Research Square

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Bridging Epistemic Gaps in Pathology Residency Applications: Three Years of Experience with a Novel Informational Webinar and Mentorship Program Initiative

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Abstract

Background

Access to pathology-specific residency application guidance varies across institutions and may be particularly limited for applicants without established specialty networks. MatchToPath.com developed a free virtual residency application webinar and individualized mentorship program to improve access to timely, specialty-specific guidance. This study evaluated the initiative's reach, acceptability, and perceived usefulness over three application cycles.

Methods

A virtual annual MatchToPath Residency Application "Bootcamp" webinar and associated mentorship program were assessed from 2023 through 2025. Webinar sessions addressed application timelines, curriculum vitae and personal statement preparation, program selection, letters of recommendation, interviews, and topics relevant to specific applicant groups. Participants could opt to receive individualized feedback on application materials or participate in a mock interview with a volunteer pathology mentor. Registration, attendance, engagement, and mentor–mentee pairing data were summarized. Voluntary post-webinar surveys were administered in 2024 and 2025, and a post-mentorship survey was administered in 2025.

Results

The webinars attracted 250, 230, and 203 registrants in 2023–2025, with mean session attendance of 85, 86, and 83, respectively. The mentorship program formed 101, 42, and 73 mentor–mentee pairs. Post-webinar surveys received 40 and 37 responses in 2024 and 2025, respectively; 80% and 73% rated the webinar as significantly helpful, and 63% and 73% strongly agreed that participation increased their confidence in applying to residency.

Conclusions

A free virtual webinar paired with individualized mentorship achieved sustained participation and was perceived favorably by survey respondents across three application cycles. The findings support the feasibility and acceptability of this model for expanding access to specialty-specific residency application guidance.

Background

The United States pathology residency application process has become increasingly complex and dynamic over the past decade. The COVID-19 pandemic accelerated changes in interviews and

recruitment events, with many programs adopting virtual open houses and interviews, limiting in-person interactions.[1–11] Concurrently, the Electronic Residency Application Service (ERAS) has evolved, with recent changes incorporating program signaling, geographic preferences, and greater emphasis on holistic application review in light of board scores converting to pass-fail system.[12–14] Applicants now navigate changing procedures while acquiring specialty-specific knowledge that may not be uniformly available through their medical schools or professional networks creating an epistemic gap in access to application guidance and increasing reliance on internet-based research and social media for information.[15–27]

In response to these challenges, MatchToPath.com (MTP) was established in November 2021 as a free, centralized, and regularly updated resource for applicants pursuing pathology residency training in the US.[28] The platform provides educational content through webinars, blog posts, podcasts, and social media, curated by pathology faculty members, fellows, and residents. Since its inception, Matchtopath.com has accrued approximately 100,000 annual visits to the website, 3,270 followers on Instagram and nearly 2,200 followers on Twitter/X.[29–30] In July 2023, MTP expanded these efforts by introducing the Residency Application “Bootcamp” Webinar (BW), a live, pathology-specific program designed to provide comprehensive application guidance. The BW was paired with a Mentorship Program (MP) that connected participating applicants with pathology faculty members and trainees for individualized guidance. This program was implemented 2023–2025 during peak residency application season, within 1–2 months of the ERAS deadline.

Virtual residency application webinars and online resources have been implemented. [31–36] However, to our knowledge, no published multiyear evaluation has examined a pathology-specific residency application webinar paired with individualized mentorship. We therefore evaluated the reach, acceptability, perceived usefulness, and implementation challenges of a combined virtual webinar and mentorship program for pathology residency applicants across three annual application cycles.

Methods

Program development and webinar design

Planning for the inaugural MatchToPath (MTP) Residency Application “Bootcamp” Webinar (BW) and Mentorship Program (MP) began approximately six months before launch in July 2023. Developed by MTP founders and contributors, the programs aimed to (1) provide practical guidance on the pathology residency application process, (2) address commonly challenging application components, (3) provide free, accessible virtual education, and (4) incorporate participant feedback to guide program improvement. All webinars were delivered via Zoom; a program timeline is shown in Fig. 1.

Registrants could submit questions before the webinar, and attendees could submit questions via Zoom chat. Questions were documented for descriptive analysis. Recordings and transcripts were posted on the MTP website and YouTube channel. Registration, attendance, question submission, mentor–mentee

pairing, and survey data were summarized using descriptive statistics. Categorical variables are reported as frequencies and percentages, and attendance as means and ranges. Percentages were calculated using the number of respondents for each item as the denominator. No inferential comparisons were performed because the evaluation was descriptive and program components and survey instruments varied by year. Free-text responses were reviewed for illustrative comments on program strengths and areas for improvement; formal qualitative analysis was not performed.

