























Although both formal and informal guidelines for personal statements exist, this required ERAS component remains the least standardized of all application components. In contrast to the transcript, board scores or MSPE, the personal statement is uniquely personal and, as such, large scale assessment or interpretation have proven challenging. Consequently, its importance in the application dossier has long been debated.<sup>8,9</sup> Our goal in this study was to apply textual analysis software to a large dataset of personal statements in order to clarify the way applicants express their individual attributes and motivations for residency training. We sought to explore and understand the themes expressed in the statements and to uncover any gender-specific differences. Finally, we hoped to learn about the personal statement as a narrative of the self and a student's developing sense of professional identity as a medical doctor (Monrouxe 2009).

In our first analysis, we identified five common themes that encompassed up to 95% of the combined text. Such themes may not prove completely surprising, as the broad categories addressed by medical students in their personal statements may be predictable to some extent.<sup>12,33</sup> However when men and women were analyzed separately, gender-specific themes were identified, providing insight into differing views of the motivations and aspirations of the next generation of physicians. Men more commonly write about personal qualities and skills suggesting that men are more likely than women to itemize their accomplishments (“self-promote”). This phenomenon has similarly been observed in other professional settings.<sup>34</sup> In contrast, women are more likely than men to speak about the emotional aspects of doctoring, both in their relationships with patients and as members of a team. Our data also show that men and women may emphasize and value different aspects of their residency training. While men focus on high-quality training and clinical preparation for their future opportunities, women often pair this with an equally important desire to be part of a medical team with strong mentorship. Other authors have piloted the use of textual analysis in the field of medical education. A study investigating applicants to the Dartmouth Medical Center radiology residency program described textual themes from their Medical Student Performance Evaluation (MSPE) – the Dean's letter.<sup>35</sup> That study similarly revealed differences between genders, though the study data set was smaller, and the study software differs from the programs used in this study. Such pilot data also suggest that gender differences may influence medical training to an extent not previously appreciated. This concept is not novel. Indeed, there is extensive literature on the role that gender plays in the medical school learning environment, as well as career

[Type text]

decisions and the professional workplace. Some have suggested that implicit bias in our educational milieu or gender-specific societal norms may influence the acculturation and sense of self in male and female students differently.<sup>28,36-38</sup> Our analysis suggests that there are subtle yet important differences in how men and women describe themselves in their residency application personal statements. This, in turn, may reflect differences in trainees' sense of self, their professional identities, and their place in their chosen professional community.

A strength of our investigation is its inclusion of a large number of applicants from 377 national and international medical schools. Furthermore, we analyzed our cohort using two independent and widely used textual analysis programs. Importantly, results were similar, suggesting robustness to our findings. Together, the depth and breadth of this analysis allows our data to be generalized to many internal medicine training programs throughout the United States.

We acknowledge, however, the limitations to our investigation. Importantly, as both Alceste and T-LAB detect only patterns in word frequency and co-occurrences, the programs are unable to apply meaning to the findings. In this study, we sought to overcome subjective bias to this process by having 4 authors blindly interpret the software output independently before consensus was reached. However, some subjectivity to this analysis remains. We also acknowledge that textual analysis is a methodology still in its infancy, and hence its theoretical and statistical underpinnings are open to debate. Nonetheless, both programs used in our analysis have been applied extensively in the social science fields without apparent bias.

Another limitation related to our methodology lies in what is computationally excluded from the analysis. There may exist rare yet important themes raised by a small number of applicants which go unidentified because they are not statistically significant. Similarly, some themes may be less coherent or more nuanced and thereby less easily captured by textual analysis. We acknowledge that Alceste obtained classification rates of only 76% and 78% for females and males, respectively. This means the residual text is left unclassified. However, we used a supplemental software package to mitigate this problem while also trying to improve the classification rate with the help of other modelling methods (e.g., topic modelling). We plan to further implement such processes in future studies. We also note that our study cohort included only US citizens applying to a single US training program. However, with over 2,000 personal statements representing 377 medical schools included in our corpus, it is likely our analysis remains sufficiently robust for analysis, and representative of the typical US medical student

[Type text]

applicant. We acknowledge that such data may be difficult to translate outside the North American training paradigm.

Future studies including and analysing demographic and ethnic information on applicants with grouped analysis would add to this ongoing discussion but may pose some challenges. Specifically these data are self-reported in ERAS and thus prone to inconsistency regarding terminology and response rate. Finally, given the nature of ERAS data, we are not yet able to study and compare “successful” applicants, i.e., those who match in their preferred programs, without violating confidentiality.

In conclusion, through the novel use of two textual analysis programs in this study of a 1.5-million-word corpus representing a large proportion of US residency applicants, we describe a new understanding of medical student desires and perspectives as they seek to continue their training. We also describe an analysis of the personal statement as a narrative of the professional self/identity. Our findings have important implications for residency training programs. Notably, gender balance is now nearly established within most internal medicine residency training programs. However, standard curricula may not have been adapted to meet all of the needs, desires and expectations of such a diverse applicant pool. While core competencies are (and should be) expected of all trainees, our data depict the importance of acknowledging that societal gender expectations, as well as the possibility of gender differences in the expression of future goals may influence medical training to an extent not before understood. These differences may have important implications on the selection of training programs by students and of students by programs.<sup>39</sup>

It should be noted that while our findings may reflect actual differences in desires, motivations or goals, we must also consider the possibility that they reflect the more insidious issue of differential use of language by men and women. As has been widely discussed and studied, men and women use language differently, with normative “masculine” and “feminine” identities expressed through word choice, emphasis and content.<sup>40,41</sup> Indeed, these subtle differences in language may play an intangible but important role in acculturation, identity formation, specialty selection and professionalism. Acknowledging and understanding this phenomenon on a population basis may allow the selection process and training curricula to be

[Type text]

improved, modified, and refined in ways that will improve medical education and thereby medical care.

As has been discussed in the medical education literature, medical education is not only about mastering content, but also about internalizing and projecting a professional identity as a physician.<sup>15,16,42,43</sup> In fact, a thorough understanding of how students think of themselves as physicians may be both a comment on their own professional identity and also a reflection of what they believe is valued by the community they have chosen. As such, our textual analysis of the personal statement, a personal document composed *by* the student *for* the intended professional community adds to the growing understanding of the question of what it means to be a doctor to today's graduating students.

1. AAMC. Residency Applicants by Specialty and Medical School Type, 2013.
2. Alesina A, Rosenthal H. Partisan Politics, Divided Government, and the Economy. Cambridge: Cambridge University Press; 1995.
3. Writing Your Personal Statement. (Accessed at <https://www.ama-assn.org/ama/pub/about-ama/our-people/member-groups-sections/minority-affairs-section/transitioning-residency/writing-your-personal-statement.page>.)
4. Arbelaez C, Ganguli I. The personal statement for residency application: review and guidance. *Journal of the National Medical Association* 2011;103:439-42.
5. Olson DP, Oatts JT, Fields BG, Huot SJ. The residency application abyss: insights and advice. *The Yale journal of biology and medicine* 2011;84:195-202.
6. Heitz JW. Making the personal statement more personal. *Journal of clinical anesthesia* 2012;24:75.
7. McNamee T. In defense of the personal statement. *Annals of internal medicine* 2012;157:675.
8. Max BA, Gelfand B, Brooks MR, Beckerly R, Segal S. Have personal statements become impersonal? An evaluation of personal statements in anesthesiology residency applications. *Journal of clinical anesthesia* 2010;22:346-51.
9. White BA, Sadoski M, Thomas S, Shabahang M. Is the evaluation of the personal statement a reliable component of the general surgery residency application? *Journal of surgical education* 2012;69:340-3.
10. Ferguson E, James D, O'Hehir F, Sanders A, McManus IC. Pilot study of the roles of personality, references, and personal statements in relation to performance over the five years of a medical degree. *BMJ* 2003;326:429-32.
11. Crane J, Ferraro C. Selection Criteria for Emergency Medicine Residency Applicants. *Academic Emergency Medicine* 2000;7:54-60.
12. Johnstone RE. Describing oneself: what anesthesiology residency applicants write in their personal statements. *Anesthesia and analgesia* 2011;113:421-4.

