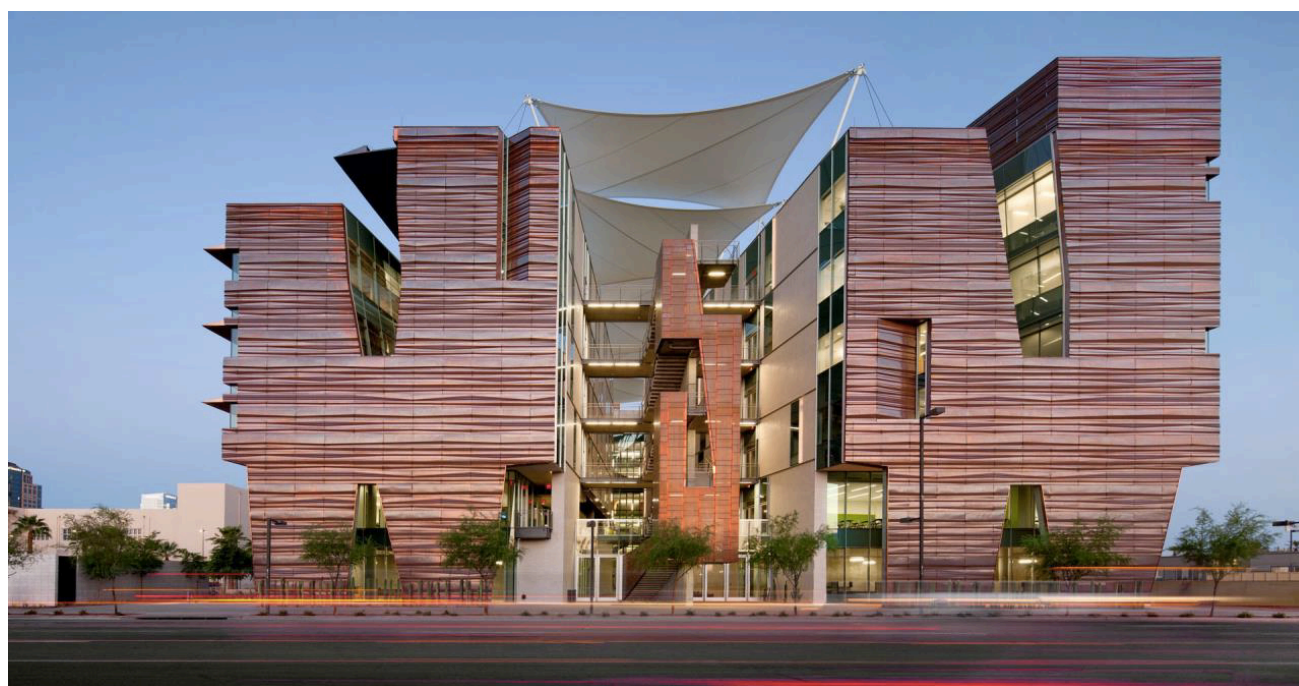




SPECIALTY REPORT

In This Issue | Ophthalmology



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Mandi Conway, MD, FACS

Department Chair

The University of Arizona College of Medicine – Phoenix

Dr. Mandi D. Conway is the Interim Chair for the Department of Ophthalmology and a Professor for Ophthalmology and for Basic Medical Sciences at the University of Arizona College of Medicine – Phoenix. She graduated from the University of Health Sciences Chicago Medical School where she was AOA and completed her ophthalmology residency at Tulane University Medical Center in New Orleans. Following her residency, Dr. Conway completed two Vitreoretinal Fellowships at Washington University, St. Louis and a Post-doctoral NIH Research Fellowship at the Tulane Regional Primate Research Center studying viral disease of the retina and molecular biology diagnostic tools.



What drew you to ophthalmology as a specialty?

Before starting medical school, I worked as an EMT and planned to be an ER doctor. Even while I was a resident and doing a post-doc fellowship, I did ER work for six years. The real reason I got into ophthalmology was that in the ER, all of the research was done by clinical trials in internal medicine or trauma surgery—for instance, protocol for treating cardiac arrests would be based on data that had gone through clinical trials. When I found ophthalmology, I was really intrigued by the research, and I wanted to get more involved in that type of research. At the time that I was toying with the idea of ophthalmology, it was archaic compared to what we have now in terms of surgical interventions, instrumentation, and intravitreal drug delivery. All of those possibilities were yet to be conceived. The research was what really drew me in, and it was a wide-open field at that time. So, I dropped emergency medicine and started doing research and publishing in ophthalmology.

How has your journey in medicine led you to this point in your career?

The journey has been a rough one—I don't think anything worth accomplishing is easy. I was an Associate Professor at Louisiana State University Eye Center but my husband and I decided to leave and moved to Tulane, where I previously trained. It was great, except that by the time I got there, they al-

ready had three retina specialists and there wasn't enough clinic time for me. So, I started a private practice which was a new and terrifying experience for me because I didn't know how to start. I made a lot of mistakes but learned a lot. And then... BOOM! After six years, we got wiped out by Hurricane Katrina, so we lost our jobs since Tulane was under water; we lost our house and had to move. Thankfully, we still had our cars since they were on the sixth floor of the garage. But it was a big disruption in the middle of my career. It taught me resiliency—you think you can't do things but then you find out you can. So, we packed up everything we had and went to Tucson to the University of Arizona for a year, and then we came up here to Phoenix, and eventually, I started another private practice.

