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جامعة الشارقة
UNIVERSITY OF SHARJAH

COLLEGE OF MEDICINE

NEWSLETTER

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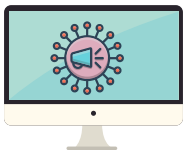
COLLEGE NEWS


VIRAL NEWS


MEDICAL HEROES


STUDENTS' CORNER


STUDENTS' POLLS


DOCTOR'S ORDERS

DEAN'S MESSAGE OF THE MONTH

The College of Medicine is in the process of preparing for accreditation and all hands are on deck working in full force to ensure a smooth process. We have progressed very well in the fields of education, research, and community service. We have been trying to focus on online education in the college, especially due to COVID-19, with an emphasis on innovations in teaching, as well as revision of the curriculum and assessment tools.

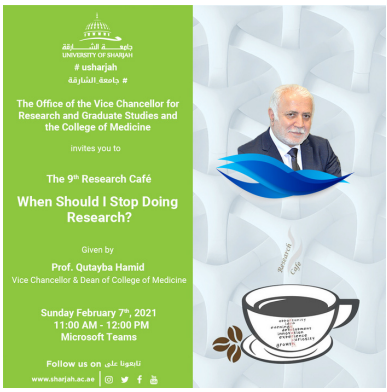
I am pleased to announce that the University of Sharjah COVID-19 Testing Centre is now open again to cater to the community. You can register online to book an appointment.

The last month has been very busy at the College with numerous events, meetings, faculty development workshops, and seminars taking place. Many grant deadlines were also met by an increasing number of applications from the faculty. Our students have also been busy studying for upcoming major exams such as the exit exam and the final MBBS exam. I would like to congratulate our faculty and students on all their wonderful achievements. They continuously make me and our college proud.

COLLEGE NEWS

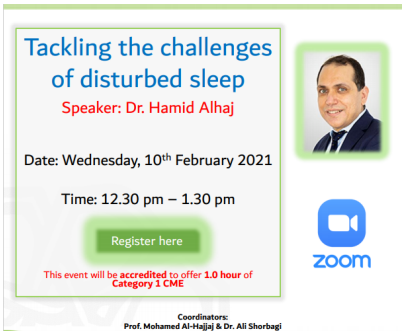
The 9th Research Café: When should I stop doing research?

The 9th research café organized a webinar titled "When should I stop doing research" on February 7th 2021. The session was presented by Prof. Qutayba Hamid, Vice Chancellor & Dean of College of Medicine.



CSD Seminar

Prof. Hamid Alhaj held a talk titled "Tackling the challenges of disturbed sleep" on Wednesday, 10th of February 2021 as part of the Clinical Sciences Department Seminar Series of the College of Medicine. This event, which was coordinated by Prof. Mohamed Al-Hajjaj and Dr. Ali Shorbagi, was accredited to offer 1.0 hours of Category 1 CME to attendees.



The Network: Towards Unity For Health meeting

A delegation of 8 faculty and 20 students attended the first meeting with the Network Towards Unity For Health (TUFH) with Mr. Nicholas Torrres, the executive director of TUFH, on 10th February 2021. TUFH prides itself as an international organization that fosters equitable community-oriented health services, education and research with the goal of improving health locally and globally. The College of Medicine is looking forward to a fruitful collaboration with TUFH in student exchange and other activities, faculty development, research, and community services initiatives, and institutional support.

1st Annual Meeting BMS

The Basic Medical Sciences Annual Meeting program will cover the latest scientific discoveries across the spectrum of cancer research, diabetes mellitus, and cardiovascular diseases. It will be held on the 6th of April 2021 on Zoom. The event will be highlighting the latest research work of the faculty members and graduate students affiliated with the College of Medicine. Please click here to view the program.

Faculty Achievements

Publications

Dr. El Zowalaty has published an article on Influenza viruses titled "Molecular detection of influenza A viruses and H5 subtype among migratory Amur falcons (Falco amurensis) and captive birds of prey" accessible at https://onlinelibrary.wiley.com/doi/10.1111/tbed.13988

Community Engagement

COVID Vaccine Talk

Prof. Qutayba Hamid, Vice Chancellor for Medical and Health Sciences Colleges, Dean of College of Medicine, University of Sharjah, gave a talk titled "Covid-19 Vaccines and the New Strain of Viruses" on Tuesday 9th February 2021.

BioTech Lab

Dr. Jalal Taneera held a talk titled "Identification of Novel Genes Involved in Insulin Secretion and Pathophysiology of Type 2 Diabetes, GPR183 is an example" on Wednesday, 27 January 2021 at "Biotech Lab", an online forum featuring experts in the field of biotechnology hosted by the Sharjah Research and Technology Institute Park.

FOCP Awareness session

Dr. Khuloud Bajbouj from the Department of Basic Medical Sciences has coordinated and conducted a public awareness session about "Gallbladder and Bile Duct Cancer" on 7 February 2021. This session was organized in collaboration with the Friends of Cancer Patients (FOCP) foundation, which operates under the Supreme Council of Family Affairs of Sharjah.

Undergraduate Awards

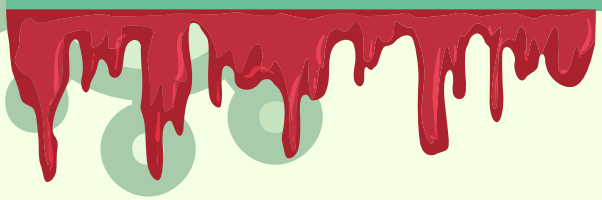
Dr. Jalal has joined the Medical Sciences Judging Panel for the Global Undergraduate Awards.

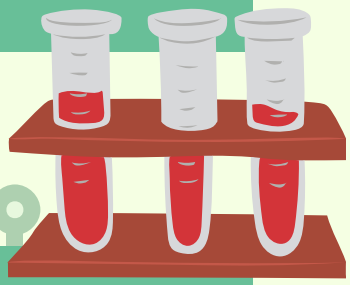
VIRAL NEWS

Goodbye to the Pathies of Hemoglobinopathies

Although hemoglobinopathies such as sickle cell anemia and thalassemia are well-managed nowadays, they remain a serious burden on affected patients. But what if a therapy was found to replace every malfunctional red blood cell in these patients? As impossible as it may seem, researchers have found a form of gene therapy that does exactly so.

Normally, fetal hemoglobin gets converted to adult hemoglobin through the transcription factor BCL11a, where gamma-subunits of fetal hemoglobin are swapped for beta-subunits found in the adult form. In patients with sickle cell anemia (SCA) and beta-thalassemia, a mutation involving the beta-subunit takes place, leading to the formation of dysfunctional adult hemoglobin while fetal hemoglobin remains unaffected.





Researchers have identified the transcription factor BCL11a as a possible target for gene therapy. They theorized that, by injecting patients with hematopoietic stem cells and progenitor cells that have a low BCL11a expression, gamma-subunits would not be substituted with beta-subunits, and the patients would remain with fetal hemoglobin alone. Indeed, in a clinical trial involving two subjects, one with thalassemia and another with SCA, fetal hemoglobin synthesis was successfully restored.

Within a 12-month period, patients showed an increase in fetal hemoglobin levels, did not require transfusions, and the vaso-occlusive episodes characteristic of SCA were eliminated. While widespread and efficient delivery of gene therapy is not feasible just yet, this technique represents a ray of hope for patients with all sorts of hemoglobinopathies.

