VCU School of Medicine
MCV Campus

Self-Guided Tour

Updated By:

July 2016
OUTLINE of SELF-GUIDED TOUR

I.) Introduction: Background and History

II.) Tour*

   A. McGlothlin Medical Education Center
   B. Hunton Hall
   C. Sanger Hall
   D. Gateway Building
   E. Critical Care Hospital
   F. Tompkins-McCaw Library
   G. Main Hospital
   H. Egyptian Building, Baruch Auditorium
   I. Medical Sciences Building

III.) Conclusion

IV.) Frequently Asked Questions (FAQ’s)

*Please note that these are only the main stops on our self-guided tour. We have mentioned many other locations on our campus throughout the tour; feel free to go in and see them if you would like!
I.) INTRODUCTION: Background and History

Welcome to the Virginia Commonwealth University (VCU) School of Medicine! The VCU School of Medicine in the tradition of Medical College of Virginia was originally created in 1838 as the Medical Department of Hampden-Sydney College. The first medical school class consisted of just 46 students, and a tuition of $20 for each of six courses! In 1860, it became a free-standing and state-funded institution and came to be known as the Medical College of Virginia. In 1968, MCV joined with the Richmond Professional Institute (RPI) to create Virginia Commonwealth University. Currently, the MCV Campus includes the schools of Medicine, Pharmacy, Dentistry, Nursing, and Allied Health. Nonetheless, over the past many decades, the medical school and complex have evolved into a large, high-tech, academic medical school, which trains budding physicians in the heart of Richmond and central Virginia.

You will discover that we are one of the larger medical schools in the country. We house the nation's second oldest transplant program, and we are internationally known for our head injury, drug abuse, and burn injury research. More than 60 of our physicians are listed in "The Best Doctors in America." Many of our programs have been nationally ranked as top programs, including in U.S. News & World Report. These include OB/GYN, Neurology/Neurosurgery, Orthopedic Surgery, and Physical Medicine/Rehabilitation. Our trauma unit has been named one of the top 20 centers in the nation, and our division of geriatric medicine has been ranked second only to Harvard. Furthermore, we are the largest academic health center in Central Virginia and U.S. News and World Report’s Best Hospitals edition ranked the Virginia Commonwealth University Medical Center the No. 1 hospital in Virginia in 2012.

This self-guided tour is intended to provide a spatial overview of the campus as well as some general information regarding the VCU School of Medicine. Although this tour is similar to the one given to medical school interviewees, you may want to include or exclude certain things. A map of the MCV campus is included in this guide to help you visualize an overall layout of the campus.

For further information regarding the School, you may visit our website (www.medschool.vcu.edu) or call 804-828-9630. In addition, if you wish to get a student perspective on any of your questions/concerns, feel free to e-mail the "Ask a Student" e-mail account (tourguide@vcu.edu), in which second year medical students, who are also tour guides, will reply to your query.
II.) TOUR

A.) McGlothlin Medical Education Center

The directions for this tour begin at the Office of Admissions for the School of Medicine, located on the 1st floor of our brand new Medical Education Center. The Office of Student Outreach Programs is also located in the rear of this floor.

Our brand new School of Medicine Building was opened in March of 2013 and was a $158.6 million dollar addition to the VCU School of Medicine. This is the new home for all of our medical classrooms and administrative offices, and utilizes the latest technologies in medical education to accommodate the redesigned curriculum.

*From the admissions office approach the main entrance of the building.* Encircling the upper perimeter of the lobby notice a beautiful mural restored from the A.D. Williams Clinic, the original building occupying this site. As you enter the lobby, the large donor wall marks the expansive alumni, faculty, and community support for this new medical education building. These individuals contributed to the overall construction of this state of the art facility. Straight ahead is a set of stairs that will take you down from the entrance of the building to the Kontos Medical Sciences Building. On your left is the forum featuring plush, modern furniture and a casual area for learners and faculty to enjoy the building. Wifi access, touchscreen maps, and telemonitors on the walls keep everyone abreast of the latest events on campus, locally, nationally, and internationally. Back towards admissions, you will find the elevators that take you up to the rest of the building.

*Take the elevator to the 10th floor.* The ninth and tenth floors contain 25,000 square feet of simulation space. This floor contains fourteen clinical skills stations. Working with standardized patients who have been trained to present with illness, trainees learn both fundamental and advanced skills in interviewing and examining patients. Computer stations allow students to enter encounter notes based on the history and physical they acquired from the patient.

