Moving beyond residency

**AAD resources you’ll use in practice**

As a resident, you’ve been enjoying all the benefits of AAD membership. In addition to all the tools and resources you use now, one of the first things you’ll want to do after residency is make sure you become a full member in good standing. AAD membership provides you with essential, indispensable tools you will use going forward in practice. In this article, Directions will provide an overview of the wide range of tools you can be using now ... and will count on to use later.

**Publications and communications**

*JAAD* will continue to be an indispensable source to you for current, relevant peer-reviewed scientific and clinical research, including the AAD’s evidence-based clinical guidelines.

“JAAD keeps residents up to date with the latest advances in diagnosis and treatment,” said Dirk Elston, MD, editor of the prestigious journal. “We all want to be at the cutting edge of medicine and our journals make us better physicians. Dermatologists understand this value and cite *JAAD* as the number one benefit of AAD membership.”

*Dermatology World, DW Weekly, DW Academy Insider, DW Insights & Inquiries,* and other AAD publications give you quality, practical, and innovative dermatologic education and will provide you with analysis of important news and what it means for you.

In addition to lively, topical features, *Dermatology World* has a bank of reliable and instructive columns, like “Cracking the Code,” “Asked and Answered,” and “What’s Hot,” as well as clinical, practice, and legal columns. You can expand your knowledge, confirm your smarts, and accumulate CME every week by taking advantage of Question of the Week, which is included in your Thursday email from *Dermatology World*. The AAD also provides an online transcript to track all your CME.

**Get caught up in the webinars**

Budgeting is on the front burner of any resident’s agenda. You can maximize your training budget while staying current on trending coding topics without leaving the office by signing up for AAD webinars. Each 60-minute webinar gives you a chance to ask your practice-specific questions during an exclusive Q&A with Academy expert coders.

New and upcoming webinars include:

- **Coding & Practice Updates for 2020**: Dec. 12, 2019 (on-demand, available soon!)
- **Mastering Modifiers 78 and 79**: May 21, 2020
- **The Ins and Outs of Audits and Appeals**: Aug. 20, 2020
- **Conquering Coding — What You Need to Know**: Oct. 15, 2020

And there’s also a vast resource of archived webinars. Check out your options online at [www.aad.org/webinars](http://www.aad.org/webinars).

Get virtual with AAD

View the AAD’s vast resource of archived webinars online at [www.aad.org/webinars](http://www.aad.org/webinars).
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💧 Water-light feel & invisible finish.
💧 Instantly quenches dry skin with hydration.
💧 Powerful UVA/UVB protection you’ll ❤️ to wear.
RESIDENCY from p. 1

**Keep the “Dialogues” going**

*Dialogues in Dermatology* podcasts are your go-to resource to keep up with the latest in dermatology. Listen in each week as subject matter experts discuss clinical treatments and practice trends. An annual podcast subscription includes quick and convenient interview segments with topic-specific experts. New podcasts are released weekly and there are also online quizzes to test your knowledge. Dialogues offers the ability to earn up to 24 AMA PRA Category 1 Credits™ a year.

“As I’ve transitioned from being a trainee to an attending, I’ve really enjoyed listening to the AAD *Dialogues in Dermatology* podcast,” said young physician Nada Elbuluk, MD. “It’s been an easy and fun way on my work commute to listen to high yield, high quality interviews and earn CME.”

Find out more about *Dialogues* at [www.aad.org/member/education/continuing/dialogues](http://www.aad.org/member/education/continuing/dialogues).

**More, more, more**

Being a member of the AAD offers you connections to a diverse and collaborative network of colleagues and mentors. And, as a member, you will be an advocate to ensure that the public and your colleagues in the house of medicine recognize the experience, expertise, and contributions of dermatologists. You can advance your career and the specialty by staying involved with the AAD through AAD councils, committees, and task forces. The network of contacts and resources can also help you to explore volunteer and international experiences.

AAD meetings offer a wealth of live educational opportunities to help you transition from residency to practice. The AAD Annual Meeting offers live patient demonstrations, hands-on courses, and other premier courses presented by the brightest minds in dermatology.

AAD membership also gives you exposure to millions of patients each year who use the AAD’s Find A Dermatologist tool.