The inaugural BW was held July 23, 2023, followed by an August 26, 2024 session. Based on feedback regarding event length, the 2025 BW was converted to a multiday series held August 25–29, with 2–4 hours of programming daily. Sessions addressed key Electronic Residency Application Service (ERAS) components, including application timelines, curriculum vitae (CV), personal statements (PS), program selection, and letters of recommendation. Six faculty and trainee speakers participated in 2023; core content was updated for subsequent application cycles. Interview preparation was added in 2024, and 2025 programming expanded to include application etiquette and professionalism and work-visa considerations for international medical graduates (IMGs), the latter led by an immigration attorney. Eleven speakers participated in 2024 and nine in 2025, including program directors, academic pathologists, and residents.

Question-and-answer breakout sessions were introduced in 2024 for US allopathic medical students and graduates, osteopathic medical students and graduates, and IMGs. In 2025, additional groups addressed the couples match, IMGs with prior pathology training, and IMGs without prior pathology training. Sessions were facilitated by pathology faculty or trainees.

Webinar evaluation

The MTP team developed and reviewed a voluntary post-event survey administered through Qualtrics immediately after the 2024 and 2025 webinars. The survey remained open for two weeks, and completion indicated informed consent to participate. Available responses were analyzed for each item, with item-level denominators reported. The survey assessed respondents' educational status, geographic location, and prior pathology residency application experience. Educational categories included US citizens attending US MD- or DO-granting medical schools, US citizens attending international medical schools, non-US citizens attending international medical schools, and medical school graduates. Respondents rated session usefulness on a five-point scale ranging from extremely useful to not useful.

Mentorship program design

The MP followed the BW and provided individualized guidance through a mock interview, personal statement (PS) review, or Electronic Residency Application Service (ERAS) curriculum vitae (CV) review. Volunteer pathology faculty and trainees were recruited through open calls on social media, including X,

Instagram, and LinkedIn. Eligible mentors agreed to meet virtually with at least one mentee and provided contact information and mentorship capacity. Previous mentors were invited to participate in subsequent cycles.

Applicants registered through an online form specifying their educational status and preferred mentorship activity. Eligible applicants included fourth-year US allopathic or osteopathic medical students, final-year Bachelor of Medicine, Bachelor of Surgery students, and medical school graduates. In 2023, webinar attendance was not required, and mentorship requests were accepted during the live webinar. Beginning in 2024, applicants were required to attend most live BW sessions, with attendance tracked. Applicants were matched according to preferred activity, mentor availability, and stated capacity. All eligible applicants during the study period were successfully matched.

Mentors received activity-specific instructions and supplemental MTP resources. MTP introduced mentor–mentee pairs by email and encouraged completion of the selected activity before residency interviews. Beginning in 2024, matches were completed within one week of the BW, followed by a one-month progress check. Mentors and mentees selected their preferred communication method, including videoconferencing, email, telephone, or text messaging.

Mentorship program evaluation

Beginning in 2025, mentees received a voluntary post-program Qualtrics survey assessing the mentorship activity completed, communication methods, perceived communication effectiveness, and overall satisfaction. Completion indicated informed consent to participate. Formal survey responses and informal participant feedback informed program modifications, including requiring BW attendance for mentorship eligibility, tracking attendance, and implementing one-month mentor–mentee follow-up.

Results

Bootcamp Webinar

The 2023–2025 BWs had 250, 230, and 203 registrants, with mean session attendance of 85 (range, 66–100), 86 (80–92), and 83 (47–95), respectively. Registrants and attendees submitted 69 unique questions in 2023 and 103 in 2024. Event metrics are summarized in Table 1.