REFERENCES:
Bender, K. P. (2021, January 27). Two Gene Therapies Fix Fault in Sickle Cell Disease and ß-thalassemia. HCPLive. https://www.hcplive.com/view/two-gene-therapies-fix-sickle-cell-disease-thalassemia

MEDICAL HEROES

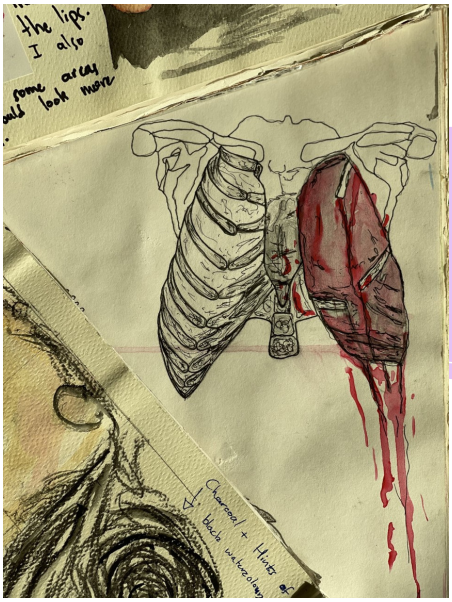
Prof. Judith Graham Pool

Born in 1919, Prof. Judith Pool was a physiologist who transformed the treatment of hemophilia. She started extensive research on blood coagulation in 1954, and with the help of two associates, she developed a method to separate Factor VIII from blood plasma in order to correct the bleeding defect in hemophilia. She was also able to create cryoprecipitate – a cold insoluble protein fraction of whole blood plasma – and made it publicly available in 1965. The beauty of cryoprecipitate is that it could be made without special equipment and could be left in a plastic bag and refrozen upto a year. This allowed patients with hemophilia to be treated from the comfort of their homes and local medical facilities. Interestingly, she also worked on muscle physiology and developed a technique to measure the electric potential of a single muscle fibre within a membrane. In her later years, Pool devoted much time and effort to increasing opportunities for women in the field of science as a founding member and co-president of the Association for Women in Science in 1971. She died at age 56 of a brain tumor.

Dr. Charles R. Drew

Born in 1904, Dr. Charles R. Drew, fondly nicknamed the 'Father of the Blood Bank', grew up in an African American family living in a racially segregated city. What went on to define his career took shape at Howard University. It is there that Dr. Drew's work on separating plasma from blood made it possible to store blood for a week – a remarkable feat back in the day. He also discovered that transfusions could be performed with plasma alone, broadening the scope of treatment. He worked on the 'Blood for Britain' project which collected nearly 15,000 pints of blood for military hospitals in Great Britain during World War II, and in 1941, he was appointed as the director of the first American Red Cross Blood Bank. His tenure was short-lived because of his outspoken criticism of racial segregation in blood donation and transfusion in the US military. Although his life was cut short at 46 years by a tragic car crash, the impact of his revolution reverberates till date.

STUDENTS' CORNER



"To the left is my lung before med school, to the right is my lung now as a distraught year 2 medical student."

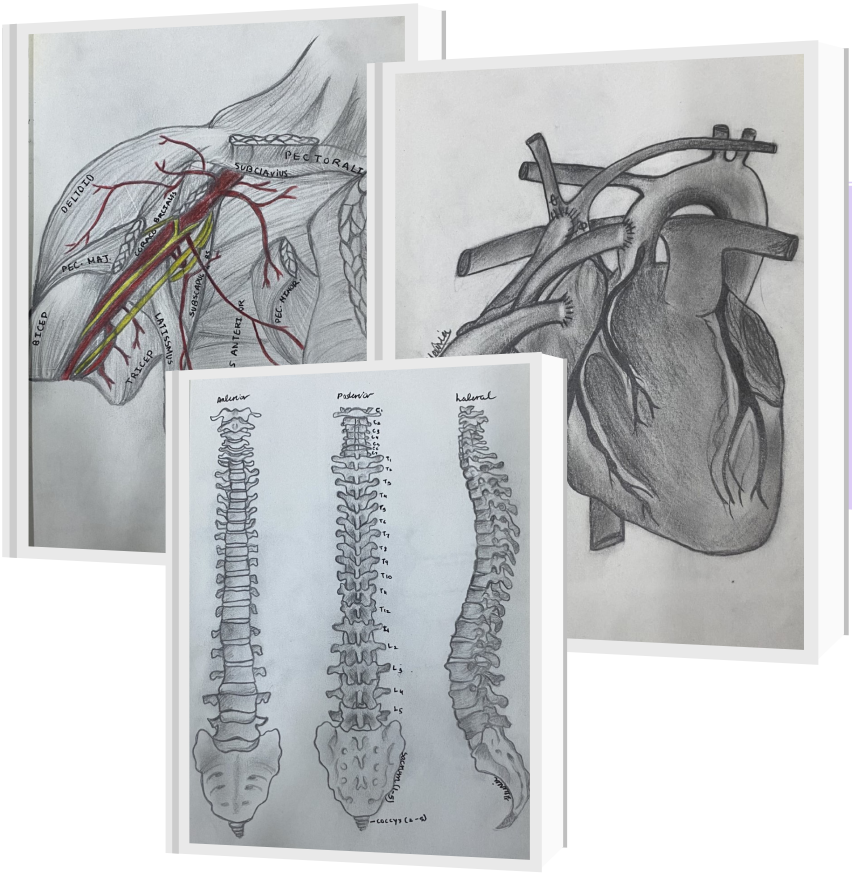
ANAS OBAIDEEN - YEAR 2

"To me, studying Medicine is just another form of worshipping Allah (عبادة). You just need to constantly renew your intentions towards it (نية) :)!"

RADWA HASSAN - YEAR 2

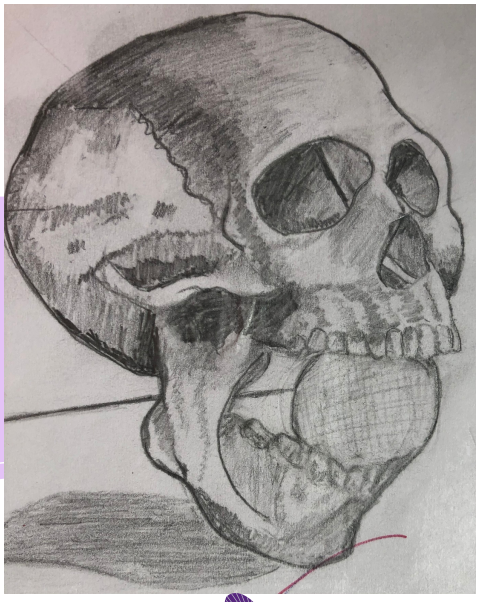
"A study date with a cup of coffee in a cozy, tidy and well-lit space."

FATIMA AL SHAMSI - YEAR 2



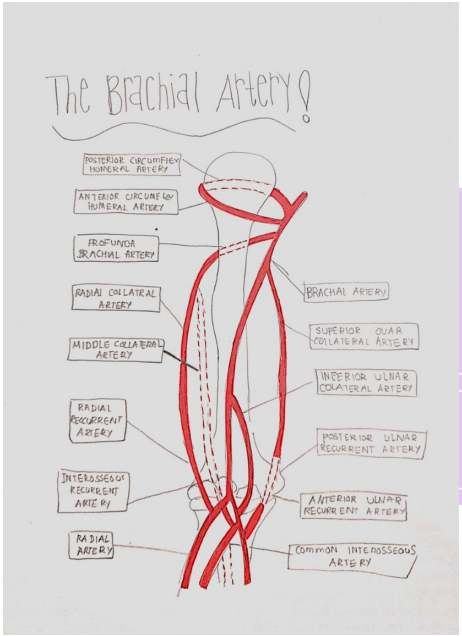
The human body is the most astonishing form of art and for that reason I chose medicine!"