**What young physicians say**

The best spokespeople for the benefits available to AAD young physicians are recent graduates. Directions asked a few members of the AAD’s Young Physician Committee to comment on the benefits they find most helpful.

“I have used many, if not most, of the AAD benefits and member resources since I completed residency,” said Travis W. Blalock, MD. “Providing care and hope to patients requires dermatologists to stay up to date regarding the ever-changing field of dermatology. Between the Question of the Week, the AAD’s online learning center, and the JAAD, sustaining the knowledge base to achieve excellence in outcomes couldn’t be easier.

“Beyond the actual delivery of care, the AAD has a lens to focus on the broad view of your career while simultaneously providing new and seasoned dermatologists access to specifics in a changing practice. The coding and practice updates, for example, are a permanent fixture on my desk while Dermatology World provides practical advice for team building, information regarding the changing health care landscape, and ultimately prepares me to deliver better care to our primary benefactor, the patient.”

Young Physician Committee member Meredith Wagner, MD, said, “I do the weekly question to stay up to date and obtain CME and I also used the AAD Career Compass job listings to find my first job when we moved out of state.”

**Your future awaits!**

A wise man once advised, “do something today that your future self will thank you for.” Learning now about the resources available through the AAD can help ensure a smooth transition from residency to practice. Take time to discover (and bookmark) your many resources at aad.org. Your future self thanks you in advance. DR
## Genetic mutations

by Matthew Helm, MD and Paul Wirth, MD

<table>
<thead>
<tr>
<th>Gene</th>
<th>Lesion</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-kit</td>
<td>Mucosal and acral melanoma, melanoma on chronic sun-damaged skin</td>
<td>Encodes CD117, a transmembrane receptor tyrosine kinase protein</td>
</tr>
<tr>
<td>BRAF (V600E most commonly)</td>
<td>Melanoma on non-chronic sun-damaged skin, Common nevi</td>
<td>Encodes the serine/threonine-protein kinase B-Raf</td>
</tr>
<tr>
<td>NRAS</td>
<td>Nodular melanoma, non-CSD melanoma, congenital melanocytic nevi (CMN), common nevi</td>
<td>Member of the RAS gene family</td>
</tr>
<tr>
<td>Loss of BAP1</td>
<td>Atypical spitzoid tumors with epitheloid Spitz nevi (BAPoma), melanoma, uveal melanoma, renal cell carcinoma</td>
<td>Loss of deubiquitination by BRCA1 associated protein-1 (ubiquitin carboxy-terminal hydrolase).</td>
</tr>
<tr>
<td>TERT-p</td>
<td>Advanced melanoma</td>
<td>Telomerase reverse transcriptase (TERT) promoter mutations are associated with poor prognosis.</td>
</tr>
<tr>
<td>Activating mutation GNAQ</td>
<td>Uveal melanoma, Nevus of Ota, blue nevus</td>
<td>Transmembrane domain receptors catalyzes intracellular signaling pathways and exchange of GDP for GTP.</td>
</tr>
<tr>
<td>GNA11</td>
<td>Uveal melanoma, blue nevus, malignant blue nevus</td>
<td>Works with the paralogue GNAQ.</td>
</tr>
<tr>
<td>HRAS mutations/11p gains</td>
<td>Spitz nevus—more common after puberty</td>
<td>Activating HRAS mutation in agminated spitz nevi and mosaicism</td>
</tr>
<tr>
<td>P16 loss</td>
<td>Atypical spitz tumors and spitzoid melanoma. Often misdiagnosed as infantile hemangioma due to erythematous color and prominent telangiectasia.</td>
<td>Loss of this INK4 cyclin-dependent kinase inhibitors (CDKIs) prevents withdrawal from cell cycle progression. P16 staining argues against 9p21loss.</td>
</tr>
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**Genetic mutations**

by Matthew Helm, MD and Paul Wirth, MD

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<tr>
<td>Homozygous loss of 9p21</td>
<td>Increase risk of metastasis and death in spitzoid tumor</td>
<td>Three tumor suppressor genes are found at this location: genes CDKN2A, CDKN2B, and MTAP.</td>
</tr>
<tr>
<td>CDKN2A</td>
<td>Familial atypical multiple mole melanoma syndrome (FAMMM), dysplastic nevi, melanoma, pancreatic cancer</td>
<td>Protein products p14 and p16 modulates cell cycle progression via p53 and Rb pathways.</td>
</tr>
<tr>
<td>CCND1/CDK4</td>
<td>CSD sites, acral and mucosal melanoma</td>
<td>Amplification leads to increased phosphorylation of Rb gene allowing E2F to promote expression of genes that leads to the progression from G1 to the S phase.</td>
</tr>
</tbody>
</table>