How has the field changed throughout your career and how do you anticipate it changing?

The biggest change has been microsurgery—it has changed the extraction of cataracts, which is the bread and butter of most ophthalmologists, by using smaller and smaller incisions. In the real olden days, they didn't have any instruments to take a cataract out. They would just puncture the eye and use brute strength to dislocate the brown cataract lenses to let more light into the eye. Then they started opening the cornea 180 degrees and bending it back to insert a pharmaceutical to dissolve the zonules. The procedure entailed taking the lens and surrounding cap-

sule out—this was known as intracapsular extraction. Then, eye surgeons started doing a much smaller incision, creating a circular opening of the capsule to allow the nucleus to be expressed manually and followed by cortical cleanup. One day, a brilliant ophthalmologist decided to pulverize the cataract with ultrasound and aspirate the pieces out. The way this procedure has advanced is that now, instead of using a 4- or 6-mm incision, they use an incision between 1 and 3 mm. It's really a beautiful, beautiful surgery. The micro-instrumentation has been really important, and everything has gotten smaller and more precise. Corneal surgery, glaucoma surgery, and retinal surgery have all advanced to use tinier gauge instruments and new techniques that are less invasive. Newer diagnostic techniques for uveitis and glaucoma continue to help detect and treat eye disease. Overall, the eye is a marvelous organ and irreplaceable but the surgical interventions are still necessary.

How do you balance all of these responsibilities in your professional and personal life?

I have a secret...I swim twice a day. First thing in the morning, I swim. It's relaxing, it's physical, and it gets the blood going to the brain. Swimming works out things that have been bothering you. I also listen to NPR on a waterproof radio to get updated on the news. Then I go to work and finish my last patient at 5 PM. I get home and spend time with my husband. Sometime in the night, between 8 PM - 2 AM, I swim again. This evening swim is indispensable—if you're upset about something, it just melts away and you don't hold grudges anymore. It's really good for my mental and physical health. It doesn't have to be swimming, but it should be something physical where you can get into it. Swimming has been a lifesaver for me throughout the COVID pandemic. It's so energizing. Even at midnight, I have all this energy to go through my emails and errands. I credit swimming with keeping me going and maintaining my health. If you don't take care of yourself, then you can't take care of others as best as you can.

“I don't think anything worth accomplishing is easy.”

Now that exams are shifting to Pass/Nonpass, do you feel that research experience is important when applying for an ophthalmology residency or even fellowships?

Yes! The people who are going to be competing against you, they are really good applicants with good grades, research, great recommendations, etc. You have to distinguish yourself from them. There are two ways to do so: 1) research & publication, and 2) community service. I think it's important that you give back to your community as a medical student. You should also do research as a medical student, and I am particularly adamant that you continue researching as a resident. It would make it easier to do research in residency if you learned as a medical student. But if you don't do research, you're not going to get the residency or fellowships that you want. Once you get out as an attending in practice, there are not

as many opportunities. To me, a physician scientist has to see a problem, conceive of a potential cure for the problem, think about the unintended consequences, and design a study to measure the out-

comes. Then you must learn how to write it up well for publication. You don't have to do it all alone, which is the beauty of being a trainee, but you must do it as a medical student; otherwise, you will never get it in the real world. Research was an integral part of my residency. We had to do a research project every year and present it on residents' day with the hope that it gets published. It was so much easier for individuals who had done rigorous research as a medical student.

Did you have a mentor as a medical student or resident? How important is the networking or connections in ophthalmology?

I was very lucky to have been mentored by a very talented and experienced physician. He trained in Germany and in his second year of residency, they lost their retina attending and he became in charge of retina surgeries in his second year. He and a bunch of other residents did all of the retina surgeries. By the time he was done with training, he was

already thinking of how to improve the retina treatment process and how to avoid any potential shortfalls. He passed all of his knowledge and experiences to me. This is the real benefit of a mentor—they provide valuable insight and advice. They're standing by your side during a procedure and help you avoid any undesirable outcomes.

Do you have any final words of advice for aspiring ophthalmologists?

If you want to go into ophthalmology, reach out and rotate with me, and I will lay out what you need to do to maximize your chances. Before you go for your

away rotation, get experience presenting at grand rounds, practice talking with residents in medical lingo, and practice conducting yourself in a clinic. Then when you go to the top programs you want to be at, you will shine. The point is to go in as polished and competitive as you can be so that program directors want you to be their resident. You don't have to do it all alone. Use your support systems and networking to get the mentoring you need so that you are ready to perform on a high level. Observe surgeries and get valuable experiences to set yourself apart.

- Lac Ta, MS2

The Basics: Applying to Ophthalmology Residency

Ophthalmology residency applications take place through the SF Match, which has an earlier timeline than the NRMP (National Resident Matching Program) due to decisions being released in early February instead of in March. For the 2022-2023 match cycle, applicants can register beginning July 1st and submit applications beginning September 1st. The Altus Casper test is also being piloted as part of the residency application for the 2022-2023 match cycle. More deadlines can be viewed at the following PDF file located on the American Academy of Ophthalmology website:

Ophthalmology Residency Match Timeline for 2022-2023*. <https://aupo.org/sites/default/files/2022-05/Residency%20Match%20Timeline%202022-2023.pdf>

Ophthalmology residency also differs from many residency programs in that the first year (PGY-1) is a preliminary/internship year, with the ophthalmology portion starting from PGY-2. There are three different programs applicants may encounter: traditional, joint, and integrated.