*Take the stairs to the 9th floor.* The ninth floor houses an operating room, intensive care unit, and other space which may be used to train learners in the care of patients through a number of real life scenarios. This floor has the capacity for real time streaming with clinical areas in the health system.

*Take the elevator to the 8th floor.* The 5th through 8th floors each house a learning neighborhood. Upon admissions to medical school, students will be assigned to one of four societies, each residing on a separate floor of the building. The learning neighborhoods contain lockers, kitchen facilities, casual learning space and small group rooms. In addition, there are learning studios where students work in teams of six at collaboration tables.

*Take the elevator to 4th floor.* The fourth floor of the building contains the administrative offices for the School of Medicine. As you leave the elevators, to your left is a set of glass doors which is the entrance to the Dean’s suite. Offices for the Dean of the School of Medicine, Faculty Affairs, and Finance are located on this side of the floor. The right houses the Undergraduate Medical Education, Student Affairs, and Financial Aid offices.

*Take the stairs to 3rd floor.* The second and third floor houses the 250 seat capacity learning theatre. The design of the theatre is such that an audience can easily switch from a large group lecture to small
group exercises easily. A dual projection screen allows for two images to be displayed at once. In the front of the learning theater are two monitors whereby the person conducting a lesson may follow notes or images unbound to a podium. A small lectern houses an iPad sized control device that enables the individual facilitating a lesson to alter anything in the learning environment.

Currently most first and second year classes are held either on the 3rd floor or the 5th through 8th floor studios. In the learning studios, students are able to master material in a collaborative and integrated learning model.

New C3 Curriculum

What is the C3 curriculum? C3 is the new integrated curriculum for the medical school that is centered on the needs of the learner, clinically driven, and competency based. In this new approach, normal anatomy, histology, and physiology are taught concurrently with pathophysiology and pathology and students will learn things from patient cases from the very beginning.

Longitudinal Curriculum (Course that will go throughout all 4 years)
- Practice of Clinical Medicine
- Physician Patient & Society
- Population Health

In addition to the longitudinal curriculum, the first year of medical school consists of two courses: The Scientific Foundations of Medicine and the Applied Medical Sciences. Here is a complete list of the divisions in each course taken during the first year:

**Scientific Foundations of Medicine**
- Molecular Basis of Health & Disease
- Principles of Physiology
- Principles of Autonomics and Pharmacology
- Infection and Immunity
- Foundations of Disease
  Includes the disciplines of Biochemistry, Physiology, Histology, Embryology, Pharmacology, Genetics, Microbiology, Immunology and Pathology

**Applied Medical Sciences-Year 1**
- Marrow & Movement
- Glands and Guts
  Includes the disciplines Hematology/Oncology, Gastroenterology, Endocrinology, and the study of Reproductive and Musculoskeletal systems.

Ever wonder about grading? Achieving competency in a course will be based on successful completion of each division (score above 70%).

There are various support systems available for students throughout the year, including: academic support services, university counseling services, helpful and student-focused deans and faculty members, curriculum office staff, faculty advisors, and a Big Buddy (2nd year student).

Second year Curriculum:
1) **Applied Medical Sciences**
   - Circulation, Respiration and Excretion
   - Cardiology, Pulmonary, Renal/Genitourinary
   - Mind, Brain and Behavior
   - Neurosciences, Neurology, Behavioral Sciences

2) **Integration Period** - Case Based Integration across the Organ Systems, board prep, take boards, then vacation.

**USMLE. Step 1:** During second year, students must take the national Board exam, USMLE, Step I (United States Medical Licensing Exam). There are faculty-run board review courses starting 2nd semester. Because the Board exam is now computerized, in order to better prepare students, all tests during second year are taken on the computer. The VCU School of Medicine has consistently been above national Board passing rates.

USMLE Board Scores for Class of 2014

95.6% passed the Step 1 on their 1st try with average score of 229.8.

*Return to the first floor via elevator and exit the main entrance of the Medical Education Center. Cross 12th street* and observe a common student "hangout" area with a garden and some benches to the right. To the left, you will see a peach colored building called **Hunton Hall**.