[Type text]

13. Taylor CA, Weinstein L, Mayhew HE. The process of resident selection: a view from the residency director's desk. *Obstetrics and gynecology* 1995;85:299-303.
14. Segal S, Gelfand BJ, Hurwitz S, et al. Plagiarism in residency application essays. *Annals of internal medicine* 2010;153:112-20.
15. Monrouxe LV. Identity, identification and medical education: why should we care? *Medical education* 2010;44:40-9.
16. Monrouxe L, Poole G. An onion? Conceptualising and researching identity. *Medical education* 2013;47:425-9.
17. Bruno A, Galuppo L, Gilardi S. Evaluating the reflexive practices in a learning experience. *European Journal of Psychology of Education* 2011;26:527-43.
18. Kronenberger N, Wagner W. Keywords in Context: Statistical Analysis of Text Features. In: Gaskell MWBG, ed. *Qualitative Researching with Text, Image and Sound: A Practical Handbook* London: Sage Publications; 2000.
19. Noel-Jorand MC, Reinert M, Bonnon M, Therme P. Discourse analysis and psychological adaptation to high altitude hypoxia. *Stress Medicine* 1995;11:27-39.
20. Noel-Jorand MC, Reinert M, Giudicelli S, Dassa D. A new approach to discourse analysis in psychiatry, applied to a schizophrenic patient's speech. *Schizophrenia research* 1997;25:183-98.
21. Noel-Jorand MC, Reinert M, Giudicelli S, Dassa D. Schizophrenia: The Quest for a Minimum Sense of Identity to Ward Off Delusional Psychosis. *The Canadian Journal of Psychiatry* 2004;49:394-8.
22. Schonhardt-Bailey C. Measuring Ideas More Effectively: An Analysis of Bush and Kerry's National Security Speeches. *PS: Political Science and Politics* 2005;38:701-11.
23. Schonhardt-Bailey C. *Deliberating American monetary policy : a textual analysis*. Cambridge, MA: MIT Press; 2013.
24. Schonhardt-Bailey C, Yager E, Lahlou S. Yes, Ronald Reagan's Rhetoric was Unique - But Statistically, How Unique? *Presidential Studies Quarterly* 2012;September.
25. van Tongeren-Alers M, van Esch M, Verdonk P, Johansson E, Hamberg K, Lagro-Janssen T. Are new medical students' specialty preferences gendered? Related motivational factors at a Dutch medical school. *Teaching and learning in medicine* 2011;23:263-8.
26. Diderichsen S, Johansson EE, Verdonk P, Lagro-Janssen T, Hamberg K. Few gender differences in specialty preferences and motivational factors: a cross-sectional Swedish study on last-year medical students. *BMC medical education* 2013;13:39.
27. Andersson J, Salander P, Hamberg K. Using patients' narratives to reveal gender stereotypes among medical students. *Academic medicine : journal of the Association of American Medical Colleges* 2013;88:1015-21.
28. Risberg G, Johansson EE, Hamberg K. A theoretical model for analysing gender bias in medicine. *International journal for equity in health* 2009;8:28.
29. Schonhardt-Bailey C. *From the corn laws to free trade : interests, ideas, and institutions in historical perspective*. Cambridge, Mass.: MIT Press; 2006.
30. Schonhardt-Bailey C. Looking at Congressional Committee Deliberations from Different Perspectives: Is the Added Effort Worth It? In: *Deliberating American Monetary Policy, Appendix IV*. Cambridge, MA: MIT Press; 2013:<http://mitpress.mit.edu/books/deliberating-american-monetary-policy>.
31. Schonhardt-Bailey C YE, Lahlou S. . Yes, Ronald Reagan's Rhetoric was Unique - But Statistically, How Unique? *Presidential Studies Quarterly* 2012.
32. National Residency Match Program Historical Reports. 2013. (Accessed at <http://www.nrmp.org/match-data/nrmp-historical-reports/>.)
33. Smith EA, Weyhing B, Mody Y, Smith WL. A critical analysis of personal statements submitted by radiology residency applicants. *Academic radiology* 2005;12:1024-8.
34. Maliniak D, Powers R, Walter B. The Gender Citation Gap in International Relations. *International Organization* 2013:1-34.

35. Isaac C, Chertoff J, Lee B, Carnes M. Do students' and authors' genders affect evaluations? A linguistic analysis of Medical Student Performance Evaluations. *Academic medicine : journal of the Association of American Medical Colleges* 2011;86:59-66.
36. Risberg G, Hamberg K, Johansson EE. Gender awareness among physicians--the effect of specialty and gender. A study of teachers at a Swedish medical school. *BMC medical education* 2003;3:8.
37. Risberg G, Johansson EE, Hamberg K. 'Important... but of low status': male education leaders' views on gender in medicine. *Medical education* 2011;45:613-24.
38. Risberg G, Johansson EE, Westman G, Hamberg K. Attitudes toward and experiences of gender issues among physician teachers: a survey study conducted at a university teaching hospital in Sweden. *BMC medical education* 2008;8:10.
39. Hill E, Vaughan S. The only girl in the room: how paradigmatic trajectories deter female students from surgical careers. *Medical education* 2013;47:547-56.
40. Holmes J. *Gendered Talk at Work: Constructing Gender Identity Through Workplace Discourse*. Massachusetts: Blackwell Publishing; 2006.
41. Roter DL, Hall JA, Aoki Y. Physician gender effects in medical communication: A meta-analytic review. *JAMA* 2002;288:756-64.
42. Clandinin J, Cave MT, Cave A. Narrative reflective practice in medical education for residents: composing shifting identities. *Advances in medical education and practice* 2011;2:1-7.
43. Weaver R, Peters K, Koch J, Wilson I. 'Part of the team': professional identity and social exclusivity in medical students. *Medical education* 2011;45:1220-9.



**Table 1: Descriptions of the most common thematic classes in female and male applicants. Based on blinded and independent review by 4 authors, a title and synopsis of each thematic class was defined.**