**Types of nevi, genomic associations, and phenotype**

| Common and congenital melanocytic nevi | BRAF and NRAS | Maturation of nests                                               |
| Blue nevi and related neoplasms       | GNAQ and GNA11 | Heavily pigmented dendritic melanocytes                           |
| Desmoplastic spitz                    | HRAS          | Prominent fibrotic stroma                                         |
| Spitz                                | ALK fusion    | Plexiform growth pattern with large nests of fusiform to polygonal melanocytes in elongated nests. |
| Spitz                                | ROS-1 fusion  | Well-circumscribed and dome-shaped                                |
| Spitz                                | NTRK1 fusion  | Classical histology                                                |

**Abbreviations**

- CSD – chronic sun damaged
- CMN – congenital melanocytic nevi

**References:**

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.

Pearls for autoimmune bullous dermatoses

By Sylvia Hsu, MD

Pearl #1: I don’t perform mouth biopsies for pemphigus vulgaris anymore, since ELISA is more reliable than histopathology and DIF for the diagnosis.

The most accurate diagnostic and disease activity-monitoring tool for pemphigus vulgaris (PV) and pemphigus foliaceus (PF), anti-Dsg3 ELISA has a sensitivity of 97% and specificity of 98% in PV. Anti-Dsg1 ELISA has a sensitivity of 96% and specificity of 99% in PF. The location of the split on histopathologic examination classically distinguishes PV and PF; however, in practice there is variability and overlap in the level of clefting. In PV and PF, DIF reveals intercellular binding of IgG or C3 in the epidermis with 90 – 100% sensitivity. In PF, epifluorescence is stronger in the upper epidermis but stronger in the lower epidermis in PV; however, this differentiation based on the concentration of the target antigen is not always reliable.

References:

Pearl #2: In practice, the DIF (and the histopathology) of dermatitis herpetiformis (DH) and linear IgA bullous dermatosis (LABD) may be indistinguishable from one another.

The DIF of DH classically shows granular IgA in the papillary dermis and the DIF of LABD classically shows linear IgA along the basement membrane zone. However, in practice, the distribution of the IgA is not always clear-cut. The histopathology of DH and LABD can be indistinguishable, since they both show a subepidermal split with neutrophils.

Pearl #3: The histopathology of DH and bullous lupus erythematosus are indistinguishable from one another. Both show a subepidermal split with neutrophils.

Reference:

Pearl #4: Low-level bullous pemphigoid (BP) autoantibodies can be found in patients who do not have bullous pemphigoid.

The commercially available bullous pemphigoid 180 (BP180) NC16A enzyme-linked immunosorbent assay (ELISA) is a test that can be used to aid in the diagnosis of bullous pemphigoid (BP). A result of > 9 U/mL is defined as a positive test. However, a positive test does not necessarily mean the patient has BP. Circulating BP180 autoantibody can be detected in patients who do not have BP. In a study by Liu et al, the authors sought to determine an optimum cutoff value of BP180 ELISA to detect true BP. A total of 173 in-patients were included: 26 patients with BP and 147 patients in which BP was initially suspected, but later excluded. The titers of BP180 autoantibodies in non-BP patients were significantly lower than those of BP patients (median titer 17.1 U/mL versus 67.1 U/mL). Receiver operating characteristic curve [plot of sensitivity vs (1 − specificity)] analysis was used to generate paired sensitivity and specificity values based on BP180 autoantibody titers. The optimum cutoff value to determine true BP patients from non-BP patients was calculated on the basis of maximizing the Youden index (J = sensitivity + specificity − 1). This optimum cutoff was found to be 27.2 U/mL, which has a sensitivity of 65.4% and a specificity of 98.0%, in contrast to the standard cutoff of 9 U/mL, which has a sensitivity of 73.1% and much lower specificity of 85.7%. These results show that low-level BP180 autoantibodies can be found in patients who do not have BP and the results of BP180 ELISA should be interpreted in conjunction with clinical findings and immunopathologic test results.

