Currently in academia.2,3 Our findings corroborate those approximately 6% to 9% of US dermatologists currently in this study were pursuing an academic career (n=31), a substantially higher proportion than the graduates in the academic group published an average of 5.2 articles per person at the time of application compared with 1.9 articles per person in the nonacademic group.

Comment. Thirty-seven percent of the residents evaluated in this study were pursuing an academic career (n=31), a substantially higher proportion than the approximately 6% to 9% of US dermatologists currently in academia.2,3 Our findings corroborate those of other studies suggesting that dermatology residents with an MD and a PhD degree are more likely to enter academia.4 However, the number of publications prior to residency, independent of advanced degree status, was also associated with an academic career choice. The graduates in academia were also more likely to have extensive volunteer experiences prior to residency. We defined volunteer activities as community service–oriented activities that were not financially compensated. Individuals who choose a career in academia may place less importance on monetary compensation, though the nonmonetary rewards in academia are often perceived to be greater.5

This study has several limitations. The data are from a single institution and may not be generalizable. Changes in workplaces over time could not be determined. The data were based on each graduate’s application and curriculum vitae, and were not always uniform in presentation or detail. Finally, there is no way to determine the equivalence of various research, leadership, and volunteer experiences in terms of quality or content.

We believe that many factors are involved in a career decision, including many variables that are not available or easily measurable in a residency application. However, our data suggest that individuals with a strong research background and a commitment to volunteerism may be more likely to choose an academic career. By creating an environment during residency that supports these types of pursuits, dermatology residency programs might be better equipped to address the shortage of dermatologists in academic dermatology.

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Author Contributions: Drs Lim and Kimball had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: Lim and Kimball. Acquisition of data: Lim. Analysis and interpretation of data: Lim and Kimball. Drafting of the manuscript: Lim. Critical revision of the manuscript for important intellectual content: Lim and Kimball. Statistical analysis: Lim and Kimball. Administrative, technical, and material support: Lim and Kimball. Study supervision: Kimball.

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Additional Contributions: Diane Kovacev and Mary Jane Arenberg gave administrative assistance in providing access to the relevant department records.

4. Wu JJ, Davis RF, Ramirez CC, Alonso CA, Berman B, Tying SK. MD/PhDs are more likely than MDs to choose a career in academic dermatology. Dermatol Online J. 2008;14(1):27.

Photodynamic Therapy for Tumors on the Eyelid Margins

The eyelids are prone to basal cell carcinomas (BCCs) and papillomas.1 Cryotherapy, surgical excision, and radiotherapy have limitations related to their complexity and to the resulting functional deficiencies (eg, lagophthalmos or epiphora) and unsatisfying cosmesis.2 New treatment techniques for eyelid tumors are therefore desirable.

Photodynamic therapy (PDT) with topical methyl aminolevulinate (Metvix cream, 16%; Photocure ASA, Oslo, Norway) is a safe and effective noninvasive treatment of BCCs that causes minimal damage to surrounding tissue and results in excellent cosmetic outcomes.3 However, PDT is not normally used to treat eyelid lesions owing to the risk of phototoxic eye damage. We describe

<table>
<thead>
<tr>
<th>Table 2. Results of Multivariate Analysisa</th>
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<tbody>
<tr>
<td>Selected Factor</td>
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<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Asian ethnicity</td>
</tr>
<tr>
<td>Advanced degree</td>
</tr>
<tr>
<td>Number of publications</td>
</tr>
<tr>
<td>Months of research</td>
</tr>
<tr>
<td>Number of volunteer experiences</td>
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</tbody>
</table>

Abbreviations: CI, confidence interval; OR, odds ratio.

aStudy subjects with missing data for any of the selected factors were not included in the multivariate analysis; a total of 74 subjects were included in this analysis.

bConsidered statistically significant.
Figure. Photodynamic therapy (PDT) for eyelid tumors. A and B, Patient 10 undergoing lesion preparation. C, Illumination of patient 10 assisted by a nurse to ensure illumination of the entire tumor area. D, Patient 10 lesion 1 week after treatment. E and F, Patient 10 with basal cell carcinoma on the lower rima palpebrarum before (E) and 7 months after (F) PDT treatment. G, Patient 4 with papilloma on the lower eyelid previously treated with surgery and cryotherapy but before PDT treatment. H, Patient 4 nine months after PDT treatment.
how PDT can be performed safely in the treatment of eyelid BCC and papilloma in unselected cases.