Classified E.C.U.s	Females 76% (= 6133)	Males 78% (= 7028)
<p>Distribution of Classes (%), with descriptions of the characteristics of each class.</p>	<p>1 (21%) <i>Memorable patients</i>  <b>Influential clinical vignettes characterized by detailed descriptions of the patients and their illnesses, as well as the applicant interactions with ill patients</b></p> <p>2 (17%) <i>Field of IM as problem-solving</i>  <b>Descriptions of the appeal of internal medicine as a field, highlighting the intellectual challenge, the problem-solving, the complexity and the depth. Women also focus on interpersonal connection and communication with patients.</b></p> <p>3 (20%) <i>Appeal of residency program</i>  <b>Descriptions of the appealing attributes of internal medicine residency training programs. Women describe here the opportunity both for rigorous training and for interpersonal relationships – mentorship, team member, educator. Some descriptions of personal attributes: dedication, hard work.</b></p> <p>4 (11%) <i>Communicating with patients</i>  <b>Influential clinical vignettes characterized by the emotional/psychosocial aspects of doctoring, highlighting communication and interactions with patients as the important features.</b></p> <p>5 (13%) <i>Healthcare as public policy</i>  <b>Descriptions of internal medicine as part of a broader field of public, community and international medicine highlighting community health, disparities, outreach and patient advocacy.</b></p> <p>6 (9%) <i>Family inspirations</i>  <b>Descriptions of experiences with family members, either family illnesses or family members in the medical field.</b></p> <p>7 (9%) <i>Science and academia</i>  <b>Descriptions of scientific research and academic research careers.</b></p>	<p>1 (21%) <i>Family inspirations</i>  <b>Descriptions of experiences with family members, either family illnesses or family members in the medical field.</b></p> <p>2 (21%) <i>Memorable patients</i>  <b>Influential clinical vignettes characterized by descriptions of the patients and their illnesses</b></p> <p>3 (19%) <i>Field of IM as problem-solving</i>  <b>Descriptions of the appeal of internal medicine as a field, highlighting the intellectual challenge, the problem-solving, the complexity and the depth. Men focus on intellectual pursuits opportunity for further training.</b></p> <p>4 (11%) <i>Appeal of residency program</i>  <b>Descriptions of the appealing attributes of internal medicine residency training programs. Men focus on academic rigors, clinical excellence and preparation for further training.</b></p> <p>5 (12%) <i>Science and academia</i>  <b>Descriptions of scientific research and academic research careers.</b></p> <p>6 (9%) <i>“My personal qualities and skills”</i>  <b>Descriptions of the personal attributes of the applicant such as dedication, hard work, industriousness.</b></p> <p>7 (7%) <i>Healthcare as public policy</i>  <b>Descriptions of internal medicine as part of a broader field of public, community and international medicine highlighting community health, disparities, outreach and patient advocacy.</b></p>

[Type text]

**TABLE 2: TOP RANKING CHARACTERISTIC WORDS FOR THEMATIC CLASSES**

<b>FEMALES</b>	<b>MALES</b>
<p><b>Class 1: Memorable patients</b>  “Wilson”; “diagnosis”; “history/histories”; “admitted”; “symptom (s)”</p>	<p><b>Class 1: Family inspiration</b>  “father(‘s)”; “mother(‘s)”; “life(‘s)”; “parent(s)”; family(ies)”</p>
<p><b>Class 2: IM as problem-solving</b>  “internal medicine”; relationship(s)”; “patient(s)(‘s)”; “intellectual”;  “problem”</p>	<p><b>Class 2: Memorable patients</b>  “Wilson(‘s)”; “diagnosis”; “admitted/admitting”; “history”;  “symptom(s)”</p>
<p><b>Class 3: Appeal of residency program</b>  “residency program”; “residency”; “look(ing)”; “train(ing)”;  “academic”</p>	<p><b>Class 3: IM as problem-solving</b>  “internal medicine”; “field”; “relation”; “complex”; “intellectual”</p>
<p><b>Class 4: Communicating with patients</b>  “say/said”; “down”; “moment(s)”; “sit(ting)/sat”; “go(ing)/went”</p>	<p><b>Class 4: Appeal of residency program</b>  “residency program”; “academic(s)”; “residency”; “train/training”;  “program”</p>
<p><b>Class 5: Healthcare as public policy</b>  “health/y”; “healthcare”; “community(ies)”; “public health”;  “underserved”</p>	<p><b>Class 5: Research and academia</b>  “research”; “cell(s)”; “biology/biological”; “project(s)”; “science(s)”</p>
<p><b>Class 6: Family inspiration</b>  “father(‘s)”; “parent(s)”; “school(s)”; “sibling(s)”; “mother(‘s)”</p>	<p><b>Class 6: “My personal qualities and skills”</b>  “commitment”; “asset”; “dedication”; “hard”; “ethic(s)”</p>
<p><b>Class 7: Research and academia</b>  “research”; “science(s)”; “university”; “biology/biological”; “project(s)”</p>	<p><b>Class 7: Healthcare as public policy</b>  “policy/policies”; “health”; “public health”; “healthcare”; “local”</p>

[Type text]

**TABLE 3: TOP FIVE RANKING CONTEXT UNITS FOR THEMATIC CLASSES**

(Names and academic institutions are anonymized [“Wilson”, “medical university X”, “doctor X”].)

FEMALES	MALES
<p style="text-align: center;"><b>Class 1: Memorable patients</b></p> <p>It was February of my <b>third</b> year when I <b>first met Wilson</b> in the <b>hospital</b>. <b>Wilson</b> was a <b>69 year-old woman</b> with a <b>history of hypertension, diabetes, coronary artery disease</b>, hypothyroidism, and bipolar <b>disorder presenting with</b> a <b>two month history of severe chronic back pain</b>. As I devised <b>her assessment and plan in the emergency room</b>, I <b>initially</b> found it <b>difficult</b> to sort through <b>her</b> various problems. <b>Her neurologic exam</b> was completely <b>normal</b> but <b>she was severely</b> bradycardic and <b>had</b> a low grade <b>fever with a significant</b> leukocytosis.</p> <p><b>During</b> an overnight shift a <b>woman patient came to the hospital with altered mental status, signs</b> of dehydration, <b>symptoms</b> of polydipsia and polyuria and a <b>history</b> of urinary tract infection for <b>the</b> past few <b>days</b>. <b>Putting</b> this information <b>together</b> I determined a <b>blood</b> glucose level should be performed STAT and I mentioned that to my <b>attending</b> physician. <b>Diabetic hyperosmolar syndrome was diagnosed</b> and <b>she was admitted</b> to the medicine ward <b>with appropriate</b> treatment. <b>The following day</b> I found out that <b>she was one of the</b> patients in <b>the</b> ward I was assigned to.</p> <p>On the <b>second day</b> of my <b>ICU rotation, wilson, a male</b> in <b>his</b> mid 40s <b>who suffered</b> from morbid obesity, <b>heart failure with</b> a preserved ejection fraction, <b>chronic kidney disease</b> and obesity hypoventilation <b>syndrome presented</b> to <b>the hospital</b> in hypercarbic and hypoxemic <b>respiratory failure</b> in the setting of respiratory splinting after falling and <b>injuring his side the week prior</b> to admission. <b>He</b> required intubation <b>shortly after he was admitted</b> to <b>the ICU</b>, and bilateral <b>pulmonary infiltrates on imaging</b> studies prompted our team to <b>treat Wilson</b> for both community acquired <b>pneumonia</b> as well as</p>	<p style="text-align: center;"><b>Class 1: Family inspiration</b></p> <p><b>Unfortunately</b>, he collapsed outside the front <b>door</b> of my <b>parents’ home</b> and <b>died</b> literally in my <b>mother’s arms</b>. I <b>remember getting</b> the <b>call</b> from my <b>younger sibling telling me he died</b>. The <b>only thing</b> I <b>could say before</b> hanging <b>up</b> was ok, and I was on the next flight <b>home</b> to San Francisco from Chicago. <b>It</b> was surreal. I had <b>spoken</b> to my <b>father just two days</b> prior because he <b>wanted</b> to talk to <b>me</b> about <b>feeling</b> fatigued for the past week, and update <b>me</b> on <b>some</b> of the <b>things</b> his <b>doctors were doing</b> for him.</p> <p>That was all <b>it took</b> to <b>get</b> my <b>tears</b> flowing <b>again</b>, because I <b>realized</b> that <b>there was nothing</b> I <b>could do, nothing</b> anyone <b>could do</b> to <b>save</b> her. In retrospect, I <b>came</b> to <b>realize</b> that this <b>moment</b> had <b>defined me</b> as a <b>person</b>. I had <b>felt</b> so helpless. I hated that <b>feeling, knowing</b> that <b>there was nothing</b> I <b>could do</b> to help her. I was a teenager at the <b>time, but I still felt</b> like a <b>child</b>, unsure of myself and my future. <b>But</b> from that point on I was determined to change that, to <b>take charge</b> and <b>shape</b> my <b>life into</b> one that had a purpose.</p> <p><b>Some would say</b> that my passion for medicine is an autosomal dominant trait. After all, <b>if you take</b> a glance at my <b>lineage</b>, my great <b>grandfather</b>, my <b>grandmother</b>, <b>three</b> of my aunts, my <b>uncle</b>, and both of my <b>parents</b> are physicians, <b>not</b> to mention, my <b>younger sibling just got into</b> medical school. My <b>father</b> is an anesthesiologist and is <b>frequently on call</b>. He <b>often gets called</b> in for emergencies after <b>hours</b>. <b>When</b> I was about <b>ten</b> years-old, I <b>remember receiving</b> a phone <b>call</b> from the hospital on one of these <b>nights</b>.</p> <p>Wilson was a vibrant 29 year-old woman who <b>loved travel</b> and <b>top 40s music</b>. She was also dying of ovarian cystadenocarcinoma and <b>only</b> had</p>