HOURIA QASEMI - YEAR 2



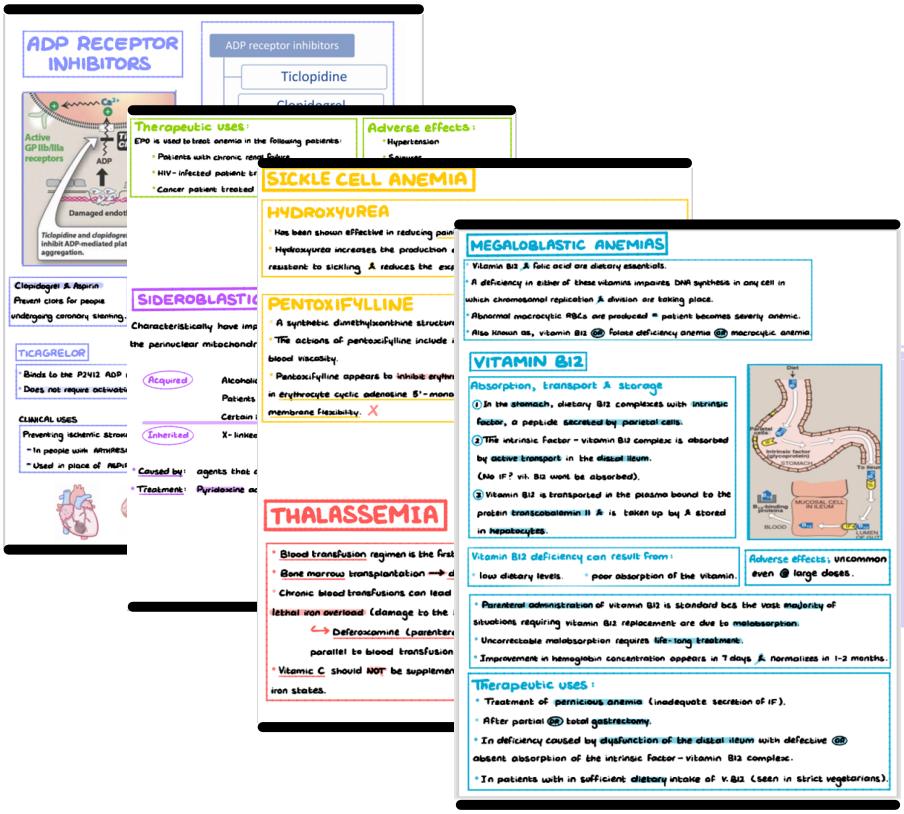
"I drew this back in 12th grade when I thought the skull was one bone. Now, there are 22."

MOHAMAD ABDALLAH - YEAR 2



"It has always been my childhood dream to become a medical volunteer. I want to help people fighting to survive in countries with endless war crimes and give them a chance to live."

HADEEL ALAMELEH - YEAR 1

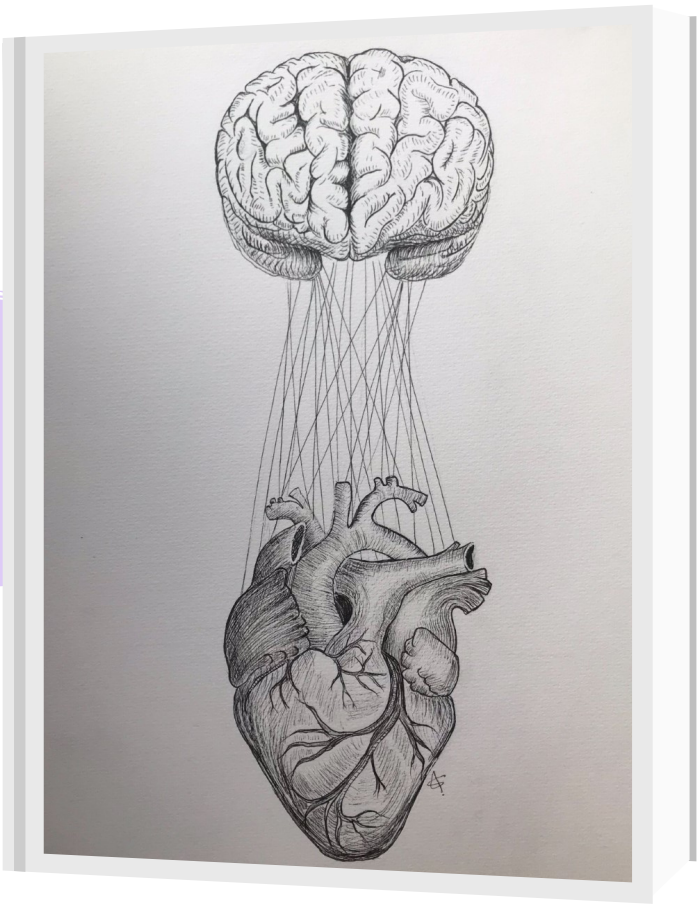


"Growing up in a family of doctors meant I had no choice but to become one. When I look at my notes, I remember to be grateful for what I was born to become."

HAYA ALZUBAIDY - YEAR 2

"I followed my heart and chose medicine, but here I am losing my mind!"

SHOROUQ ALI - YEAR 3



STUDENTS' CORNER

SALMA OSAMA - YEAR 2

'DENTISTRY HAD ALWAYS BEEN MY RESPONSE TO EVERY FAMILY MEMBER ASKING ME THE MUNDANE QUESTION OF WHAT I WANT TO STUDY. UNLIKE MANY THINGS IN LIFE, I WAS VERY SURE OF MY ANSWER. YET, HERE I AM, THREE YEARS INTO MEDICINE.

THE STORY OF HOW THAT HAPPENED CAN BE SUMMARIZED IN ONE WORD: FATE. MORE OFTEN THAN NOT, I FIND MYSELF WORRYING ABOUT THE OUTCOMES OF MY CHOICES, ESPECIALLY WHEN IT COMES TO SOMETHING AS MAJOR AS MY FUTURE CAREER. SINCE MEDICINE WAS NOT MY CHOICE PER SE, I CAN SIT BACK AND ENJOY THE RIDE.

A WISE MAN ONCE SAID, "YOU DON'T CHOOSE THE MAJOR, THE MAJOR CHOOSES YOU."

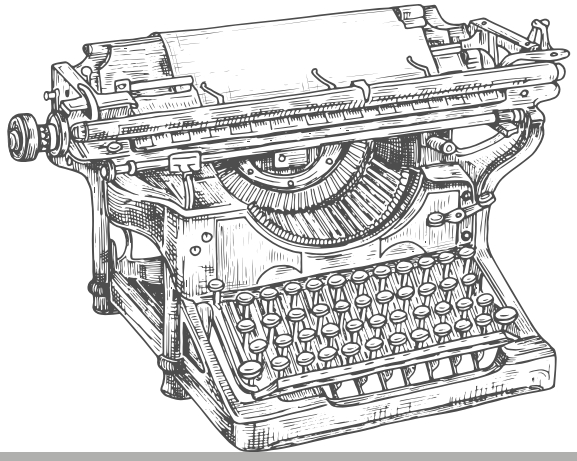
I AM THE WISE MAN.'