**B) Hunton Hall**

*Enter Hunton Hall and take the stairwell on the left up to the Hermes Kontos Students Lounge.* Hunton Hall was formerly a Baptist church (notice the pews up above) that was bought by the university in 1938 and completely renovated in 2006. It served as a hospital during the Civil War and was originally used as a dormitory for students and house staff. This $6 million dollar renovation is now a three-story center servicing the MCV Campus. It includes space for recreation, lounging, studying, small group meetings and offices for MCV Student Government and MCV Campus Student Affairs staff. The renovations for this modern student facility were accomplished while still preserving the historical features of the building, such as original church pews, staircases and ceiling medallions.

At this time we will now discuss the topic of Students Activities. Below is a list of some of the professional organizations as well as student interest groups. However, for a complete list of student activities and organizations, please visit:

http://www.medschool.vcu.edu/studentaffairs/organizations/index.html

**Professional Organizations**
- **AMA** - lectures, community health events, conferences
- **AMSA** - American Medical Student Association
- **SNMA** - Student National Medical Association
- **WIMSO** - Women in Medicine Student Organization

**Interest Groups**
- **SIHO** (Student International Health Organization)
- **WMS** (Wilderness Medical Society)
- **David Hume Society** (Surgery)
- **PIG** (Pediatric Interest Group)
- **SMILE**—Students Making It a Little Easier (big buddies for pediatric cancer patients)
- **Club Med** (Internal Medicine)
- **SFMA** (Student Family Medicine Assoc.)
- **SPS** (Student Psychiatric Society)
- **CM DA** (Christian Medical & Dental Assoc.)
- **MCV Health Collective** (LGBTQ issues in health care)
- **I2CRP** (Inner City Rural Preceptorship)

**Medical Trips**
- Past Student organized trips: Honduras, India, Ghana, Kenya, El Salvador, Ecuador, and Dominican Republic, Guatemala

**Free Clinics**
- Healing Eagle, Fan Free, Conrad Center, Crossover

All in all, if you have interest in a particular group, and it does not already exist, the School encourages you to get it started. New and budding interests are always welcome!

**Off-Campus activities: What does Richmond have to offer?**

One of the great things about Richmond is that there is something for everyone! Richmond is filled with lots of culture, music, art, and history. While it is not as big as some other cities, it is large enough to provide all the perks of an urban environment but small enough to provide a cozy, at-home feel. Also what’s even more exciting is that Richmond is on a growing expedition! There are numerous renovations going on within the City, as bustling businesses and other enterprises as well as art and recreational facilities are moving into Richmond. Also, its central location is ideal, being just a couple of hours away from Washington, D.C. as well as Virginia Beach or even the mountains!

Here are some of the sites located in Richmond:

- Museums of Science & Art (Valentine, Natural History, tons of Civil War stuff)
- Richmond symphony, Richmond ballet, musicals
- Landmark theatre: concerts -Theatre (Carpenter Center, Landmark, Richmond Shakespeare Festival, Dogwood Dell, Theatre IV, Firehouse Theatre)
- Renegades hockey
- Maymont & James River Parks (Pony Pasture, Belle Isle, Canal Walk)
- Shockoe Slip & the Bottom; Friday Cheers
- Various Festivals: VCU French Film Festival, VCU Intercultural Festival, Watermelon festival, Greek, Festival, Easter parade, June Jubilee Festival, Richmond Folk Festival!
- The Fan, Carytown, The Byrd Theatre
- Various other outdoor activities (plenty of golf courses, climbing, white water rafting, etc)
- Close to DC (~2hrs); Virginia Beach (~2hrs); the Appalachian Mountains
- Rock climbing - one of the largest gyms on the East Coast is in Richmond

Exit Hunton Hall and face Sanger Hall (to the left if you are facing the garden).
C.) Sanger Hall

Sanger Hall is the former home of the Office of Admissions as well as most administrative offices for the School of Medicine, and still primarily houses administrative offices and research labs. There is at least one classroom/auditorium on each floor; however, these are mostly used by students belonging to other programs on this campus, such as graduate students in the Master’s programs. Another facility of interest, particularly to medical students, is the Anatomy lab.

