



# DermWorld

## directions in residency

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## The road beyond residency: What I wish I'd known

By Dean Monti, MFA, managing editor, *DermWorld Directions in Residency*

*As a resident, you've spent a lot of time anticipating a future in dermatology. Is there anything you may have forgotten? Probably. Once you've completed residency and pass the boards you will be prepared to begin practice, but young physicians invariably tell the AAD that there are things they wish they had been taught, told, or knew more about during their residency. Not all of them are "academic." Directions spoke to young physicians and posed the question: 'What do you wish you'd been told in residency?' Here are five things they shared.*

### 1) Nothing is permanent, and sometimes that's good.

Change is inevitable. Sometimes it can lead to distressing situations, but in many instances, it can be seen as an opportunity to refine your goals in life.

"When I was a resident, I wish that I had gained more insight into what would bring me job satisfaction over the long haul," said Allison Arthur, MD, FAAD, who co-led a session at the 2022 AAD Annual Meeting in Boston about transitioning from resident to young physician.

"In the Young Physician Pearls and Pitfalls session, we discussed how, for most physicians, the first job out of residency is temporary and not a position they'll stay in long term," she said.

Dr. Arthur found this to be true in her own career journey — and part of her process included

discovering what best suited her personality, preferences, and needs.

"I did a dermatopathology fellowship because I found it academically interesting and challenging, but once I was out in practice, I learned that I was more fulfilled seeing patients, so I shifted my practice away from dermatopathology," she said. "Conversely, some dermatologists may realize that they don't like seeing patients and will seek other jobs in consulting or research."

Young dermatologists often suggest that you talk to those who are in the field or specialty they are pursuing and weigh the pros and cons of that practice environment.

"It's always okay to change, but it's also good not to spend too long in something that's not fulfilling," Dr. Arthur added.

### 2) Whenever possible, prepare for the unexpected.

As you would if you were anticipating a job in any other profession, you must consider all the practical considerations. One of these is insurance.

"Purchase disability insurance as soon as possible, ideally in residency," Dr. Arthur said. "Secure a good policy and rates prior to any unexpected medical diagnoses or injuries."



**Allison Arthur, MD, FAAD**, is owner of Sand Lake Dermatology Center in Orlando, Florida, and a member of the AAD Young Physician's Committee.



**Alexandra Zeitany, MD, FAAD**, is in practice at Davie Dermatology in Bermuda Run, North Carolina.



**Ata Moshiri, MD, MPH, FAAD**, is assistant professor in the division of dermatology as well as the department of laboratory medicine and pathology at the University of Washington.

see **RESIDENCY** on p. 3



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## RESIDENCY from p. 1

Find an insurance/financial advisor you trust and put these things in order early on in your residency.

### 3) Your education doesn't stop after residency.

After Alex Zeitany, MD, FAAD, completed her residency and was a year into practice, she had a light-bulb moment when she realized she was meant to be a lifelong learner.

"As a resident, I felt so much pressure to learn everything before I graduated because I had this misguided perception that attendings always had the answers," Dr. Zeitany said. "But in reality, you learn as much (if not more) your first few years out of training than you do your entire residency! Once you have true continuity with your patients, you really start developing your own sense of what treatments work well for which patients and you begin to craft the 'art' of your practice."

Dr. Zeitany also realized that education, patients, and treatments would never be a static entity. "Medicine is constantly changing, especially the realm of therapeutics, so I am always reading and learning, even as an attending," she said. "That is part of what makes our careers so interesting!"

"Remove that pressure to become a walking version of Bolognia as a resident!" she added. "Trust that you will find solutions to your patients' problems, and it's okay to tell a patient, 'I'm not sure what's going on here yet.' I have found patients appreciate not only your candor, but the time, attention, and thought you're giving to their individual case."

Dr. Zeitany suggests you view your resident training as an opportunity to build a strong foundation of knowledge. "Plus, you will acquire mentors you can use to help answer those challenging cases later in your career," she said.

### 4) If you have an interest in fellowship training, start planning early.

Ata Moshiri, MD, MPH, FAAD, who pursued a career in academia, said that dermatology fellowship spots — like residency positions — are highly selective, and "the pool of applicants hasn't gotten any weaker!"