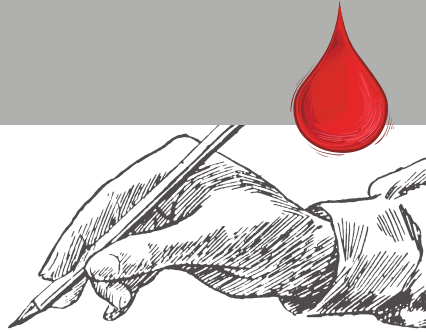
MARIAM ELEMAM - YEAR 2

'I WAS ALWAYS THE KID AT FAMILY GATHERINGS TELLING STORIES AND FANTASIES, THE ANNOYING KID WHO WENT ABOVE THE WORD COUNT OF EVERY ESSAY IN HIGH SCHOOL. I WANTED TO BE A WRITER ALL MY LIFE, NOT ONLY BECAUSE WRITING CHANNELS MY CREATIVE SIDE, BUT ALSO BECAUSE IT'S HOW I EXPRESS MYSELF BEST.

HOWEVER, JUST LIKE MY PASSION FOR WRITING PROSPERED, SO DID MY INTEREST AND CURIOSITY FOR TANGIBLE SCIENCE. AND WHAT IS MORE SURREAL THAN STUDYING GOD'S MOST IMMACULATE CREATION, HUMAN BEINGS?

MAY I TACKLE MED SCHOOL BEFORE IT TACKLES ME.'





'MEDICINE IS WHAT MAKES ME PROUD OF MYSELF. IT REMINDS ME OF WHOM I AM GOING TO BE IN THE FUTURE, AND EVEN TODAY... IT ENCOURAGES ME TO BENEFIT MY FAMILY MEMBERS, RELATIVES, & FRIENDS. MOST IMPORTANTLY, I WILL BE TREATING PEOPLE WHOM I NEVER MET BEFORE; SEEING THE SMILES ON THEIR FACES WILL ADD A SORT OF HAPPINESS & POSITIVITY TO MY LIFE THAT WOULD NULLIFY ALL THE TIRING NIGHTS THAT I SPENT STUDYING.

MEDICINE TO ME IS TO BE PART OF EVERY PATIENT'S FAMILY, SUPPORTING THEM ... WHILE WITNESSING THE DEATH OF A PERSON, AND THE BIRTH OF ANOTHER...'

FATIMA ADEL - YEAR 4

'WON'T SAY I ALWAYS WISHED FOR MEDICINE AS I LIKE PHYSICS AND MATH MORE THAN BIOLOGY, HOWEVER, LATER IN MY ACADEMIC YEARS, I STARTED LEARNING AND READING MORE ABOUT THE MEDICAL MYSTERIES.
FAMILIES OF DISEASES LIKE CANCER AND AUTOIMMUNE CONDITIONS ENGAGED ME AND MADE ME WANDER IN MY IMAGINATION, THINKING THROUGH THEM. I EVEN JOTTED DOWN SOME INFORMATION I COLLECTED AS A CHILD ON "WHY CANCER IS HARD TO TREAT" IN MY MATH NOTEBOOK. NOW, ALL I NEED IS JUST A BIT MORE KNOWLEDGE TO BACK MY IMAGINATION!
SECONDARY REASON: PARENTS ;)'

AWAB MUSAAD - YEAR 2

'STUDYING MEDICINE IS DIFFICULT, ESPECIALLY WHEN YOU'RE FORCED INTO IT. MY FATHER IS A VETERINARIAN AND MY OLDER BROTHER IS A SUCCESSFUL DOCTOR. IT ONLY MADE SENSE FOR THE OTHER SON, ME, TO STUDY MEDICINE TOO.

EVER SINCE I JOINED THE COLLEGE, I'VE BEEN HIT BY MULTIPLE WAVES OF DISAPPOINTMENTS, ONE AFTER THE OTHER. IN FACT, I ALMOST SWITCHED MAJORS TWICE.

WHEN THE PANDEMIC HIT, THE ROLE OF MEDICAL PROFESSIONALS BECAME MORE PROMINENT IN THE EYES OF THE PUBLIC. SEEING MY BROTHER CARING FOR THOSE IN DESPERATE NEED OF HELP MADE ME REALIZE I'M IN THE RIGHT PLACE, DOING THE RIGHT THING. NOTHING IS OF MORE VALUE THAN A LIFE OF A HUMAN.

LET'S KEEP GOING, THE REWARD IS YET TO COME.'

OMAR WARDAN - YEAR 2

DiagKnowsed

Case of the Month

A 44-year-old male presented to the clinic with a 5-year history of joint and epigastric pain. On inquiry, the patient mentions that he is currently the owner of a battery-recycling unit, which he had been working for since the age of 10 years as a child laborer.

He also mentions that much of his work involves handling molten metals, where he admits not properly washing his hands prior to having meals at work. Physical examination was significant for a blood pressure of 160/110 mmHg, a blue-purple line on the patient's gingiva, and peripheral neuropathy.

Further examination reveals antral gastritis, grade II reflux esophagitis and duodenitis, with hepatomegaly and diffuse steatohepatitis. Liver function test was significant for a raised ALT, and blood testing revealed a hemoglobin level of 10.2 g/dL. Figure 1 shows the basophilic stippling appearance found on microscopic examination of the patient's blood sample.