The Anatomy Lab is located on the 10th floor. However, due to state laws regarding confidentiality, visitors and non-medical students and faculty are prohibited from viewing the cadavers. All you really need to know at this point is what the course is all about. Anatomy is taken during the first year of medical school and lasts the second semester, from January to May. Our newly renovated lab has windows all around the room, giving you a great scenic view of the city, and there is a computer at the foot of every dissection table. This becomes especially useful if you wish to follow along in your studies with the web-based version of the course outline or if you wish to visit other web resources. The tables also have a built-in vacuum system that pulls air down through the table. This greatly reduces the formalin scent synonymous with anatomy labs!

**Walk back towards the Medical Education Center and observe the tall, four winged building to the right of it.**

This is West Hospital, in which there are mostly administrative offices, and outpatient clinics. In between the Medical Education building and West Hospital is the George Ben Johnston Auditorium, where the Constitution was ratified in Virginia in 1788. This is also the location of one of the scenes from the movie Patch Adams (who went to medical school here, by the way!)

**Now turn left and head across Marshall St. towards the building with the large glass face and glass awning; this is the Gateway Building.** Before you enter the gateway building, we would like to point out some other important structures which you may be interested in:

If you are facing the entrance to the Gateway Building, to the left is the Nelson Clinic, the main outpatient facility on our campus. This building includes clinics for pediatrics, audiology, urology, radiology, ophthalmology, dermatology, an OT/PT hand center, woman’s health, family medicine, and otolaryngology to name a few.

If you walk past the Nelson Clinic (walking on Marshall St.) and turn right on 11th St, you will see the Ambulatory Care Center to your right at the end of the block (the large gray building). This building houses the ambulatory surgery services an outpatient treatment facilities for the VCU Medical Center. Now, head back to the corner of 11th St. and Marshall St.

Beyond the Nelson Clinic (now crossing over 11th St. on Marshall St.) are the Putney Houses. The Putney houses were the homes of Samuel and Stephen Putney, father and son, who owned a wholesale shoe business. Built in 1859 and 1861, they are indicative of the architecture of the city at that time. The three-story, three-bay Italianate town house at 1010 E. Marshall St. is distinguished by its rich architectural decoration. In 1982, VCU received a preservation award for the restoration of these two houses, which the school now uses for offices and reception areas. This is the location of our Life Sciences department, and also houses the office of the Vice President of Health Sciences and CEO of the VCU Health System, currently occupied by Dr. Marsha Rappley.
Opposite (across Marshall St.) to the Putney Houses is the Children’s Pavilion. The Children’s Pavilion is the only comprehensive primary and subspecialty outpatient facility of its kind in central Virginia. It is home to state-of-the-art pediatric primary and subspecialty care, outpatient surgical services; resident, medical student and nursing education; pediatric medical care coordination; and pediatric clinical research studies.

D.) Gateway Building

The Gateway Building, a $39 million dollar structure, opened in March 2002 and was constructed to provide an easily accessible entrance to all facilities of the VCU Health System/MCV Hospitals. (No walking in the rain, or alone at night, etc.) Facilities in this building include: outpatient testing/surgery; short-stay recovery area; mammography area; telemedicine site; 200-seat auditorium; endoscopy, dialysis, and transplant suites; treatment areas for minimally invasive surgery, surgical pathology, pulmonary function, echocardiography and cardiac physiology.

When you first walk into the building, you may notice the Community Education Center. If you would like to get a more detailed tour of this facility, feel free to walk in. Part of our mission and commitment to patients is patient education. This center serves as a library for patents and their families to learn more about their various medical conditions/illnesses through books, videos, Internet, and other resources. There are also teen-specific books written at a teenage level and geared towards this age group. Private rooms are available as well. Librarians and staff are also available for further assistance. Interestingly enough, former first lady Laura Bush dedicated this Center.

*Exit the Gateway building through the set of doors to the left of the stairs (opposite side of the building as the doors which you entered). After exiting, walk straight ahead.* You should notice the Ambulance drop-off area of the Ambulatory Care Center to the right. To the left, you will notice the Smith Building (School of Pharmacy). To the right, you will see the White House of the Confederacy.

This White House, now a museum, was the residence of Confederate President Jefferson Davis during the Civil War. This museum has the largest Confederate collection. On a side note, we are the only southern medical school to have graduated a class during each year of the Civil War. After passing the museum on the right, stop at the corner and look to your right, there you will have a good view of our newly opened Critical Care Hospital.