Methods. Conjunctival anesthetic is administered (oxybuprocaine, 0.4%), and an ocular shield is inserted. Infiltration anesthetic (carbocaine, 20%, with adrenalin, 5%) is injected before debulking tumor tissue using a curet. A chalazion clamp may be used to hold the eyelid in a fixed position (Figure, A). Hemostasis is obtained by slight compression, and Metvix is applied to the lesion, including to a 5-mm margin of uninvolved skin (Figure, B).

Conjunctival tumors are treated by Metvix application on the ocular shield. The eye is covered with adhesive film and a light-impermeable eye patch. The patient rests for 3 hours in a calm environment, avoiding eyelid movements to minimize irritation. Then the tumor area is illuminated with a light-emitting diode lamp (37 J/cm², 632-nm wavelength) (Aktilite 128; Photocure ASA) (Figure, C).

The ocular shield is removed after illumination and replaced with a protective eye patch for 24 hours to protect from ambient light. Eye drops (chloramphenicol, 5%, and dexamethasone, 1%) are used daily for 3 days to prevent infection and irritation of the eye. After 1 week, crusts are removed, and the procedure is repeated (Figure, D).

Results. We used PDT to treat 12 patients with histologically verified eyelid BCC and papillomas (Table). Median complete response time was 8 months for 9 of the patients (range, 5-21 months), yielding a response rate of 75%. In 3 patients, however, the tumor recurred after a median of 4 months (range, 0-21 months). In all cases, functional and cosmetic outcomes were highly satisfying, and treatment-related pain was acceptable thanks to the anesthesia.

Comment. Our patients’ tumors were located primarily on the eyelid margin or rima palpebrarum, locations that make tumor debulking a challenge because of the soft base and tumor tissue involving the eyelashes. This might explain the poorer response rate for BCCs at this location, and more than 2 PDT sessions might be required for some of these tumors. However, our rate was more favorable than that found in a previous study, which treated eyelid and periorcular BCCs with laser-mediated PDT and 5-aminolevulinate, achieving complete response in only 42% of cases. Six of our patients had already undergone surgery prior to referral to us but experienced recurrence, clearly less favorable outcomes than those achieved by PDT.

To our knowledge, the use of conventional PDT techniques solely for treatment of tumors on the eyelid margins has not previously been described. Our cases may expand the use of PDT for these difficult-to-treat tumors.

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Author Contributions: All authors had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: Hædersdal and Wulf. Acquisition of data: Togsverd-Bo, Hædersdal, and Wulf. Analysis and interpretation of data: Togsverd-Bo, Hædersdal, and Wulf. Drafting of the manuscript: Togsverd-Bo. Critical revision of the manuscript for important intel-

Table. Patient Characteristics and Results of PDT Treatment of Eyelid Tumors

<table>
<thead>
<tr>
<th>Patient No./ Age, y</th>
<th>Diagnosis</th>
<th>Location</th>
<th>Previous Treatment</th>
<th>PDT Sessions</th>
<th>Follow-up, mo</th>
<th>Recurrence</th>
<th>Retreatment With PDT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/57 BCC, nodular</td>
<td>Upper eyelid, margin</td>
<td>Surgery</td>
<td>2</td>
<td>5</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>2/70 BCC, nodular</td>
<td>Upper eyelid, superior part</td>
<td>None</td>
<td>2</td>
<td>21</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>3/71 BCC, nodular</td>
<td>Lower eyelid, margin and inferior part</td>
<td>Surgery</td>
<td>2</td>
<td>20</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>4/88 BCC, nodular</td>
<td>Lower eyelid</td>
<td>Surgery</td>
<td>2</td>
<td>8</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>5/58 BCC, nodular</td>
<td>Lower eyelid</td>
<td>Surgery and cryotherapy</td>
<td>2</td>
<td>1</td>
<td>Yes</td>
<td>No, owing to local reactions</td>
<td></td>
</tr>
<tr>
<td>6/52 BCC, nodular</td>
<td>Upper eyelid, margin</td>
<td>None</td>
<td>2</td>
<td>18</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>7/60 BCC, nodular</td>
<td>Upper eyelid, superior part</td>
<td>None</td>
<td>2</td>
<td>8</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>8/53 BCC, nodular</td>
<td>Upper eyelid, margin</td>
<td>None</td>
<td>2</td>
<td>4</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>9/61 BCC, nodular</td>
<td>Upper eyelid, margin</td>
<td>None</td>
<td>2</td>
<td>5</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>10/86 BCC, nodular</td>
<td>Lower eyelid margin and rima</td>
<td>None</td>
<td>2</td>
<td>7</td>
<td>No</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>11/60 BCC, nodular</td>
<td>Medial canthus</td>
<td>Cryettage</td>
<td>2</td>
<td>4</td>
<td>Yes</td>
<td>No, owing to pain and local reactions</td>
<td></td>
</tr>
<tr>
<td>12/64 BCC, nodular</td>
<td>Lower eyelid, margin and rima</td>
<td>None</td>
<td>1</td>
<td>21</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: BCC, basal cell carcinoma; NA, not applicable; PDT, photodynamic therapy.