"It's never too late to embark on subspecialty training in dermatology, but if you have an interest in a particular field, it's worthwhile to start finding mentors, getting involved in academic projects, presenting at subspecialty meetings, and researching programs as early as you can, in order to make your application as competitive as possible." Dr. Moshiri said this is especially true for procedural dermatology (Mohs), which he said is highly competitive, and for dermatopathology, which is similarly competitive and requires application in the fall of your second year of dermatology in order to be "on cycle."

"If you are worried about wasted effort in the event you change your mind, just as with medical school, placing a competitive subspecialty as a placeholder will never lead you astray," Dr. Moshiri said. "Enthusiasm and jumping through the necessary hoops for one subspecialty will come across broadly, even if you don't end up pursuing it, and at minimum, you will develop a network of colleagues and mentors you can draw on for the rest of your career."

### 5) Publish, publish, publish!

Many trainees stop research or other academic work once they get into dermatology residency, but this may be a mistake, according to Dr. Moshiri.

"Developing an area of interest or expertise while in training can be enormously helpful, irrespective of what kind of practice environment you end up in after residency. Whether you're a solo practitioner, part of a larger group practice, or an academician, having put in meaningful work toward research and publications will help you develop a niche and a professional reputation."

He added that publications are particularly important if you are interested in an academic career, and at most institutions, promotion committees will consider your total body of work — even the case reports you published as a medical student. "It's a no-brainer," Dr. Moshiri said. "If you put significant effort into developing a talk or a project, try to turn it into a paper — it can only help down the line!" **DR**



Marelly Santiago-Vázquez, MD, is a 4th year dermatology resident at the University of Puerto Rico. Xavier Sánchez, MD, FAAD, is an associate professor and pediatric dermatologist at the University of Puerto Rico.

## Race for the Case

By Marelly Santiago-Vázquez, MD, and Xavier Sánchez, MD, FAAD



A 12-year-old adolescent female presented to the dermatology clinics for evaluation of multiple hyperpigmented lesions in trunk and extremities present since birth. Lesions initially developed during the neonatal period as linear erosions with subsequent development of hyperpigmented streaks associated with soft yellow nodular outpouchings in a blaschkoid distribution. Past medical history was significant for developmental delay and ectrodactyly of the right hand associated with nail dystrophy. No other family history with similar findings.

1. What is the most likely diagnosis and associated gene mutation?
2. What are the most common cutaneous and extracutaneous findings associated with this genodermatosis?
3. What is the most characteristic X-ray finding?
4. Name two other genodermatoses with similar mode of inheritance.



Respond with the correct answers at [www.aad.org/RaceForTheCase](http://www.aad.org/RaceForTheCase) for the opportunity to win a Starbucks gift card!

## Race for the Case winner (Spring 2022)

Congrats to Brandon Burroway, MD, MBA, a PGY-2 dermatology resident at University of Miami/Jackson Memorial Hospital, who gave the most comprehensive answers in the quickest time. If you win the latest case, there may be a Starbucks gift card in your future and your name in the next *Directions!* The race begins!

## Dermatofibrosarcoma protuberans

By Kristina M. Lim, DO, Emily Chea McEldrew, DO, and Cynthia L. Bartus, MD, FAAD, FACMS