Table 1
Event metrics for Match To Path Pathology Residency Application Bootcamp Webinars by year

Year	No. registrants	Mean attendees/session	Total runtime of webinar (min)[a]	Mean runtime /session (min)	No. unique questions asked by registrants/attendees[b]
2023	250	85	369	73.8	69
2024	230	86	362	72.4	103
2025	203	83	481	53.4	Not available

a. The 2023 and 2024 webinars aired live during a single day. The 2025 webinar was spread across 5 days.

b. Includes number of questions submitted prior to webinar, as well as questions submitted in live chat during webinar

The 2024 and 2025 post-webinar surveys had response rates of 47% (n = 40) and 44% (n = 37), respectively (Table 2). Most respondents were medical school graduates (55% and 35%) or non-US citizens attending international medical schools (30% and 32%). Respondents primarily resided in North America (53% and 48%) or Asia (29% and 20%), with additional representation from Central/South America and the Caribbean and Africa. Most respondents were applying to pathology residency for the first time (70% in 2024; 84% in 2025).

Table 2
Match To Path Pathology Residency Application Bootcamp Webinar attendee demographics from post-event surveys in 2024 and 2025

Year (No. respondents)	Current educational scenario (% respondents)		Geographic region of residence (% respondents)		Initial application to pathology residency (% respondents)	
2024 (N = 40)	US citizen attending US MD med school	N/A	North America	20/38 (53%)	Yes	28/40 (70%)
	US citizen attending US DO med school	N/A	Central and South America, Caribbean	5/38 (13%)		
	US citizen attending international med school	6/40 (15%)	Africa	2/38 (5%)		
	Non-US citizen attending international med school	12/40 (30%)	Asia	11/38 (29%)	No	12/40 (30%)
	Med school graduate	22/40 (55%)	Europe	N/A		
2025 (N = 37)	US citizen attending US MD med school	5/31 (16%)	North America	15/31 (48%)	Yes	26/31 (84%)
	US citizen attending US DO med school	4/31 (13%)	Central and South America, Caribbean	4/31 (13%)		
	US citizen attending international med school	1/31 (3%)	Africa	4/31 (13%)		
	Non-US citizen attending international med school	10/31 (32%)	Asia	6/31 (20%)	No	5/31 (16%)
	Med school graduate	11/31 (35%)	Europe	2/31 (6%)		

Questions submitted before and during the webinars are categorized in Table 3. Across both years, “extremely useful” was the most frequent rating for every session (Table 4); no session received a rating below “very useful.” Overall, 80% and 73% of respondents in 2024 and 2025, respectively, rated the BW as

significantly helpful, while 63% and 73% strongly agreed that participation increased their confidence in applying to residency.

Table 3
Registrant/attendee question categories and example questions from Match To Path Pathology Residency Application Bootcamp 2024 Webinar

Question category	Question subcategory	Example questions from registrants/attendees
Interview process	Preparation and feel	"What are some telltale signs that your interview is going well?"
	Content and interaction	"Should you avoid mentioning mental health issues as reasons for gaps/failures?"
	Hobbies and personal interests	"How can you present hobbies that may not be 'interesting' to interviewers?"
	Interview scheduling	"Are programs planning to release interview invitations on Oct 18th or throughout the season?"
Application component specifics	Signaling and geographic preferences	"Should 'no geographic preference' be explained?"
	Letters of Recommendation (LOR)	"Quality and variety of LORs, what combination is better?"
	Personal Statements (PS)	"How do you balance formality and express excitement in your PS?"
	Medical Student Performance Evaluation (MSPE)	"What is the impact of a non-highly ranked MSPE on the application?"
	Educational Commission for Foreign Medical Graduates (ECFMG) Certification	"Is my application considered incomplete if my ECFMG certification is delayed?
Programs and applicant matching	Geographic preference	"What is the importance of geographic ties beyond family reasons?"
	Program signals	"What is the influence of signals on interview chances?"
	Visas	"What are the qualification criteria for H1B visas?"
	Program diversity and selection	"Do programs use different criteria to evaluate US medical graduates versus IMGs?"

Table 4
Match To Path Pathology Residency Application Bootcamp Webinar attendance per session and session feedback from post-event survey, 2024 and 2025

Year (No. respondents)	Overall helpfulness of webinar[a]		Session Topic	Mean attendees/ session	Most common session rating[b]	No. respondents with this rating (%)
2024 (N = 42)	Strongly agree	28/35 (80%)	ERAS Timeline	80	Extremely useful	20/29 (69%)
			Interview Tips	92	Extremely useful	25/34 (74%)
			LOR	90	Extremely useful	19/35 (54%)
	Somewhat agree	7/35 (20%)	PS	89	Extremely useful	19/34 (56%)
	Neither agree nor disagree	N/A	CV	80	Very useful	20/34 (59%)
			Breakout sessions	80	Extremely useful	17/33 (52%)
2025 (N = 37)	Strongly agree	19/26 (73%)	ERAS Timeline	84	Extremely useful	18/28 (64%)
			Signaling and Geographic Preferences	95	Extremely useful	16/27 (59%)
			Interview Tips	94	Extremely useful	17/28 (61%)
			LOR	90	Very useful	12/24 (50%)
	Somewhat agree	5/26 (19%)	PS	88	Extremely useful	19/28 (68%)
	Neither agree nor disagree	2/26 (8%)	CV	84	Extremely useful	14/28 (50%)
			Etiquette and Professionalism	91	Extremely useful	14/28 (50%)
			IMG Visa Strategies	47	Extremely useful	7/15 (47%)