Reference:

Pearl #5: A DIF for any autoimmune bullous dermatosis taken from the lower extremities may be false-negative.

Reference:
**AADA’s Practice Management Center is your new BFF**

The AADA’s Practice Management Center will be a reliable friend and trusted resource when you have completed your residency and begun practice. It offers resources to support your practice and your career, and access to many dermatology-specific manuals. Here, in a nutshell, are some of the resources you will use:

- **AAD’s DataDerm.** Created by dermatologists, for dermatologists, DataDerm is a clinical data registry to transform your practice and elevate the specialty.
- **Coding resources.** Find practical tips about common dermatological coding issues, including biopsies, excisions, E/M, and modifiers. There is so much here, you’ll want to bookmark this one: [www.aad.org/member/practice/coding](www.aad.org/member/practice/coding).
- **Prior authorization letter tool.** Easily create appeal letters to help overturn denials for prior authorizations.
- **MIPS reporting.** Access the Academy’s resources on whether to participate in MIPS, how to avoid a penalty, and earning an incentive. Updated annually with a focus on the changes to the program that matter most to dermatologists.
- **Compare drug prices.** Use this tool to search for the price of drugs and educate your patients on the cheapest alternative.
- **Compliance guides.** Use the Academy’s step-by-step guides to help you meet compliance requirements like CLIA, HIPAA, and OSHA.
- **Scope of practice support.** Access an interactive map to find NP/PA regulations in your state and get scope of practice support from the Academy.
- **Teledermatology tools.** Resources to help implement telemedicine, get reimbursement, and improve access for your patients.
- **Managing a practice.** Find a wealth of resources on managing a practice, including info on staffing, products, practice models, and combating burnout.
- **Recommended vendors.** The Academy’s preferred providers offer members practical, money-saving solutions for personal and professional stability.

**Breakfast beats burnout!**

*By Karan Lal, DO, MS, chief resident at UMass Dermatology*

Resident burnout affects many residents in different specialties. Dermatology is no exception. Although changing duty hours and adjusting regulations for residents in more in-house specialties has provided some relief, residents in specialties such as dermatology experience a different type of burnout. The educational demand, the large amount of documentation, and the fast pace all contribute to this burnout phenomenon. At UMass Dermatology, during Resident Appreciation Week, not only does the University of Massachusetts have various events like massages, mixers, free coffee, and ice cream socials for residents, our dermatology faculty host a breakfast with homemade food for the residents during our weekly journal club. These signs of appreciation and words of encouragement are often the best way to reassure us residents that we are valued and contribute to the care of our patients.

**What’s going on in your residency program?**

Send your photos and accomplishments to Dean Monti at dmonti@aad.org.
It seems hard to believe, but eventually residency does end! I know that for me, the last three years have flown by. While I will be happy to leave some parts of residency behind, there are other aspects that I will miss immensely like working with my co-residents and being surrounded by people who nerd out about skin as much as I do!

Luckily, during and after residency there are ways to stay up to date with the newest information and plugged into the Academy. In this issue we look at the many resources the Academy has for us post-residency. One of my favorite ways to stay current is by following the JAAD Journals account on Instagram (@jaadjournals). They post JAAD “game changers” and interesting cases/quizzes. You can also join the JAAD online journal club and discuss that month’s articles with other dermatologists across the country. Another great and easy resource is the Dialogues in Dermatology podcast which makes a fantastic listen during your commute. Look inside this issue for more information and links.

If you want to take a more involved role in the future direction of the specialty don’t miss out on the AADA Legislative Conference in D.C. this September. It is a great opportunity to meet with (and help inform) the people who make all the (sometimes confounding) rules we have to follow. If you are a resident you can even apply for a scholarship to help cover the cost of attendance. In short whether you are just starting your residency, or getting ready to finish it, there have never been more ways to stay connected!

Editor’s note: As Dermatology World resident advisor for the past two years, Dr. Oetken has helped the AAD cultivate and publish high-yield content for residents in Directions.

We wish her all the best as she looks ahead to a bright future and thank her for her service to the AAD! DR

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