**Kristina M. Lim, DO,** is an MSDO fellow at Lehigh Valley Health Network, in Allentown, Pennsylvania.



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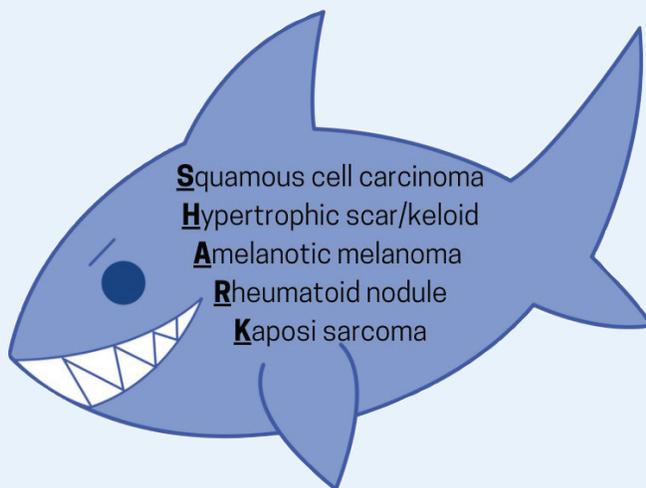
<b>What</b>	Rare soft tissue tumor of intermediate malignancy (low rate of metastasis, high rate of local recurrence) involving dermis, subcutaneous fat, occasionally muscle and fascia
<b>Who/when</b>	Young- to middle-age adults No sex predilection
<b>Why</b>	Translocation between chromosomes 17 and 22 → fusion of COL1A1-PDGFB (90% of cases)
<b>Where</b>	Shoulder or pelvic region are most common Trunk (50-60%) Proximal extremities (20-30%) Head and neck (10-15%)

### Clinical features

- First appears slow-growing and asymptomatic
- Evolves into large, red-brown, indurated plaques or nodules that feel firmly attached to subcutaneous tissue
- May also grow rapidly during pregnancy

### Clinical ddx

SHARK - squamous cell carcinoma, hypertrophic scar/keloid, amelanotic melanoma, rheumatoid nodule, Kaposi sarcoma



### Histologic features

Monotonous spindle-shaped cells arranged in a storiform or “herringbone” pattern. Cells obliterate adnexal structures and infiltrate the subcutaneous tissue in a “honeycomb” pattern.

- + Stains:
  - CD34
- Stains:
  - Factor XIII
  - Stromelysin-3
  - D2-40

## Dermatofibrosarcoma protuberans

By Kristina M. Lim, DO, Emily Chea McEldrew, DO, and Cynthia L. Bartus, MD, FAAD, FACMS

### Histologic ddx

Plaque stage: atrophic dermatofibroma, dermatomyofibroma, fibroblastic connective tissue nevus, and neurofibroma

Nodular stage: deep dermatofibroma, fibrosarcoma, and malignant peripheral nerve sheath tumor

### Management

#### Surgical

- Mohs surgery (98-100% cure rate). Treatment of choice.
- Wide local excision (WLE): 2-4 cm margins extending to superficial muscular fascia. (93% cure rate)

#### Radiation

- For unresectable or recurrent tumors or postoperatively for positive surgical margins. (86-93% cure rate)

#### Systemic medications

- Imatinib - oral tyrosine kinase inhibitor for unresectable, recurrent, or metastatic DFSP in adults. Evaluate for a t(17:22) translocation prior to therapy. (65% response rate)

Metastasis: Lungs are the most common site.

- Multidisciplinary consultation for possible further treatment is recommended for tumors with fibrosarcomatous degeneration, due to its increased metastatic potential.

Recurrence: Variable depending on treatment; most likely to occur within three years.

Follow-up: Clinical follow-up q3-6 months for first three years, annually thereafter.

### References:

1. Bologna JL, Callen JP, Jorizzo JL, Schaffer JV. *Dermatology*. 4th ed. Elsevier; 2018.
2. Elston DM and Ferringer T. *Dermatopathology*. 3rd ed. Elsevier; 2019.
3. Alikhan A and Hocker TLH. *Review of Dermatology*. Edinburgh: Elsevier; 2017.
4. Patterson J. *Weedon's Skin Pathology*. 5th ed. Elsevier; 2021.
5. *NCCN Clinical Practice Guidelines in Oncology*. Dermatofibrosarcoma protuberans. Version 1.2022-Nov 17, 2021.
6. Hao X, Billings SD, Wu F, et al. Dermatofibrosarcoma Protuberans: Update on the Diagnosis and Treatment. *J Clin Med*. 2020;9(6):1752.
7. Brooks J, Ramsey ML. Dermatofibrosarcoma Protuberans. [Updated 2022 Jan 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK513305/>
8. JJ Abbott, AM Oliveira, AG Nascimento. The prognostic significance of fibrosarcomatous transformation in dermatofibrosarcoma protuberans. *Am J Surg Pathol*. 2006;30(4):436-443.
9. Histology slides courtesy of Marisa Baldassano, MD.

