AAD
DermWorld
directions in residency
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The boards: What to expect

By Brian J. Simmons, MD, FAAD

Board exams are evolving with the times, and residents need to know the best resources and methods for studying. Gone are the days of the traditional "in service exams" of dermatology where every resident, regardless of their level of training, takes the same exam. This has been replaced with a basic, four-part core exam and an applied exam.

First-year basics

The basic exam tests first-year residents' clinical acumen in identifying approximately 100 conditions, ranging from clinical images, determining initial management, common associations, basic pathophysiology, and mechanisms of common medications. It's an exam geared to get your feet wet and test basic dermatologic knowledge. Fortunately, this exam is for informational purposes only and high scores can be achieved by following curriculum lectures and clinical practice, and by keeping up with your readings in *Dermatology* by Dr. Jean L. Bolognia.

Core exams

Core exams test upper-level residents on medical, pediatric, and surgical dermatology and dermatopathology. Unlike the basic exam, you need to pass all four to sit for the applied exam. Having spoken to current residents and recent graduates, a common strategy is to take the medical and surgical exams together, then take the pediatric and dermatopathology core exams at separate sittings. However, you can take one per sitting or — if you're feeling ambitious — you can take all four at once. Historically, surgical questions tend to be straightforward, are easier to learn, and complement the more knowledge-dense requirements of the medical core exam.

Pediatrics

The pediatrics core exam tests basic pediatric conditions, but also includes everyone's favorite… genodermatosis. Focus on the top 30-40 conditions

see **BOARDS** on p. 3

Brian J. Simmons MD, FAAD, graduated from residency in 2020 and is now assistant professor of dermatology, director of clinical trials, and director of social media and website design in the department of dermatology at Dartmouth Hitchcock Medical Center in New Hampshire. He is also a member of AAD's Young Physicians Committee.

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Boards from p. 1

(i.e., the high-yield conditions that are seen repeatedly in review books that have specific findings on dermpath or clinical exams). Pair your studies with the pediatric section in *Review of Dermatology*. It's one of my favorite review books as it follows along with Bolognia. Others swear by *Dermatology: Illustrated Study Guide* and *Comprehensive Board Review*. Regardless, I recommend annotating in your review book throughout residency to build one comprehensive high-yield book to study from.

Dermatopathology

The dermatopathology exam requires a similar strategy and I recommend pairing this with a good digital dermpath bank of slides. Take advantage of the free resources you can find as paying for the applied exam has a sticker-shocking effect on a resident salary ($2,250). The AAD has a long list of boards study resources online at **aad.org/education/residents/external**, including DSAP for Residents, as well as the voluminous Boards Fodder archives. For still pathology image questions, the important path is in the center of the field. Many suggest completing these by December of your senior year of residency as they are typically offered three times a year. This leaves you with two additional sessions in your last six months of residency for retaking a core exam if needed and/or taking the last remaining exam if you skipped taking an exam earlier.

Applied exam

Once you've passed your core exams, it's time to prepare for the applied exam while you are finding a job and/or preparing for fellowship. Don't worry; you need to wait until the last few months of residency to turn your attention to the exam. Remember, you've been studying for this exam for nearly three years from the start of residency. This exam is designed to mimic real-life clinical presentations that tend to ask second- or third-order questions (i.e., not what the diagnosis is, but knowing the next step to confirm the diagnosis or an appropriate treatment). Be comfortable with both still and digital pathology slides, as you will encounter questions that combine clinical images with dermatopathology.

Time management

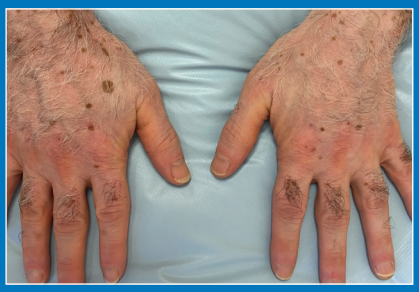
Create a schedule and stick to it. Use your favorite review book (or resource) and break it down into manageable amounts of reading 10-20 pages a night, and read the book twice through if you have time. Use this in combination with a dermpath study tool like AAD's DSAP, along with a slide deck, a question bank, and AAD's Boards Fodder charts. The question bank will be helpful in determining your areas of weakness that you can focus your studying on. Keep in mind that this is the final obstacle to becoming a board-certified dermatologist! Relish in the moment. You have already proven that you are a smart, skilled test taker, or you would not have made it to this point in your education and career. DR

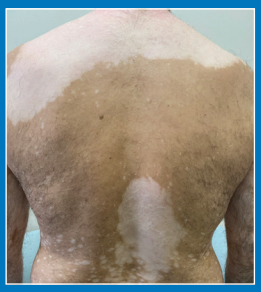
François Lagacé, MD, is a PGY-2 dermatology resident at McGill University, Montreal.

