# Pre-Med Handbook



Pre-Professional Advising
University of South Carolina
Columbia, SC 29208

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#### **Foreword**

This handbook was prepared for students and alumni at the University of South Carolina who have made the decision to pursue a career in the field of medicine. These guidelines should not be viewed as a program that will guarantee admission to medical school and a successful career in medicine. The medical profession is one of the most demanding and there are no guarantees of success. Some of the traits that predict success in medicine include high academic aptitude, hard work, the ability to work well with people, and good judgment.

#### I. The Decision to Pursue a Career in Medicine

You should be aware that the competition for admission to medical school is very intense. Only about one-half of those who now apply gain admission even though many of those rejected would likely be able to complete medical school and would make competent, dedicated physicians.

As a pre-med student, what can you expect during the next dozen years or so? During the four undergraduate years, you must demonstrate high academic ability and the courses required for admission to medical school will be rigorous.

In a conventional medical school, the MD degree requires four years of study. The first two years, called the preclinical years, are spent studying the basic medical sciences. At the end of the second year, medical students write Step 1 of the US Medical Licensing Exam (USMLE), a test taken by all medical students. Most medical schools require passing scores on this test before beginning the "clinical clerkships" in medicine: surgery, pediatrics, psychiatry, obstetrics/gynecology etc. during the third year. The fourth year is a continuation of clinical training. Most programs provide elective opportunities so that students may gain experience in an area they are considering as a specialty. The third and fourth years are spent working with patients in a clinical setting under the supervision of experienced physicians. The USMLE is a three-step exam and is the only route to be licensed to practice medicine in the US.

There is considerable stress on most medical students. The greatest stress is probably due to the workload. Most medical students agree that the amount of material required during the first two years of preclinical study goes up by a factor of two or more compared to their workload as undergraduates. During the clinical years, pressure generated by constantly working with people who are sick and often dying is emotionally difficult for many students.

Financing a costly medical education is an additional stressor for many students. The national average debt for recent medical school graduates is roughly \$200,000 and this figure goes up if one attends private institutions.

It is true that a physician will have the expectation of a better than average income after completion of the many years of training and should be able to pay back loans relatively painlessly; however, if the primary motivation for entering the medical profession is to make money, other professions should be considered. If the same amount of time and talent is invested in business as is required for a successful medical practice, the economic returns will probably be greater over the long run, particularly if the years of lost earnings during the long years of training are considered.

If you have doubts about whether you should continue in pre-medicine, you should **keep your options open**. Medicine is not for everyone and there are few successful physicians who have not at times questioned

whether the rewards are worth the long years of training and the hard work required. Nevertheless, most physicians cannot imagine themselves in any other profession and they would make the same choice again. The decision whether to stay in pre-medicine can probably be deferred through the first two years of college without loss of credit if changing to another major. Activities such as shadowing, community service in a health care setting and interviewing medical students and physicians can help in the decision to pursue a pre-med track in college.

# II. The Office of Pre-Professional Advising

Pre-medicine is not a degree program or major, but a pre-professional intention or self-designation. For you to get the most out of the curriculum, the proper courses must be taken in the proper sequence and with the proper prerequisites. The advising process is designed to ensure that you have the information necessary to make proper decisions while choosing courses in preparation for admission to medical school and that you know about out-of-the-classroom activities that can help you demonstrate the qualities med schools are looking for, such as leadership, good communication skills, compassion, teamwork, good problem-solving skills and perseverance.

The advising program for pre-medical students at UofSC is two-tiered. All students have an academic advisor within the department of their major. This academic advising process is complemented by advisors in the Office of Pre-Professional Advising (OPPA). Students with specific questions about any aspect of preparation for medical school including course work, volunteer/shadowing experiences, letters of evaluation, preparation for the MCAT, where to apply, etc. are urged to come by the Office of Pre-Professional Advising to discuss the issue. It is a good idea to periodically stop by our office to check the bulletin board for events, workshops, field trips, and new information. Drop-in office hours are available Tuesday 1 p.m. – 4 p.m. and Wednesday 10 a.m. – 1 p.m.; please call (803) 777-5581 to schedule an appointment if the drop-in hours are not convenient.

Pre-Professional Advising can assist you in many ways. The OPPA maintains close contact with the chairs of the admissions committees and admissions directors of our state medical schools. This allows for the timely dissemination of information regarding changing policies or requirements for admission. We also offer personal statement advice and mock interviews.

We hold periodic workshops and information sessions for pre-med students, covering topics such as career exploration, admissions, and application assistance. At the spring workshops for juniors and seniors, annual application updates and materials are distributed, and instructions are given on completion of the application and the necessary supporting documents including letters of evaluation. Notice of these sessions is announced through the OPPA listserv, a mass email list.

We also try to keep our Website up to date with information and send out notices on our listserv. You can visit our Website at http://www.sc.edu/oppa.

The final responsibility for planning the academic program and other activities rests with the student and not with an advisor. Students have an advisor in their major who will assist them in meeting their degree requirements. It is up to you to inform your advisor of your pre-med intentions, so that you will be sure to meet your degree requirements and any courses required by medical schools to which you plan to apply. The advisor should explain the options, including requirements that must be met, but the final decision as to which

courses to take and when to take them must be made by you. Good judgment will be required, for there are many options available and many decisions to be made. The mature student will seek as much information as possible to make any decision. One of the best sources of information will be fellow students who have already taken the courses and who are acquainted with the instructors and course content. It is usually a mistake to register for a course with no idea who will teach it and perhaps only a hazy idea of what is covered. The better-informed student will usually be in a much more competitive position.

# III. Planning the Program of Study

When planning a program of study, you should keep in mind that you must usually meet three different sets of requirements. First are the requirements of the medical school, which must be completed before an applicant matriculates. Second are the general degree requirements which are set by the faculty of the college for a degree. The third list of requirements is set by the departmental faculty for the specific major. Planning should also include completion of the subject matter which will be tested on the MCAT **BEFORE** taking the test. Each of these specific requirements will be discussed below.

#### **Requirements of Medical Schools**

There are some variations among schools, but almost all US medical schools will accept as minimum preparation in science one year each of general chemistry, general physics, general biology, and organic chemistry, all with the appropriate laboratory. Requirements for specific medical schools can be found in the Medical School Admissions Requirements (MSAR) at <a href="https://students-residents.aamc.org/applying-medical-school/faq/buying-and-using-medical-school-admission-requirem/">https://students-residents.aamc.org/applying-medical-school/faq/buying-and-using-medical-school-admission-requirem/</a>. This is an invaluable source of information and every pre-medical student should be very familiar with this website. The MSAR should be consulted before completing the medical school application so that you are assured of having met all requirements for each school to which application is made. Current requirements for each South Carolina medical school are listed in **Appendix A**.

#### **Requirements for Major**

The majority of students from the University of South Carolina who are accepted to medical school receive a BS degree with a major in biology, biochemistry, or exercise science. We have successful applicants in many other majors, however, such as psychology and public health. Information on requirements for these majors is available from departmental advisors.

The choice of a major should not be hastily made. In addition to considering the course requirements in a department and requirements for medical school, you must consider what you will do if your application to medical school is not successful. The available options, without extensive additional training, will be largely determined by the academic major. Many majors will prepare students for various careers in health professions, not just medical school.

Medical school admissions committees have no preference for one major (or degree) over another. They generally prefer that an applicant have a broad liberal arts background as opposed to a narrow technical background. Students usually do much better work in a major in which they have a real interest and aptitude. It is a mistake to major in a discipline that you do not like in the erroneous belief that it will improve the chances for acceptance

#### **Courses Desirable, But Not Required**

Many of the courses listed in this section will be required in some of the science majors. A certain number of these courses should be taken by all pre-medical students unless special circumstances prevent their being scheduled. In this latter category are Cell and Molecular Biology, BIOL 302 and Biochemistry, BIOL 541 (tested on the MCAT). A second category of courses which will be helpful and desirable, if time permits that they be taken, include Human Anatomy and Physiology BIOL 243/244; Histology, BIOL 530; Immunobiology, BIOL 620; Genetics, BIOL 303; Physiology, BIOL 460; Bacteriology, BIOL 431; Developmental Biology, BIOL 505; and Quantitative Analysis, CHEM 321. Obviously no student will be able to take all these courses.

