# **SOCIAL MEDIA:**

# THE **BeST** METHOD FOR FREE, EFFECTIVE, GLOBAL PATHOLOGY EDUCATION"

0

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## Jerad M. Gardner, MD

Chair, ASDP Social Media Subcommittee
Associate Professor of Pathology and Dermatology
Dermatopathology, Bone & Soft Tissue Pathology
University of Arkansas for Medical Sciences
Little Rock, Arkansas, USA



















# **DISCLOSURES**

- I hold stock in Google & Apple in retirement account
- No other relevant financial relationships to disclose
- I do NOT own stock in Facebook, Twitter, or any social media company











# HOW I USE SOCIAL MEDIA

Teaching & Learning



- Networking
- Patient Advocacy
- Research
- Communication









Jerad Gardner, MD @JMGardnerMD

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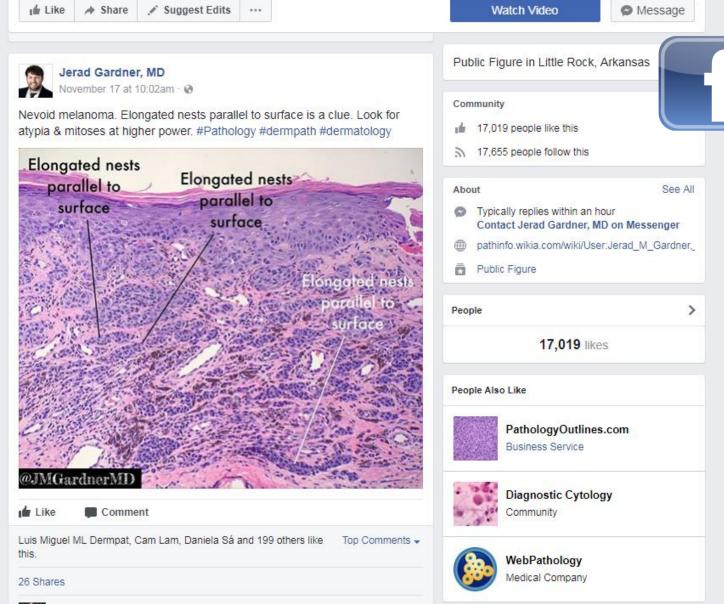
Videos

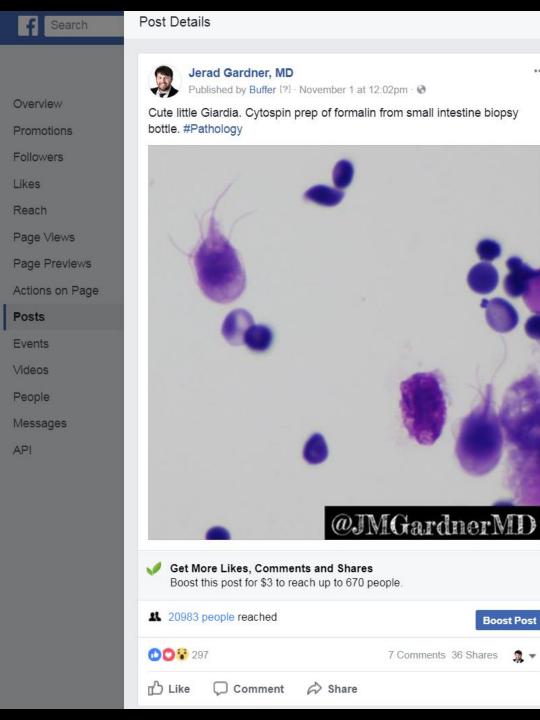
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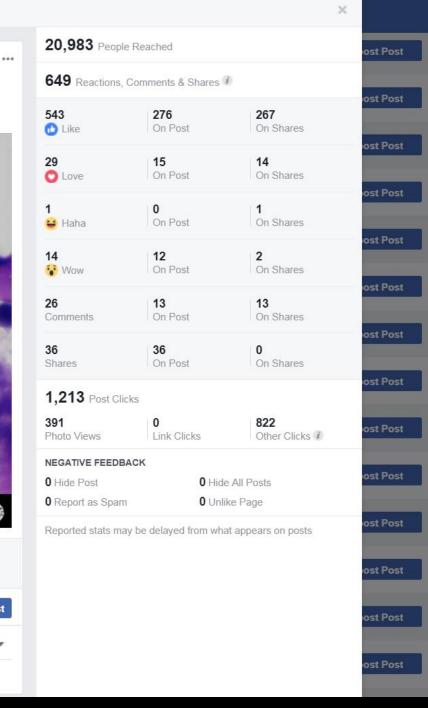
About