[Type text]

<p>decompensated <b>heart failure</b>.</p> <p><b>Wilson</b> whose medical <b>history</b> included uncontrolled <b>diabetes</b>, <b>end stage renal disease</b>, <b>congestive heart failure</b>, and <b>hypertension</b> had taken a turn for <b>the worse</b> after a below <b>the ankle foot</b> amputation <b>procedure complicated with</b> tracheotomy. What began as <b>hospital</b> acquired <b>pneumonia</b> became a <b>case</b> of septic <b>shock complicated with multiple organ failure</b>, hemodialysis, mechanical ventilation, critical <b>illness</b> polyneuropathy, and <b>several months</b> of continuous <b>monitoring</b> in <b>the ICU</b>. I became personally invested in <b>his</b> care, and it was through <b>Wilson's case</b> that I <b>first</b> truly <b>saw the wonders possible</b> in <b>the field of medicine</b>.</p> <p><b>The patient</b> is refusing to talk to <b>the resident</b>, and refusing <b>blood</b> work. <b>She</b> is lying in <b>bed</b> not willing to <b>answer any questions</b>; also refusing <b>physical exam</b> and <b>vitals</b> said <b>the note</b> for <b>Wilson</b>. <b>Wilson</b> was a patient <b>admitted</b> for post menopausal vaginal <b>bleeding</b> and <b>renal failure secondary</b> to bilateral hydronephrosis. <b>She refused</b> placement of retrograde ureteral stents, <b>biopsy</b> of a pelvic <b>mass</b>, and hemodialysis based on incomplete <b>information about her condition</b>. My <b>first meeting with her</b>, as a nephrology <b>consult</b>, <b>ended</b> as <b>soon</b> as it began, when <b>she</b> dismissed me. I <b>came</b> back to talk to <b>her</b>, this time making <b>sure</b> I approached <b>her</b> in a way where I would address all <b>her concerns</b>.</p>	<p>months to <b>live</b>. The <b>lessons</b> that wilson's health taught <b>me</b> about pathology have faded. <b>What I do remember</b> is <b>what</b> Wilson taught <b>me</b> about <b>living</b> and about dying. I stayed after <b>hours</b> and <b>came</b> in on weekends to <b>sit</b> and talk with her, especially <b>when her family could not be around</b>. I was determined to <b>not let someone so young face death alone</b>.</p> <p><b>When I woke up</b> the next morning, he was <b>gone</b>. <b>Before</b> I was <b>born</b>, my <b>father</b> was diagnosed with nasopharyngeal cancer. By the <b>time</b> I was <b>six</b>, it had <b>taken his life</b>. <b>Up</b> to that point, I <b>spent much</b> of my <b>childhood</b> in hospitals accompanying him for chemotherapy. I <b>remember</b> the peculiar smell, the beeping machines, and the frantic wards. <b>They all reminded me</b> of his <b>suffering</b>, and at a <b>young age</b>, I developed an aversion to hospitals. <b>To me</b>, the image of <b>doctors</b> and hospitals represented <b>losing lives, losing my father, rather than saving them</b>.</p>
<p style="text-align: center;"><b>Class 2: IM as problem-solving</b></p> <p>I <b>learned</b> to <b>appreciate art</b> and believe that <b>medicine</b>, likewise, is a timeless <b>art</b> with a noble purpose: to complete what <b>nature has</b> left unfinished. The merging of clinical <b>expertise</b>, moral acumen, and <b>great depth and breadth of knowledge</b> in <b>internal medicine</b> makes up the <b>art of medical practice</b>. This <b>field has</b> everything I am looking for, <b>as it is intellectually stimulating</b> in its immensity and <b>complexity of its various fields</b>, with <b>diagnostic challenges</b> that <b>each patient</b> with a <b>unique constellation of medical problems</b> presents <b>and</b> the opportunity</p>	<p style="text-align: center;"><b>Class 2: Memorable patients</b></p> <p>My decision <b>was</b> made roughly <b>a month</b> into my internal medicine <b>clerkship</b> during <b>the case</b> of a <b>male named Wilson</b>. <b>Wilson</b> was a <b>30 year-old male with a medical history significant for infection with HIV, who was transferred to our hospital from an outside facility with acute liver failure and rapidly worsening acute kidney injury</b>. <b>Despite extensive workup</b> by experienced specialists, no <b>clear</b> etiology could be <b>found</b>. Upon <b>meeting Wilson</b> for <b>the first time</b>, I remember being <b>immediately struck by his severe</b></p>

[Type text]