- 1) Traditional: PGY-1 and PGY-2 through PGY-4 are separate and may be done at separate institutions; a separate application for the PGY-1 year is done through the NRMP
- 2) Joint: PGY-1 and PGY-2 through PGY-4 are done at the same institution but are separate programs (the program director for PGY-1 will be different from the director for the ophthalmology residency program); a separate application for the PGY-1 year is done through the NRMP
- 3) Integrated: PGY1 and PGY-2 through PGY-4 are done at the same institution and are overseen by the same program director; the entire application is done through the SF Match

Note: The ACGME (Accreditation Council for Graduate Medical Education) has mandated all U.S. ophthalmology residency programs transition to either a joint or integrated structure by July 1, 2023

For more information, please visit the following website: <https://www.aao.org/medical-students/residency-match-basics>

Source: *Ophthalmology Residency Match FAQs*. https://aupo.org/sites/default/files/2022-05/Residency%20Match%20FAQs_2022.pdf

Majid Moshirfar, MD, FACS

Clinical Research Medical Director Hoopes Vision Research Center

Dr. Majid Moshirfar is the Clinical Research Medical Director at Hoopes Vision Research Center and the Co-Medical Director of the Utah Lions Eye Bank at the University of Utah. He also serves as an Adjunct Professor of Ophthalmology at the John A. Moran Eye Center, University of Utah School Of Medicine. He is currently the Director of the Utah Cornea Fellowship. He has published more than 300 peer-reviewed PUBMED indexed articles including book chapters.



Tell me about your background and your path into ophthalmology.

I got my medical degree from Georgetown University and followed that with my ophthalmology training at the Illinois Eye and Ear hospital in Chicago. At that time we only had 6 residents - by now I think they have about 10 - and we covered the entire inner city of Chicago, so we were very busy with both trauma and non-trauma patients. I come from a family of engineers and was always very in tune with the quantitative sciences like mathematics and physics. When I went into medicine, I gravitated towards instrument-bound, quantitative disciplines, and I found that ophthalmology was one of them. The instruments involved in the field are amazing, and it is one of the specialties that has progressed very far with microscopic instruments and laser technology. Ophthalmology is very precise and instrument-bound, but also has a very strong and compassionate message in trying to cure blindness locally, regionally, and globally. It is a pioneer among many subspecialties.

What do you like about this field?

What I like about this might be slightly different than others, but I personally like the fact that you can make a huge impact in an individual's life. Not a day goes by without me getting a hug and hearing from patients about making a huge change in their day to day lives. Losing sight is one of the biggest fears human beings face, and here we have a field where patients trust you and let you operate on their eyes. You create amazing relationships with your pa-

tients. I have some patients I did corneal transplants on at 6 years old who are now 26 or 27, and they bring their kids to me and tell me about how my surgery really helped their lives. So there's a lot of gravity and seriousness, but I like that you can make such an impact in bettering someone's life. Another rewarding aspect has been training residents, fellows, and medical students. I like to cultivate their enthusiasm and share what I know with them to help them grow, and when I see those individuals 5 or 6 years later seeing patients, it makes me feel like I've done something bigger than seeing one or two patients on my own.

What challenges do you face as an ophthalmologist?

Challenges are good things! If we didn't have them, there wouldn't be any momentum to move forward. The world is becoming smaller with a lot of globalization, and the need for ocular health is growing. Many people in the world are completely blind due to cataracts, and although a quick 25 minute surgery could help them, they don't have the access. Imagine a team that could go around to the villages and places that need it to take care of these patients and change their lives. Globally, ophthalmology has a lot of responsibility, and I'm hoping developed societies can try to focus on that moving forward. Locally, macular degeneration is a very threatening and widespread condition that needs to be focused on in research; it greatly hurts the quality of life of older individuals, and we need to work on improving our infrastructure to help these individuals going forward.

Can you describe the culture and collaboration with other physicians in ophthalmology?

The culture is extremely collaborative and collegial. When an ophthalmologist meets another eye care specialist, we can sit down and talk for hours. There is a huge collaborative effort among us; when we meet, we always share techniques and methods for enhancing our patient care. It's hard to find an ophthalmologist that hasn't contributed to the field by way of publication, doing video surgeries, or trying to improve various techniques. The dean of my medical school said that they tend to be soft spoken, organized, precise, and extremely compassionate, and I feel that you rarely find ophthalmologists who are not like that.

If you could give one piece of advice for a student entering this field, what would it be and why?

I always say to medical students that it is important to realize that if you want to be a good ophthalmologist, you need to have a very good grasp of the fundamentals of medicine. If you cheat yourself out of learning other systems and try to focus on just ophthalmology early on, you have cheated yourself out of becoming a very good ophthalmologist. I tell students to go into every rotation with enthusiasm for learning about that field, and it will benefit them as an ophthalmologist. Not a day goes by in which I don't encounter a patient that comes to me with some skin disease or kidney problem that indirectly helps me understand their current complaint. I truly believe we should learn those things, and I find an ophthalmology candidate who has shown interest in other disciplines very impressive. We had fewer electives when I was in medical school than you do now, and when I tell my students I only had two weeks of ophthalmology, they can't believe it. I encourage them to use their elective options to explore various disciplines and look for connections between those systems and ophthalmology.