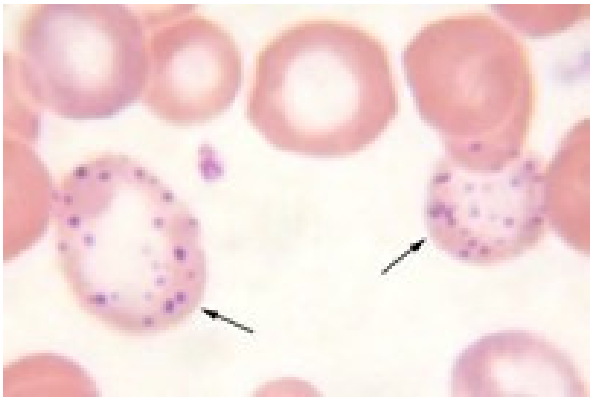


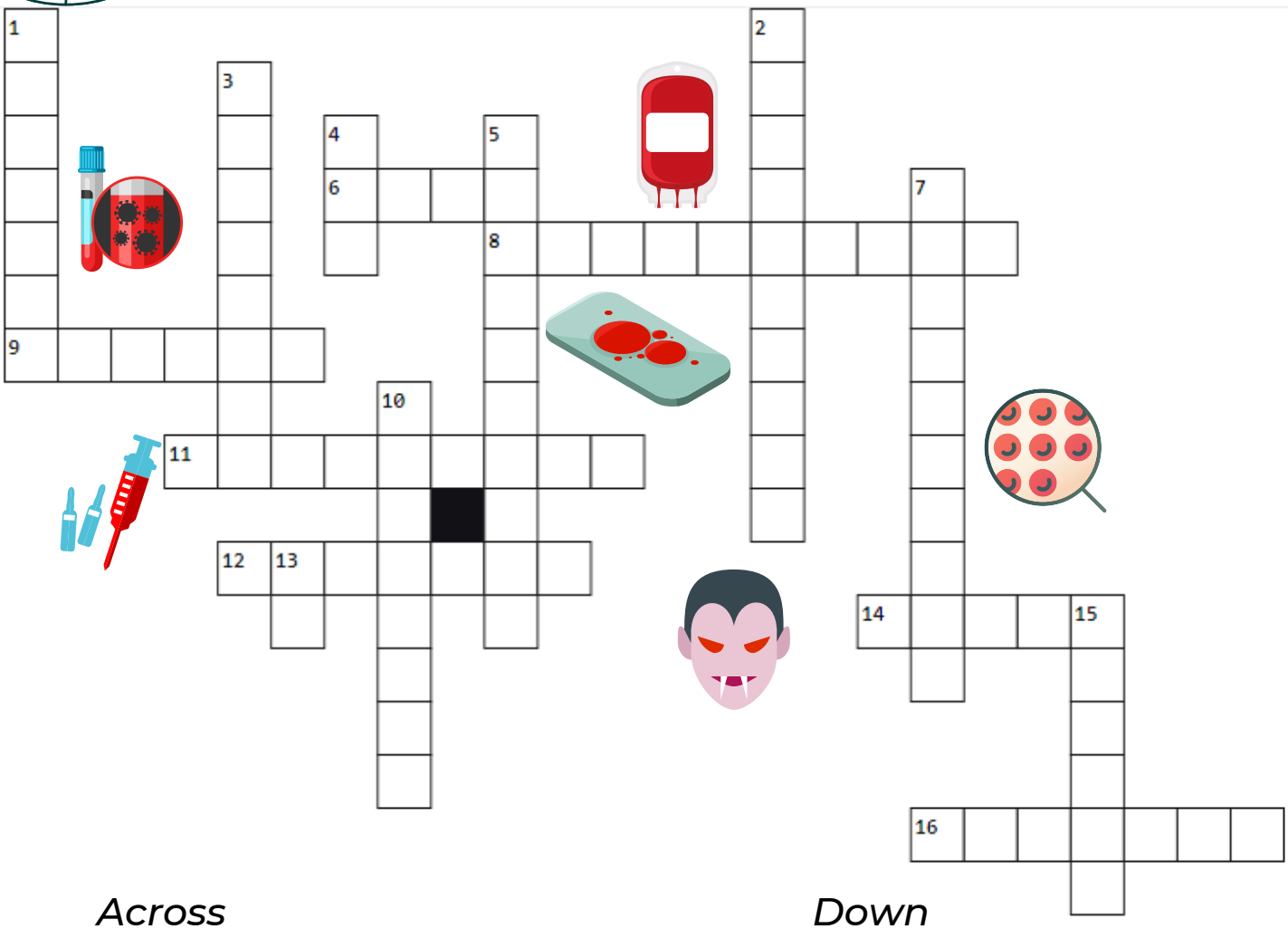
FIGURE 1: BASOPHILIC STIPPLING OF RBCS

WHAT IS THE MOST LIKELY DIAGNOSIS? WHAT ARE YOUR NEXT STEPS IN THE MANAGEMENT OF THE PATIENT? TELL US AND CHECK IF YOU ARE RIGHT BY FILLING THE FORM HERE!

MEDICAL CROSSWORD

For this month's crossword, the theme is the Hematological System. **Click on the icon to the right to access an interactive version of the crossword.** You can type in your answers and it will check if they are correct. Good luck!

CLICK HERE



Across

6. Color of crab blood
8. MCV > 100 fL
9. Blood infection
11. Term for drinking blood
12. Having sickle cell trait can protect against this
14. Hemoglobin subunit
16. Antiplatelet drug

Down

1.Family with methemoglobinemia that turned their skin blue
2. Common site of bone marrow biopsy
3. Treatment of acute promyelocytic leukemia
4. Initial blood investigation
5. The royal disease
7. Replacement of glutamate with valine
10. Deficiency of this can cause bleeding
13. Universal acceptor
15. Most common blood condition in the US

SOLUTIONS

DiagKnowsed

Case of the Month

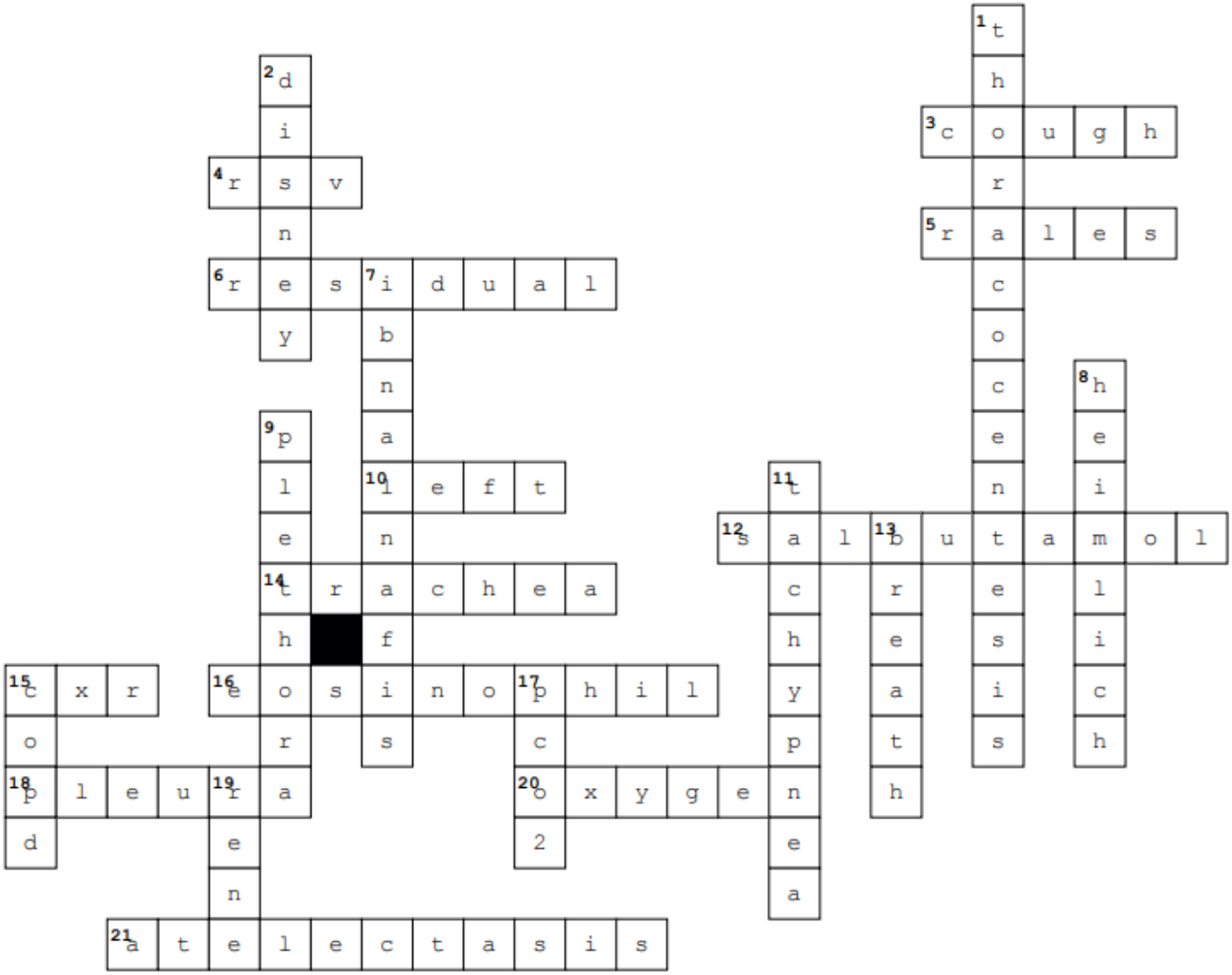
Based on history taking and physical examination, the clinician made a diagnosis of ***acute mountain sickness (AMS)***. The patient was immediately transferred to the ICU for intubation and invasive mechanical ventilation with routine care. Arterial blood gases and hypoxia drastically improved on the second day of admission to intensive care, along with the patient's Glasgow Coma Scale (GCS).