<p>serve others. <b>Solving challenging problems</b> in a <b>systematic approach and being able</b> to help others, <b>has</b> reaffirmed my <b>love and</b> commitment for this <b>field</b>. In medical school I have <b>demonstrated</b> compassion <b>and empathy</b> in my service to others <b>and</b> worked <b>effectively as part of a team</b> to achieve <b>common</b> goals.</p>	<p>I <b>found</b> that I was particularly intrigued by this <b>case</b> because <b>his</b> pathophysiology <b>was</b> not concrete: <b>we</b> could not <b>see the</b> disease <b>happen</b>, and <b>we</b> could only develop a theoretical mechanism that fit <b>with his symptoms</b> and findings.</p>
<p style="text-align: center;"><b>Class 3: Appeal of residency program</b></p> <p><b>I am confident</b> that internal medicine <b>will</b> afford me the <b>opportunity</b> to <b>fulfil both</b> the <b>academic</b> and <b>interpersonal goals I wish to achieve</b> as a <b>physician</b>. <b>I look forward</b> to continuing my <b>training</b> as a medical <b>resident</b> and applying my <b>strong work ethic</b> and <b>dedication</b> to my <b>residency program</b> and <b>future</b> specialty. Thank you for <b>your consideration</b>.</p> <p><b>I am</b> interested in <b>pursuing a fellowship</b> in <b>hematology/ oncology</b> after the <b>completion</b> of my internal medicine <b>residency</b>. As <b>I continue</b> on my <b>journey</b> through medicine, <b>I look</b> to the challenges <b>ahead</b> as <b>opportunities</b> to learn and grow <b>both</b> personally and <b>professionally</b>. <b>I promise</b> to <b>bring a positive attitude, enthusiasm,</b> and overall <b>commitment to excellence</b> in my <b>training</b>. Thank you for <b>your consideration</b>.</p> <p><b>I am excited</b> about my <b>residency training</b> in internal medicine, as it is the <b>next step</b> in my <b>journey towards</b> a career in <b>academic</b> medicine. Throughout <b>residency</b>, <b>I plan</b> to <b>seek out opportunities to further expand</b> my <b>knowledge</b> and <b>skills</b>. My <b>residency training will</b> allow me to <b>continue to strive towards</b> the <b>ideals</b> of a great <b>physician</b>.</p> <p>... and <b>I feel</b> extraordinarily fortunate to <b>have mentors</b> who not only <b>provide</b> me with didactics and medical pearls but also embody the <b>qualities</b> that I <b>most</b> admire: clinical acumen, <b>compassion</b>, integrity, and unparalleled communication <b>skills</b>. While <b>I am seeking an</b> internal medicine <b>residency program</b> that <b>offers</b> robust clinical <b>training</b>, <b>diverse research opportunities</b>, and <b>strong fellowship</b> placement, <b>I am</b></p>	<p style="text-align: center;"><b>Class 3: IM as problem-solving</b></p> <p><b>Of all</b> the medical <b>specialties</b> I believe there <b>is</b> none as complete as <b>internal medicine</b>. <b>Internal medicine</b> covers a <b>wide range of pathologies</b>, organ systems, <b>knowledge of the disease process</b>, and <b>integrates</b> them into one. The <b>expertise of the internist</b> allows him/ her to <b>manage and</b> treat a <b>broad spectrum of illnesses</b>. I am <b>drawn</b> to the <b>challenge of internal medicine</b> because it <b>requires</b> a high level of <b>problem solving</b>. This <b>is a specialty that</b> provides <b>variety</b>, <b>and</b> allows you to <b>maintain</b> diverse interests <b>and</b> to <b>combine</b> them to build on your <b>skills</b>.</p> <p>This <b>knowledge</b> not only <b>satisfied</b> my <b>curiosity</b> but <b>also</b> allowed for the <b>proper</b> future <b>management of the patient</b>. <b>Furthermore</b>, I am thrilled by <b>internal medicine's</b> <b>ability</b> to balance between routine <b>and diversity</b> in <b>patient care</b>. <b>Additionally</b>, the <b>ability to specialize</b> in a <b>particular aspect of medicine</b> or <b>manage a broad spectrum of illnesses</b> and the capacity to <b>employ</b> my health promotion <b>and disease prevention education</b> <b>are also unique</b> characteristics <b>that</b> I desire. With my <b>various life experiences</b>, I have been able to develop <b>skills essential to internal medicine</b>.</p> <p>The <b>vast range of</b> such <b>extreme human experiences</b> is a <b>unique facet of medicine that</b> makes <b>all other choices</b> seem dull in comparison. Having personally <b>experienced</b> the triumphs <b>and failures of medicine</b>, it <b>is</b> the <b>human stories of medicine that</b> keep me digging <b>deeper</b> down this rabbit hole. Unsurprisingly, I find myself gravitating towards the same <b>aspects in internal medicine</b>. The <b>problem solving skills I honed</b> as an engineer make me a <b>good fit</b> for the <b>diagnostic process</b></p>

[Type text]

<p>also <b>seeking a program where enthusiastic and committed mentors hold residents to the standard</b> of caring for patients as the <b>ideal physician</b> would.</p> <p><b>I want to be that kind of doctor, and an excellent one at that. I aspire to training in the United States, where medical education is the best available. An internal medicine residency program that offers a strong academic foundation is what I seek. I desire entrance to a program that prepares residents to be professional internists through high levels of training and teaching opportunities. Success in such a program will require hard work, diligence, and determination, just as I believe compassion and motivation, added to a high quality residency program, will mould me into an excellent internist.</b></p>	<p>often <b>required</b> in this <b>specialty</b>.</p> <p><b>It is at this time that my devotion to the medical field began to develop. The ability to assist individuals and my community gave me true satisfaction, influencing my decision to seek further education within the medical field. Internal medicine is the truly fundamental aspect of the practice of medicine. It provides for the distinctive combination of patient interaction, diagnosis and long term disease management. The patient physician partnership is core to this discipline, allowing for the unique opportunity to educate, as well as learn from, one's patients.</b></p> <p>At the same time, I <b>also</b> discovered <b>numerous</b> similarities between the creativity <b>and critical thinking skills integral</b> to both the culinary <b>arts and academic medicine</b>. The creative <b>process that is</b> involved in cooking <b>is precisely</b> what <b>attracted</b> me to the <b>field of culinary arts</b>. The creation <b>of a dish draws upon knowledge of each</b> ingredient alone, which <b>is</b> then extrapolated into an idea <b>of</b> how they would work in unison to <b>create something unique. Understanding how various elements work together is even more complex and interesting in internal medicine.</b></p>
<p style="text-align: center;"><b>Class 4: Communicating with patients</b></p> <p>The room hummed as we <b>sat</b> together, palm to palm, fingers intertwined. And <b>finally</b>, I <b>gave</b> her <b>what</b> she had <b>been searching</b> for all along: <b>it is</b> alright to <b>say</b> no more: no tubes, no chest compressions, no extraordinary measures. <b>That</b> is entirely alright. She squeezed my <b>hand</b> and <b>smiled</b>. When I <b>returned</b> to her room later <b>that night</b>, she had <b>clear</b> wishes: she did <b>not</b> want a feeding tube. She did <b>not</b> want aggressive measures. When I <b>turned to leave</b>, she <b>reached</b> for my <b>hand</b> and <b>held it, thank you</b>.</p> <p>From <b>that point</b> on, I no <b>longer</b> yelled. I no <b>longer</b> told her <b>that</b> her relatives were dead when she <b>asked</b> about <b>them</b>. <b>Instead</b>, they were on</p>	<p style="text-align: center;"><b>Class 4: Appeal of residency program</b></p> <p><b>I hope my residency will prepare me for a future career in an academic setting that allows ample opportunity for teaching. Ultimately, I feel well prepared to undertake my future career in internal medicine.</b></p> <p><b>I am eager to enter an inspiring internal medicine residency program that will accommodate the necessary training required to work in either a private practice, teach in an academic hospital setting, or compete for fellowship. I also wish for a welcoming and supportive environment where the staff, faculty, and residents work together as a team. In addition to make my future career in medicine possible, I</b></p>

[Type text]