F.) Critical Care Hospital

Designed with input from more than 600 doctors, nurses, staff and patients, the state-of-the-art hospital includes features such as private NICU rooms and specialized floors including the Evans-Haynes Burn Center, Massey Cancer Center and Pauley Heart Center. Spacious hotel-like rooms with large windows offering scenic views also include flat-panel TVs and wireless connectivity. Visitors may choose from a full meal or quick name-brand eateries on Gateway’s ground floor. The quadrupled Three Bears Gift Ship features flowers, VCU logo items and much more.

*Cross over Clay St and Tompkins-McCaw Library is the brown building on your right. Located across the street from the library are the Perkinson and Lyons Buildings of the School of Dentistry*

G.) Tompkins-McCaw Library
The library is the largest medical library in the state, with over 300,000 volumes. It is one of the many study and research facilities used by medical students. The library was named after two related Richmond families who were closely connected to University. Dr. James McCaw established Chimborazo Hospital, where over 76,000 patients were treated during the Civil War. This was the largest military hospital ever built. Captain Sally Louisa Tompkins was the first and only woman commissioned in the Confederacy.

The library was recently renovated and includes computer lab facilities, group study and quiet study rooms, as well as a multitude of online and bound journals and references.

**Exit the library.** If you go to the right (Leigh St.) you will see the dormitories (behind the building with the triangular-looking glass roof) and the campus bookstore.

**The gymnasium and Larrick Student Center are located just behind the dormitories.** The Larrick Center has been completely rebuilt and features conference rooms, ballroom space, Starbucks, and Jonah’s Food Emporium which is a food court style dining facility. Located next to the Larrick Center is the MCV Campus Gymnasium which has also undergone significant renovations. Feel free to take a look inside the gym, after checking with the gym staff. It also has racquetball, squash courts, and basketball courts. The indoor pool opened in September of 1996. Students have access to several programs including aerobics, ballroom dancing, and an Outdoor Adventure Program. This program, which is run by students, organizes a range of trips including camping, white water canoeing, kayaking, caving, and skiing.

**Now, turn left and head back towards the Mcglothlin Medical Education Center. Enter through the same doors you left the Gateway Building. Proceed up the stairs to your left in the Gateway building to the Main Hospital.**

**E.) Main Hospital**

Since 1838, the Medical College of Virginia Hospitals (MCVH) has been on the forefront of advances in healthcare, providing patients with some of the most progressive treatment and technology available. Here, at Main Hospital there are more than 800 physicians, 1200 nurses, and 900 beds. There are more than 32,000 inpatient admissions and more than 514,000 outpatient visits to our 55 outpatient clinics per year. We are the largest provider of indigent care in the state, one of the largest Virginia Medicaid providers, and we are the eighth largest medical center on an academic campus nationally. We also serve as Medical Control for the State MedFlight Program. It has been responsible for over 2,000 flight missions with patients flown in from as far away as Texas. Also, since the VCU Health System is a Level I trauma center, we see all of the major trauma patients (motor vehicle accident victims, for example) and some of the more complex cases from across the state. In fact, it was the first of what are now four Level I trauma centers in the state of Virginia.

The Main Hospital has 11 floors, not including the Ground floor and the Basement level. Located on the Ground Floor is the Emergency Room. It is the fourth largest (in the terms of square feet) emergency room in the U.S. Over 78,000 patients are seen in the ER each year. The area covered by our emergency room extends east to Williamsburg, north to Fredericksburg, south almost of the North Carolina border, and west halfway to Charlottesville. Our state-of-the-art technologies include an onsite imaging facility, in which X-rays, for example, can be taken right in the ER and immediately reviewed by a radiologist in the ER itself. Other Radiology services are also located on the 3rd floor of the Main Hospital. This unique feature allows for expeditious diagnosis and treatment of critically ill patients. In addition, the ER is subdivided into sections for trauma, pediatrics, general medicine, and non-emergent care.
In addition, while in the Main Hospital, we generally take this opportunity to talk about the clinical years of medical school, i.e. the third and fourth years. At VCU School of Medicine, our third and fourth year medical students get tremendous breadth and depth of clinical exposure, in part due to the central location of the hospital, in addition to VCU being a Level I trauma center. In the third year, students take seven required rotations: Internal Medicine, Surgery, OB/GYN, Pediatrics, Psychiatry, Neurology, and Family Practice. Students also have some options as to where they perform each rotation (including Northern Virginia, through the INOVA/Fairfax collaboration) and some choose to work at selected community hospitals around central Virginia for a more varied experience. Others are permitted to do "away-rotations" in areas outside of Virginia (limited to select rotations). The fourth year is made up of electives and an "Acting Internship (A.I.)," in which students act like interns (or first-year residents). Each student is given one month off for residency interviews. With regards to match statistics, 96% of students received one of their top three choices in 2010. (For further information on Match Statistics, visit the medical school's website and click on Prospective Students.)