View an expanded version of this chart, including histological images, online at

[www.aad.org/member/education/residents/fodder](http://www.aad.org/member/education/residents/fodder).

## Boards bonus!



In addition to this issue's Boards Fodder, download another new online Boards Fodder chart: **Primary cutaneous T-cell lymphomas** by Georgeanne Cornell, DO, Michael Visconti, DO, and Stephen Olsen, MD. Check out the full archives at [www.aad.org/boardsfodder](http://www.aad.org/boardsfodder).

## Got Boards?



AAD welcomes new Boards Fodder chart ideas. View the Boards Fodder guidelines for submission at [www.aad.org/member/publications/more/dir](http://www.aad.org/member/publications/more/dir). Contact the *DermWorld Directions* Editor Dean Monti at [dmonti@aad.org](mailto:dmonti@aad.org).



**Peggy Wu, MD, MPH, FAAD**, is associate professor of clinical dermatology at the University of California Davis Medical Center.



**Marjorie Montanez-Wiscovich, MD, PhD, FAAD**, is a clinical assistant professor at the University of Florida.

## Clinical Pearls

*Clinical Pearls help prepare residents for the future by providing them with top tips from experts about what they should know about specific, key subject areas by the time they complete their residency.*

# Patch test pearls

By Peggy Wu, MD, MPH, FAAD, and Marjorie Montanez-Wiscovich, MD, PhD, FAAD

### 1) Test before you treat.

Before escalating treatments for dermatitis, perform patch testing for possible allergic contact dermatitis (ACD). Patch testing is indicated in patients with 1) a dermatitis pattern suggestive of ACD; 2) skin conditions that may be worsened by concomitant ACD, such as atopic dermatitis (AD), seborrheic dermatitis, stasis dermatitis, psoriasis, nummular dermatitis, and dyshidrotic eczema; 3) a chronic eczematous dermatitis with an undetermined cause; and 4) suspected occupational contact dermatitis. In the setting of known AD, patch testing should be considered if the dermatitis 5) fails to improve with topical therapy or immediately rebounds upon discontinuation; 6) has an atypical or changing distribution; 7) has adult- or adolescent-onset; and/or 8) is severe or widespread and may require use of systemic medication(s).<sup>1</sup>

### 2) Optimize patch testing conditions by controlling active rashes prior to testing and doing a delayed reading.

An active rash prior to patch testing could increase the risk of “angry back” or excited skin syndrome and false positives and negatives. Therapeutic options to avoid uninterpretable patch test results include topical steroids or steroid sparing agents (discontinuing on patch test site >3-7 days prior to application), phototherapy (holding at least one week prior and during patch testing), a prednisone taper (ideally ≤10 mg/day during patch testing), or methotrexate. Delayed patch test readings (at 96-144 hours, days 5 or 7, from patch placement) are essential. If not done, especially for certain allergens such as neomycin, imidazolidinyl urea, diazolidinyl urea, steroids, lanolin, and caine mix, 7-30% of reactions can be missed.<sup>2</sup>

### 3) Testing personal care products can help establish relevance.

A tool to evaluate products that are not available in commercial patch tests is the Repeated Open Application Testing (ROAT). This use test is done at home by the patient and can identify a product containing clinically relevant allergens by simulating the patient’s exposure pattern. One way to do a ROAT is to apply a leave-on product to the volar forearm twice a day for 2-4 weeks. Rinse-off products are applied for 10 minutes twice a day and washed off for a total of 3-4 weeks.<sup>3</sup>

### 4) Patch testing is a numbers game. The higher the number of tested substances, the higher the likelihood of finding a relevant allergen.