<p>vacation in Cyprus. I <b>sat</b> with her more <b>often</b>. I <b>took</b> the time to <b>eat</b> my meals with her and <b>make</b> sure she <b>ate enough</b>. When she was <b>anxious</b> to <b>leave</b>, I <b>went</b> with her for a <b>walk</b>. By age 17, I <b>finally knew how</b> to care for <b>someone</b> with dementia. Unfortunately, <b>there</b> wasn't much time <b>left</b> to put my new knowledge <b>into</b> practice.</p> <p>I excused <b>myself</b> to <b>say</b> goodbye and <b>give</b> her a hug as she <b>left</b>. I <b>remember how humbled</b> I <b>felt</b> as she hugged me and <b>said</b> she <b>would miss</b> our daily <b>visits</b>. As I <b>walked away</b> I could see my mother watching through the glass window of the courtyard; <b>no longer</b> peeking behind a cracked <b>door</b>. Her pride was <b>clearly</b> visible through the <b>smile</b> on her <b>face</b>.</p> <p>It was 12: 45 in the <b>afternoon</b>; I parked my <b>car in</b> front of her office. I put on my new <b>white coat</b> as I <b>made</b> my <b>way</b> to the front <b>door</b>. I <b>took a deep breath</b> as I rang the bell with sweaty <b>hands</b>. I always <b>get</b> nervous on my first day of clinical rotations. As I entered, about 5 <b>little</b> kids with their mothers <b>waited</b> to be <b>called</b>. I wondered <b>if</b> she <b>would ask</b> me why I had <b>arrived 15 minutes</b> earlier <b>than what</b> was written on <b>schedule</b>, <b>but</b> I always <b>like</b> to be on time for work.</p> <p>It was hard to <b>stay</b> composed and <b>not let</b> my <b>emotions take over</b>. While my mind was in a haze <b>trying</b> to comprehend <b>what just happened</b>, a <b>small hand</b> gently tapped my shoulder. <b>It</b> was Wilson's youngest daughter, <b>standing there</b> with sympathy flowers in her <b>hand</b>, and <b>tears</b> in her <b>eyes</b>. She wanted to <b>say</b> good bye and <b>thank</b> me for <b>everything</b> I had <b>done</b> for her mother. To <b>know that</b> I was able to <b>comfort someone</b> through one of the most difficult <b>times</b> in their life is <b>what</b> attributes to my passion.</p>	<p><b>seek a residency program</b> that would <b>allow</b> me to <b>continue</b> developing into the <b>physician</b> that <b>I aspire to</b> become.</p> <p>In addition, <b>I hope to join</b> a <b>program</b> that <b>emphasizes</b> medical <b>education</b>, for <b>both</b> residents and students, and contains ample <b>exposure to cutting edge</b> research to <b>prepare</b> me for a <b>career</b> in <b>academic</b> medicine.</p> <p><b>I look ahead to</b> the <b>next phase</b> of my <b>training</b> with great <b>excitement</b> and <b>strong</b> commitment and <b>will</b> always <b>welcome</b> the <b>opportunity</b> of research and learning during my <b>residency training</b>. In <b>pursuing</b> this <b>opportunity</b> at your <b>program</b> <b>I intend to</b> take full <b>advantage</b> of the <b>residency program</b> in internal medicine, which has attracted me due to its <b>outstanding</b> reputation in <b>academics</b>, <b>excellent</b> patient care, community outreach and <b>strong</b> healthcare system that <b>will</b> make me a <b>caring, competent</b> and empathetic <b>physician</b>.</p> <p><b>I am seeking a residency program</b> with an <b>excellent</b> reputation in patient care, clinical <b>teaching</b>, and <b>academic</b> medicine that <b>will train</b> me as a <b>well rounded physician</b> and <b>provide mentors</b> for my interests in <b>education</b> and infectious diseases.</p>
<p style="text-align: center;"><b>Class 5: Healthcare as public policy</b></p> <p><b>These experiences</b> added greatly to the foundation with which I approached my <b>outreach</b> and <b>leadership activities</b> over the years. <b>Through volunteering</b> at the <b>free clinic</b> and <b>working on health</b></p>	<p style="text-align: center;"><b>Class 5: Research and academia</b></p> <p>My <b>interest in science began</b> long before I matriculated into the <b>medical scientist training program</b> at <b>medical university</b>. As an <b>undergraduate</b>, I <b>developed</b> a love for <b>basic research</b> working in a</p>

[Type text]



**awareness** in the Dominican Republic, I had the privilege of **servicing** those with **limited access to** care while gaining **insight** into **factors** that perpetuate **poverty** and inequality. As a **leader** of the **American Medical Student Association** at medical school, I arranged workshops **on health** reform and **advocacy** so that my **peers** and I could learn more about how **policies** are **shaped** and how we as **providers** can get **involved in** the discourse.

I **advocated for** financing transportation, mental **health services**, and **primary care** because **these factors** enhance **healthcare access** and **improve** medication adherence **for** people living with **HIV** and **AIDS**. During **masters in public health** coursework, this same multifactorial **perspective helped** me engage **in community** based research **on** racial cancer care **disparities**, lesbian, gay, bisexual, transgender, and queer **women's health needs**, and black men's **preventive health behaviors**. I **worked** with research teams that translated **community** voices to **health promoting policies** and **interventions**.

...**Low income** Latino families **to address** the **disparities in development** and educational achievement that **exists** between children of different ethnic and **socioeconomic backgrounds**. **These experiences** continued **to strengthen** my desire **to work** with **underserved populations** and **to strive to develop strategies to** alleviate the **burden on our society's** most **vulnerable** individuals. The culmination of my commitment **to my community** as well as my passion **for** teaching resulted **in** the **creation** of the town farmer's market and **nutrition** seminars **to help** promote **healthy** lifestyle choices **for obesity prevention among** the ....

**These** early **experiences** with hardship **shaped** my lifelong commitment **to aiding vulnerable** individuals and **populations through** clinical **service** and research. During medical school, I sought opportunities **to lead** and **serve locally** and **globally**. As **co president** of my class, I was **involved in** decisions **regarding curriculum**, scheduling, and **student activities**. **Through** representation, I strived **to improve** the academic **experience** of my **peers**. As a **student member**

chemical **lab** analyzing pottery from the 2400 year-old shipwreck, Kyrenia. **During** my **PhD years at** medical **university**, I further **developed** my passion for **science** while **studying cardiovascular biology**. I **decided** to **focus** my efforts on **research** that not only **enhanced** the field but could **translate to novel therapies**.

**During** my first year **in medical school**, I **began** working **in a basic science laboratory in leukemia research**, and had the opportunity to be mentored **by** a pioneer **in** the field of **cancer genetics**. **In her lab**, I **studied** how micro ribonucleic **acids** interact with the **resultant** fusion **proteins** of chromosomal translocations and affect **cell** proliferation, a complex process **which** contributes to leukemogenesis. now, **in** my **transition to clinical research**, I **focus** on how patients with high risk myeloid **disorders** vary **in** their **response** to chemotherapy and hematopoietic **stem cell transplantation**.

**During college** and **graduate school**, I **performed basic biomedical research** examining the **molecular mechanisms** of **clinical** disease. While **completing** my dissertation for my **PhD**, I **began** to **focus** more on the **clinical implications** of my **research projects**, nurturing my desire **to translate** the often esoteric **discoveries** from the **bench** to the **bedside**. As a **result**, even before matriculating into **medical school**, I envisioned a career **in** academic medicine, where I would see patients, generate **clinical** questions that could be addressed **by basic research** and **develop novel therapeutics** to put into **clinical** practice.

After I joined the **lab**, I have become very adept **at the techniques used** to **study T cells** from patients' **tumor tissues**. One of the **projects** I worked on was to figure out the **biological** differences **between** the CD8 cytotoxic **T cells** that were infused into responders vs. non responders to **this therapy**. Using a **novel** bioinformatics approach to **analyze** our **gene** microarray **data**, I was able to **discover** the **key biologic mechanism** that explained the association of a CD 8 **T cell marker** and positive **clinical response**.

....**direct** contribution to or co **authorship** of three **publications in** peer

[Type text]