a. Assessed by response to the statement: “The bootcamp gave me significantly more insights into how to be a strong applicant for residency.” Rating options were: strongly agree, somewhat agree, neither agree nor disagree

b. Session rating options: extremely useful, very useful, moderately useful, slightly useful, not useful

Year (No. respondents)	Overall helpfulness of webinar[a]	Session Topic	Mean attendees/ session	Most common session rating[b]	No. respondents with this rating (%)
		Breakout sessions	Not available	Extremely useful	11/22 (50%)

a. Assessed by response to the statement: “The bootcamp gave me significantly more insights into how to be a strong applicant for residency.” Rating options were: strongly agree, somewhat agree, neither agree nor disagree

b. Session rating options: extremely useful, very useful, moderately useful, slightly useful, not useful

Free-text responses highlighted the comprehensiveness and accessibility of the program, opportunities to hear perspectives from pathologists at different career stages, and increased confidence in the application process. Suggested improvements included shorter or distributed sessions, additional IMG-focused content, and scheduling accommodations for applicants on clinical rotations.

Mentorship Program

The MP formed 101, 42, and 73 mentor–mentee pairs in 2023, 2024, and 2025, respectively. The 2025 post-mentorship survey had a 29% response rate (n = 19; Table 5). Most respondents selected CV/PS review (58%), while 42% selected mock interviews. Most reported effective communication with their mentor (89%) and a positive overall mentorship experience (89%). Communication occurred primarily through virtual meetings (63%) or email (26%). Two respondents (11%) reported negative mentorship experiences related to unsuccessful mentor communication; both described difficulty establishing contact despite follow-up attempts. Free-text responses otherwise emphasized mentors’ helpfulness, reassurance, application guidance, and mock interview preparation.

Table 5
Match To Path Pathology Residency Application 2025 Mentorship Program Survey Metrics

No. respondents	Mentorship option chosen (% respondents)		Effective mentor communication (% respondents)		Modes of communication with mentor (% respondents)		Overall mentorship experience (% respondents)	
N = 19	CV/PS review	11/19 (58%)	Yes	17/19 (89%)	Virtual meeting only	12/19 (63%)	Positive	17/19 (89%)
	Mock interview	8/19 (42%)	No	2/19 (11%)	Email exchange only	5/19 (26%)		
					Both	1/19 (5%)	Negative	2/19 (11%)
					Other*	1/19 (5%)		

*Other modes of communication listed as WhatsApp.

Discussion

To our knowledge, this is the first multiyear evaluation of a pathology-specific residency application webinar paired with individualized mentorship. Although webinars have supported residency applicants in pediatrics, dermatology, vascular surgery, and surgery,[31–34] the sustained participation, broad geographic and educational representation, and diversity of submitted questions in our program suggest an ongoing need for accessible, specialty-specific guidance. Virtual delivery and the posting of recordings and transcripts extended access beyond live sessions, particularly for applicants outside the United States or with limited access to pathology-specific advising. This model may help supplement institution-based resources amid documented variability in pathology exposure and mentorship across medical schools.[37–42]

Most respondents rated the BW favorably and reported increased confidence in navigating the application process. Participants valued its practical content, accessibility, community building, and perspectives from pathologists at different career stages, consistent with findings from other applicant-focused webinar initiatives.[31–34] Feedback directly informed program development: requests for IMG-focused guidance led to a visa session, and concerns about event length prompted conversion to a multiday format. The MP complemented this standardized instruction through CV and personal-statement review and mock interviews. Although most respondents reported positive experiences, unresponsive mentors and mentees illustrated the challenges of volunteer-based mentorship. Requiring BW attendance before mentorship participation was intended to improve engagement and was followed by fewer re-pairing requests, although causality cannot be established.