Zeinah AlHalees, MD, is a PGY-5 dermatology resident at McGill University, Montreal.

Race for the Case

By François Lagacé, MD, and Zeinah AlHalees, MD





An otherwise healthy 54-year-old male presented to the dermatology clinic with a history of asymptomatic skin discoloration. He first noticed a few spots appearing on his hands bilaterally, then the lesions started to spread all over his body. His review of systems was negative, and he was not on any medications. He was referred by his family doctor for further management due to progression of his skin lesions despite trying topical corticosteroids. The physical exam revealed numerous circumscribed, depigmented macules and patches on his face, trunk, and extremities surrounded by normal skin. Leukotrichia within depigmented patches was noted, as well as areas of perifollicular repigmentation on his dorsal hands. No other signs were evident. He recently had a routine follow-up with his family doctor and no other issues or laboratory abnormalities were identified.

1. **What bedside tool can be used to help aid in diagnosis? Please explain its mechanism of action.**
2. **How is this disease classified?**
3. **What are other disorders that are associated with this skin condition?**
4. **Mention four therapeutic options from different categories that can be used for the treatment of this disease.**
5. **What are the criteria that must be fulfilled for surgical intervention to be considered as a treatment option?**

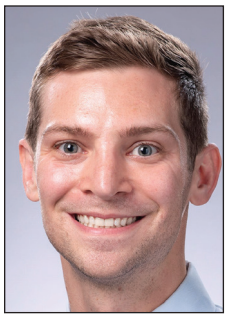
Respond with the correct answers at **www.aad.org/RaceForTheCase** for the opportunity to win a $25 Starbucks gift card!

Race for the Case winner (Winter 2021)

Congrats go out to Katelin Harrell, MD, a PGY-3 dermatology resident at University of Oklahoma Health Sciences Center. She correctly identified IgA vasculitis and 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!