“It's not always about becoming a doctor, but about how you can make a big difference for mankind.”

What are some important residency program factors that medical students should take note of when on interviews?

If you're passionate about the specialty, follow that love with great passion and show your enthusiasm to your mentors and advisors. Try to find someone in the department who can provide you with the opportunity to satiate that passion. If you have a passion for other disciplines with connections to ophthalmology, you can also look for people at your school or neighboring schools who work in those disciplines and ask about doing research with them relating to that overlap. You can create your own research interests, and even if you struggle to do so or cannot find a mentor, you can perform literature searches and write independent literature reviews.

How do you manage work-life balance in this field?

We all have to be managers of our own time, and I manage mine one day at a time. It's a challenge, and we all sacrifice certain things in the field of medicine, but it's important to not forget the big picture. Time is a limited commodity in our lives; in fact, it is arguably the only limited thing we have. We can't waste it. For me, the big picture is to remember your goal is to be with your loved ones. For my own sanity, I also love to read Persian poetry. My favorite poet is named Rumi, and in addition to reading his work, I exercise, walk my dog, and spend time with my family to keep a balance between work and life as best I as can.

Is there anything else you'd like to share with the student body?

Be honest with yourself and don't worry about what others think. If you have a passion for something, pursue that with the main objective of, “If I ever get to that goal, how can I make a difference once I get there?”. It's not always about becoming a doctor, but about how you can make a big difference for mankind. That is the key element we should always ask ourselves, and don't let anyone tell you that you cannot get there. - **Salman Azfar, MS2**



Sravanthi Vegunta, MD

Pediatric Neuro-Ophthalmologist, Alumna Indiana University

Dr. Sravanthi Vegunta is a pediatric neuro-ophthalmologist who will be an assistant professor of ophthalmology at the University of Utah School of Medicine starting in September 2022. Dr. Vegunta attended the University of Arizona College of Medicine - Phoenix from 2012-2016. She completed her internship in internal medicine and residency in ophthalmology at University of Utah from 2016 to 2020, neuro-ophthalmology fellowship at University of Utah from 2020 to 2021, and pediatric ophthalmology fellowship at Indiana University from 2021 to 2022. She has an interest in adult learning and enjoys teaching and mentoring medical students and residents. Her clinical interests include local outreach, ocular genetics, retinopathy of prematurity, and autoimmune neurology. Outside of medicine, she enjoys bouldering and climbing, reading fiction, drawing, painting, attending concerts, and hiking.



When and how did you know you were interested in ophthalmology?

I was interested in pursuing either dermatology or ophthalmology, so I shadowed attendings in both specialties. Ophthalmology clicked for me right away. It was exactly what I envisioned my career to be. I would be able to spend time in the clinic and operating room, see patients of all different age groups, and have long-term relationships with patients. I liked the global outreach aspect of ophthalmology and the idea of creating sustainable programs around the world and even locally at Navajo Nation. Another luring aspect of ophthalmology were the tools, toys, and equipment. Ophthalmologists use imaging to evaluate microscopic structures of the cornea, retina, and optic nerve. I also liked neurology as an undergraduate student, and I felt ophthalmology was a great mix of neurology and surgery.

What led you to pursue this field over others? How did your medical school experience impact this decision?

In medical school, I considered family medicine. I liked family medicine, because, again, I could see patients of all age groups. What pushed me more towards ophthalmology was that I could really focus on one part of the body and be an expert. I felt like primary care was overwhelming in terms of the breadth

of knowledge needed. Shout out to primary care providers!

What do you wish you would have done differently in your four years of medical school to prepare you for your career now?

I recently completed a fellowship in pediatric ophthalmology. I did a neuro-ophthalmology fellowship last year. In my subspecialty of pediatric neuro-ophthalmology, I often see children with anomalous ocular findings plus systemic anomalies that push us toward considering genetic testing. I would have spent even more time rotating through medical genetics had I known how much genetic testing I would be doing in my career. I also wish I had spent more time learning radiology, now that I look at a lot of neuro imaging for my patients. I did a 2-week rotation in neuroradiology at St. Joe's, which was a fantastic rotation. Even more time on that service would have been helpful.

Were there any resources on campus or mentors you found most helpful to solidify your decision to go into this field?

My main ophthalmology mentor was Dr. Joanne Shen. She's currently the chairwoman at the Mayo Clinic ophthalmology department. I was the first student she worked with who had an interest in ophthalmology residency. She really took me under her wing. She had me do research projects with her, go

to conferences, and present. She introduced me to people she knew in ophthalmology programs across the country. I'm so grateful for her and feel lucky that we continue to be friends. Another important mentor was Dr. Mandi Conway, a private practice retina specialist in the Phoenix area. She has had so much experience in academics. She's a real gift to the UArizona College of Medicine - Phoenix as a mentor for medical students interested in ophthalmology. She is the reason I was able to get a research rotation at the University of Utah with the chairman, Dr. Randy Olson. Dr. Olson has looked out for me since day one. Also, the program director at the University of Utah, Dr. Jeff Pettey, is an engaging and charismatic program director. He took an interest in every medical student who came to rotate, especially students from Arizona. He told me, "You are a part of our program. You are our medical student." It was amazing to feel like I had a home program.

