Immersion Phase
Class of 2019
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 (20 min) (4th floor rooms)
  – MSTP Students will meet with Dean Fleming
• Students meet with subspecialty advisors (20 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

- **Learning Communities**
  - longitudinal development as professionals

- **Foundations of Health Care Delivery**
  - longitudinal exploration of systems of care

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**FREQUENT ASSESSMENT**

**ITERATIVE PERSONAL LEARNING GOALS**

**IMMERSION PHASE GOALS**
# C 2.0 Immersion Phase Requirements

## Minimum C2.0 Requirements (in Months)

<table>
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<tr>
<th>On-Campus</th>
<th>On-Campus or Away (away with approval)</th>
<th>15 required months</th>
<th>Flex months (4 + 2 month for Step 1 + 1 month for interviews)</th>
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<td>4</td>
<td>3</td>
<td>4+2+1 (7 total)</td>
<td>ISC, ACE and AI grading = H/HP/P/F&lt;br&gt;Students can register for up to 19 months&lt;br&gt;#At least one must be clinical rotation.</td>
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<td>Integrated Science Courses (ISCs)</td>
<td>Research Immersion</td>
<td>Must include:&lt;br&gt;1 Primary Care course (either ACE or ISC)&lt;br&gt;1 Acute Care course (EM or ICU-based course)</td>
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<td>Acting Internship (AI)</td>
<td>Competency and Interest-Driven Rotations#&lt;br&gt;(can be ISCs, ACEs, AIs or Electives)</td>
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<tr>
<td>Advanced Clinical Electives (ACEs)</td>
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*#At least one must be clinical rotation.*
Approach for your IP Planning

• Plan for a minimum of 2 (max of 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 and 3-5 pm
  – 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

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

- PLAN
- Research Immersion
FHD Immersion Course Information

• 6 units as a class during three one-week intersessions

• 5 units longitudinally, mostly during 3rd year
  – Paired with a primary rotation
  – Tuesdays from 1-5 pm
  – One or two face-to-face meetings (varies by course)
  – 20 hours effort per unit
  – Primarily self-directed, asynchronous learning
1. AC1 and PHP (Intro to Immersion Phase week)

2. AC2 and IPE1 (3rd year spring intersession)

3. HCE & HCP (4th year winter intersession)

4. 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

- **February 15**: Rising VMS3 IP Requirements Meeting
- **March 9**: Careers in Medicine ISC Fair, March 9 at 5 pm, LH 202
- **March 30**: How-to Register Meeting, March 30 at 5 pm, LH 202
- **April 10**: Registration opens for rising VMS4 April 10 at 6 pm
- **April 17**: Registration opens for rising VMS3 April 17 at 6 pm
- **April 27**: Registration reopens for ALL April 27 at midnight
- **August 28-September 1**: Immersion Phase 2017-18 begins

**Meeting Details**
- **March 30 at 5 pm**: LH 202
- **March 9 at 5 pm**: LH 202
- **April 10 at 6 pm**: LH 202
- **April 17 at 6 pm**: LH 202
- **April 27 at midnight**: LH 202

**Registration Dates**
- **April 27**: Registration reopens for ALL
- **April 17**: Registration opens for rising VMS3
- **April 10**: Registration opens for rising VMS4
- **April 3**: Registration opens for rising VMS4 MSTPs

**Immersion Phase Orientation**
- **August 28-September 1**: Immersion Phase Orientation for VMS3
Resources

• Class of 2019
  – https://medschool.vanderbilt.edu/ume/class-2019-requirements

• MD PhD Class of 2018
  – https://medschool.vanderbilt.edu/ume/md-phd-prec2o

• Make sure to pick up the appropriate printed packet at the back of the room
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
Lisa Mendes, MD, Julie Damp, MD, Steven Eskind, MD, Steven Ball, 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
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, Mercy Community Healthcare, or Siloam Family Health Center

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
- Adult inpatient management service and adult diabetes clinic

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

Toxicology
Anatomy
Ultrasound
Teamwork
Systems of Care/Operations

Core Concepts
Deeper Dive
Concepts in Action
Summary
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

Population health science, Public health, Pathology and Pathophysiology (for both infectious diseases and non-communicable diseases), Nutrition science, Epidemiology, Social sciences, Behavioral sciences, Health systems sciences, and Microbiology (Note: additional foundational science areas could be covered depending on the site)

### Clinical Settings & Specialty Interests

<table>
<thead>
<tr>
<th>Central America</th>
<th>Jordan</th>
<th>Kenya</th>
<th>Alternative Site</th>
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</thead>
<tbody>
<tr>
<td>Cancer, Cardiology, EM, IDs, NCDs, Nutrition, Pathology, Primary Care, Public Health, QI</td>
<td>Cancer, Genetic Diseases, NCDs, Pathology, Pediatrics, Quality Improvement</td>
<td>IDs, HIV/AIDS, MCH, Nutrition, Prevention &amp; Treatment, Primary Care, Public Health, Water &amp; Sanitation</td>
<td>Student chooses among a variety of GH topics or develops their own modules</td>
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<tr>
<td>Teaching Hospital, District Hospital, Rural Clinic, University Laboratory</td>
<td>Teaching Hospital, Gov’t Hospital, Refugee Camp, Cancer Center</td>
<td>Rural Clinic, Community Outreach</td>
<td>Student arranges site and supervisor</td>
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</tbody>
</table>