An exciting opportunity for UofSC students is the Medical Humanities Minor. This minor was designed primarily for students intending to pursue medical school. Courses in the minor provide an understanding of current ethical issues in medicine, as well as a selective examination of sociocultural, legal, economic, and political factors that condition medical knowledge and practice. Students pursuing this minor must apply for participation in this program and meet certain criteria. For more information on potential minors, visit <a href="https://www.sc.edu">www.sc.edu</a> main page to search for your minor of interest. There is a list of popular minors for pre-med students in Appendix D.

Experience in scientific research is recommended by some admissions committees, especially if the results are published and/or used to write an honors thesis. This type of experience is essential if you aspire to a career in academic medicine/research but can also be useful for any pre-medical student. One of the advantages in attending a major research university, such as UofSC, is to have the opportunity to participate in research as an undergraduate and to see if you have the discipline and interest to develop into a research scientist. Many undergraduates develop an interest in research as a career while participating in projects in the laboratory of a faculty member. UofSC is fortunate to have the Office of Undergraduate Research, www.sc.edu/our, on campus to assist students in obtaining research experiences. Some of these students will enter a MD/PhD joint degree program, or a Medical Scientist Training Programs (MSTP). These programs are highly selective and are only offered by certain medical schools with financial support from the National Institute of General Medicine, in recognition of the increasing need for scientists to bridge the technical gap between bench and bedside. Admission to MSTPs is extremely competitive. As with medical school admissions, favorable candidates often have outstanding academic records and MCAT scores. In addition, MSTP applicants must have strong research experience. Admitted trainees receive full tuition and an annual stipend with travel and supply allowances. There are currently 50 MSTPs at participating institutions. Many medical schools have MD/PhD programs that are not supported by the NIH but offer similar training opportunities.

One work of caution with your courses: students are cautioned not to make a practice of withdrawing from courses. A sprinkling of <u>W</u>s (withdrawals) on a transcript is a cause for concern by most admissions committees. One or two <u>W</u>s will not adversely affect your chances for admission, but several, even with a good GPA, might be viewed apprehensively.

There is a four-year timeline for pre-med students in Appendix B.

#### IV. The Admission Process: Factors in Medical School Selection

Medical schools utilize an admissions committee that will normally be composed of MD's from the clinical faculty, PhDs from the basic sciences faculty, and medical students who are typically in their third or fourth year. Some schools also appoint alumni (practicing physicians) and representation from the general public.

Admissions committees strive for objectivity in making their decisions regarding admission. There is, therefore, a great deal of emphasis on grades, scores on the MCAT, and other factors that can be easily measured. These include: 1) overall academic record, 2) scores on the MCAT, 3) medical exposure, 4) other work and activities, 5) a meaningful personal statement, 6) evaluations from faculty members who have had the applicant in class, and 7) impressions made during a personal interview with faculty and students of the medical school including members of the admissions committee, 8) and state of residency for state-funded medical schools.

#### **Overall Academic Record**

The undergraduate record, particularly grades in biology, chemistry, physics and math (BCPM), is the most important single factor in predicting whether a student will be admitted to a particular medical school. Most medical admissions committees feel that the quality of academic work leading to the baccalaureate degree is the most important indicator of probable success in medical school. The academic record includes the cumulative GPA, science GPA, subjects taken, rigor of the major and trends in performance (i.e., were grades mediocre in the freshman year with a constant improvement during the sophomore and junior years, vice versa, or was performance relatively constant?). A strong undergraduate academic record is considered evidence of both ability and motivation, hence, the heavy reliance by committees on this factor. The average overall GPAs for UofSC Schools of Medicine and MUSC are typically between 3.6 and 3.8.

Grades are not evaluated alone but in the context of the total academic program with such factors as parttime employment, participation in sports and other severe demands on study time looked upon as mitigating circumstances.

#### **The Medical College Admission Test**

The Medical College Admissions Test (MCAT) is just as important as grades when evaluating an applicant for medical school. Many AMCAS schools conduct a preliminary screening based entirely on GPA and MCAT scores and secondary applicants are not invited unless certain minimum scores are exceeded. Even if a secondary application is accepted, most medical schools select applicants to be interviewed based on combined GPA and MCAT scores. The average MCAT scores for the 2018 entering classes at South Carolina medical schools was approximately 506-510 while the average nationally was around a 510.

The MCAT is given many times a year throughout the months of January, April, May, June, July, August, and September. To register for the MCAT you must go through the AAMC website, where you will pick the testing center, time and date that you wish to have. The seats are filled on a first-come, first-served basis, so complete your registration as soon as possible. The MCAT may be taken no more than 3 times a year, and you can only register for one testing session at a time. However, there is no defined waiting time between tests. The latest that the MCAT may be taken is in September of any given application cycle. However, you are urged to not to wait until the fall of the senior year to take the MCAT, but to take it in the spring.

There is considerable misinformation about the strategy which should be employed in taking the MCAT. Many premedical students have been advised to take the test "just for practice" the first time, and then to prepare

for the exam during a second and perhaps third test. This is poor advice. Every score will be supplied to the medical schools with your application. It is now very expensive to take the MCAT, and the price usually goes up each year. This is another reason to take the test only when well-prepared.

All applicants must present MCAT scores as a required part of the supporting material for their application at most US medical schools. The test is described in detail at <a href="https://students-residents.aamc.org/applying-medical-school/taking-mcat-exam/prepare-mcat-exam/">https://students-residents.aamc.org/applying-medical-school/taking-mcat-exam/prepare-mcat-exam/</a> on the AAMC website. Students preparing to take the MCAT should carefully read the test description several months before the test.

The current MCAT has four sections: Biological and Biochemical Foundations of Living Systems, Chemical and Physical Foundations of Biological Systems, Psychological, Social, and Biological Foundations of Behavior and Critical Analysis and Reasoning Skills.

The AAMC believes that this format enhances the MCAT's predictive value and encourages students interested in medicine to pursue broad undergraduate study in the social sciences and humanities as well as the traditional natural sciences. The MCAT assesses the ability to comprehend, reason, and think critically, as well as expertise and knowledge in these disciplines.

#### The AMCAS Application

The American Medical College Application Service (AMCAS) is a centralized processing service for applicants to participating US medical schools. All applicants to AMCAS-participating schools must submit their application materials through AMCAS. There is a list of participating schools in the MSAR. Applications for schools not participating in AMCAS may be obtained by contacting the school directly or visiting their website. Texas public medical schools use the Texas Medical and Dental School Application Service (TMDSAS) which can be found at https://www.tmdsas.com/applytmdsas/.

AMCAS, which is administered by the Association of American Medical Colleges (AAMC), provides detailed admission information to medical schools and undergraduate pre-medical advisors in addition to its primary role of processing applications. The advantage of applying through AMCAS is that initially only one set of application materials and official transcripts need be submitted, regardless of the number of AMCAS schools to which you apply. Official transcripts are required from all colleges and universities attended. A transcript matching form, included in the AMCAS application, is required with the transcript. Upon receipt of the application, AMCAS will perform an item-by-item check comparing all courses in the Academic Record section of the application against the official transcript. Once all courses and grades are verified, the application is completed and MCAT scores released, AMCAS will verify your application and supply it to the schools to which you apply. If you decide to apply to additional schools before the application deadline, it is necessary to submit only an additional designation form with the appropriate fees, and all AMCAS information will be sent to the additionally-designated schools.

A number of AMCAS schools conduct a preliminary evaluation (screening) of the application received from AMCAS. If the GPA and MCAT scores indicate that an applicant will not be competitive for admission to their particular medical school, a rejection letter may be sent at this time, or an applicant may hear nothing at all. If an applicant is not rejected in the preliminary screening, medical schools require a secondary application. There is usually a deadline date on the filing of the secondary application and this deadline date should be carefully observed. Many schools require an additional fee.

Consider the problem facing the admissions committee of a medical school that recruits largely from the national pool of applicants. There may be thousands of applications for perhaps 100 or 150 positions in the entering class, and it will be possible to interview only a few hundred of these applicants. Since your first impression will be made by the AMCAS application it is essential that it be carefully and thoughtfully prepared. An application containing errors may suggest a sloppy, careless applicant. A negative impression will also be created by misspelled words, poor grammar, or a poorly organized Personal Comments section. Care must be exercised in both form and content. The AMCAS application is completely web-based and can be found at <a href="http://www.aamc.org">http://www.aamc.org</a>.