The Thin-Layer Rapid Epicutaneous Test (T.R.U.E. TEST®) is an FDA-approved, ready-to-use patch test. While its development revolutionized the process of patch testing by increasing convenience, availability, and standardization, it contains 36 allergens and cannot be customized based on potential exposures. The benefits of using an extended series patch testing such as the American Contact Dermatitis Society (ACDS) Core Allergen Series or the North American Contact Dermatitis Group (NACDG) series include a greater opportunity to identify positive, relevant reactions and the ability to update or modify selected allergens based on consumer trends and patient data. Important relevant allergens found in the ACDS or NACDG extended series include preservatives, adhesives/acrylates, surfactants, and propylene glycol.<sup>4</sup>

### 5) Patient education is key to successful patch testing.<sup>5</sup>

Because patch testing detects a delayed hypersensitivity reaction, it requires multiple visits and ultimately lifestyle coordination. Patients should be counseled prior to patch testing to know what to expect. After patch testing, patients accurately remember their allergens 25-50% of the time, decreasing with increased number of positive reactions and time elapsed since patch testing. In order to ensure successful avoidance of allergens and management of ACD, providing information regarding allergens to avoid and a “safe list” eliminating products containing problematic allergens is essential and significantly correlated with clearance of skin disease. Resources include the ACDS Contact Allergen Management Program database ([www.contactderm.org](http://www.contactderm.org)) for a “safe list” and narrative information on individual allergens, as well as allergen information from *Dormer Chemotechnique* © and *SmartPractice* ©.<sup>5</sup>

## References:

1. *An Bras Dermatol*. 2013 Nov/Dec;88(6):879-88. *Dermatitis*. 2016 Jul/Aug;27(4):186-92.
2. *Dermatitis*. 2017 Jul/Aug;28(4):253-60. *Dermatitis*. 2020 Sep/Oct;31(5):287-96. *Contact Dermatitis*. 2015 Oct;73(4):195-221. *Dermatitis*. 2021. Nov/Dec; 32(6):365-374.
3. *Contact Dermatitis*. 1986 Apr;14(4):221-7. *Dermatitis*. 2015 Sep/Oct;26(5):224-9.
4. *J Clin Aesthet Dermatol*. 2010 Oct;3(10):36-41. *J Dermatol Nurses Assoc*. 2021 Sept/Oct; 13(5):278-83. *Dermatitis*. 2018 May/Jun;29(3):107-11.
5. *J Am Acad Dermatol*. 2016 Jun;74(6):1043-54. DR

# Boston and beyond! Residents buzz about AAD meetings

By Morgan Murphrey, MD, MS

*Because of COVID restrictions, the 2022 AAD Annual Meeting in Boston was the first in-person Annual Meeting since 2019. Many were attending their first AAD meeting as residents, including Morgan Murphrey, MD, MS, who talks about what it's like to experience an AAD Annual Meeting and reflects on the return to the live meeting format as a dermatology resident.*

“Are you going to Boston?!” In the weeks leading up to the 2022 AAD Annual Meeting, everyone was asking the question and the buzz was palpable. As more and more live events were canceled after March 2020, the future felt unpredictable and the end was far from sight. But — fast forward two long years after many difficult months for all of us — and I was ready to head to the AAD Annual Meeting with that end-of-summer, first-day-of-school excitement. Everyone was buzzing about Boston!

I remember March 2018, when I was a medical student and research fellow, beyond excited to present my research at my first AAD Annual Meeting. To say I had an amazing first meeting is an understatement. At the time, I posted an Instagram which I aptly captioned: “Living my dream life!” And I was! I fondly recall running into Dr. Jean Bologna as she was leaving one of her talks. I ran up to her and told her I was an admiring medical student and that it was my first conference. She kindly took the time to chat with me, sharing her approach to dermatology conferences, and welcoming me to my “first of many” Annual Meetings.

The following year, I had the opportunity to travel to Washington, D.C., for the 2019 AAD Annual Meeting. Again, I was “living my dream life,” loving every moment of reuniting with friends and colleagues, from other medical students, to residents, to attendings and mentors. I avidly took in the lectures as a soon-to-be dermatology resident, ready to start my journey of learning dermatology.

But in March 2020, the Annual Meeting was canceled with the start of the COVID pandemic. Over the next two years, we learned a lesson in resilience and adaptability. The age-old Verizon commercial reference “can you hear me now?” took on a whole new meaning with Zoom calls and the mute function, and we were thrust into the virtual age. We came together through digital platforms, finding new ways to connect, and grateful to have them, but also missing those in-person connections. Finally came March 2022.