a Biopsy specimens were obtained from all tumors and showed either BCC or papillomas (benign epithelial tumors without warty or nevus structure). All patients had excellent functional and cosmetic outcome.
sectual content: Hædersdal and Wulf. Administrative, technical, and material support: Hædersdal and Wulf. Study supervision: Hædersdal and Wulf.

Financial Disclosure: Dr Hædersdal has received a fee from Photocure ASA for organizing education seminars; Dr Wulf has received a fee from Photocure ASA for organizing education seminars and speaking engagements.

Additional Contributions: Clinical photographer Nis Kentorp took the photographs.


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**Searching the LILACS Database Could Improve Systematic Reviews in Dermatology**

Well-performed systematic reviews should analyze as many articles as possible to provide the best evidence available. However, some reviews limit their searches only to a few numbers of databases, mainly literature in English, published in journals fundamentally edited in developed countries.

The LILACS database is an underused source of trials that indexes journals mainly from Latin American and Caribbean countries. In the present study, I sought to assess whether including a LILACS search improved the quality of systematic reviews in dermatology.

**Methods.** I evaluated reviews from the Cochrane Skin Group and a sample of non-Cochrane reviews published from 2002 to 2007 in the 4 dermatologic journals with the highest impact factors (Journal of the American Academy of Dermatology, Archives of Dermatology, Journal of Investigative Dermatology, and British Journal of Dermatology). The first group of reviews was retrieved from the Cochrane Skin Group Web site, and the non-Cochrane reviews were found through a search in Medline, according to the strategy described by Montori et al. A systematic review was defined as a study that used any systematic way of searching the literature using explicit criteria for article selection.

For the included reviews, we used LILACS to locate randomized clinical trials that matched each review’s inclusion criteria using a validated, highly sensitive LILACS search strategy described elsewhere. The LILACS search result was classified positive when at least 1 randomized controlled trial that fit the inclusion criteria was found and negative when no such trials were located. The search results were considered inconclusive when at least 1 trial that fit the inclusion criteria was found but it could not be sorted as a randomized one. For the positive LILACS search results, the references listed in the review were checked to determine if the identified articles had already been located.

**Results.** A total of 44 reviews (25 Cochrane and 19 non-Cochrane) were analyzed. Three of the Cochrane reviews included a LILACS search and were excluded from further analysis (Table and eTable [http://www.archdermatol.com]). Twenty percent of the reviews (8 of 41) were restricted to English-language articles and 51% (21 of 41) explicitly had no language restriction.

The LILACS search results were positive in 29% of all reviews (12 of 41), inconclusive in 34% (14 of 41), and negative in 37% (15 of 41). In 5 of the 14 inconclusive cases, the original review allowed any kind of trial as inclusion criteria. In Cochrane reviews, 18% of the search results were positive (4 of 22), whereas in the non-Cochrane reviews 42% were positive (8 of 19). On the other hand, 27% (6 of 22) and 42% (8 of 19), respectively, produced inconclusive results (references available from the author).

Among the 12 reviews with positive LILACS search results (4 Cochrane and 8 non-Cochrane), only 1 Cochrane review had located the article identified on LILACS by other methods. Therefore, in 27% of the systematic reviews (11 of 41), a LILACS search was effective in identifying new articles suitable for inclusion and not located by the authors.

In conclusion, using LILACS can increase the number of trials potentially suited for inclusion in systematic reviews.

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**Financial Disclosure:** None reported.

**Additional Information:** An eTable is available at http://www.archdermatol.com.

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