The need for such guidance likely reflects the growing complexity of residency applications. Pass/fail licensing examinations, program signaling, geographic preferences, and evolving recruitment practices have introduced new strategic considerations, while applicants continue to manage financial, logistical, and emotional burdens.[12–24] IMGs may face additional certification and visa requirements,[25–27] and osteopathic and allopathic students may have variable exposure to pathology-specific education and mentors.[37–42] Virtual programs combining standardized education with individualized mentorship may therefore reduce informational barriers and complement, rather than replace, institution-based advising.

This study is limited by voluntary survey participation, possible response and self-selection bias, and a 29% mentorship-survey response rate. Applicants unfamiliar with MatchToPath.com were not captured, and evolving program components and survey instruments limited comparisons across years. Moreover, the study assessed perceptions rather than objective outcomes such as knowledge, interview offers, or Match success. Nevertheless, sustained participation and favorable feedback support the feasibility and acceptability of this model. Future evaluations should use standardized instruments and examine longitudinal engagement, mentor experiences, application outcomes, and the model's adaptability to other specialties.

Conclusions

Sustained participation, broad geographic and educational representation, and favorable participant feedback suggest continued demand for accessible, specialty-specific application guidance. The model may help address gaps in access to contextualized application knowledge by pairing standardized information with individualized perspectives that allow applicants to interpret and apply guidance to their own circumstances. This approach is consistent with broader literature demonstrating persistent challenges in residency advising and the value of specialty-specific mentorship.

Future iterations could expand asynchronous resources and develop targeted modules for applicant groups with distinct needs, including reapplicants, international medical graduates, osteopathic applicants, and those navigating changes in the residency application process. Broader implementation could involve collaboration with specialty organizations, residency programs, faculty advisors, and medical student organizations to improve dissemination, strengthen mentor recruitment, and complement existing institutional advising rather than replace it.

Longitudinal evaluation should assess whether participation is associated with changes in applicant knowledge, confidence, engagement, interview opportunities, and Match outcomes. Such evaluation would help determine whether virtual application education and individualized mentorship can move beyond improving perceived preparedness to producing measurable improvements in access and residency application outcomes.

Abbreviations

BW
Bootcamp Webinar
COMLEX
USA—Comprehensive Osteopathic Medical Licensing Examination of the United States
CV
Curriculum Vitae
IMG
International Medical Graduate
MP
Mentorship Program
MTP
MatchToPath
US
United States
USMLE
United States Medical Licensing Examination
ERAS
Electronic Residency Application Service
PS
Personal Statement
US DO
United States Doctor of Osteopathic Medicine
US MD
United States Doctor of Medicine

Declarations

Author Information

All authors contributed to curating the MatchToPath website, managing its social media platforms, planning educational content, and developing and implementing the Bootcamp Webinar. MH coordinated and implemented the Mentorship Program. SB, TJ, and MH developed and administered the surveys. TJ contributed to the initial manuscript draft and data analysis. All authors critically reviewed, edited, and approved the final manuscript.

Ethics approval and consent to participate

This cross-sectional study involved an anonymous survey administered in conjunction with a virtual educational series. The study was determined to be exempt from Institutional Review Board (IRB) review

under the exemption criteria outlined in 45 CFR 46.104. The study was conducted in accordance with applicable institutional and ethical standards and the principles of the Declaration of Helsinki. Informed consent to participate was obtained from all participants.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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Author Contribution

All authors contributed to curating the MatchToPath website, managing its social media platforms, planning educational content, and developing and implementing the Bootcamp Webinar. MH coordinated and implemented the Mentorship Program. SB, TJ, and MH developed and administered the surveys. TJ contributed to the initial manuscript draft and data analysis. All authors critically reviewed, edited, and approved the final manuscript.

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Data Availability

The data generated and analyzed during this study are not publicly available but are available from the authors upon reasonable request.

References

1. Hammoud MM, Standiford T, Carmody JB. Potential implications of COVID-19 for the 2020–2021 residency application cycle. JAMA. 2020;324(1):29–30. 10.1001/jama.2020.8911.

