December 8, 2019

F32 Application Review Committee

National Heart, Lung, and Blood Institute

National Institutes of Health

Dear Committee Members,

I am excited to convey overwhelming enthusiasm and the highest recommendation for **Dr. Anish Shah** as a candidate for the F32 award. We have witnessed Anish’s exponential growth and early commitment to both patient care and clinical investigation during his internal medicine residency training. As the program director and through personal advising of Anish throughout his training, I believe strongly that Anish has the compassion, academic curiosity, perseverance, and enthusiasm to continue a successful trajectory as a clinical investigator.

Dr. Shah completed a Bachelor of Science in Neuroscience & Behavioral Biology, with a second major in Linguistics, at Emory University in 2011. He developed his initial interest in research at that time in the field of linguistics, gaining programming and statistical analysis skills. He continued to grow his research skills during his training at Texas A&M University College of Medicine, further developing data collection and statistical analysis techniques which culminated in a research project that was presented internationally at the Canadian Association of Pediatric Surgeons. He then returned to Emory University School of Medicine for his internal medicine residency training in July of 2016.

During his residency, he has excelled in his clinical rotations and received outstanding feedback on his performance. On his most recent inpatient general ward rotation Grady Memorial Hospital, his attending physician, Dr. Anna Kho, who has been supervising trainees for more than 15 years, described Dr. Shah as, “…by far one of the BEST residents that I have ever worked with in my entire career…my month with Dr. Shah has been even better than months where I've worked with former chief residents.” During Dr. Shah’s recent rotation in the intensive care unit, his attending Dr. Sushma Cribbs describe that Anish “managed the team well (almost at the level of a fellow), always making sure patients were seen, new patients were taken care, transfers were handled.” However, the trait that I most admire in Anish is his response to challenging situations. Anish takes these situations in stride and continually seeks to improve – his attitude and resilience are the foundations of why he will be successful not only as a researcher and physician but in life as well.

During his residency training, Anish has also excelled in several professional extracurricular activities. Anish participates in the residency program’s Distinction in Teaching and Leadership, presenting lectures on teaching theory, multiple interactive presentations using a new “bite-sized teaching” style ofpresentations—including a regional presentation at the Southern Hospital Medicine Conference. Anish has also been active in developing the point-of-care ultrasonography curriculum with one of our teaching faculty, Dr. Mikhail Akbashev, and he has designed independent medical education research on the utility of cardiovascular point-of-care sonography; currently, Anish is writing a manuscript describing the results of this work. This example illustrates how Anish has gone above-and-beyond in multiple arenas

During his residency training, Anish developed a keen interest in the autonomic nervous system and cardiovascular risk, and he joined the laboratory of Dr. Amit Shah, an academic cardiologist and Assistant Professor of Epidemiology at the Rollins School of Public Health. Anish’s research focuses on heart rate variability, psychological stress, and ischemic heart disease, during which time he has gained valuable experience in programming and biostatistics, along with an increasing understanding of pathology of the autonomic nervous system. We are particularly proud of his academic scholarship during training, and have supported him in presenting at multiple local, regional, and national conferences. He presented nationally at the American Heart Association (AHA) Scientific Sessions 2018 in Chicago, Illinois, where his work was highlighted as one of the two top-rated research posters at the event. He has taken the next steps by submitting this work, where Anish serves as first author, in a manuscript entitled, “*Circadian Changes in Heart Rate Variability Predict Abnormal Myocardial Perfusion*”, currently under peer review with a scientific journal. The mentorship he has received is distinctive, as I personally have seen the commitment Dr. Amit Shah and his collaborators have shown to Anish throughout his training to date. Anish also has continued to work under the auspices of the Emory Program in Cardiovascular Outcomes Research and Epidemiology at the Rollins School of Public Health, establishing relationships with additional mentors, including Dr. Viola Vaccarino, on his latest manuscript and a review article on brain-heart interactions for the journal, *Hypertension*. He has also worked with Dr. Alvaro Alonso in the arena of heart rate variability and psychological stress with the Atherosclerotic Risk in Communities Study, preparing a manuscript for submission as first author. During his final year of training, as a summation to his evidence-based medicine training, Anish presented his Senior Capstone Lecture on “***Sudden Cardiac Death and the Autonomic Nervous System***”. This thoughtful presentation was well-received by peers and faculty alike and exemplifies how Anish has grown during his training as a physician who respects scholarship and values academic pursuits. The mentor for this session, Dr. Marc Thames, invited Anish to expand on his presentation by writing a review article on cardiac sympathetic innervation. Anish has demonstrated high-quality work while eagerly pursuing clinical questions, and he has developed relationships with faculty mentors that encourage his continued growth as a clinician-researcher and academician.

As we have seen Anish grow and evolve to become a reliable and diligent physician, with focus on exceptional clinical care, research and teaching, we believe he has tremendous potential to be a successful clinician-researcher. After completing residency in June 2019, he continued his research path as a postdoctoral fellow in epidemiology and also received the highly selective TL1 award to complete aa Master of Science in Clinical Research (MSCR). Two of his closest clinical mentors have completed the MSCR here at Emory as part of their training, and both are certain that building on this training is the correct path forward for Anish. During his F32, he will expand his current research through advanced coursework and dedicated mentorship, and he will surely enhance his growing investigative skillset. Anish has developed relationships with a robust team of mentors, role models as clinical and translational investigators in various stages of their careers, all of whom are dedicated to his success. His primary goal is to follow in the footsteps of his mentors in securing early NIH funding as an independent investigator in an academic setting, and he certainly has the drive and support to achieve this goal through this program.

In summary, I believe that **Dr. Anish Shah** is an excellent candidate for F32 award. Anish will continue to be an enthusiastic and disciplined trainee, and he will have the capacity and support to meet his research goals. He definitively has the intellectual curiosity, technical skills, and perseverance to become an outstanding clinician-scientist, and he will grow tremendously through formal didactics and continued mentorship. Anish has our highest recommendation for this role, and we offer our strongest support for his selection as an F32 fellow. We anticipate he will become a leading researcher and clinical scientist in his field of practice. Please do not hesitate to contact us with any questions related to his application.

Sincerely,

Karen Law, MD

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