Two forms of acute mountain sickness can be distinguished: a cerebral form, known as high-altitude cerebral edema (HACE), and a pulmonary form, known as high-altitude pulmonary edema (HAPE). In contrast to HACE, HAPE is much less common, with signs and symptoms such as dyspnea, cough, reduced exercise performance, and pink frothy sputum, many of which had been seen in this case. In addition, the pulmonary infiltrates present in this patient's CXR are due to the pulmonary edema related to HAPE. As for the patient's depressed GCS, it can be largely attributed to HACE; thus, this patient had suffered from both forms of AMS.

The primary management technique in cases of high-altitude sickness is descent to a lower altitude. The use of supplementary oxygen is enough to treat mild forms of HAPE, while carbonic anhydrase inhibitors, such as acetazolamide, are required to treat most cases of HACE. Dexamethasone is highly effective in AMS, and hyperbaric chamber therapy could be used when descent is not possible.

REFERENCE:
Iqbal, A., & Majoo, S. (2016). A case report of high altitude sickness with features of acute mountain sickness (AMS), high altitude cerebral edema (HACE) and high altitude pulmonary edema (HAPE). Indian Journal Of Clinical Anaesthesia, 3(1), 131. doi: 10.5958/2394-4994.2016.00020.2

MEDICAL CROSSWORD



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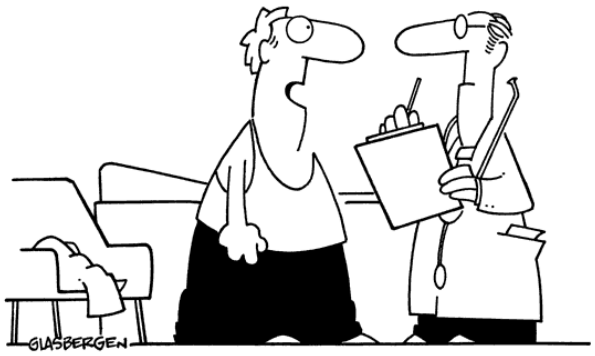
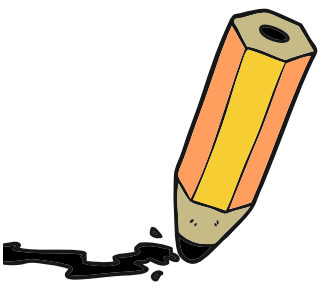
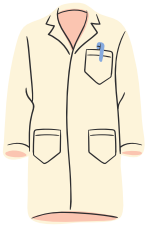


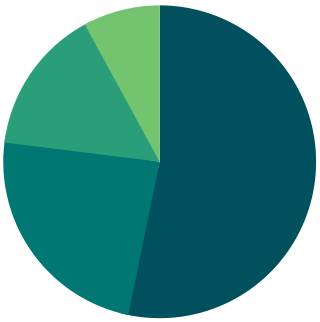
"I don't have time to jog or lift weights. If it weren't for smoking, my lungs wouldn't get any exercise at all!"



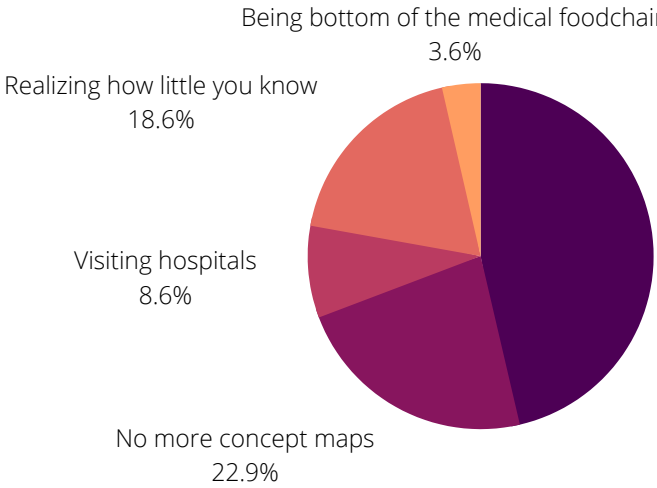
STUDENT-SELECTED

WHAT EXCITES YOU MOST ABOUT MEDICAL SCHOOL?





WHAT IS THE BEST THING ABOUT CLINICAL YEARS?



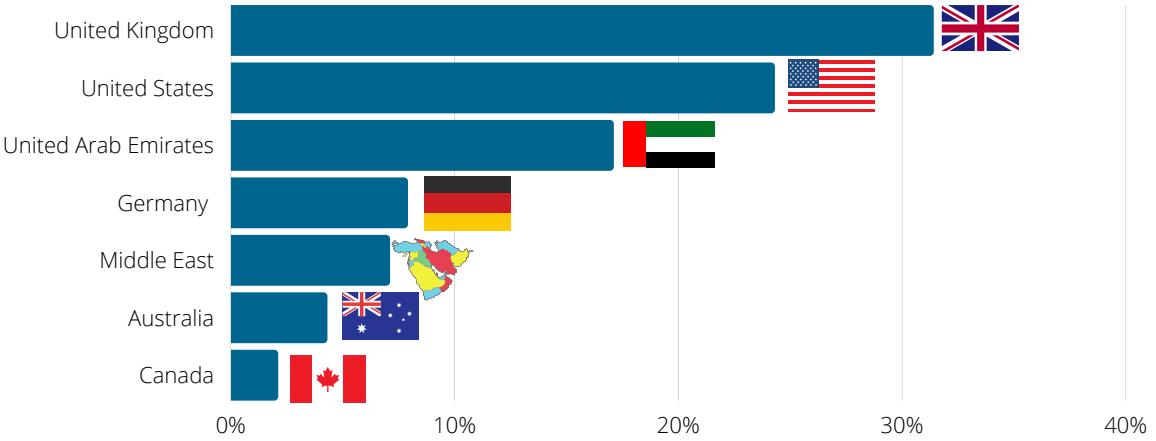
It's a step closer to real medicine
46.4%

MOST VOTED MEME OF THE MONTH

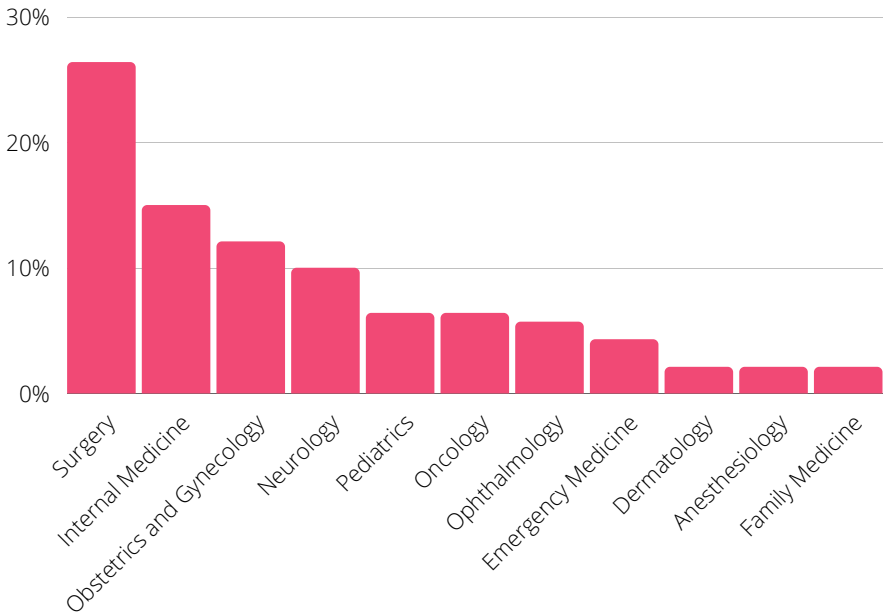
College of Medicine Students: the future?