2. Gabrielson AT, Kohn JR, Sparks HT, Clifton MM, Kohn TP. Proposed changes to the 2021 residency application process in the wake of COVID-19. Acad Med. 2020;95(9):1346–9. 10.1097/ACM.0000000000003520.
3. Lee E, Terhaar S, Shakhtour L, et al. Virtual residency interviews during the COVID-19 pandemic: the applicant's perspective. South Med J. 2022;115(9):698–706. 10.14423/SMJ.0000000000001442.
4. Aiyer AA, Granger CJ, McCormick KL, et al. The impact of COVID-19 on the orthopaedic surgery residency application process. J Am Acad Orthop Surg. 2020;28(15):e633–41. 10.5435/JAAOS-D-20-00557.
5. Batchelder E, Jolly TS, Jain A, Hameed A. Psychiatry residency application in the COVID-19 era: a medical student conundrum. Prim Care Companion CNS Disord. 2020;22(6):20com02831. 10.4088/PCC.20com02831. Published December 17, 2020.
6. Iwai Y, Lenze NR, Mihalic AP, Becnel CM, Stitzenberg KB. Effect of the COVID-19 pandemic on the residency match among surgical specialties. Surgery. 2022;171(6):1512–8. 10.1016/j.surg.2021.11.013.
7. Kenigsberg AP, Khouri RK Jr, Kuprasertkul A, Wong D, Ganesan V, Lemack GE. Urology residency applications in the COVID-19 era. Urology. 2020;143:55–61. 10.1016/j.urology.2020.05.072.
8. Venincasa MJ, Steren B, Young BK, et al. Ophthalmology residency match in the COVID-19 era: applicant and program director perceptions of the 2020–2021 application cycle. Semin Ophthalmol. 2022;37(1):36–41. 10.1080/08820538.2021.1906917.
9. Pelletier-Bui A, Franzen D, Smith L, et al. COVID-19: a driver for disruptive innovation of the emergency medicine residency application process. West J Emerg Med. 2020;21(5):1105–13. 10.5811/westjem.2020.8.48234. Published August 19, 2020.
10. Pasala MS, Anabtawi NM, Farris RL, et al. Family medicine residency virtual adaptations for applicants during COVID-19. Fam Med. 2021;53(8):684–8. 10.22454/FamMed.2021.735717.
11. Salah HT, Mirza KM. Pathology residency open-house events: a novel marketing paradigm. Am J Clin Pathol. 2021;156(6):950–3. 10.1093/ajcp/aqab065.
12. Murphy B. How the switch to pass-fail scoring for USMLE Step 1 is going. American Medical Association. Accessed [insert access date]. https://www.ama-assn.org/medical-students/succeed-medical-school/how-switch-pass-fail-scoring-usmle-step-1-going
13. Understanding COMLEX-USA Level 1 as a pass-fail examination: impact and opportunities. Journal of Osteopathic Medicine. Accessed [insert access date]., Author. publication date, volume, issue, pages/article number, and DOI should be added from the article record.
14. Association of American Medical Colleges. ERAS season updates. In: 2027 MyERAS Applicant User Guide. Accessed June 28. 2026. https://students-residents.aamc.org/applying-residencies-eras/publication-chapters/eras-season-updates
15. Spatz C, Olaf M, Ellison H. Practical tips for undergraduate medical education advisors in residency application signaling. J Med Educ Curric Dev. 2024;11:23821205241253230. Published May 7, 2024. 10.1177/23821205241253230

