDs, Cancer, Cardiology, Nutrition, Pathology, Psychiatry, Microbiology
- Teaching Hospital, District Hospital, Rural Clinic, University Laboratory

**Jordan**
- Cancer, Genetic Diseases, NCDs, Pathology, Pediatrics, QI
- Teaching Hospital, Gov’t Hospital, Refugee Camp, Cancer Center

**Kenya**
- IDs, HIV/AIDS, MCH, Nutrition, Prevention & Treatment, Primary Care, Public Health, Water & Sanitation
- Rural Clinic, Community Outreach

**Alternative Site**
- Student chooses among a variety of GH topics or develops their own modules
- Student arranges site and supervisor
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)
1 week outpatient (primary care, specialty clinics)
Home, assisted living, nursing home, palliative care, hospice visits, V3

Specialty Interests
Internal Medicine and subspecialties, Surgery, Family Medicine, Neurology, Psychiatry, Emergency Medicine
Infectious Diseases

Holly Algood, PhD and Christina Fiske, MD

**Science**
Virology, microbiology, molecular biology, immunology, pathophysiology, pathology, antimicrobial stewardship, infection prevention

**Clinical Settings**
Inpatient consult service (Pediatric or Adult), outpatient clinics (Pediatric, General Adult, HIV), microbiology and virology lab

**Specialty Interests**
Internal Medicine and Pediatrics, (esp. Allergy/Immunology, Rheumatology, Hematology/Oncology, Infectious Diseases, and Transplant subspecialties), Dermatology, Pathology
Injury, Repair, and Rehabilitation (IRR)

Shannon Eastham, MD

Science
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

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
Surgery & Subspecialties, Emergency Medicine, Anesthesiology, and Aspiring MDs
Medical Imaging and Anatomy
Cari Motuzas, MD and Scott Pearson, MD

Science
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
Sexual Health and Medicine
Doug Milam, MD and Mary Romano, MD

Science

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

Students will have hands on experience in outpatient clinics including Adolescent medicine, Urologic surgery, Planned Parenthood, Comprehensive Care Clinic, Obstetrics/Gynecology

Specialty Interests

Adolescent Medicine, Family Medicine, Internal Medicine, Obstetrics/Gynecology, Pediatrics, Psychiatry, Urology
# The Skinny on Obesity

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

## What is new?
- Obesity boot camp
- Food analysis project
- Shade tree weight loss camp
- *New course co-director*

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

## Clinical Settings
- Medical Weight Loss Clinic
- Surgical Weight Loss
- Vanderbilt Lipid Clinic
- Diabetes Eskind Clinic
- Shade Tree Clinic

## Specialty Interests

All specialties must deal with patients with obesity, but critical for Internal Medicine and subspecialties, Pediatrics and subspecialties, Surgery (all types), Neurology, Ob/Gyn
Working-Learning Health System
Tyler Reimschisel, MD, MHPE & Interprofessional Clinical Clinical Faculty

Science
Health systems science, clinical & behavioral medicine, population & public health, health policy, socio-ecologic determinants of health, communication science, leadership & organizational management, implementation science

Clinical Settings
• Immersive experience in which interprofessional group of students and faculty provide comprehensive clinical care & care navigation to panel of patients
• Professions include Medicine, Nursing, Social Work, Pharmacy, Physician Assistant
• Can choose to do one-, two- or three-month experience:
  • Month 1: ISC in health systems science
  • Month 2: ACE in population health
  • Month 3: ACE in panel-based care
• Students who complete 3-month experience eligible for QI Advanced Track credit
• Meets primary care requirement

Specialty Interests
Primary Care, Internal Medicine, Family Medicine, Population/Public Health Medicine
### ISC Offerings in 2018-19

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<thead>
<tr>
<th>Course</th>
<th>Max enrollment per offering</th>
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<th>8</th>
<th>9</th>
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<th>11</th>
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<td>Addiction</td>
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<td>Cancer</td>
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<td>Clinically Applied Immunology</td>
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<td>Community Healthcare</td>
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<td>Critical Illness</td>
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<td>Diabetes</td>
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<td>Emergency Care</td>
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<td>Injury, Repair, &amp; Rehabilitation</td>
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<td>Medical Imaging and Anatomy</td>
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<td>Working-Learning Health Systems</td>
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Note: The table shows the maximum enrollment per offering and the availability for each section (7-6) for the academic year 2018-19.