Exit Main Hospital via the 2nd floor bridge to your right to the Medical Education Center. From the second floor, proceed down the spiral staircase to the first floor lobby of the Medical Education Center. Exit the Medical Education Center via the staircase beside the forum.

As you walk down the hill, you will see the Massey Cancer Center at the bottom. Massey Cancer Center is among the nation's leading research and clinical institutions, one of only 65 National Cancer Institute designated Centers in the United States and one of only two in Virginia, placing it in the top 5% of the 1,500 cancer centers nationwide. Over 100 different research studies are currently being conducted there, and in the past 5 years patients have come to Massey from all of Virginia’s 134 counties and cities. Overall, VCU-sponsored research had more than doubled over the last decade from $90 million in 1997 to $230 million in 2009. If you like, feel free to go in and visit the information desk. If you exit through the doors on the opposite side, you will find a secluded garden which is a great spot for lunch!

If you are facing the Massey Cancer Center, to the left you can see another one of our hospitals, North Hospital (EG Williams Hospital), which provides both outpatient and inpatient services.

Continue heading down Marshall St. until you come to the courtyard on the right between the Medical Sciences Building and Egyptian Building.

H.) Egyptian Building, Baruch Auditorium

Between the buildings, stands a statue of Hippocrates. Behind the statue, you can see the octagonal roof of the Monumental Church. It was designed by Robert Mills, the architect of the Washington Monument, and the only student to study architecture under Thomas Jefferson. The church stands at the site of the Richmond Theater, which burned down in 1811 killing over 70 people inside, including the Governor of Virginia and a U.S. Senator. The church was built as a memorial, and the remains of those who perished in the fire are buried beneath the center aisle.

First, enter the Egyptian Building (can you guess which one this is?!?). The Egyptian Building was constructed in 1845 and was the first "official" site for the medical school. It is considered to be the finest example of Egyptian Revival architecture in the United States and has been in continuous use since its construction. The Egyptian Building has three floors.

Upon entering the Egyptian Building, you will notice the Baruch Auditorium. To keep with the Egyptian theme, there are hieroglyphics in the auditorium itself as well as at its entrance. The auditorium has 265
seats. Prior to the opening of the new Medical Education Center all first year medical student lectures took place here.

I.) Hermes A. Kontos Medical Sciences Building (MSB)

*Exit the Egyptian Building and note the Hermes A. Kontos Medical Sciences Building (MSB).* As you walk across the courtyard, the building to the left of MSB is the new Molecular Medicine Research Building that just opened in April 2009. It houses lab space for over 60 principal investigators.

Just behind the Egyptian Building (on Broad St., one block south of Marshall St.) is the Beers-Newton House, which is the headquarters of the MCV Foundation. The foundation fundraises to provide continuing support to the educational, clinical and research excellence on the MCV Campus. The Foundation forms a critical link between the community and the university, connecting the passions and priorities of alumni and friends to the medical school and its affiliates.

The Hermes A. Kontos Medical Sciences Building opened in 1996. Originally built in 1860, it was the site of the first hospital on this campus, the Old Dominion. Later, it was called St. Philip's Hospital (original entrance can be seen inside), which was the 1st general hospital for African-Americans in the U.S.

*To return to where you started your tour, head back up the hill towards the McGlothlin Medical Education Center.*

III) Conclusion

We hope that your visit to the VCU School of Medicine was a pleasant one and that you learned something new through the Self-Guided Tour. If you have further questions please contact the Office of Admissions for the School of Medicine at (804) 828-9630. Also, you are encouraged to visit the medical school's website, which has lots of useful information for students, applicants, visitors, and others!

For More information please visit our website at http://www.medschool.vcu.edu/admissions/md