This past year was my first opportunity to experience the Annual Meeting as a dermatology resident and I was



“I was lucky to be able to attend the meeting with so many of my co-residents.” – Dr. Murphrey

lucky to be able to attend the meeting with so many of my co-residents. With almost two years of dermatology learning under my belt, every lecture offered a different and equally exciting opportunity to expand my understanding of dermatology. There were so many interesting lectures, it was hard to choose which ones to attend. I particularly enjoyed the session, “You may not have seen it, but it has seen you: Commonly missed diagnoses in dermatology.” And just recently in clinic, I put a pearl I learned from one of the lectures into practice. That’s what AAD meetings can do for you: give you information you will use.

The meeting also offered the much-missed tradition of annual in-person society and committee meetings, such as the Women’s Dermatologic Society Annual Luncheon and my inaugural AAD Residents and Fellows Committee meeting. These events allow us to learn more about our amazing dermatology colleagues and meet residents and attendings from around the country. I also had a chance to connect with mentors I hadn’t been able to see in person in years. The 2022 AAD Annual Meeting in Boston will be another year remembered fondly. I left feeling inspired and excited about what I get to do every day — study and practice dermatology. And I think many of you agree that there’s something special about reconnecting with your colleagues, mentors, and friends in person.

These moments are not soon forgotten. In fact, Dr. Bologna recently came to my department for Grand Rounds, and I had the chance to recount the story to her! After this year’s in-person Annual Meeting, I feel closer to our community than ever and am so inspired by the amazing individuals within our field. And we are already starting to hear the buzz: Are you going to New Orleans!? **DR**



**Morgan Murphrey, MD, MS**, is a PGY4 resident at UC Davis and a member of the AAD Residents/Fellows Committee.

## Inside this Issue



**Naomi Briones, MD,** is a PGY-4 dermatology resident at University of Michigan in Ann Arbor, and a member of the AAD Resident and Fellows Committee.

*We welcome our new Directions resident advisor, Naomi Briones, MD, a PGY-4 dermatology resident at University of Michigan in Ann Arbor, Michigan. She completed medical school at University of Michigan Medical School. Prior to medical school, she taught in Chicago Public Schools and worked for the educational nonprofit Teach For America. She attended Emory University for her undergraduate education where she earned a Bachelor of Science in Anthropology and Human Biology.*

Like many of my colleagues in their final year of residency, I find myself reflecting on how it started. I had expected to spend the final months of my intern year comfortably navigating internal medicine floors and elective rotations. Instead, I was apprehensively rounding in overcrowded ICUs, caring for COVID patients. There was uncertainty on what was to come — would I study or practice dermatology at all as the pandemic escalated? While COVID is by no means behind us, we now face it vaccinated and boosted, thanks to the incredible efforts of the scientific community. We allow ourselves to look to future opportunities, such as applications to fellowships and our first jobs out of residency.

As I ponder the future, I think about how much I have learned, and the many opportunities afforded me. I am stunned by how quickly the first three years have passed and how the pace of training seemed to accelerate the further I progressed. At the start of residency, I heard about various scholarships, international travel opportunities, and conferences to attend, resolving to fill out that application or join that committee next year. Busy days filled with studying and patient care quickly turned into months, then years, and suddenly I find I am nearing the end. I wish I had applied earlier to those scholarships or funding opportunities for research or engaged even more with the mentorship openly and earnestly offered by experts across our field. I wish I had more time to relish the shared curiosity and passion of my colleagues as we learned the art of our field while enjoying each other's diverse personalities and backgrounds. I wish I had been gentler and more patient with myself as I navigated the delicate balance between patient care, studying, and taking time to recharge. I wish I could have reassured my past intern self that all would be well. After all, I had made it this far.

The path through training may have looked different than originally envisioned on Match Day, but we gained strength from having worked through the pandemic — with a bit more tenacity, added perspective, and deeper empathy for each other and our patients. With these musings in mind, I have renewed optimism entering my final year of residency, standing side by side with my brilliant and compassionate colleagues. DR



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