16. Lakhani DA, Murugesan A, Patel S, et al. Supplemental ERAS application for radiology residency match: a primer. Curr Probl Diagn Radiol. 2024;53(1):34–9. 10.1067/j.cpradiol.2023.10.015.
17. Chagarlamudi K, Faraji N, Higinbotham A, et al. Decoding program signals: a radiology residency program's experience with the ERAS supplemental application. Curr Probl Diagn Radiol. 2023;52(5):383–6. 10.1067/j.cpradiol.2023.04.004.
18. Rodriguez AL, Aldana S, Llado A, Williams L, Toonkel RL, Stumbar S. A framework for residency application support: the impact of a mandatory career advising and professional development course. South Med J. 2025;118(9):628–33. 10.14423/SMJ.0000000000001877.
19. Bardhi R, Musa A, Daveluy S, Potts G. Sophomore signaling: the second year of the ERAS supplemental application for dermatology residency. J Clin Aesthet Dermatol. 2023;16(4):26–7.
20. Ching K, Rozanitis K, Katabathina V. Strategic application in the era of ERAS signals: optimizing interview opportunities in radiology residency programs. Acad Radiol. 2025;32(7):4324–31. 10.1016/j.acra.2025.03.051.
21. Russel SM, Geraghty JR, Renaldy H, Thompson TM, Hirshfield LE. Training for professional uncertainty: socialization of medical students through the residency application process. Acad Med. 2021;96(11S):S144–50. 10.1097/ACM.0000000000004303.
22. Farah G, Gonzalez MH, Choubey AS, et al. Be a lighthouse for your medical students: how to help them navigate during changing times to a successful match. Instr Course Lect. 2024;73:87–95.
23. Carmody JB, Rosman IS, Carlson JC. Application fever: reviewing the causes, costs, and cures for residency application inflation. Cureus. 2021;13(3):e13804. Published March 10, 2021. 10.7759/cureus.13804
24. Singh NP, Boyd CJ. Rapidly increasing number and cost of residency applications in surgery. Am Surg. 2023;89(12):5729–36. 10.1177/00031348231173947.
25. Azemi A, Parra-Herran C. International medical graduates representation in pathology academic workforce, departmental leadership, and society leadership. Acad Pathol. 2025;12(1):100158. 10.1016/j.acpath.2024.100158. Published January 13, 2025.
26. Upadhyay P, Jones TE, Mirza KM, et al. Pathology observerships and externships for international medical graduates: insights from a MatchToPath.com survey. Acad Pathol. 2025;12(2):100178. 10.1016/j.acpath.2025.100178. Published May 19, 2025.
27. Ramos J, Aung PP. International medical graduates and the shortage of US pathologists: challenges and opportunities. Arch Pathol Lab Med. 2024;148(6):735–8. 10.5858/arpa.2023-0290-EP.
28. Baskota SU, Jones TE. Welcome to Match to Path. Match To Path. Published November 10, 2024. Accessed June 28, 2026. https://www.matchtopath.com/
29. Match To Path [@matchtopath], Instagram. Accessed August 30, 2026. https://www.instagram.com/matchtopath/
30. Match To Path [@matchtopath]. X. Accessed August 30. 2026. https://x.com/MatchToPath

31. Neelakantan M, Heitkamp NM, Blankenburg R, Frohna JG. The #PedsMatch21 webinar series: coordinated specialty-level communication during the virtual residency application cycle. Acad Med. 2022;97(7):1012–6. 10.1097/ACM.0000000000004623.
32. Brumfiel CM, Jefferson IS, Wu AG, et al. A national webinar for dermatology applicants during the COVID-19 pandemic. J Am Acad Dermatol. 2021;84(2):574–6. 10.1016/j.jaad.2020.09.043.
33. Fereydooni A, Ramirez JL, Dossabhoy SS, Brahmandam A, Dardik A, Ochoa Chaar CI. A national post-Match webinar panel improves knowledge and preparedness of medical students interested in vascular surgery training. J Vasc Surg. 2020;71(5):1733–e17405. 10.1016/j.jvs.2019.08.282.
34. Jayaram A, Nunez KC, Flores M, et al. Development of an open-access webinar series on pathways for global surgery engagement for applicants to US residency programs. J Surg Res. 2022;272:17–25. 10.1016/j.jss.2021.10.012.
35. Association of American Medical Colleges. Recorded webinars. Accessed August 30. 2026. https://aamc.elevate.commpartners.com/recorded-webinars
36. Inside the Match. Podcast episodes. Accessed August 30. 2026. https://www.insidethematch.com/podcast-episodes
37. Preston P, Herman M, Berry A, Robinson M, Schukow CP, Kowalski P. A cross-sectional analysis of pathology exposure across COCA-accredited osteopathic medical schools: gaps and opportunities in pathology undergraduate medical education. Acad Pathol. 2025;12(3):100186. Published June 6, 2025. 10.1016/j.acpath.2025.100186
38. Schukow CP, Herman M, Mirza K. Osteopathic physician trainees and pathways to pathology. Acad Pathol. 2023;10(2):100071. Published March 31, 2023. 10.1016/j.acpath.2023.100071
39. George MR, Timmons CF, Johnson K et al. Leadership perspectives on osteopathic medical school applicants to pathology residency training. Acad Pathol. 2024;11(1):100107. Published February 26, 2024. 10.1016/j.acpath.2024.100107
40. Herman MK, Menon A, Larson L, et al. Pathology education in LCME-accredited allopathic medical schools: challenges, gaps, emerging opportunities, and a practical toolkit. BMC Med Educ. 2026. 10.1186/s12909-026-10207-9.
41. Jajosky RP, Coulson HC, Rosengrant AJ, Jajosky AN, Jajosky PG. Osteopathic students and graduates matching into pathology residency, 2011–2020. J Osteopath Med. 2021;121(2):149–56. 10.1515/jom-2020-0134.
42. Ly E, Ware E, Garcia E et al. Improving medical student engagement in pathology through early exposure, digital tools, and mentorship. scov Educ (2026). https://doi.org/10.1007/s44217-026-01961-5