IN THIS MONTH'S STUDENT SELECTED, WE ASKED EVERYONE WHAT THEY WANT TO SPECIALIZE IN AND WHERE. WHILE THE RESULTS ARE BOUND TO CHANGE AS THE YEARS PASS BY, IT IS ALWAYS EXCITING TO KNOW WHAT PEOPLE PLAN TO PURSUE. WE HOPE YOU FIND THE RESULTS AS INTERESTING AS WE DID!

Where are you planning to do your residency?



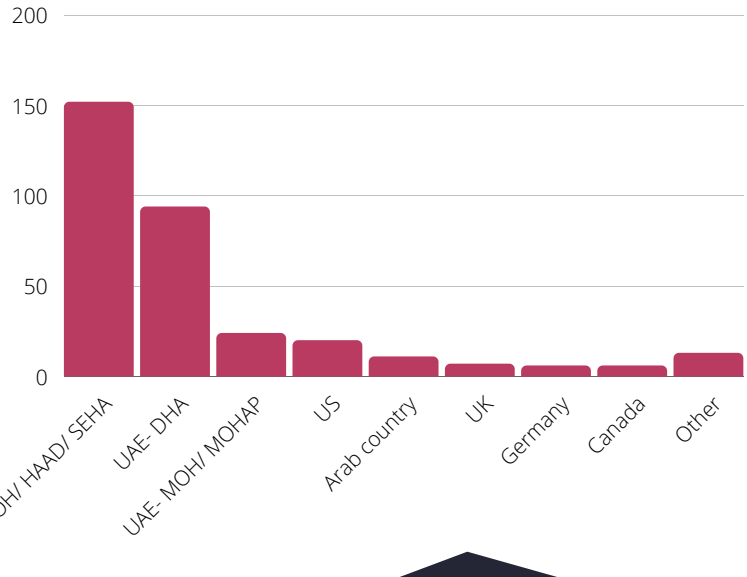
What specialty are you aiming for?



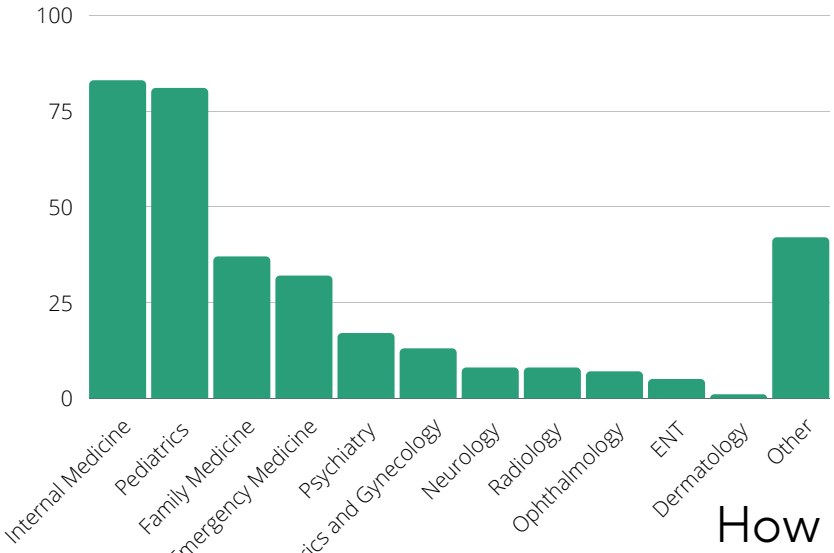
College of Medicine Alumni
Where, What, & How?

WITH MORE THAN 500 ALUMNI AHEAD OF US, LET'S TAKE A LOOK AT HOW THEY DID IT DIFFERENTLY!
THANK YOU TO THE ALUMNI COMMITTEE FOR PROVIDING US WITH THIS DATA.

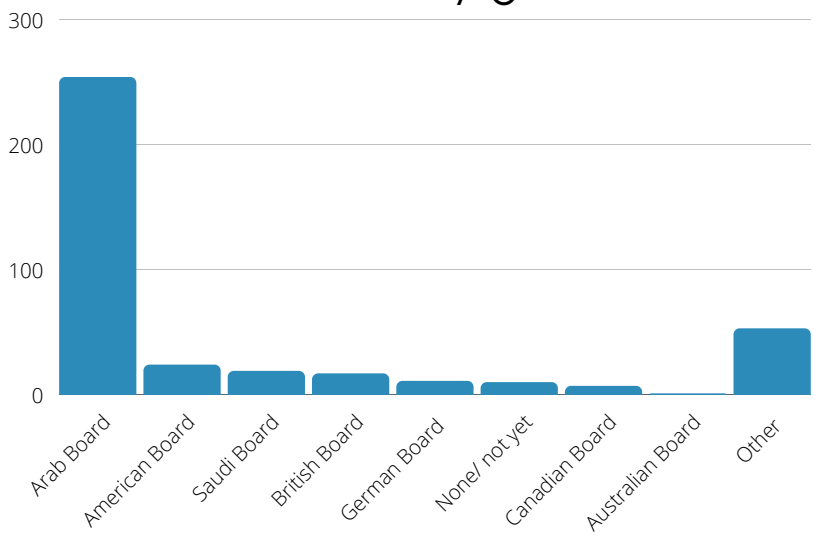
Where are they?



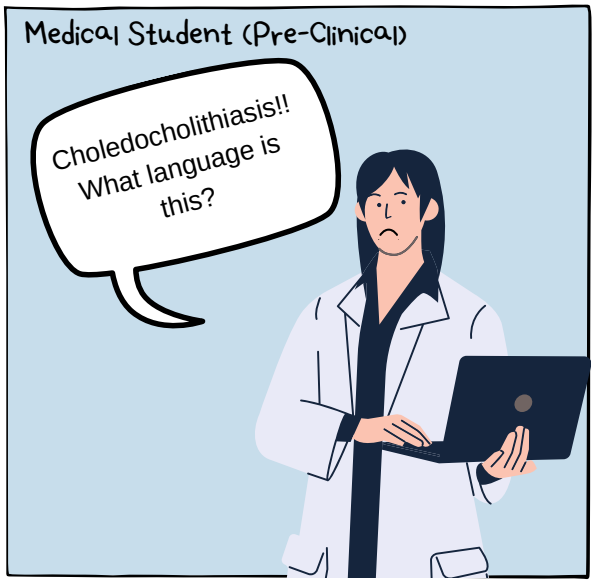
What are they doing?