<p>of the hospital ethics <b>committee</b>, I consulted <b>on</b> hospital <b>policy</b> regarding advance directives and <b>on medical</b> ethics cases that directly <b>influenced</b> patient care.</p> <p>Surprisingly, there was no <b>longitudinal medical Spanish curriculum</b> at medical school so I <b>co</b> directed a <b>student led effort to create</b> a course that would <b>run</b> alongside the preclinical <b>curriculum</b>. <b>Beyond improving</b> my language skills, I also sought out opportunities <b>to</b> learn about programs dedicated <b>to providing</b> care <b>to the Spanish</b> speaking <b>population</b>. During my third year, I chose <b>to</b> do my weekly <b>primary care clinic in a community health center in</b> one of <b>Boston's</b> low income, <b>Spanish</b> speaking neighbourhoods.</p>	<p><b>reviewed clinical journals</b>, on <b>topics in cardiovascular</b> pathophysiology, neuropharmacology, and islet <b>cell transplantation</b>, first <b>author</b> presentation of <b>two clinical research studies</b> at annual national <b>clinical conferences</b>, one was a <b>study in</b> cardiology; the second <b>applied</b> neurophysiology and electromyography to intraoperative monitoring, master of arts <b>degree in applied physiology</b> from columbia <b>university, new york, new york</b> focusing on <b>cardiovascular physiology</b> and including <b>graduate</b> courses in statistical <b>data analysis</b> 92nd percentile national board of medical examiners, NBME, part 2 <b>score</b> footnote, 2, grade point average of 3.</p>
<p style="text-align: center;"><b>Class 6: Family inspiration</b></p> <p>I was <b>born</b> in a <b>refugee</b> camp and <b>raised</b> in a trailer park with <b>my grandparents</b>, several <b>aunts</b>, <b>uncles</b>, and cousins in one <b>home</b>. I <b>grew up</b> on welfare. Some of <b>my family</b> members were heavily involved in gangs and drugs, and I <b>became</b> accustomed to <b>frequent</b> night time police raids. Despite this, I can <b>proudly</b> say that I was able to <b>prioritize my education from a young age</b>, and I am the first of <b>my family</b> to obtain <b>higher</b> education and will be the first <b>doctor</b>.</p> <p>Motivation to <b>become</b> a <b>doctor</b> was rooted in <b>my earliest childhood memories</b>. <b>Growing up</b> in two different continents and <b>spending</b> a part of <b>my life</b> in Europe has made me the confident and open <b>minded</b> person I am <b>today</b>. <b>Living</b> in India was a joy, being an army officer's <b>daughter</b>, I had the advantage of <b>traveling</b> all over the continent throughout <b>my childhood</b>. <b>From an early age</b>, I <b>wanted</b> to pursue a career in medicine <b>from watching</b> and <b>living</b> with the various people I encountered <b>on my travels</b>.</p> <p>I was <b>born</b> and <b>raised</b> in Karachi, Pakistan, where nearly every kid <b>dreams</b> of <b>becoming</b> a <b>doctor</b>, and I was one of them. But with most kids the <b>dream starts</b> fading as <b>they grow older</b>. I was one of the few</p>	<p style="text-align: center;"><b>Class 6: "My personal qualities and skills"</b></p> <p>Should you <b>give</b> me the chance and privilege to be one of <b>your</b> residents I will <b>bring</b> with me <b>diligence; hard work; responsibility</b> and integrity. I also <b>promise</b> not to fall short of <b>your expectations</b>. Hoping that you will open the opportunity for me to realize <b>my dreams</b>, I remain. <b>Thank</b> you for <b>your</b> time and <b>consideration</b>. <b>Sincerely</b>, applicant_name, MD</p> <p>I also learned the importance of ensuring that a patient had the necessary social services to provide a secure place to stay after hospital discharge. Throughout the years, medicine <b>has become</b> more than just a career <b>path</b> for me. It <b>has given</b> me an avenue to practice the <b>values I have acquired</b> during <b>my</b> upbringing to <b>help</b> me <b>achieve my</b> ultimate goal of providing for <b>others</b>. Medicine <b>has</b> also <b>given</b> me a sense of <b>purpose</b> that <b>makes</b> me eager to actualize these <b>values</b> and <b>my</b> learned skills. I am <b>confident</b> that I would be an <b>asset</b> to <b>your</b> internal medicine residency program, and I <b>thank</b> you for <b>your consideration</b>.</p> <p>I <b>now</b> know that the next <b>step</b> in pursuing this goal and <b>my dream</b> of practicing in the United States and effectively <b>contributing</b> to</p>

[Type text]

<p>to stick to <b>my dreams</b> not only because of <b>my childhood</b> obsession but also because of <b>my growing</b> fascination with human physiology, the creation and sustainability of <b>life</b>, and the <b>endless mystery</b> of the human body.</p> <p>Looking at where I am <b>today</b>, I am surprised. <b>When</b> I was <b>growing up</b> I was <b>uncertain</b> of what I <b>wanted</b> to pursue as a career, but <b>watching my older sibling</b> go through medical school influenced <b>my</b> decision to also pursue medicine. <b>Up until high school</b> he <b>struggled</b> with a learning disability, which was disheartening <b>since</b> his <b>dream</b> was to <b>become a doctor</b>. He <b>decided</b>, however, to go to medical school despite discouragement <b>from</b> his professors. Although others did not think it was possible, he successfully completed his program and <b>today</b> is working as an internist.</p> <p>I <b>grew up</b> in a suburb of Washington, DC in an area heavily populated by diplomatic families <b>from</b> the many embassies in the city. Being <b>surrounded</b> by the <b>children</b> of diplomats <b>meant</b> that I had <b>friends from</b> all over the world; there were more than 35 different <b>languages</b> spoken at <b>my high school</b>. Having exposure to so many cultures at a <b>young age</b> is absolutely what <b>sparked my</b> curiosity about the world. <b>My</b> very first <b>trip</b> abroad during <b>my senior</b> year was to Egypt to visit <b>family friends</b>, and I was immediately hooked.</p>	<p>translational research is to complete an internal medicine residency in this country. I am <b>determined</b> to <b>become a successful</b> physician scientist, and I strongly <b>believe</b> that <b>your</b> program <b>has</b> the <b>qualities</b> I am looking for in an internal medicine residency program, one that allows for <b>personal</b> and <b>professional growth</b> while improving my knowledge of medicine. I <b>believe my</b> clinical and research background, along with <b>my</b> extremely strong work <b>ethic</b> and <b>passion</b> for patient care, <b>makes</b> me the ideal <b>candidate</b> for the position.</p> <p>I am emotionally and <b>professionally</b> prepared for the <b>responsibility</b> of an internal medicine resident. <b>My personal qualities</b> and experience will enable me to <b>succeed</b> and be a <b>valuable asset</b> to the <b>profession</b> and the community. After a long and winding <b>path</b> of education, I am <b>determined</b> to pursue a career with great challenge, <b>commitment</b>, and satisfaction.</p> <p>I <b>have</b> the ability to work well with <b>others</b>, connect with patients as well as staff, and <b>bring a positive</b> and <b>professional work ethic</b>. I can quickly learn skills and am able to adjust to a changing environment. I <b>believe</b> that these <b>attributes</b> and <b>my personality</b> would <b>make</b> me an excellent <b>member</b> of the staff.</p>
<p style="text-align: center;"><b>Class 7: Research and academia</b></p> <p>Before <b>medical school</b> I spent <b>two years at national cancer institute</b>, working in the <b>lab</b> of doctor X, <b>designing</b> peptide <b>specific</b> antibodies to <b>cancer</b> related proteins, with the <b>potential application</b> of their <b>use</b> as early detection biomarkers or as <b>drug targets</b>. And in the <b>summer</b> of 2010, after my first <b>year</b> of <b>medical school</b>, I returned to <b>national cancer institute</b> to <b>investigate</b> the role of micro ribonucleic acids in the <b>response</b> to interferon treatment/ in hepatocellular carcinoma <b>under</b> doctor X.</p>	<p style="text-align: center;"><b>Class 7: Healthcare as public policy</b></p> <p>Based in a <b>local community center</b>, the <b>clinic</b> was <b>founded</b> by fellow <b>medical students</b> from X and staffed by undergraduate, graduate, and <b>medical students</b> throughout the city. In my role as <b>co chair</b> of the branch of the <b>charm city clinic</b> known as the <b>health resource center</b>, I helped to determine the most pressing <b>medical</b> needs and <b>healthcare access</b> difficulties <b>for</b> residents in <b>local</b> neighborhoods. I networked with <b>healthcare providers</b> and <b>clinics</b> to <b>volunteer</b> their <b>services</b> at the <b>clinic</b>. Further, I aided in establishing <b>health insurance</b> and <b>primary care</b> homes <b>for</b> clients through <b>local, state</b>, and federal programs.</p>

[Type text]

In **college**, I continued to explore within **clinical research** by working on **studies** in geriatric psychiatry and eventually **writing** an honors **thesis** in neuroendocrinology and women's health. As a medical student, I wanted to return to the **basic sciences** and spent the **summer** after my first **year** working on **novel** in-utero hematopoietic **stem cell** transplantation **techniques using** animal **models**. I also dabbled into the experimental **design** process by **writing** an informal **literature review** **identifying new cellular targets** that could improve engraftment rates of transplanted **cells**.