What advice would you give students considering ophthalmology and any general pieces of advice?

I think people shouldn't be afraid to reach out to mentors. Medicine is all about the previous generation teaching and guiding the next generation. You just must put yourself out there and email potential mentors. Ask your advisors for some help early on if you're interested in a particular subspecialty. If you have free time, spend that time shadowing in any field that interests you. Expose yourself to various subspecialties early and make a decision! If things aren't laid out for you ahead of time, that's okay. Be a self-starter and do your own thing. Of course, any of you can reach out to me if you need advice or help. I'm very interested in teaching and mentoring medical students.

How did you prepare for your residency applications? Was there anything you would have done differently?

Step scores mattered back then, so studying hard for the exam and getting a score that was at least average or above average for applicants matching into oph-

thalmology was important to me. I studied hard for every medical school exam and tried to perform on rotations. Clerkship scores matter.

Medical school is hard. As an attending, you practically only use a fraction of the information you had to memorize in medical school. Nevertheless, you must perform constantly to stand out.

As an applicant, I knew it was also important to make connections with mentors in academic ophthalmology, because they were going to write my letters and guide me in the residency application process. It's important to make good impressions early on and be consistent. I made sure to be responsive to emails, work hard, and

be attentive to details, so that my mentors would have to do as little work as possible. I made the most of each meeting I had with my mentors with an agenda and goals for the next time we would meet.

I started working on my personal statement six months before the application deadline. Pay attention to why you love what you're doing and reflect on the events and people in your life who have brought you to this point to pursue ophthalmology. The personal statement does not have to be profound and should not be exaggerated. It should be genuine, easy to read, and ideally a little engaging.

How is general work-life balance in your field?

Work life balance is attainable for most ophthalmologists. We do mostly outpatient medicine during regular business hours. In academic institutions, ophthalmologists may have trauma call; for a few weeks out of the year, we may be called in the middle of the night or on weekends to do surgeries. Private practice ophthalmologists may have to cover after hours patient calls for their practices. As an attending in any specialty, you can make yourself busier, if you decide to take other roles in leadership, teaching, or research. Overall, I am very content with my career (like most ophthalmologists), and I highly recommend ophthalmology as a career.

- Priyanka Chilukuri, MS2

“It's important to make an impression early on and be consistent.”



David Rosen, MD

PGY-3, Alumnus Penn State University

Dr. David Rosen grew up in Salt Lake City, Utah. He studied Physics at the University of Utah before attending the University of Arizona College of Medicine - Phoenix. After graduating in 2020, he did a transitional year at Southern Hills Hospital in Las Vegas, NV. He is currently an ophthalmology resident at Penn State University and is interested in pursuing a fellowship in oculoplastics. In his free time, he enjoys spending time with his family and rock climbing.



When and how did you know you were interested in this field?

I was pretty late coming into the field. I didn't know I was interested until I rotated through in one of my third year elective rotations. Some things that drew me in were the nice balance of surgery and clinic. I feel that for the most part, the procedures are impactful on patients' quality of life. You have happy patients and cool procedures. You also have all the toys in ophthalmology, like the lasers, operating microscopes, and unique imaging modalities. I think it's a specialty with the full package: surgical, clinical, continuity of care, opportunities for global outreach. The field is also a lot more broad than people think. There are around eight fellowships in ophthalmology (glaucoma, cornea, refractive surgery, retina, oculoplastics, ocular oncology, pediatrics, neuro-ophthalmology), and there are a lot of different directions you can go to tailor the field to your interests and desired lifestyle.

What led you to pursue this field over others?

I switched around a lot. The one I was most seriously considering was radiation oncology, but I also considered emergency medicine, anesthesia, and a few others. I found that while a lot of other fields gave me a peek of what I wanted, ophthalmology gave me everything, like the surgical procedures and the clinic time. You often get continuity of care, whether that's for exams or following chronic conditions. Another thing I liked about ophthalmology was that it lends itself to global health, so you have opportunities in that avenue. And so, I made the switch.

[Could you expand a little more on the global health opportunities?]

Cataracts are still the number one cause of blindness worldwide. Cataract surgery is a very safe and quick surgery, and, depending on how skilled of a surgeon you are and how comfortable you are with the procedure, there are lots of opportunities to go abroad and do many surgeries a day. You can make a huge impact that way. And the thing with these cataract surgeries is that patients usually see immediate improvement in vision. It is a surgery with a low complication rate, and requires minimal post-op care, which makes it ideal for locations with limited resources. Beyond cataract surgery, there is the opportunity to travel abroad and train local providers, do general screenings, perform oculoplastic procedures, treat infectious eye diseases, etc. For anyone seriously considering a career heavy in global health, ophthalmology should be seriously considered.

Were there any resources on campus or mentors you found most helpful to solidify your decision to go into this field?

Dr. Ross (retina specialist) and Dr. Conway were the two big ones for me. Also, your upperclassmen are your best resource, such as the fourth years who are going into ophthalmology. They're the ones who've been through the process the most recently, they know who the most updated contacts are, and they have a sense for the general application timeline (ophthalmology is an early match specialty).



What are your recommendations for preparing for ophthalmology residency applications?