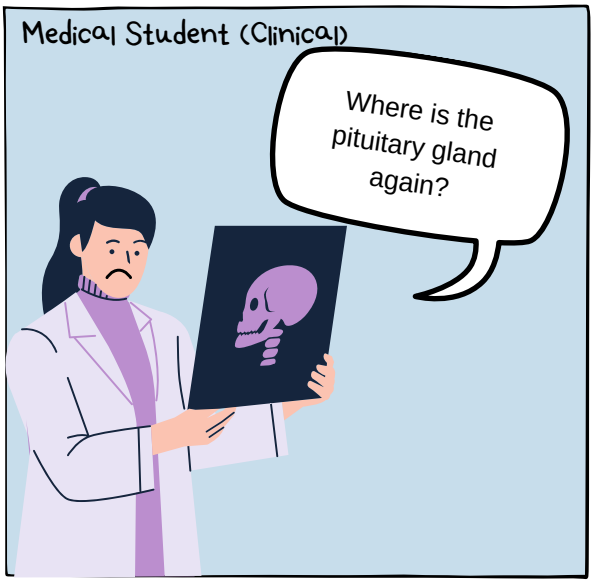


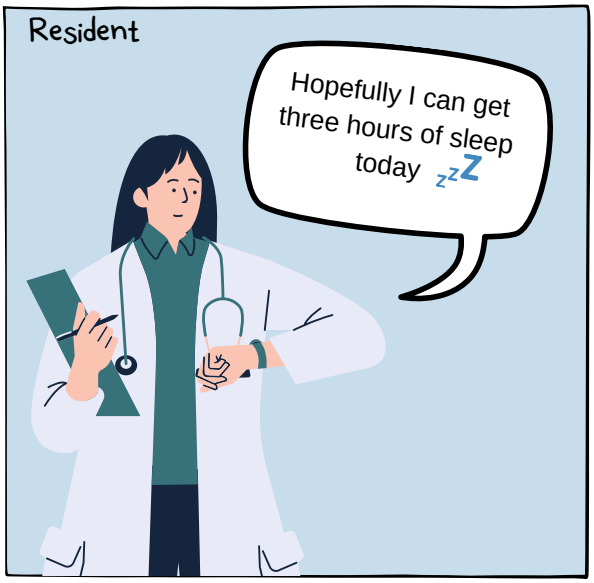
How did they get there?

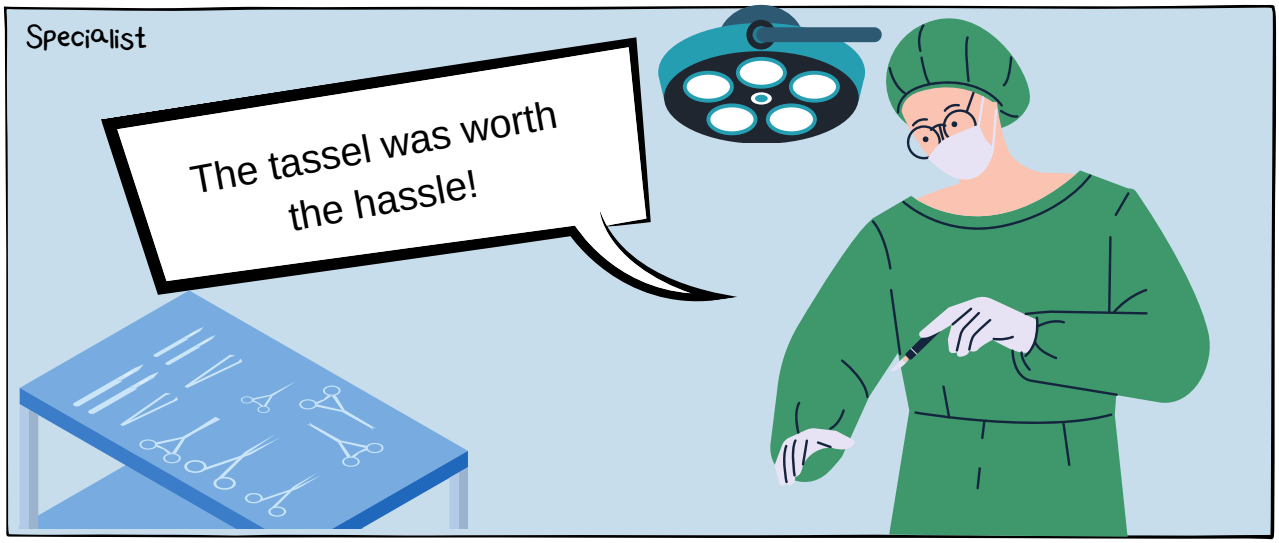


THE MED SCHOOL PROCESS









DOCTOR'S ORDERS

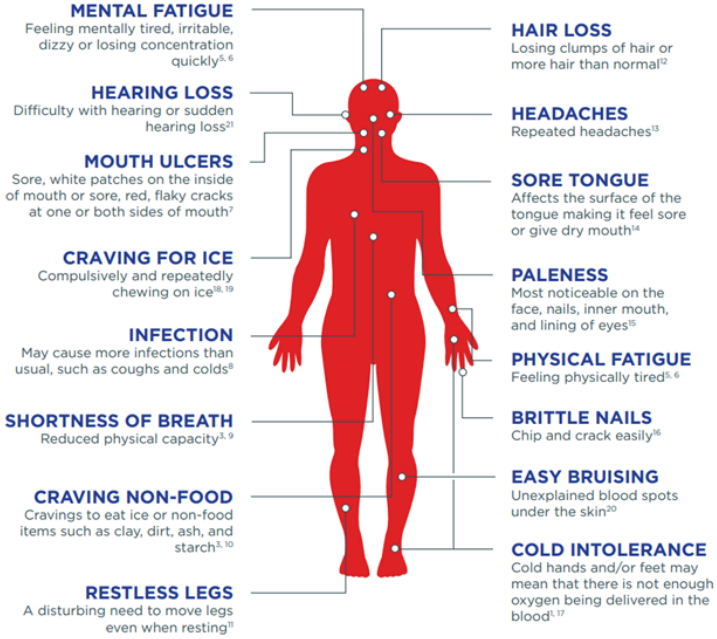
DR. SARRA SHORBAGI

IRON-DEFICIENCY ANEMIA: DON'T LET IT GO UNDIAGNOSED!

Iron Deficiency Anemia (IDA) happens when you do not have enough iron in your body. Iron is required in the formation of hemoglobin, a protein found inside red blood cells that carries oxygen to tissues and organs throughout the body. IDA can occur due to suboptimal oral intake, poor absorption of oral iron, or chronic blood loss from gastrointestinal and other sources.

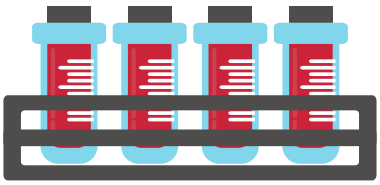
What would feel if you have IDA?

See your doctors if you have any of these symptoms



Who are at risk for IDA?

- People with poor diets.
- Menstruating, pregnant, and breast-feeding women.
- People who have underwent gastric bypass surgery for weight loss.
- People who have intestinal problems, such as celiac disease.
- People with kidney failure or chronic medical conditions.
- Elderly people.



Is IDA preventable?

Eating healthy foods can help you avoid both iron and vitamin deficiency anemia. Foods with high levels of iron include:

- Meat and Poultry, especially liver and other dark meats.
- Fish, specifically shellfish, sardines, and anchovies.
- Leafy greens, including broccoli, kale, turnip, and collard greens.
- Legumes, including lima beans, peas, pinto beans, and black-eyed peas.
- Iron-enriched pastas, grains, rice, and cereals.

Treatment of IDA

Iron tablets:	***Intravenous Iron:***	***Blood Transfusions:***
Around 150-200 mg per day of elemental iron	*Recommended in some cases.*	*Given to patients with severe IDA.*

NOTE:

- If you take antacids, you should take iron tablets two hours before or four hours after the antacid.
- Vitamin C improves iron absorption.

REFERENCES:
https://cutt.ly/olWC9UP
https://www.hematology.org/education/patients/anemia/iron-deficiency