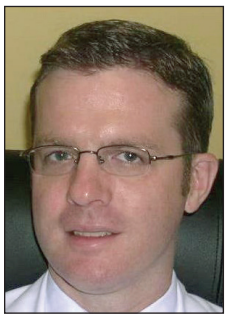
Electrical hemostasis

By Michael J. Visconti, DO, Zac Zheng, DO, and Kent J. Krach, MD, FAAD



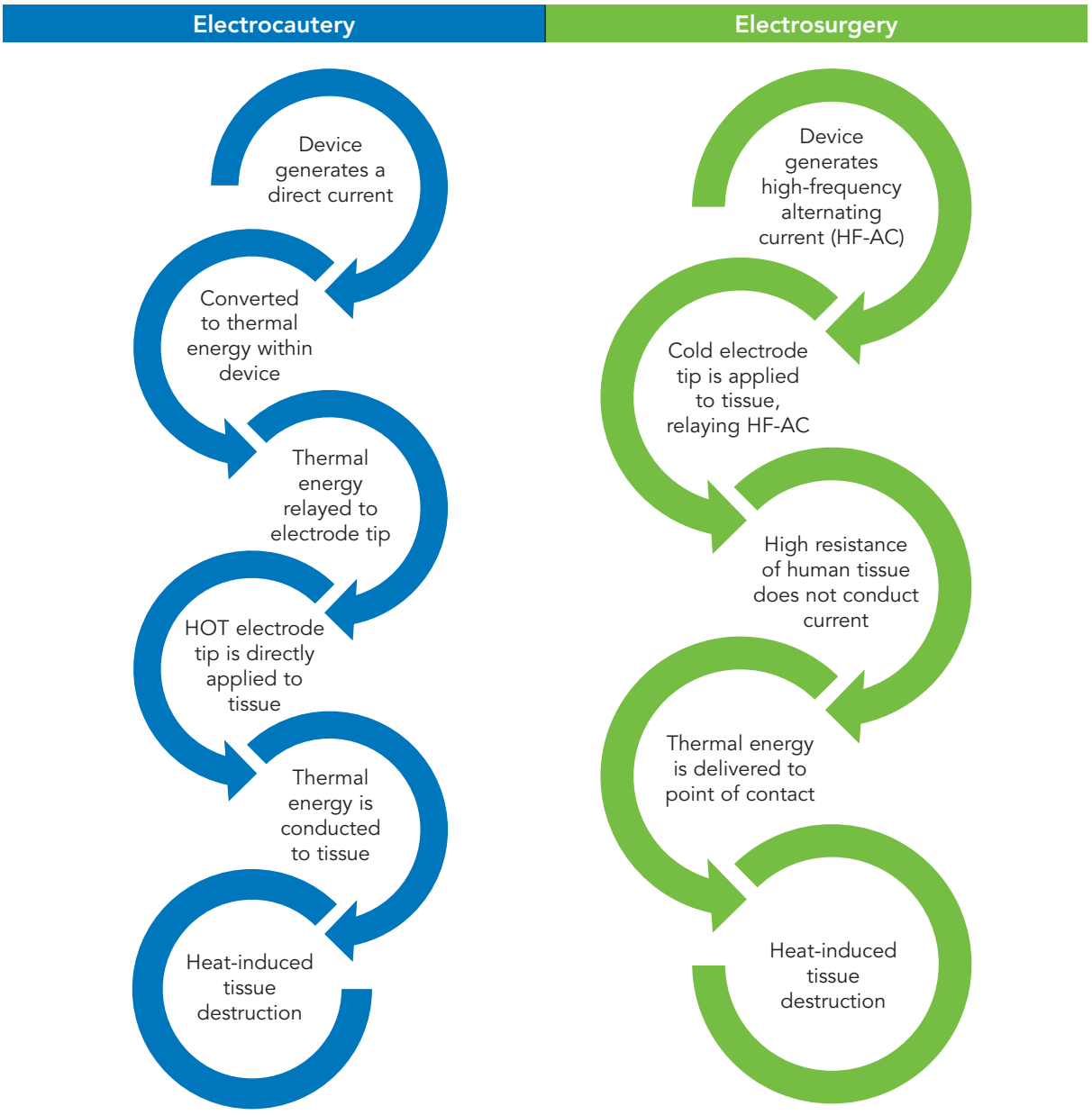
Michael J. Visconti, DO, is a PGY-2 dermatology resident at St. Joseph Mercy Ann Arbor Hospital.

Zac Zheng, DO, is a PGY-5 Mohs micrographic surgery fellow at St. Joseph Mercy Ann Arbor Hospital.



Kent J. Krach, MD, FAAD, is a board-certified dermatologist, fellowship-trained Mohs Surgeon (FACMS), and the Mohs micrographic surgery fellowship director at St. Joseph Mercy Ann Arbor Hospital.

Definitions					
	Electrode tip temperature (Before contact the skin)	*Electrical energy form (i.e., type of current)*	*Current flows...*	*Relies on human tissue for energy conversion?*	*Implantable device electromagnetic interference*
Electrocautery	Hot	Direct current	To the device tip	No	Not present *No current passing to skin*
Electrosurgery *Electrodesiccation* *Electrofulguration* *Electrocoagulation* *Electrosection*	Cold	Alternating current	To the skin	Yes *Electrical energy converted to thermal energy on skin*	Present *Biterminal forceps reduce risk of interference*

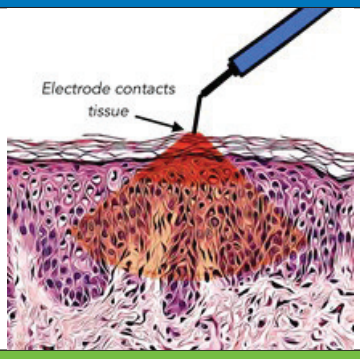


Electrical hemostasis

By Michael J. Visconti, DO, Zac Zheng, DO, and Kent J. Krach, MD, FAAD

Electrosurgical modalities

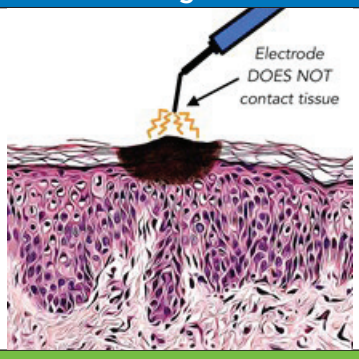
Electrodesiccation



MONOTERMINAL

- LOW amperage / HIGH voltage
- **DIRECT contact**
  - Slow heating of tissue
    - Dehydration/water loss
- Superficial ablation
  - NO significant protein denaturation