Things are changing with STEP, so that's kind of like a wild card. But aside from that, getting involved in research is important for ophthalmology. I suspect that as STEP goes pass/fail, research is going to be a little more important, just because it's hard to differentiate people especially when everyone is so well qualified. Aside from research, getting involved in volunteering (whether in ophthalmology or not), performing well during clinical years, and maximizing your exposure to the field once you decide to pursue ophthalmology residency are all important factors.

How would you recommend approaching the research component of the residency application?

Once you decide to go into ophthalmology, becoming involved in specialty specific research is important. During the beginning of 4th year, there is the opportunity to do a research elective which can be very important and productive. During the early years of medical school, getting involved in research in any field is fine. I did not pursue any ophthalmology research until my MS3 year, and my Scholarly Project (SP) was in a different field entirely. The SP team can be a great resource to help connect you with potential mentors in the field.

What is your experience thus far as a resident?

Ophthalmology is a great field. The learning curve is very steep because most people go into it with such a low baseline knowledge of the field compared to other fields you get more exposure to in med school. However, faculty is very understanding when you start out. Despite that, you should be prepared to work hard to become proficient in the ophthalmologic exam and are expected to put in significant work

after hours studying to get up to speed with clinical knowledge.

Ophthalmology is primarily outpatient based, which means hours are normally ~7 AM to 5 or 6 PM with weekends off, except when on call. During residency, ophthalmology call is usually front-loaded over the PGY-2 year and can be quite busy. Call is usually home call (around q3-q6 depending on program), but because it is home call there are no post-call days.

Because it is so procedurally heavy, you can expect to get involved very quickly, and you have the opportunity to participate in a variety of surgical procedures (I've logged around 200 procedures during my PGY-2 year, many of them as the primary surgeon).

Any advice to students who are considering this field?

The advice changes depending on where you're at on the track. If you're in your first or second year of medical school, keeping an open mind to all the different specialties is important. I switched so many times, and it wasn't until third year that I experienced something that made me think ophthalmology was definitely the field for me. Even though you may have the best of intentions and think a specialty is going to fit really well, it's hard to know until you see what it's actually like on your clinical rotations. If you want to do some research early on or seek out some ophthalmology-related volunteering, it's not going to hurt you, but I don't think you need to feel tons of pressure to be dedicating all this time to ophthalmology before you've rotated through it to see if it's a good fit.

Once you're in your third year, that's really the time to sit down and decide. In general, while you're making this decision, a good question to ask yourself is whether or not you like procedures. If you're not a big procedures person, then ophthalmology and the other surgical specialties likely aren't for you. Making

“But in the first couple years of medical school, your most important job is to learn the basics of medicine. If you do that, you'll be set up to do well in your third year, regardless of what specialty you want to go into.”

that distinction early in third year can help things. From there, my advice would be to weigh what is important to you and look for a specialty that aligns with your interests and values. Once you do, and if you've decided on ophthalmology, then it's time to seek out those research opportunities and start building some of those connections. But in the first couple years of medical school, your most important job is to learn the basics of medicine. If you do that, you'll be set up to do well in your third year, regardless of what specialty you want to go into.

Some highlights of ophthalmology: great surgical and clinical balance, life improving procedures, opportunities for global health, outpatient focused spe-

cialty with opportunities for both academic and private practice, rapidly evolving field with many new technologic applications and copious opportunities for research.

Do you have any hobbies or things you do outside of work?

I'm married with a one year old daughter, so it's great to be in a specialty where I have lots of nights and weekends free for family time. We enjoy spending time outside, rock climbing, and skiing.

- Lauren Dimalanta, MS2

Positions Offered in Ophthalmology, 2018 – 2022

2022		2021		2020		2019		2018	
Offered	Filled	Offered	Filled	Offered	Filled	Offered	Filled	Offered	Filled
509	507	499	498	496	495	485	484	475	475

Source: *Ophthalmology Residency Match*. <https://aupo.org/sites/default/files/2022-03/Feb%202022%20Oph%20Residency%20Match%20General%20Stats%20final.pdf>

Match Summary for MD Seniors Applying to Ophthalmology – 2022

Positions Offered	Unfilled Positions	No. of Registered Applicants		No. of Participated Applicants		No. of Matches	
		MD Seniors	Total	MD Seniors	Total	MD Seniors	Total
509	2	625	877	600	748	447	507

Source: *Ophthalmology Residency Match*. <https://aupo.org/sites/default/files/2022-03/Feb%202022%20Oph%20Residency%20Match%20General%20Stats%20final.pdf>

Matches by Applicant Type for Ophthalmology - 2022

No. of Positions	Number Filled	MD Senior	MD Grad	DO Senior	DO Grad	Others	IMG	Number Unfilled
509	507	447	20	22	4	0	14	2

Source: *Ophthalmology Residency Match*. <https://aupo.org/sites/default/files/2022-03/Feb%202022%20Oph%20Residency%20Match%20General%20Stats%20final.pdf>

Nour Bundogji, MD

Ocular Pathology Fellow, Alumna University of Utah

Dr. Nour Bundogji recently graduated in 2022 from the University of Arizona College of Medicine-Phoenix and is pursuing a pre-residency Ocular Pathology fellowship at the University of Utah in Salt Lake City, UT. She completed her undergraduate education in Pitzer College with a major in Neuroscience. Although she is a San Diego native, she looks forward to continuing to explore the Southwestern United States in her medical endeavors.