#### **Extracurricular Activities and Work Experience**

Involvement in extracurricular activities is expected by admissions committees. Medical schools often use the AAMC's list of "The Core Competencies for Entering Medical Students," which is in Appendix C, to assess an applicant's suitability for medical school. Many of the competencies can be demonstrated by doing community service, studying abroad or traveling extensively, being an officer of committee chair in an organization, being a peer leader or peer tutor and by performing research. There are many opportunities on and off campus for you to validate those competencies. See Appendix D for more information.

If you can maintain a competitive grade point average in a rigorous curriculum and still have the time and energy to actively participate in extracurricular activities, you are demonstrating that your aptitude and motivation are high. A student who has been very involved in activities that are people-oriented, particularly someone who has held office in organizations or who otherwise presents evidence of leadership, might be considered a strong candidate for medical school. It must be emphasized, however, that no amount of involvement in extracurricular activities can substitute for a good academic record and strong MCAT scores. Such involvement will make an academically competitive applicant more likely to be accepted, but without good "numbers" to support the application, it may mean relatively little.

An applicant who knows very little about the practice of medicine or has unrealistic expectations about a medical career will be viewed with apprehension by an admissions committee, but there are many ways this information may be gained. Work experience in a hospital or other medical facility will be viewed favorably, as will volunteering, shadowing of physicians, and medical training (such as an emergency medical technician course), which allows students to obtain employment in an emergency department, with an ambulance service, or in some other area as a regular or part-time paramedical employee. Exposure to doctors working with patients is an unwritten prerequisite for admission and is becoming increasingly important for serious consideration by an admissions committee. The primary value of working in a hospital, doctor's office, public health clinic, or nursing home is to help you make an informed, mature decision whether to pursue a career in medicine.

Many students still need outside jobs to financially support themselves through their undergraduate career. Paying jobs unrelated to medicine may also give you experience that will be beneficial when applying to medical school. Jobs that require considerable contact with the public, such as in sales and service industries, offer excellent opportunities to develop better human relations skills. Many jobs teach management, organizational, and leadership skills that might help you assume increasing levels of responsibility. Any "people-oriented" work experience may be valuable and will often be discussed in an interview. You will find a list of local organizations and opportunities for valuable extracurricular activities in Appendix D.

#### The Evaluation (Recommendation) Letters

An important part of the documentation used to support an application for admission to medical school is the faculty evaluation, also called the recommendation. Recommendations will be sent to the medical schools that students apply to. Recommendations may be requested from faculty members at any time. Try to meet and get to know your professors and teaching assistants. Most will be glad to talk to you during office hours. Since the introductory science courses tend to be large, students may find it difficult to get to know professors personally. You may ask laboratory and teaching assistants for recommendations, but it is a good idea to have the course professor co-sign the letter. Teaching assistants may not be as familiar with writing letters of recommendation, whereas experienced professors can often put a student's motivation and aptitude into excellent perspective. The most important factor in selecting an instructor to prepare a recommendation is that he/she should know you well enough to be able to comment from personal knowledge on some subjective factors such as motivation, interpersonal and communication skills, compassion, and general character. When requesting a letter, supply your letter-writers with a copy of your transcript, a detailed resume, and anything else that will help them write a strong letter.

Transfer students may wish to obtain one or two recommendations from instructors at their previous institutions. Recommendations from employers, physicians with whom students have worked, volunteer supervisors, etc., may also be used, but usually only after three academic letters have been obtained. Letters from family friends, public officials, or character-type references are usually not useful in an applicant's credentials packet, unless specifically requested from a medical school.

Two recommendation letters should be requested from science professors and one from a non-science professor. The medical schools in South Carolina will accept a majority of science letters, but one non-science letter is still a good idea. Certainly, you do not want to sacrifice a strong science letter for a not-so-strong non-science letter, but ideally, you will obtain a strong non-science letter to complement your science letters.

Letters of recommendation from public officials who know a student only slightly are frequently a waste of everyone's time, especially if it is obvious that a staff person is writing a perfunctory letter for the son or daughter of a constituent. This is not to say that letters should not be solicited from people who know you well just because they may be prominent, for if they can comment from first-hand knowledge, their recommendation may have high credibility.

Interfolio is a "holding" company to assist students in collecting their letters earlier than their application year. Students can use Interfolio to collect their letters electronically and confidentially throughout their college career, and once they are ready to submit their application, Interfolio submits their letters directly to AMCAS to be processed with the student's application. Interfolio can be found at <a href="http://www.interfolio.com">http://www.interfolio.com</a>.

Students can also use the free letter writing service through AMCAS during their application year. Students must wait until the open date of the live application for their letter-writers to submit a recommendation on their behalf. AMCAS will only process letters after that open date, and will not accept letters before then, so Interfolio is appealing to those students who want to gather their letters earlier.

#### **Personal Statement**

Your essay, or personal statement, can play a major role in your application. Medical school admissions committees use the statement to get a feel for you as an individual. The personal statement is your opportunity to shine. This is a chance to write a compelling story about your achievements, your character, or

maybe a situation in which you learned a life lesson. If you write a compelling statement, an admissions committee member might decide that you have something unique to offer their school and offer you an interview. By this time in your life you've had many life experiences: tackled challenges, experienced disappointment, learned lessons, even learned a lot about yourself as a person. You will share one or two of these personal experiences, and how the experience impacted you. This is not a time to re-list things that are already located somewhere else in your application, but a time to share personal aspects of your life. This process can take lots of time, even weeks.

Admissions committees will be much more interested in achievements and accomplishments than in plans which may or may not materialize. The talented, articulate student will find a way to discuss accomplishments in a way that is not boastful and discuss plans that sound reasonable and sincere. A well-prepared personal statement will leave the reader with a sense of having discovered a lot about the applicant that was not known before reading this section. The final version of your personal statement should be carefully checked for spelling, punctuation, grammatical errors, and organization, preferably by someone with experience in editing. OPPA can assist you with brainstorming, editing, and perfecting your statement. The Writing Center, (803) 777-2078, is also a valuable resource on campus for this purpose and is located in the Byrnes Building Room 703 with hours Monday – Friday 10 a.m. – 4 p.m. Helpful hints and worksheets for starting your personal statement can be found in Appendix E.

#### **Choosing Medical Schools**

The accrediting agency for medical schools (the Liaison Committee on Medical Education composed of representatives of both the AAMC and the AMA) ensures that every medical school adheres to high standards in order to remain accredited. The USMLE is given to all medical students and this has the effect of ensuring that all medical schools cover certain fundamentals in their curriculum. There are, of course, strengths and weaknesses in individual medical schools and differences in the difficulty in obtaining admission to different schools.

For many medical schools, the chances for admission are determined by the applicant's state of legal residence. This is true of most public and some private schools. State-supported public medical schools typically give preferential consideration to residents of their state. There is usually an upper limit imposed by legislation or administrative edict on the number of non-resident students accepted in a class at a state school. In many private medical schools, preferential consideration is given to residents of the state for at least a portion of the class. Emory accepts Georgia residents to fill half of its class and Wake Forest accepts half of its entering class from residents of North Carolina. Baylor gives preferential consideration to Texans. Complete information is available in the latest MSAR.

Most private medical schools recruit from the national pool of applicants. This includes many "prestige" schools such as Duke, Johns Hopkins, Harvard, Vanderbilt, Washington University (St. Louis), and Yale. As might be expected, the credentials of students accepted at these prestige schools are outstanding. The chances for acceptance are lower for a typical applicant at a school that recruits primarily from the national pool than at a medical school which gives preferential consideration to students from its home state. This does not mean that all the best students go to the prestige schools. Many facts determine where a student will matriculate, particularly cost, and the qualifications of many students in public medical schools are higher than in some private schools.

When deciding where to apply, the MSAR should be carefully studied, especially the section on selection factors and the breakdown on state of legal residence of the latest class. If you meet their requirements and appear to have a reasonable chance of acceptance, you should then further investigate the school by visiting the school's website. The reason that a student applies to a school will be of more than passing interest to the admissions committee. If it appears that you have little knowledge of or interest in the specific school, the chances for a favorable decision are poor. If you fail to apply to those schools at which you will receive preferential consideration, you are being naive, no matter how strong your academic record or how much you have dreamed of graduating from some particular prestigious school. Competition is at an all-time high and in the top-rated medical schools, high grades and MCAT scores alone are not sufficient to obtain an interview. They are looking for the student who shows evidence of unusual promise as a physician. Unless you have excelled academically and personally, it will be very difficult to be admitted.