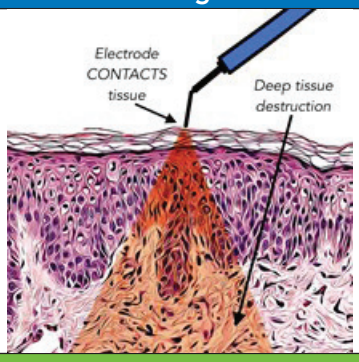
Electrofulguration



MONOTERMINAL

- LOW amperage / HIGH voltage
- **NO DIRECT contact = less controllable damage**
  - Electrical probe is held at distance
    - Produces spark gap
- Superficial ablation
  - More limited/superficial compared to electrodesiccation

Electrocoagulation



BITERMINAL

- HIGH amperage / LOW voltage
- Moderately damped waveform
  - Less cutting, more coagulation
- **DIRECT contact**
  - Slow cellular heating
    - Intracellular fluid evaporation, coagulum formation, protein denaturation
- Penetrates deeper compared to electrodesiccation — Deeper tissue destruction/hemostasis

Electrosection

BITERMINAL

- **HIGHEST current of all modalities**
- HIGH amperage / LOW voltage
- Undamped waveform
  - Pure cutting through tissue
- **DIRECT contact**
- Blended mode
  - Utilized with electrocoagulation
    - Mixture of hemostasis and cutting

You can download the complete, extended chart, including characteristics of electrosurgical modalities and electrical hemostasis risks and precautions at www.aad.org/boardsfodder.

References:
1. Bolognia J, Jorizzo J, Schaffer I. *Dermatology.* Philadelphia: Elsevier; 2017.
2. Alikhan A, Hocker TL. *Review of Dermatology.* Elsevier; 2017.
3. Robinson JK, Hanke CW, Siegal DM, Fratila A. *Surgery of the Skin.* Philadelphia: Elsevier; 2015.

Boards bonus!

In addition to this issue's Boards Fodder, download two new online Boards Fodder charts: **Nail anatomy and procedures** by Brittany Valk, DO; and **Darrier and Hailey-Hailey** by Abdulhadi Jfri, MD, MSc, FRCPC, FAAD, and Oyetewa Oyerinde, MD. Check out the full archives at **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**. Contact *DW Directions* Editor Dean Monti at dmonti@aad.org.

Latanya T. Benjamin, MD, FAAD, FAAP,
is associate professor of pediatric dermatology at Florida Atlantic University in Boca Raton, 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.

Infantile hemangioma

By Latanya T. Benjamin, MD, FAAD, FAAP

Pearl #1. Use the correct nomenclature. It is important to educate patients' families on the correct name of their infant's condition. Parents may incorrectly refer to an infantile hemangioma (IH) as a "strawberry" birthmark. Furthermore, these neonates could also have other common vascular birthmarks present on physical exam such as a nevus simplex over the glabella, eyelids, and/or nape. Informing the patient's family of the correct name for each differing vascular birthmark[1] is crucial to beginning a healthy conversation on management moving forward.

Pearl #2. Debunk myths! There are a variety of reasons that parents become worried about their child before they come to see you. Make sure you stop to address and know what they are. For example, it is not unusual for parents to be concerned that because a hemangioma is located on the scalp, it should not be touched, could infiltrate the brain, or might exsanguinate should any bleeding ensue. Be sure to debunk all myths and provide reassurance.

Pearl #3. Use topical treatment when possible. Since the discovery of oral propranolol[2,3] for the management of infantile hemangioma, pediatric dermatologists have been able to manage thousands of infants safely and effectively. Newer topical formulations also exist, adding to our armamentarium for management. I will frequently recommend treatment with timolol for small, uncomplicated lesions. A short trial is usually sufficient to deem efficacy before moving on to oral therapy if warranted.

Pearl #4. Manage trouble areas properly. Ulcerated hemangiomas occur in up to 10-15% of cases[4]. We know that multiple areas on the body are prone to ulceration, such as the nasal tip, lips, and groin. However, the diaper region is also prone to bacterial contamination and secondary infection. I recommend adding treatment with topical metronidazole to promote faster healing of an ulcer in the perineum. It works!