When and how did you become interested in Ophthalmology?

I actually found ophthalmology quite late in medical school, during my third year. I was open to different specialties, but in the back of my mind, I knew I wanted to do a surgical specialty. I like working with my hands and being in the OR. Overall, I really enjoyed the surgical niche, but I just didn't know what exactly. I was initially interested in ENT as I really enjoyed the anatomy. However, it wasn't until my pediatric ophthalmology elective in March of my third year that it really all connected. As cliché as it sounds, everything just fell into place, and I knew it was exactly what I was looking for in a field. The surgeries are very satisfying and gratifying for the patients. The pathologies are super interesting. The slit lamp itself is very fascinating. Up until that rotation, I never appreciated the vast utility of the slit lamp exam and how quickly you are able to appreciate all parts of the eye.

Considering the competitiveness of the field, what things do you think make you a strong applicant for residency?

Once I decided on ophthalmology, I tried to get involved in as much ophthalmology-specific research as possible and reached out to as many people as I could for their advice. I reached out to alumni in the field from our school, ophthalmology faculty in the greater Phoenix area, as well as ophthalmology research mentors in neighboring states. I was fortunate to secure a research elective in Utah in May of my third year where I worked on various projects

involving the anterior segment of the eye. Call me weird, but I really enjoy research and previously completed research in ENT. So, I was able to translate my research skills to ophthalmology. After my research month, I spent the rest of the summer completing rotations in ophthalmology and preparing my application. Due to the COVID-19 pandemic, the number of away rotations was limited. Nonetheless, I was able to complete rotations in Tucson, AZ, and Los Angeles, CA. These rotations were very helpful in being able to observe what it's like working with ophthalmology residents at an academic center as well as making more connections in the field.

Unfortunately, I did not match into ophthalmology this cycle. However, I have had the opportunity to speak to mentors, program directors, and other successful reapplicants for advice. As you mentioned, ophthalmology is becoming more and more competitive every year as the number of applicants increases and going unmatched is a lot more common than one would think. There are so many paths one can take to end up in their desired field. So, don't be discouraged if it doesn't work out the first time. That said, the feedback I got was to pursue a pre-residency fellowship in ophthalmology. These fellowships are unique to ophthalmology and are set up for unmatched students looking to demonstrate continued interest in the field. Since I am still just as excited and motivated to pursue ophthalmology, I was fortunately offered an ocular pathology fellowship position in Utah, which I am very excited about!

What advice would you give to medical students considering this field?

First, learn what it is that you like about ophthalmology. Unfortunately, we don't get to learn much about ophthalmology during medical school. So, there's a lot to explore about the field. Once you've decided ophthalmology is for you, identify mentors in the field and get involved in research. Ophthalmology is a very research-heavy field. If you are unable to identify ophthalmology projects early on, that is okay. Just becoming familiar with the research process (e.g. IRB approval, data collection and analysis, and manuscript preparation) will help you generate the skills necessary when an ophthalmology research project comes your way. Nonetheless, ophthalmology is an exciting and ever-growing field to be a part of.

When applying to residency, what did you look for in an ophthalmology program?

While I was on the interview trail and putting together my rank list, primary surgical volume (e.g. number of primary cataracts complete) came up a lot. Although it is a valuable metric, I heard from many residents and mentors that it is not necessarily the most helpful as most programs will provide you with wonderful training. However, what's more valuable is to ascertain the program's culture and relationship among the residents and between the residents and attendings. Since there is such a steep learning curve when it comes to ophthalmology residency, I was looking for programs that had the right balance of autonomy and supervision. I also looked for programs that worked with a diverse patient population to provide a breadth of pathologies and disease presentations. Taken together, these factors would provide a rich residency training experience.

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How do you think STEP becoming Pass/Fail (P/F) will impact Ophthalmology residency applications?

Great question! Whether it is ophthalmology or another specialty, this change will impact residency applications one way or another. That said, STEP was always scored because it gave a standardized metric that made it easier to compare applicants. Over time, it became clearer that standardized tests are not always the best at evaluating students or their ability to become great residents/physicians. However, with

the P/F change, it will drive the focus to other things applicants can be compared on. This can include STEP 2, publications, class ranking, etc. It also encourages a holistic review of residency applications, which is ideal. We're not just numbers. As more programs

transition to evaluating applications with this change, we'll be able to learn more about what they are looking for.

Is there anything you would like to add, or a question that you wish I had included in this interview?

Oh yes! Our school has a wealth of resources that I think every student should take advantage of while they are here. More specifically, our program's strong encouragement of research and presentation is quite impressive. I highly recommend that students attend conferences with the help of UACOM-P's travel stipend. Not only are conferences fun to attend, but they allow for a wonderful networking opportunity. At these conferences, you get to not only make new friends with fellow budding ophthalmologists and medical students who are interested in the field but also make connections with new and old mentors. So, if you haven't already, consider applying for the research fund for any abstract that's been accepted, whether it is related to your Scholarly Project or not.