State supported medical schools usually admit a few non-residents, but these will typically be students who have some strong ties to the state and/or the school. The necessary credentials of non-residents are usually above the average for the class.

#### **Timeline for Application**

Waiting until late in the process to apply can decrease chances for admission. As may be seen from the discussion above, it takes several weeks from the time an application is sent to AMCAS until it is sent on to the medical school admissions offices. If documents are lost, transcripts are not sent promptly or any of a dozen other things occur, it can cause a delay in completing the application. The amount of time required to complete a carefully prepared application is usually underestimated. A hurriedly-prepared application may not present the applicant in the best possible light; and a late application may not receive the consideration from the committee that it would have if it had arrived earlier. The late arrival of an application may also make it more difficult to receive an interview, as interview slots fill up as the process moves forward.

You should begin preparing your AMCAS application soon after spring semester grades are posted. Official transcripts may be requested from the registrar before leaving school for the summer. The application submission opens around June 1<sup>st</sup> and all documents can be sent into AMCAS to be processed at this time. A good timeline to reach for is getting your application in during the summer months (June 1<sup>st</sup> – end of July). Students enrolled in summer school should have their applications essentially complete before summer grades are posted. Soon after these grades are reported, transcripts should be submitted and the application should be completed, certified, and sent. This timetable will usually allow the strong applicant to obtain an early interview and an early acceptance.

#### **Supporting Documents**

Medical schools from which you receive secondary applications will provide information regarding supporting documents they require. Once a file is complete, most medical schools send an acknowledgment to the student. Some medical schools require a recent picture to accompany the secondary application. A passport picture be made quickly and inexpensively. Neat, conservative dress (coat and tie for men and a tailored suit or dress for women) will make you appear more mature and "professional." High school graduation pictures

or candid snapshots at the beach, etc., do not project the kind of image needed to support an application to medical school.

#### The Med School Interview

Obtaining an interview has become a major hurdle as several thousand applicants will have been narrowed to a few hundred to be interviewed at each school. Personal interviews are required at essentially all medical schools. Interviews are granted only by invitation of the admissions committee and mean that an applicant has passed the preliminary screening and is now being more carefully considered for admission. The impressions made in a personal interview will be extremely important, particularly for those students with grades and MCAT scores that are marginally competitive. Learning what to expect will help you prepare.

The actual interview is conducted in different formats at different medical schools. Most schools utilize a "one-on-one" personal interview with one to as many as four or five different interviewers. Others use a "group interview." Medical schools in South Carolina utilize the one-on-one method of interviewing, and UofSC School of Medicine Greenville also incorporates some Multiple Mini Interviews (discussed below). The process usually begins with lunch and is followed by an informational session, then the actual interviews. There are two individual interviews followed by refreshments and a tour. At MUSC, the first interview is typically done by a local MUSC alumnus prior to the campus visit.

You must be prepared to answer personal questions about your background, beliefs, and experiences, as well as general moral-reasoning and ethical questions. A good interview will determine what makes you "tick," how well you relate to others, and how well-informed you are on current events, particularly regarding events which will have an impact on medicine and its practice. The practice of medicine demands that a person be articulate and have well-developed interpersonal skills. Most experienced interviewers try not to place unnecessary stress on an applicant during the interview, but on some occasions an interviewer will purposely ask questions or exhibit attitudes designed to stress a student. A mature student will not become flustered or antagonistic if subjected to a stressful situation but will remain composed and continue to answer questions in a candid and straightforward manner.

#### Listed below are some of the things an applicant might do to prepare for the interview.

Review your application. Be prepared to straightforwardly answer questions regarding your grade point average, science average, MCAT scores, and grades on specific courses. Also, review your personal statement and the information you supplied on your AMCAS application, which is usually the subject of at least some interview questions.

- Know who submitted your letters of evaluation and be able to answer simple questions regarding their field and research, etc.
- Read and re-read your AMCAS. Be familiar with everything as many interview questions will come from your application.
- Have some familiarity with the medical school before the interview. You should have some idea of the
  opportunities for research or innovative programs at the institution. This information may be gained in a
  conversation with a friend who is currently enrolled, or it may be obtained from the MSAR or the school's
  website. The interview usually offers an opportunity for the applicant to ask questions and obtain
  additional information about programs of special interest.

Listed below are a few statements/questions that are often used during an interview.

- Tell me about yourself. This is one of the most common ways to begin an interview. They might ask
  about your family and the kind of relationship you have with family members. This type of open-ended
  format gives you an opportunity to describe accomplishments while giving background information.
  The interview gives you the opportunity to make the committee aware of positive things about you
  that would be difficult to present in any other way.
- Why do you want to be a physician? This may be asked as or followed up with...when and how did you first become interested in medicine? What have you learned from work or volunteer experience in a medical setting?
- What do you do for enjoyment? This may include such questions as...what do you like to read, or what was the last book you read? How do you stay physically fit? What are your hobbies, what sports do you enjoy, or how have your extracurricular activities added to your education?
- What are your strengths/weaknesses? You must be able to articulate your strengths, how you use them to your advantage and how they will help you in medical school and as a physician. You also must demonstrate knowledge of your weaknesses, how they could hinder performance in medical school and as a physician, and how you have learned to compensate for or overcome them.
- What is your alternative plan? Often admissions committee members will ask what your plans are if you are not accepted to enter medical school? Will you apply again?
- Are you more interested in a clinical practice or research? Have you had any research experience? If the answer is yes, you will usually be asked to discuss the research in some detail.
- Why did you apply to this particular medical school? You might be asked where else have you applied/been interviewed/been accepted, and/or which school is your first choice?
- Why did you attend your particular undergraduate institution? Why did you choose your major? Do
  you feel that you obtained a good education there? Why or why not? Information about your
  decision-making process may be under investigation with this type of question.
- Do you want to add anything? Always be prepared to make a closing statement, emphasizing a
  particular strength or something you want the interviewer to know that did not come up in the
  interview.
- **Do you have any questions?** Again, always have questions prepared. It can be something about that particular school or about the area, but always have a few questions prepared.

You may opt for a pre-med mock-interview (or practice interview). This opportunity allows the student to practice for the actual interview. The OPPA does mock interviews at the applicant's requests. We require a copy of the student's AMCAS application the da before the mock interview. This interview is optional but can supply the student with comprehensive information and practical experience to assist in the medical school application process. The interview is about thirty minutes long and performed by an advisor from Pre-Professional Advising. The interviewers usually ask questions about your motivation for your desired profession, your strengths and weaknesses, exposure to health care, familiarity with health care issues, ethical questions, etc. Practice is the best policy when it comes to interviews – you can never be too prepared for an interview!

#### **Multiple Mini Interviews (MMIs)**

The following information about multiple mini interviews is an excerpt from the AAMC website:

https://students-residents.aamc.org/applying-medical-school/article/what-its-participate-multiple-mini-interviews-mmis/

"What is a Multiple Mini Interview or MMI?

The Multiple Mini Interview (MMI), developed by McMaster University, is an interview format that consists of a series of six-10 interview stations, each focused on a different question or scenario. The MMI is designed to measure competencies like oral communication, social and non-verbal skills, and teamwork that are important indicators of how an applicant will interact with patients and colleagues as a physician.

Why do some admissions committees use this format?

Based on the research, schools using the MMI format believe it produces a more reliable assessment of a candidate and limits interview biases due to the number of interactions. Because students interact with multiple interviewers in multiple assessments over the course of the MMI, opinions of a single interviewer are not over-emphasized. The MMI allows applicants multiple opportunities to showcase their skills throughout the interview, unlike the traditional one-on-one interview. "We appreciate the process is grounded in theory, supported through research, and has continually allowed us to support our goal of having true community involvement in our admission decisions," says Glen T. Fogerty, PhD, Associate Dean of Admissions & Recruitment, at the University of Arizona College of Medicine- Phoenix.

What is the format? How long does it take?

Typically, a series of six-10 "mini" interviews are conducted over a period of nearly two hours. Each mini interview includes a two-minute prep period before engaging in a conversation that lasts between five to eight minutes.