*Students choose among a variety of GH topics or develop their own modules.*
Healthy Aging & Quality Dying
Mariu Duggan, MD, MPH & Jim Jackson, PsyD

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 ward, geriatrics consults, geri-psych unit)
1 week outpatient (primary care, specialty clinics)
Home, assisted living, nursing home, palliative care, hospice visits

Specialty Interests

Internal Medicine and subspecialties, Family Medicine, Neurology, Psychiatry, Emergency Medicine, Surgery
Immunity and Infections in the Immune-Compromised Host

Course Goal

To expand students’ understanding of the human immune system in a clinically relevant, broadly applicable, and accessible manner using clinical transplantation, genetic immune deficiency/dysregulation, and infectious diseases with an emphasis on discovery and critical thinking.

Foundational Science
- Immunology
- Genetics
- Molecular biology
- Pathology
- Microbiology
- Pharmacology

Clinical Settings
- Pediatric and Adult
- Solid Organ Transplant
- Stem Cell Transplant
- Transplant Infectious Diseases
- Interest driven ‘electives’

Specialty Interests
- Internal Medicine and Pediatrics, (esp. Allergy/Immunology, GI, Rheumatology, Hematology/Oncology, Infectious Diseases, and Transplant subspecialties), Dermatology, Pathology, General Surgery (esp. with Transplant interest)
Infectious Diseases
Holly Algood, PhD and Christina Fiske, MD

Science
Can you recognize common infections in different situations, employ principles of antibiotic stewardship, and utilize diagnostic testing to impact patient care?
Foundational Sciences: Virology, microbiology, molecular biology, immunology, pathophysiology, pathology.

Clinical Settings
1-week on ‘inpatient service’ (Pediatric or Adult), 1-week of ‘outpatient clinics’ (Pediatric, General Adult, HIV+), and 1-week in the Micro/Virology Lab

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

Mayur Patel, MD, MPH and Lillian Nanney, PhD

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 Lillian Nanney, PhD

Science
Anatomy labs, radiation basics, contrast use, appropriate ordering

Clinical Settings
Observing scans & procedures in MRI and fluoroscopy;
Hands-on in CELA: Ultrasound & image-guided procedures;
Radiology reading room experience based on your interest

Specialty Interests
Individualized based on your interest! Internal Medicine, General Surgery, Emergency Medicine, Pediatrics, Neurology, Neurosurgery, Orthopedic Surgery, Ophthalmology, Ob-Gyn, ENT, General or Interventional Radiology, Radiation Oncology
**Precision Cancer Medicine**
Kim Dahlman, PhD and Vicki Keedy, MD

**Science**
- Histology, biochemistry, genetics, molecular biology, immunology, pathology, pharmacology, and toxicology

**Clinical Settings**

**Personalized to your interests!**
- 10 half-day sessions in oncology: medical, pediatric, radiation, or surgical
- 2 half-day sessions in: genetic counseling, pathology, and interventional oncology
- Additional clinical experiences are considered

**Specialty Interests**
- Internal medicine (oncology & cardiology)
- Pediatrics (oncology, genetics, & cardiology)
- Pathology
- Pharmacology
- Radiation oncology
- Reproductive medicine (gynecology)
- Surgery (all types)
- Translational research
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

John Cleek, MD and C. Robb Flynn, PhD

Science

Obesity and comorbidities including diabetes, prediabetes, obstructive sleep apnea, fatty liver disease, hypertension, dyslipidemia, intestinal malabsorption, and others

Clinical Settings

Pediatrics including pediatric weight management, pediatric hepatology, pediatric nephrology, pediatric ENT, pediatric sleep medicine, pediatric orthopedics. Adult including bariatric surgery clinic and OR, medical weight clinic with physicians, nurse practitioners, dietitians, and exercise physiologists, lipid clinic, and Eskind Diabetes 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 Faculty

Science

Health systems science, clinical & behavioral medicine, communication science, epidemiology, health policy, health determinants, implementation science, leadership & organizational management, pathophysiology, population & public health

Clinical Settings

• 3-month longitudinal immersive experience in which students from multiple professions, residents & interprofessional faculty provide comprehensive clinical care & care navigation to panel of patients and families
• Three experiences done in parallel over 3 months (must do all three):
  • ISC in health systems science (includes QI project & leadership skills seminars)
  • ACE in population health
  • ACE in panel-based care
  (Select clinic: Mercury Courts, Familiar Faces, Pediatric Pulmonology, or Gen Peds)
• Students eligible for QI Advanced Track credit
• Meets primary care requirement (except Pediatric Pulmonology)
• 3-month blocks start May ‘17, Sept ‘17, Feb ‘18, and May ‘18

Specialty Interests

Population/Public Health Medicine, Internal Medicine, Pediatrics, Combined Internal Medicine-Pediatrics, Family Medicine, Primary Care
# ISC Offerings in 2017-18

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<tr>
<th>Course</th>
<th>Max enrollment per offering</th>
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<td>Addiction</td>
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<td>Cardiovascular Diseases</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>Global Health</td>
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<td>Immunity and Infections</td>
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