Pearl #5. Pain management is crucial. Especially for young babies, an ulcerated lesion hurts. Pain management for an ulcerated IH is extremely important. A significant amount of pain can be relieved simply by covering the wound (with petroleum jelly, topical antibiotics, or a non-stick dressing). Make sure to discuss mild analgesics (such as acetaminophen) and other comfort measures with the patient's family.

References:

1. Wassef M, Blei F, Adams D, et al. Vascular Anomalies Classification: Recommendations From the International Society for the Study of Vascular Anomalies. *Pediatrics.* 2015 Jul;136 (1):e203-14.
2. Leaute-Labreze C, Dumas de la Roque E, Hubiche T, et al. Propranolol for severe hemangiomas of infancy. *N Engl J Med.* 2008 Jun 12;348 (24):2649-51.
3. Leaute-Labreze C, Hoeger P, Mazereeuw-Hautier J, et al. A randomized, controlled trial of oral propranolol in infantile hemangioma. *N Engl J Med.* 2015 Feb 19;372 (8):735-46.
4. Paller AS, Mancini AJ. (2006). Vascular Tumors and Tumor Syndromes in Hurwitz *Clinical Pediatric Dermatology*, 3rd edition. Elsevier. DR

More Clinical Pearls online!

The AAD has recently compiled its Clinical Pearls archives from the pages of *Directions in Residency*.

The popular feature provides residents with useful tips from experts in dermatology.

Learn more by visiting the archives at
www.aad.org/member/publications/more/dir/clinical-pearls.

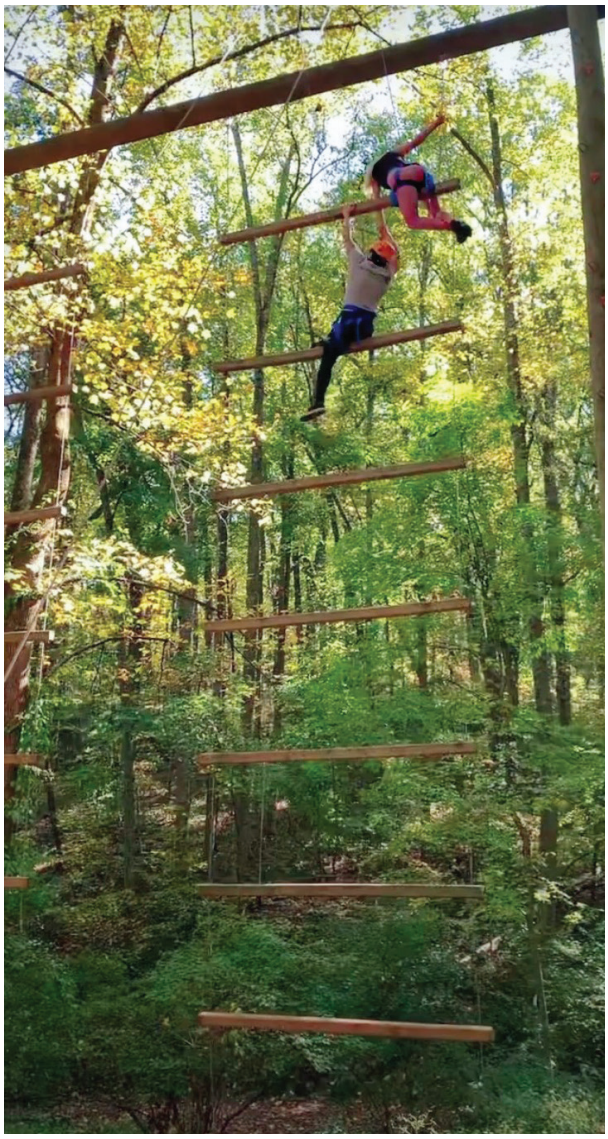
Bonding is a ladder to success at UVA

By Diana Mannschreck, MD

As most of you enter your residency, you're looking for quality dermatology education. But you're also hoping your residency will offer a home and "family" away from home. At UVA, we've found it. Some would say we're an unlikely group of friends: a national champion 4-H poultry judge, a Romanian immigrant and mother of two, a soft-spoken woman who is secretly a blackbelt in karate, and a former NICU nurse from Montana who loves everything cosmetic (me!). Despite our ethnic and cultural differences, there is nothing we wouldn't do for each other. Whether we're hiking in the beautiful Shenandoahs, visiting one of our 40+ local wineries, or studying Bolognia together before our weekly Socratic-style book review sessions, there is no one else I'd rather be with. These close bonds extend to our faculty as well. When first-year resident Lydia Luu, MD, was on call for Thanksgiving and couldn't travel home to see her family, attending physician Olivia Schenck, MD, FAAD, welcomed her into her home with open arms.