"The MMI benefits students in many ways that perhaps other formats do not. Not only does the student know the topic that will be discussed, but also has time to prepare a response before walking into the room, unlike other formats wherein questions can be asked on the spot from any subject area. Additionally, the student has the unique opportunity to make multiple first-time impressions. If one question is tough and the student does not feel they performed well, the next room is a new chance to do better without any previous bias," says Tara K. Cunningham, Ed.D., M.S., Associate Dean of Admissions and Student Diversity at the Texas Christian University and University of North Texas Health Science Center School of Medicine.

Dr. Cunningham recalls countless applicants sharing their experience and echoing this belief, feeling more confident that they had a better chance to demonstrate a more "well-rounded self" than what may be the case in a single interview.

What kind of topics are covered in the MMI?

As with any interview, the MMI is designed to assess verbal and non-verbal communication skills as well as provide additional information that is helpful in assessing a student's readiness for medicine.

Glen T. Fogerty, PhD, adds, "Topics covered are wide-ranging and individualized toward each medical school's end goal. Some schools seek out critical thinking skills, some ask about current events, others put an emphasis on role playing, and some may just open it up and see where the conversation goes. No matter the topic or the conversation, all medical schools are seeking strong cultural fits so do your homework before walking in that door!"

What is the best way to prepare for the MMI?

The MMI does not test specific knowledge. The format is designed to allow candidates to showcase their interpersonal and critical thinking skills. The best way to prepare is to practice expressing yourself articulately and logically in a timed environment.

According to an applicant who completed the MMI, "I felt like the MMI allowed the interviewers to get responses that couldn't be so easily prepared for in advance, thus giving them a very realistic picture of the applicant and enabling them to make better decisions. I felt prepared to show who I am in everyday life!"

#### Possible interview stations:

- Scenarios involving interactions with an actor or a medical school's standardized patient
- An essay writing station; this station may take longer than the others
- A standard interview station
- A teamwork station where candidates must work together to complete a task
- An ethical scenario involving questions about social and policy implications
- A "rest" station to help students catch their breath and relax"

#### **CASPer**

More and more medical schools are requiring their applicants to take a computer-based assessment tool run and developed by Altus Assessments Inc. It is used by academic programs to help assess applicants for non-academic attributes or people skills.

The MSAR has a list of medical schools requiring the CASPer assessment.

The following information comes from the Student Doctor Network website post:

What You Need to Know About the CASPer Test

By Altus Assessments
Apr 30, 2018 at 9:50 PM

"CASPer is an assessment tool that is rapidly gaining popularity across the world. By the end of 2017, over 100,000 people have taken the test, and about 50% of all U.S. medical school applicants and 80% of all Canadian medical school applicants will have had to complete CASPer at some point during their application process. CASPer was first created in 2005 at McMaster University and in 2010, the test was incorporated into the official admissions process at the Michael DeGroote School of Medicine. CASPer, which stands for the Computer Based Assessment for Sampling Personal Characteristics, is predominantly a situational judgement test (SJT) that presents test-takers with a series of realistic, hypothetical scenarios and asks them to type out what they would do if they were to be in that particular situation.

This year, CASPer will begin its implementation across a number of physician assistant programs along with many more medical schools and other health care programs (see <a href="here">here</a> for the most updated list of programs who are using CASPer). With its rising popularity, there has also been a rise in the number of articles that have been written about CASPer—which unfortunately have not always been completely accurate. In this article, we want to give you an overview of CASPer straight from the source directly responsible for the construction and delivery of the test.

#### What is CASPer measuring?

A large portion of a student's acceptance decision to a medical program is based on their academic achievements, primarily undergraduate GPA and MCAT scores. This ensures that students have a strong foundation of knowledge and demonstrate superior cognitive abilities. However, this is not the only aspect that matters in becoming a successful physician. In fact, one seminal study published in the New England Journal of Medicine found that 94% of identifiable causes leading to disciplinary decisions against doctors were due to lapses in professionalism, not due to lack of cognitive medical competence. This has resulted in a dire need for medical programs to not only assess the cognitive abilities of their applicants, but also ensure that their students possess the interpersonal and intrapersonal skills necessary to become an effective physician. This is where CASPer comes in, as it is an assessment of non-cognitive skills, such as professionalism, communication, ethics, empathy, and motivation, and serves to complement the cognitive assessments that are already required by the programs.

#### What is the format of CASPer?

CASPer is composed of 12 stations with three probing questions in each station. Eight stations are video-based scenarios and four stations are word-based scenarios. The video-based scenarios are all SJTs whereas the four word-based scenarios are a blend of SJTs and behavioural descriptor questions, which ask respondents to talk about a specific past experience. The scenarios are set in a more general context: in one scenario you may be placed in a workplace setting with your boss, in another scenario you may be placed in a party with friends, in another scenario you may be placed in your own living room with your parents. The scenarios are typically not specific to the clinical setting, as we want to make sure that we are not giving an advantage to those students who have had clinical experience. You can take a look at a number of sample scenarios <a href="here">here</a> at the <a href="takeCASPer">takeCASPer</a> website. Make sure to always check that the sample Scenario and question set is from the official source, as many of the sample CASPer sections from unofficial sources are not representative of the actual test.

#### How is CASPer evaluated?

Each station of the CASPer test is graded by a different person. This means that every student is assessed by 12 independent human raters who come from a variety of backgrounds (e.g., physicians, nurses, educators, policy makers) and demographics (e.g., race, gender, income) to reflect the diversity of the patient population. Raters are trained to omit spelling and grammatical errors when evaluating responses and to focus solely on the content of the response. The 12 independent ratings are averaged, and scores are then standardized to represent the relative rankings of each student compared to their peers. The scores are automatically distributed to the selected programs within three weeks of completing the test. Students do not receive their results because it is difficult to interpret a single CASPer score without knowledge of how everyone else performed on the test.

#### How do programs use CASPer in the admissions process?

There is no single answer to this question as each school incorporates CASPer in different ways to guide their admissions process. Most programs use CASPer alongside other metrics like GPA and MCAT scores as a prescreening tool to decide who to invite to the interview process. Some programs use CASPer in a more impressionistic approach, to help facilitate decisions on candidates who are on the cusp of whether they are admitted to the program. Some programs implement a conservative cut-off score for CASPer to screen out applicants, while other programs take a closer look at candidates who have exceptionally high CASPer scores. For instance, <u>Dalhousie Medical School</u> will only consider applicants who score above -1.5 standard deviations from the mean for interview.

#### What can you do to prepare for CASPer?

Unlike the traditional SJTs with right-or-wrong answers, the primary goal of CASPer is not to examine what you would do in a given scenario, but why you would take that particular course of action. This makes it difficult to study for CASPer, as there is no obvious approach in answering the questions the "right" way. The general SJT literature and our own internal research has also shown that more complicated and challenging SJTs like CASPer are resistant to the effects of practice and coaching. While it may be difficult to improve your CASPer scores in the short-term, we have listed a number of ways students can prepare in advance to ensure a smooth test-taking experience—familiarize yourself with the format of the test, double check to make sure that you meet all the technical requirements (have a functioning webcam!), and plan your schedule well in advance to ensure that you are able to complete CASPer in a comfortable and quiet location.

#### Conclusion

The admissions process to medical school can be a long and daunting process for many students, and the addition of another assessment tool can be seen as another burden on what is already a fairly strenuous process. However, programs want to gather the most accurate and holistic view of their applicants to ensure that they are making the right decisions, as their students will be shaping the future quality of our healthcare. As technology has given patients easy access to a wealth of information right at their fingertips, they are no longer satisfied with just a medically competent doctor. Patients now seek doctors who are also good listeners, demonstrate empathy and compassion, and provide more personalized care. Historically, the admissions process has done an excellent job in admitting the brightest students, but they are now trying to do a better job in making sure that the students also possess the personal attributes that patients want to see from their physicians.

If you would like to get the most up-to-date information on everything related to CASPer, make sure to follow <u>our blog</u> at takecasper.com and our Twitter account <u>@take casper</u>. Feel free to directly tweet or email us (support@takecasper.com) with any questions or comments you have about the test."

# V. Financing a Med School Education

The cost of a medical education has dramatically increased over the years, making it increasingly important that pre-medical students carefully consider how they will pay medical school tuition and fees, books and other educational expenses plus living costs.