- Ghena KrDi, MS2



Aly Tukan, MD

PGY-1, Alumna Wake Forest School of Medicine



Dr. Aly Tukan was a student in the Class of 2022 at the University of Arizona College of Medicine – Phoenix. She completed her undergraduate education at Trinity University in San Antonio, Texas with a double major in Neuroscience and Spanish. At the University of Arizona College of Medicine - Phoenix, Aly was a member of the Gold Humanism Honor Society and the Certificate of Distinction in Service and Community Health. She will begin her ophthalmology residency at Wake Forest in Winston-Salem, NC. She is passionate about volunteering, martial arts, pickleball, running, hiking, and knitting.

When and how did you know you were interested in this field?

Coming into medical school, ophthalmology was always in the back of my mind as an option. I had been an ophthalmology scribe in my gap year to gain clinical experience, which meant I was working and charting for an ophthalmologist in a comprehensive private practice in San Antonio. I loved what I was doing there - the ophthalmology was so interesting, the patients were usually happy, and it was something I could see myself doing. When I started medical school, I kept an open mind to explore all the specialties. I went into third year with the mentality that each new rotation might be “the one,” but when I did an ophthalmology elective at the end of my third year, I realized ophthalmology has been the best fit all along!

What do you wish you would have done differently in the first three years of medical school to prepare you for now?

I kept thinking that I might like another specialty that was less competitive and less research heavy, so I shied away from ophthalmology instead of embracing it. I think the time leading up to application season would have felt smoother and less stressful if I had committed to ophthalmology a little sooner, especially with research and volunteering.

What led you to pursue this field over others? How did your medical school experience impact this decision?

I was always told to consider whether I would rather do more of a medical or a surgical specialty, but ultimately, I liked both. I appreciate that ophthalmology offers patient care in clinic, and also some amazing surgeries. I also decided that I wanted to do a subspecialty focusing on one organ system, but at the same time, the eyes are closely interconnected with diseases that affect the rest of the body. I’m able to subspecialize by doing ophthalmology without sacrificing the knowledge of medicine as a whole.

What advice would you give to students considering this field?

Something that was helpful for me was getting connected with mentors. I was lucky to have a great support system of some prior alums from our school as well as mentors in the field. They were able to get me connected with the resources I needed to move forward with research and figure out how to best approach application season. When you're excited about someone's specialty, they become excited to help you, so don't be afraid to reach out to people with questions or networking! If ophthalmology is on your radar, dip your toes in and see if you think it would be something you like. It's better to get that exposure early because medical school goes by so fast! The earlier you start with exploring the options, the better. You don't have to make a decision; you just need to be open-minded and see what's out there.

Could you speak about the process and timeline for matching into ophthalmology?

It is a long process! Applying for ophthalmology happens through SF Match, which has its own timeline and deadlines separate from the main matching system. Applications were due in September, and most of my interviews happened in November/December. Because of COVID, the SF Match timeline has become a bit delayed but still participates in an early match with match results released in February.

Your class had virtual residency interviews. Could you speak about that experience?

All my interviews were virtual, which was an interesting and challenging experience! There is certainly a convenience factor. For example, I was able to interview virtually with a program in Massachusetts, and then attend events for my sister's wedding here in Arizona on the same day. It also saves so much money on travel. The tricky part is that the distribution of interviews feels less even when applicants don't have to be as judicious in which interviews they keep. Virtually, it is a little harder to get a feel for the program, but they do their best with Zoom socials. Overall, though, it's easier for me to connect with people in person, and I had to be more intentional in conveying my personality through Zoom. It's interesting that, because of virtual interviews, I will be attending residency in a city I have never even visited!

Was there anything you would have done differently regarding residency application?

I did an away rotation in ocular pathology, which initially seemed a little obscure, and I had wanted to do something more clinical. It ended up being a great month! I learned so much that will be helpful to me in residency, and by rotating in Philadelphia, it opened up another region of the country geographically for interviews. All of that to say, be open to whatever opportunities arise. It wasn't my first choice to do that away rotation, but at the end of the

day it was helpful. Things end up having a way of working themselves out, even if it's not necessarily the path that you initially imagined.

Do you have any hobbies or things you do outside of work?

I've always been creative and crafty. That is part of why I love the hands-on aspect of a surgical subspecialty. I am a knitter, and I'm currently making a baby blanket. One of my goals for 2022 was to read more, so I have been making an effort to read at night. For my more active hobbies, I have recently gotten into the pickleball craze and have been out on the courts almost daily! I've also been in martial arts since I was four, so that continues to be part of my life.

Any final piece of advice for first- or second-year

medical students?

Keep your head up! I know there are a lot of hard moments through medical school, especially when the grind is overwhelming. There will also be high moments that make it all worth it!

- Ekta Patel, MS2

“I appreciate that ophthalmology offers patient care in clinic, and also some amazing surgeries.”

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Application and Position Summary Ophthalmology, 2020 - 2022			
	2022	2021	2020
Average # of Applications Per Matched Individual	81	80	77
Average # of Applications Per Unmatched Individual	82	78	77
Average # of Interview Invites Per Matched Individual	10	12	12
Average # of Interview Invites Per Unmatched Individual	4	5	4
Total # Positions Offered	509	499	496
Total # Positions Filled	507	498	495
Total # of Unfilled Positions	2	1	1

Source: *Ophthalmology Residency Match*. <https://aupo.org/sites/default/files/2022-03/Feb%202022%20Oph%20Residency%20Match%20General%20Stats%20final.pdf>

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