Figures

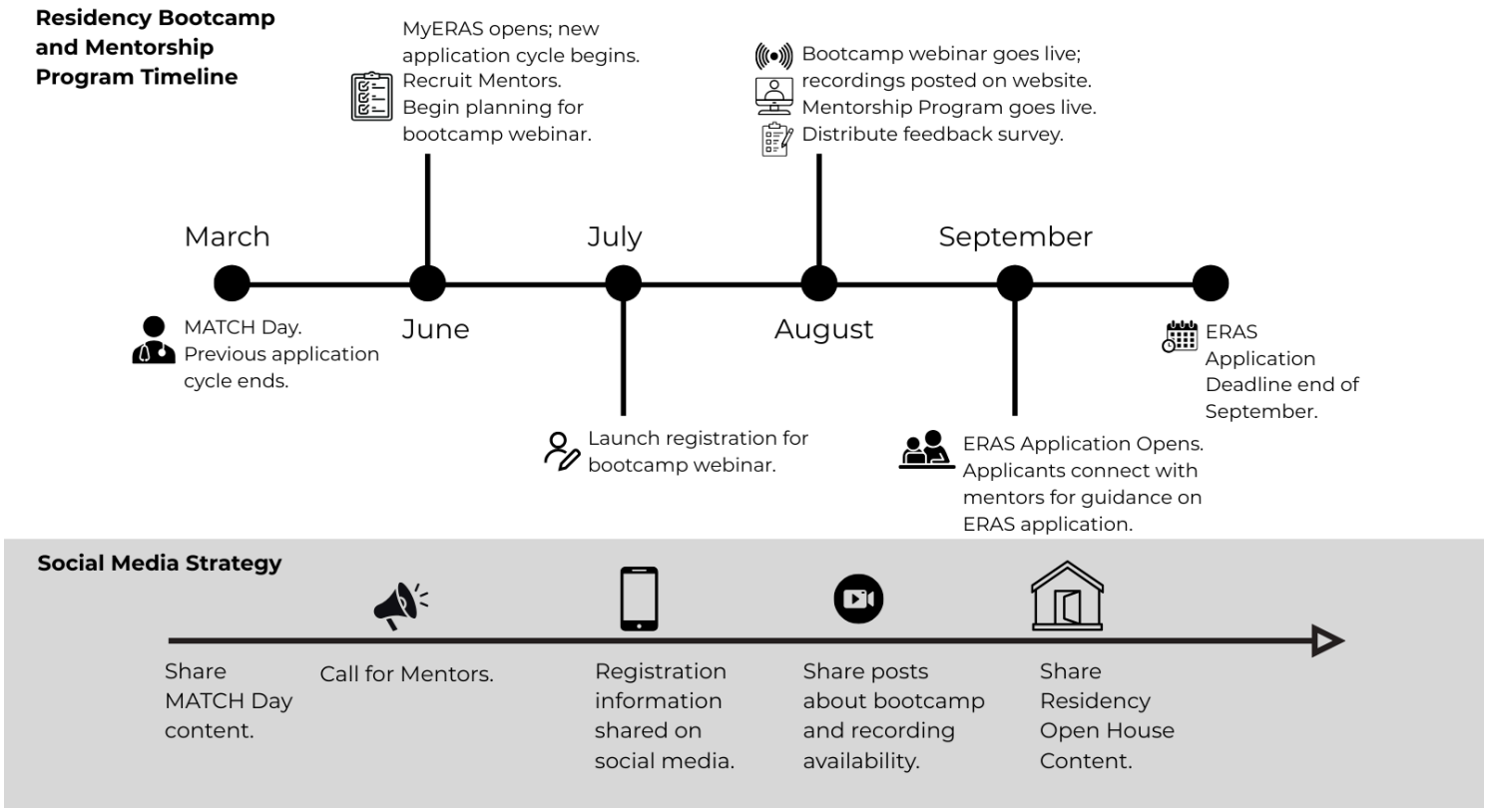


Figure 1

Timeline of the Matchtopath.com bootcamp webinar rollout in relation to the ERAS application cycle.