Every medical school has a Student Financial Aid Office that will assist accepted students to arrange a financial aid package if such help is needed, and they are responsible for coordinating financial assistance for all enrolled students. The majority of students currently enrolled in US medical schools receive some form of

financial aid, most of it in the form of loans. The actual financial aid package may consist of various types of aid from several different sources. This financial aid process is complex because of the different sources from which aid may be obtained and the differing requirements and application procedures for each source. It is essential that students who will require financial aid contact the financial aid officer at the medical schools to which they have applied and file the necessary forms well before any deadline. Aid is not awarded until a student has been accepted for admission, but you should not wait until after an acceptance is received to apply. An application for financial aid should be filed with the Student Financial Aid Office in January or early February at most medical schools. Students must fill out a Free Application for Federal Student Aid, or FAFSA as soon as possible after January 1st. For more information, visit <a href="https://studentaid.ed.gov/sa/fafsa">https://studentaid.ed.gov/sa/fafsa</a> to get step-by-step assistance.

Most medical schools have some form of scholarships, fellowships, and grants from their endowments or from special funds donated to the school that are available for students accepted to their program. Check with the individual schools to which you plan to apply for information about scholarships.

The Armed Forces Health Professions Scholarships are also available, but highly competitive. Students accepted into these programs are commissioned as second lieutenants or ensigns in the inactive reserve of the US Air Force, the US Army, or the US Navy. The scholarship pays all tuition, fees and books, plus a living allowance. This stipend is taxable; fees and books are not. There is a substantial service commitment in return for financial assistance. For more information, contact the health care recruiters of the various armed forces.

For more loan information, please refer to the MSAR. The MSAR should be consulted as a starting place for information on financial aid in medical school and the AAMC website <a href="https://students-residents.aamc.org/applying-medical-school/preparing-med-school/paying-medical-school/">https://students-residents.aamc.org/applying-medical-school/preparing-med-school/paying-medical-school/</a> is an excellent resource. However, the student financial aid office at the medical school at which you have been accepted is the source for the latest information and will be of the greatest assistance. The financial aid office has the responsibility for compiling a package that will assist students accepted at their institution to pay for their medical education.

# VI. If You Are Not Selected

One of the first things rejected applicants should do is to honestly and realistically assess their position and identify the reasons for the rejections. Most med schools will explain what was lacking in your application if you contact them. Then, do as they say and re-apply.

#### **Re-application**

GPA and MCAT scores are at an all-time high and many talented students are not gaining admission. In this environment if a rejected applicant reapplies with essentially the same credentials, the chances for a favorable decision are slight.

Rejected applicants should arrange a conference with personnel in the admissions office at schools to which they have applied and/or seek advice from their pre-medical advisor. The purpose of this meeting should be to identify those areas in which their application appears to be deficient and then devise realistic ways in which deficiencies may be improved. The rejected applicant must be realistic when evaluating the chances for

significantly improving their application. In some cases, this may mean simply retaking the MCAT with better preparation and an improvement in the scores. In many instances the GPA must be improved. A low GPA can be improved only by taking additional undergraduate courses and making better grades in them. Applicants may take additional course work as a post baccalaureate student after completion of the baccalaureate degree or go to graduate school or structured post-baccalaureate program. Completion of the MS in a basic science with a strong academic record may improve the chances of a candidate who was marginally competitive as an undergraduate. There are, of course, no guarantees that this strategy will be successful. A person enrolling in graduate school should therefore do so in a discipline which he/she would consider pursuing as an alternative career. The MSAR has more information.

#### **Osteopathic Medical Schools**

As said by The American Association of Colleges of Osteopathic Medicine, "Osteopathic medicine is a distinct pathway to medical practice in the United States. Osteopathic medicine provides all of the benefits of modern medicine including prescription drugs, surgery, and the use of technology to diagnose disease and evaluate injury. It also offers the added benefit of hands-on diagnosis and treatment through a system of treatment known as osteopathic manipulative medicine. Osteopathic medicine emphasizes helping each person achieve a high level of wellness by focusing on health promotion and disease prevention."

Osteopathic physicians, also known as DOs, work in partnership with their patients. They consider the impact that lifestyle and community have on health and they work to break down barriers to good health. DOs are licensed to practice the full scope of medicine in all 50 states. They practice in all types of environments, including the military, and in all types of specialties.

The number of applicants to osteopathic medical schools has steadily increased over the last several years. The mean GPA for D.O. applicants is about a 3.4 and mean MCAT score of 502.

AACOMAS (American Association of Colleges of Osteopathic Medicine Application Service) is the official application service for colleges of osteopathic medicine. AACOMAS is a member of AACOM (American Association of Colleges of Osteopathic Medicine).

For questions about AACOMAS applications, first contact your local pre-health advisor. You may also contact AACOM Phone: (617) 612-2889 E-mail: <a href="mailto:aacomasinfo@liaisoncas.com">aacomasinfo@liaisoncas.com</a>.

The AACOMAS application is available on-line. The application cycle is June 1 to March 15, although individual colleges may have other deadlines ranging from December to February.

#### **International Medical Schools**

In order for international medical school graduates to be licensed in the US, they must pass the appropriate

examinations and complete an approved residency in an American teaching hospital. Medical school is a very taxing and stressful experience for most individuals even under the best of circumstances, but the difficulties are compounded when living in a foreign culture with a different language. Many American students enrolled

in international medical schools drop out before completion of the MD degree, often after having spent many thousands of dollars on their medical education.

US students enrolled in an international medical school may encounter great difficulty and much uncertainty in excelling in the USMLE and in obtaining a residency in the US. The number of students graduating from US medical schools is increasing at a faster rate than residencies are, which makes it even more difficult for international med school grads to obtain a residency. There are many fine physicians who have graduated

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from an international medical school and had success as physicians in the US. An international medical school is an option but should be essentially a last resort.

#### **Career Alternatives**

For those not accepted, the situation may dictate some alternative career. Osteopathic medical schools as described above have essentially the same rights as a MD, yet GPAs and MCATs of students accepted to osteopathic medical schools on average are lower than those of students accepted to traditional allopathic medical schools. A podiatric physician earns the DPM and is more restricted in practice than the MD (they treat the feet and lower legs), but this is a growing field and many students find satisfying careers in this closely-related field. Students may wish to consider other careers in the health sciences. Other closely related careers include dentistry, veterinary medicine, optometry, and pharmacy; but these are all competitive as well. Many former pre-medical students complete a PhD in a discipline in the basic medical sciences and enjoy a satisfying career in teaching and research, often at a medical school. Others take graduate degrees in public health, clinical psychology, or one of the allied health sciences, such as medical technology or clinical chemistry. There are numerous career opportunities in these areas. Hospital administration might be considered by those students with good management skills and the ability to work well with people. Most of these professions are highly competitive and no assurance can be given that a student applying for graduate or professional school in these disciplines will be accepted. There are, however, many talented students with much to offer professionally who are not being accepted for admission to medical school.

The UofSC Career Center is a terrific resource for students and alumni and offers substantial information regarding career options and individual suitability. The Career Center is located in the Thomas Cooper Library. The phone number is (803) 777-7280 and information can be found online at http://www.sc.edu/career/

# **VII.** Medical School Policies and Special Programs

US medical schools offer several innovative programs designed to assist students with special problems or particular needs. It is beyond the scope of these guidelines to discuss these programs in detail or to list the schools offering them. A starting place for information regarding any of these programs is the latest edition of the MSAR, to which you can subscribe on the <a href="www.aamc.org">www.aamc.org</a> website. Further information will be available from the medical school website. Some of the more popular programs and policies are outlined below.

#### **Early Decision Program**

The Early Decision Program (EDP) allows you to file a single application to a medical school offering such a plan, well before the usual deadline (the EDP application deadline is August 1) and to receive a prompt decision from the medical school (by October 1). If you are admitted under the EDP you are obligated to attend that school. You would therefore apply for early decision only at your first choice school. The University of South Carolina School of Medicine, Columbia and Greenville, and MUSC all offer EDPs. Both UofSC schools and MUSC consider applicants with the profile of the most recent entering class' GPA and MCAT scores as potentially competitive applicants for early decision, meaning that if you have a GPA and MCAT score at the average of their last year's entering class, you might be competitive for early decision. The EDP applicant must take the MCAT early (preferably by late June). Letters of evaluation must be on file early.

If you are rejected under the EDP, you will be notified in sufficient time that you can apply to other medical school. It is sometimes possible for a rejected EDP student to be admitted to their EDP school during the regular admission cycle.