The **main focus** of my **thesis research**, however, **used** transgenic mice to generate a **model** of **cancer stem cell** initiated, highly metastatic squamous **cell** carcinoma. **Using this model I identified** a micro ribonucleic acid that **regulates cancer stem cells** and metastasis in squamous **cell** carcinoma. I have had the opportunity to present both my **thesis research** and the work on fanconi anemia **at a number of national** and international **meetings**. After completing my **PhD**, I have continued to remain involved in **clinical** and **translational research**.

Upon matriculating into the program, I grasped the opportunity to **pursue a PhD in immunology under** the **direction** of doctor X. I was uniquely challenged in my **thesis research** to create a **new model** of **human** neuronal maturation in the **laboratory using human** embryonic **stem cells**. The **lab** had no prior expertise in **this** field; however, I was **fortunate** to collaborate with doctor Y **at the university X** to create **this novel** system of exploring **human** neuronal innate immune system **function**.

During my **undergraduate years**, I worked in a microbiology **research lab** **studying** the lethal malignant brain **tumor** gene. Intrigued by the **practical applications** of **research**, I developed an **interest** in practicing medicine. In **medical school**, I further delved into my **fascination** for **research** and its **potential applications** by **studying** induced pluripotent **stem cells at medical school** and obesity induced hepatic inflammation **at X university**. As an artist learns **new techniques** to **enhance** artwork, I learned critical thinking skills,

I collaborated with professors in **Harvard's** department of **healthcare policy** to incorporate **student** written cases into the **health policy curriculum**. I also **worked** to expand the **group's national** network of **chapters** and to **organize** an **annual** conference, convening more than 100 **student leaders** from across the **country** to discuss the role of **health policy in medical student** and resident education. Fortuitously, my involvement in **improve healthcare** paved the way **for** an introduction to **Porter**, a **strategy** professor from **Harvard business school** who has studied the **healthcare delivery system** extensively.

Moreover, years of entrenched **behavior resisted** the assistance of **social workers** and of occupational therapists, and this was not limited to the **homeless**, but **included** many **population groups** for whom a life of learned **behavior** had irrevocably **impacted** on their **health**. I hope to **undertake** training in internal medicine and **primary care** to not only help individual patients, but to also better understand those **factors** that engender adverse **health outcomes**. Such training would allow me to be an advocate **for** patients and to contribute to the **creation** of **policy** that might **improve community health**.

With that in mind, I became **chair** of the X **California student chapter** of the **American** college of physicians and journeyed to Washington on three occasions to lobby congress and CMS on **issues** ranging from the patient **centered medical** home to **accountable** care **organizations**. I pursued a **master** of **business administration** and **worked as a summer** associate at X consulting LLP to redesign ambulatory **clinics** at a **leading** academic **center**. At X consulting, I standardized processes to reduce wait times, create open **access** scheduling, and **improve** care **coordination**.

In the following **summer**, I lived in **rural** southwestern Uganda **for 3** months where I conducted a **community** needs **assessment** in a region deeply **affected** by **HIV/ AIDS**. In an **effort** to mitigate the pernicious effects of the epidemic and potentiate the **local community's** response, **I co founded a non profit organization**. We responded to a request

[Type text]

determination, and devotion **while** working in the **research lab**.

from the **community** and **created** the first internet **center** in the district  
as a means to stimulate the **local economy**.

[Type text]

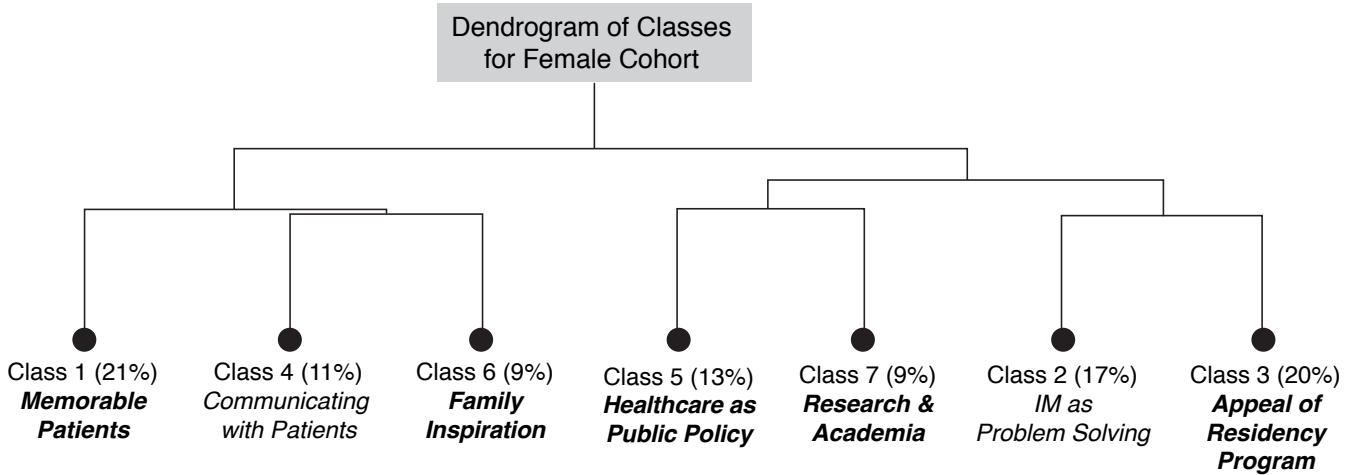
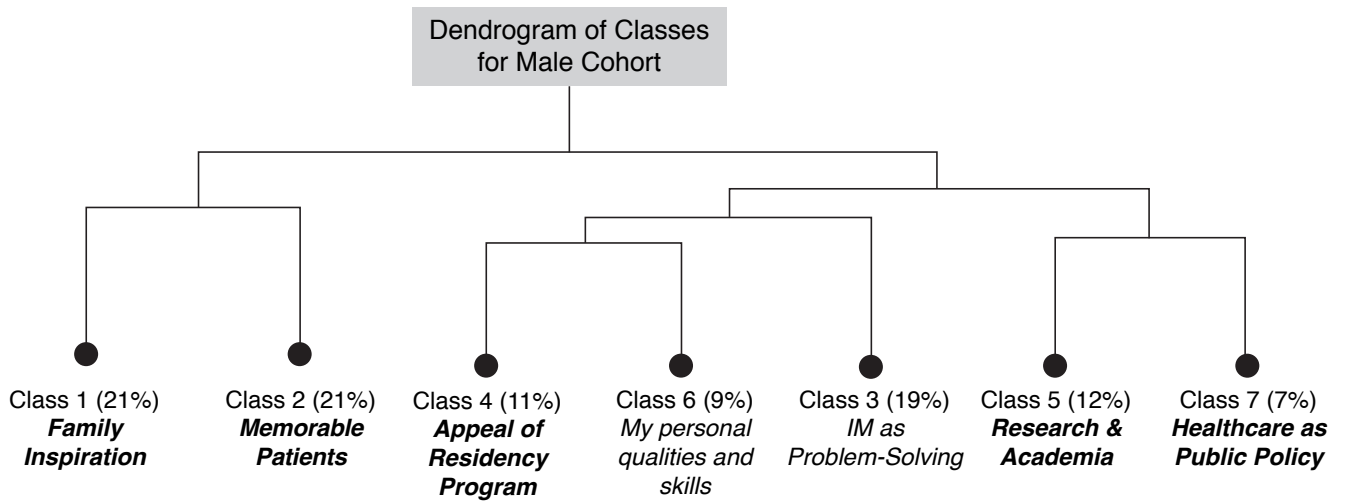


FIGURE 1: DENDROGRAMS OF THEMATIC CLASSES FOR EACH COHORT