Another memorable occasion was when our group "learned the ropes" of residency — both literally and metaphorically. The ropes course is a UVA facility and is meant to encourage team building, trust, and conflict resolution between groups. We tackled the challenge last fall, and it was a good example of mind-body connection. The climbing part was meant to be a race but ended up being more about everyone helping everyone else finish the climb!

We at UVA have found that it is truly the people around you who can make residency an inspirational and memorable experience. We're blessed to have found a home here at UVA, and the lifelong bonds we've made will follow us wherever we go after residency. Upward and onward! DR



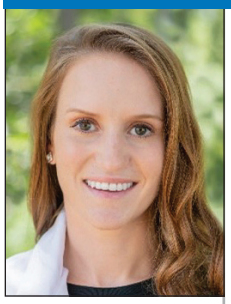
Helping my fellow resident Jack Lee, MD, up the ladder of success!

Hiking together in the Shenandoahs.

Celebrating Dr. Seth Martin's birthday at our resident ropes course retreat.

Diana Mannschreck, MD, is a PGY3 dermatology resident at the University of Virginia in Charlottesville, VA. She obtained her MD at the Johns Hopkins University School of Medicine and her BSN at the University of Washington School of Nursing.

Inside this Issue



Taylor Gray, DO, is a PGY-4 dermatology resident at Largo Medical Center in Florida.

I remember sitting in orientation as a first-year dermatology resident, being thrilled that the days of intern year were behind me. I was excited to start my dermatology training, however, when reviewing the American Board of Dermatology exam schedule, my excitement quickly gave way to anxiety. I remember thinking, "six exams in three years?! This is medical school all over again." If I could go back and speak to my first-year self now, I would tell her to relax, enjoy the moment, and trust the process!

In this edition's feature article, Dr. Simmons did an excellent job outlining the various exams, their timing throughout training, and some favorite study resources. I would encourage every new resident to lean on their seniors for advice on what resources best compliment the curriculum at their individual program. I found it most effective to find one review book that I used throughout all of residency to really memorize the nitty gritty details that may come up on the core exams. Trying to utilize multiple review books may add hours to your study schedule, without adding additional high-yield knowledge, as the current review books all seem to do a great job highlighting this material. Instead, I spent this time reviewing Kodachromes from every source I could get my hands on. As we all know, morphology is the cornerstone of the dermatologic diagnosis and I found Kodachrome review to be an excellent way to augment my exam studying while building my clinical gestalt. For me, a typical study day consists of practice questions, reading a set number of pages in my favorite review book, and reviewing Kodachromes. In addition to my daily study schedule, I utilized some board review preparation courses for the core exams. Some of my favorites included the dermatopathology "Core Review" created by *Sagis*, "High Yield Dermpath Review for the Core Exam and Boards" by Dr. Wohltmann (available through the Women's Dermatologic Society) and the "Basic Bootcamp/Core Crusher" provided by *Derm In-Review*.

As I shift my focus to the upcoming applied exam, I am grateful for the exam framework currently in place. Although it seemed daunting at times, preparing for one to two core exams every few months helped me structure my studies throughout residency by encouraging me to focus on different topics at different times in my training. Although I am anxious to complete the applied exam, I feel confident that my studies thus far, in combination with daily learning in clinic, have prepared me. I simply have to stick to my study schedule, utilize the many resources made available by the Academy, and other generous organizations who dedicate time to teaching, and trust the process. Remember, at this moment you are where you only dreamed of being a few short years ago. Soon, you will accomplish your goal of becoming a board-certified dermatologist and all your hard work and dedication will be more than worth it.

The AAD thanks Dr. Gray for her outstanding work as resident advisor for Directions*! She has done a stellar job of reviewing the publication and Boards Fodder charts!* DR

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