#### **Notification**

The Association of American Medical Colleges (AAMC) has so called "traffic rules" that require member medical schools to observe certain restrictions for notification of accepted applicants. The earliest notification date (other than Early Decision Program applicants) is October 15. After this date most schools operate on a "rolling" notification basis.

#### **Joint Degree Programs**

Many medical schools offer students the opportunity to earn the MD degree plus another professional degree in a joint program. The MD/PhD combined degree program is the one most widely available. Others include MD/MPH and MD/JD.

The National Institute of General Medical Services (an institute in the National Institutes of Health) sponsors a Medical Scientist Training Program (MSTP) that supports students in MD/PhD programs. All tuition fees, plus a stipend provide for basic living costs. There is often a "payback" provision in which a student is required to spend time teaching and/or research for each year of support. The competition for MSTP scholarships is high. Applicants should have considerable research experience as well as excellent GPA and MCAT scores to be competitive.

For more information about joint degree programs, please consult the MSAR.

#### **Under-represented Minority Students**

Since the late 1960s, US medical schools have greatly increased their efforts toward recruitment of minority students currently under-represented in the medical profession. Many of the programs which have been initiated are discussed in MSAR. More complete information is available in the AAMC website <a href="https://students-residents.aamc.org/choosing-medical-career/medical-careers/deciding-if-medicine-you/minorities-medicine/">https://students-residents.aamc.org/choosing-medical-career/medical-careers/deciding-if-medicine-you/minorities-medicine/</a>. The purpose of such programs is to increase the number of students entering medical school from minority groups that are under-represented in the medical profession.

# **Summary**

Pre-medical students should be aware that medicine requires a life-long commitment to learning. Mandatory continuing education for physicians has become commonplace and more than half the states require continuing medical education credit for re-licensure. Voracious readers are much more likely to have the kinds of skills which will allow them to keep up with the expansion of knowledge in their field. Students should also recognize that medical admissions committees seek a broadly educated person who is well-informed about current events. An entering freshman in pre-medicine is well advised to subscribe to a weekly news magazine such as Time or Newsweek (student discounts are available at savings of one half or more) and get into the habit of reading every issue essentially from cover to cover. Another useful magazine is Scientific American. Also, daily and major newspapers such as the NY Times, Washington Post, Boston Globe, and LA Times keep students up to speed on world, national and regional news. The broadly educated person will have an interest in and an awareness of happenings in many different fields. Most physicians recommend that students cultivate outside interests which may be pursued for recreation and health during medical school and beyond. It is important to have other interests which may be used to "get away from it all" occasionally and in this way handle the stress that will be a part of every physician's life. Some run or play handball, others play musical instruments, paint, or tinker with sports cars. The list is long, but it is important to find something that is an

enjoyable pastime that can be used to forget about medicine and the problems that may attempt to overwhelm you.

It is never too soon to begin planning how to pay for your medical education. Students who plan to finance a major part of their educational costs through loans must be prepared to assume rather large debts. They should also be aware that accumulation of a large debt while in medical school could limit the type of practice or medical specialty after completion of training.

We wish you success not only in gaining admission, but also in your practice and in your personal life. To reiterate a point made earlier, the success of our advising program will be judged by the success of our students. It is to our mutual benefit that you succeed.

#### Resources

Association of American Medical Colleges (AAMC): www.aamc.org

Medical School Admission Requirements (MSAR): <a href="https://students-residents.aamc.org/applying-medical-school/article/msar-terms-and-conditions/">https://students-residents.aamc.org/applying-medical-school/article/msar-terms-and-conditions/</a>

American Association of Colleges of Osteopathic Medicine (AACOM): www.aacom.org

Student Doctor Network; www.studentdoctor.net

# **Campus Resources**

Office of Pre-Professional Advising: www.sc.edu/oppa

Office of Undergraduate Research: www.sc.edu/our

Study Abroad Office: www.studyabroad.sc.edu

Student Success Center: https://www.sc.edu/about/offices\_and\_divisions/student\_success\_center/index.php

Career Center: www.sc.edu/career

# **Appendix A**

#### Requirements and Profiles at the Medical Schools in South Carolina\*

\*Always check the MSAR for the most up-to-date requirements as they may change

#### Medical University of South Carolina, Charleston, SC

#### **Requirements:**

- MCAT exam
- At least 90 hours of academic credit
- Three letters of evaluation
- Supplemental application
- AMCAS deadline is November 1

#### **Student Profile:**

- Median GPA is 3.78
- Median MCAT is 511
- SC state residents are given first preference in admissions

#### University of South Carolina Greenville School of Medicine, Greenville, SC

#### **Requirements:**

- Two semesters of biology with lab
- Two semesters of general inorganic chemistry with lab
- Two semesters of organic chemistry with lab
- One semester of biochemistry; lab is not required
- One semester of physics with lab
- Three semesters of humanities, social and behavioral sciences (including at least one semester of English composition/literature
- MCAT Exam
- Supplemental Application
- At I least three letters of evaluation, with a maximum of 5
- AMCAS deadline is November 1

#### **Student Profile:**

- Median MCAT is 509
- Median GPA is 3.8
- SC residents given first priority in admissions

### University of South Carolina Columbia School of Medicine, Columbia, SC

#### Requirements:

- MCAT Exam
- At least 90 hours of academic credit, bachelor's preferred
- US Citizenship
- Three letters of evaluation, two from science faculty strongly recommended
- Supplemental Application
- AMCAS deadline is November 30

#### **Student Profile:**

- Median GPA is 3.8
- Median MCAT is 509
- SC residents given first priority in admissions

# **Appendix B**

Office of Pre-Professional Advising University of South Carolina

# **Medical School Application Procedures**

#### FRESHMAN YEAR

Make sure you are registered for the correct science classes (science majors' science courses) at Orientation.

Attend the Pre-Med Orientation before the start of classes.

Stop by or call Pre-Professional Advising to be placed on our list-serv. Do this soon as you arrive on campus.

Inform your academic advisor that you are a pre-med student.

Focus on your grades; get off to a good start by honing your time management and study skills.

#### SOPHOMORE YEAR

Begin getting exposure to health care through community service, part-time employment, or shadowing. The OPPA offers day-long experiences through MedView Shadowing Program on our website.

Contact the Office of Community Service Programs at 7-7130 to explore community service options.

Get to know your professors! You will need letters of recommendation next year.

Come by the OPPA to make sure you are on track and go over your plan. Drop-in hours are Tuesdays 1 - 4 p.m. and Wednesdays 10 a.m. - 1 p.m. We have many resources in our office.

#### JUNIOR YEAR

Begin reviewing for the MCAT.

Attend informational meetings for junior class or visit the OPPA to make sure you are on track. This is important! This is the busiest year for your med school application preparation.

You must have at least four recommendations; two from science professors, one from a non-science professor, and one or two from outside sources (employer, supervisor, coach, etc.)

Attend one of the AMCAS workshops offered in the spring. This is CRUCIAL!

Register for the MCAT online on the official website: www.aamc.org.

Take the MCAT.

Log on to the AAMC website to begin work on your American Medical Colleges Application Service (AMCAS) application.

Certify and submit your AMCAS application as soon as possible after the June open date and submit the appropriate supplemental documents. The latest you should submit your AMCAS application is by the end of August.

#### **SENIOR YEAR**

Complete and return supplemental (secondary) applications, as received, to specific medical schools.

Make sure all of your recommendations are sent in - either through our letter writing service or by your writers uploading them directly through AMCAS.

Inquire at each medical school to ensure all materials have been received.

Respond to any medical school interview requests immediately.

Schedule a mock interview at the OPPA.

Notify all medical schools offering you admission of your decisions as early as possible.

# **Appendix C**

# **Pre-Professional Competencies**

**Service Orientation:** Demonstrates a desire to help others and sensitivity to others' needs and feelings; demonstrates a desire to alleviate others' distress; recognizes and acts on his/her responsibilities to society; locally, nationally, and globally.

**Social Skills:** Demonstrates an awareness of others' needs, goals, feelings, and the ways that social and behavioral cues affect peoples' interactions and behaviors; adjusts behaviors appropriately in response to these cues; treats others with respect.

**Cultural Competence:** Demonstrates knowledge of socio-cultural factors that affect interactions and behaviors; shows an appreciation and respect for multiple dimensions of diversity; recognizes and acts on the obligation to inform one's own judgment; engages diverse and competing perspectives as a resource for learning, citizenship, and work; recognizes and appropriately addresses bias in themselves and others; interacts effectively with people from diverse backgrounds.

**Teamwork:** Works collaboratively with others to achieve shared goals; shares information and knowledge with others and provides feedback; puts team goals ahead of individual goals.

**Oral Communication:** Effectively conveys information to others using spoken words and sentences; listens effectively; recognizes potential communication barriers and adjusts approach or clarifies information as needed.

**Ethical Responsibility to Self and Others:** Behaves in an honest and ethical manner; cultivates personal and academic integrity; adheres to ethical principles and follows rules and procedures; resists peer pressure to engage in unethical behavior and encourages others to behave in honest and ethical ways; develops and demonstrates ethical and moral reasoning.

**Reliability and Dependability:** Consistently fulfills obligations in a timely and satisfactory manner; takes responsibility for personal actions and performance.

**Resilience and Adaptability:** Demonstrates tolerance of stressful or changing environments or situations and adapts effectively to them; is persistent, even under difficult situations; recovers from setbacks.

**Capacity for Improvement:** Sets goals for continuous improvement and for learning new concepts and skills; engages in reflective practice for improvement; solicits and responds appropriately to feedback.

# Thinking and Reasoning Competencies

**Critical Thinking:** Uses logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

**Quantitative Reasoning:** Applies quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world.

**Scientific Inquiry:** Applies knowledge of the scientific process to integrate and synthesize information, solve problems and formulate research questions and hypotheses; is facile in the language of the sciences and uses it to participate in the discourse of science and explain how scientific knowledge is discovered and validated.

Written Communication: Effectively conveys information to others using written words and sentences.

# Science Competencies

**Living Systems:** Applies knowledge and skill in the natural sciences to solve problems related to molecular and macro systems including biomolecules, molecules, cells, and organs.

**Human Behavior:** Applies knowledge of the self, others, and social systems to solve problems related to the psychological, socio-cultural, and biological factors that influence health and well-being.

# **Appendix C Continued**

The 15 Core Competencies for Entering Medical Students have been endorsed by the AAMC Group on Student Affairs (GSA) Committee on Admissions (COA) who represent the MD-granting medical schools in the United States. The competency list was developed after an extensive review of the medical education and employment literatures and with input from several blue-ribbon and advisory panels, including SFFP, Behavioral and Social Sciences Foundations for Future Physicians (BSSFFP), Institute of Medicine (IOM), 5th Comprehensive Review of the MCAT Review Committee (MR5), Accreditation Council for Graduate Medical Education (ACGME) Outcome Project, the MR5 Innovation Lab, and others.

# **Appendix D**

# **MedView**

The MedView shadowing program gives you an opportunity to shadow physicians in a professional setting.

For more information, visit: <a href="https://www.sa.sc.edu/oppa">www.sa.sc.edu/oppa</a> Click on MedView icon and follow the directions

# A Day In The Life

Spend A Day With A Medical Student!

Find out what medical education is like by going to class, having lunch, and asking a medical student any questions you may have!

To schedule, contact: USC School of Medicine

Admissions

803-216 - 3625

Office of Undergraduate Research

www.sc.edu/our

803-777-1141

Call for Getting
Started Workshop

# Volunteer Opportunities

Personal Touch - 803-771-5570

www.palmettohealth org/

Palmetto Richland Memorial Hospital 803-434-6242

www.palmettohealth org/

Lexington Medical Center 803-791-2573

www.lexmed.com/
volunteer/default.asp

Providence Hospital 803-256-5363

www.providenceho

spitals.com/doc/Page.asp

Compassionate Care
Hospice - Contact:
Tiffany.Corbin@cchnet.net

Good Samaritan Clinic www.goodsamaritanclinic-sc.org

Free Medical Clinic

www.freemedclinic.org

# Student Organizations

**Alpha Epsilon Delta** 

Pre-Med Honors Society www.uscaed.com

Phi Delta Epsilon International Medical Fraternity www.phide.org

**Delta Delta Sigma** 

Pre-Dental Honor Society www.uofscdds.com

Black Medical Student Association SOBMSA@mailbox.sc.e

du

**Health-Related Minors** 

Medical Humanities www.biol.sc.edu/minor\_medical\_humanities

Neuroscience http://zebra.biol.sc.edu/ neurominor/

Health Promotion www.sph.sc.edu/futurestudents/PDFS/

**Nutrition** 

www.sc.edu/nutrition

# **Appendix E**

#### Your Personal Statement: Grab Their Attention!

It's time to start thinking about one of the most important aspects of your application: the personal statement, or statement of purpose. Admissions committees use the statement to get a feel for you as a person and individual. Up until now, they have seen your grades, test scores and lists of activities in which you've been involved. The personal statement is your opportunity to shine. This is a chance to write a compelling story about your achievements, your character, maybe a situation in which you have learned a life lesson. If you write a compelling statement, an admissions committee member might decide that you have something unique to offer their school. By this time in your life you've had many life experiences: tackled challenges, experienced disappointment, learned lessons, even learned a lot about yourself as a person. Now you're going to share one or two of these personal experiences with the admissions committee; this is not a time to re-list things that are already located elsewhere in your application, but a time to share personal aspects of your life. Use stories to illustrate the qualities you want to showcase; paint a video clip of your life. This process can take lots of time, even weeks; so give yourself plenty of time.

#### **First Things First:**

#### Before you begin:

Think about your audience. Who will be reading your statement? Reflect back on past experiences and how they have affected you. Some questions you might ask yourself are:

- o Who are your role models and why? How have they influenced you?
- o What do you think are the three most important qualities for a great physician? How have you
- o demonstrated those qualities during your life, especially while in college?
- At what point did you decide you wanted to be a physician? What influenced the decision?
- o How have you reassured yourself that medicine is for you?
- o What were the most influential experiences of your college career and why?
- o Do you come from a disadvantaged background? What was it and how did you persevere?
- o What challenges have you overcome and what did you learn?
- o Are you particularly interested in a topic such as a social issue or political cause?
- o Why? What have you done to validate that interest?
- o Have you ever helped a friend or family member through a difficult time?
- o Have you held a leadership position in college? What did you learn about people?
- What did you learn about yourself? How were you affected by the leadership position?
- o What accomplishment are you most proud of? Why?
- o What have you learned about yourself while you have been in college? How are you different than you were when you began college?
- o What is the most important lesson you have learned while in college?
- o Why do you want to go to medical school?

# **Appendix E Continued**

- o What has been most influential in your decision to pursue this profession?
- o Why should a medical school admit you?
- o What can you contribute to the medical school? To a new group of medical students?
- o Is there something in particular that is interesting or different about you and/or your family?

#### **Time to Start Writing:**

- Once you have thought about the answers to these questions, start writing stories that answer the questions. Think about the details of the situation, how you felt about it, what you learned from it, how you reacted to it. Why was it meaningful?
- Write about how situations either clarified or made you question your values. How do these stories relate to your pursuit of medicine?
- Create images in the minds of the readers; give them a video clip of your life to see in their minds. To do this, you need to write with details and specifics.
- Make sure you talk in the first person (remember it is a *personal* statement). Make this similar to a letter you might write a friend. It does not need to be formal (but it does need to be technically perfect: grammar, spelling, appropriate word usage, etc.). Feel free to use humor and creativity, but don't go overboard!
- Be careful with clichés.
- Don't write what you think someone else wants to read. Write about yourself with feeling. That *is* what they want to read!
- Create an outline if that is how you usually begin to write.
- Start to put stories/paragraphs into an appropriate order with good transitions between.
- Start your statement with a catch phrase and a story. Write something that no other person could write. Be personal, not generic. Which would you be more likely to want to continue to read:

"I know I will be a good student in medical school."

Or

"If I had known that I would end up there, I might have made a very different decision." This phrase makes me want to find out what happened and what the writer is talking about.

- Have friends, parents, and professors read your statement. Have them check for interest and especially for errors.
- Proof and re-write as necessary.
- Once you are satisfied, transfer the statement to your application.

**DON'T** repeat things that are listed elsewhere on your application, i.e. lists of courses, grades, organizations, community service, etc.

**DON'T** try to impress the reader with your vocabulary.

**DON'T** rely on your spell checker to check your spelling and grammar.

**DON'T** give excuses for poor grades or test-scores. (If you did have a bad semester due to special circumstances, it's ok to briefly discuss it.)

**DON'T** make stuff up.