Community

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Published by Buffer [?] - August 2, 2017 - 3

Ectopic prostate tissue w adenocarcinoma in dome of bladder. My 1st case report! Arch Pathol Lab Med http://buff.ly/2tGt0AZ #ASCP40underForty2017

Case Report

#### Adenocarcinoma in Ectopic Prostatic Tissue at Dome of Bladder

A Case Report of a Patient With Urothelial Carcinoma of the Bladder and Adenocarcinoma of the Prostate

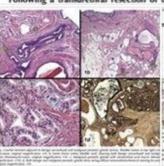
Jerad M. Gardner, MD; Hema Khurana, MD; Fredrick S. Leach, MD; Alberto G. Ayala, MD; Jim Zhai, MD; Jae Y. Ro, MD, PhD

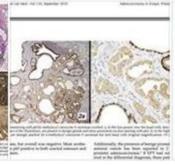
· We report a case of ectopic prostate tissue with an associated prostatic adenocarcinoma occurring in the dome of the urinary bladder. A 62-year-old man presented with a 4-month history of persistent microscopic hematuria following a urinary tract infection. Other complaints included frequent urination, but there was neither dysuria nor gross hematuria. Digital rectal examination revealed a smooth prostate of normal size. Cystoscopic examination revealed a sessile lesion of the anterior bladder neck and multiple smaller papillary lesions throughout the bladder. Following a transurethral resection of the bladder tumor

typically on the top of one's differential diagnosis when first examining a bladder lesion, cervical conization, or decubitus ulcer debridement. However, these specimens, as well as a variety of others in both sexes, have occasionally contained prostatic glands, as reported in many articles in the literature.1-3 This article describes a unique case of prostatic adenocarcinoma arising from EPT occurring in the dome of the urinary bladder.

#### REPORT OF A CASE

A 62-year-old African American man presented to the







9.303

People Reached

980

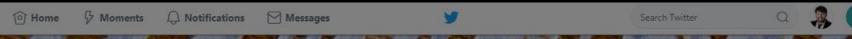
Engagements

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Mawa Saidy, Leili Mirsadraei and 140 others

3 Comments 27 Shares



Jerad Gardner, MD

Tweet your reply



#### Jerad Gardner, MD

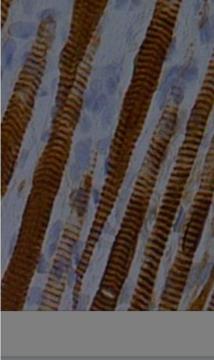
@JMGardnerMD

Dermpath/Sarcoma Pathologist
@DermpathUAMS. Deputy Editor-in-Chief:
@ArchivesPath. Board member:
@ASDPTweets. SoMe Chair: @TheUSCAP &
ASDP. #pathJC #dermpathjc

- O Little Rock, AR
- @ pathinfo.wikia.com/wiki/User:Jera...
- Joined June 2009







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### Tweet activity

#### Your Tweets earned 663.7K impressions over this 28 day period



YOUR TWEETS During this 28 day period, you earned 23.0K impressions per day.

Tweets	Top Tweets	Tweets and replies	Promoted	Impressions	Engagements	Engagement rate
	Jerad Gardner, MD @JMGardnerMD · Nov 19 Suprabasilar blister w "tombstone row" of basal keratinocytes. Pemphigus? No! Just Grover's disease. Clinical info = crucial in #dermpath! pic.twitter.com/ixPBCIKjUS View Tweet activity			5,862	362	6.2%

3,619

4,542

70

399

Engagements Showing 28 days with daily frequency Engagement rate 2.9% Nov 21 3.0% engagement rate



Jerad Gardner, MD @JMGardnerMD · Nov 19 LOVE those ripples!!! #pathology #dermatology #dermpath twitter.com/Patholwalker/s...

View Tweet activity

1.9%	
	Link clic
	LITTIN CITO
	4 017
	-1.3K
	1.01

8.8%

6.1%



Jerad Gardner, MD @JMGardnerMD · Nov 19 Odd epidermal lesion you can't quite classify? Look for lamellae. Porokeratosis can be subtle (this one isn't!) #dermpath #dermatology pic.twitter.com/Q0Yq7kE7D0

View Tweet activity

Jerad Gardner, MD @JMGardnerMD · Nov 18 4,908 297 PAS control slide. Fungal hyphae fill airspaces of lung. #Pathology pic.twitter.com/B8kdDNygtH

View Tweet activity



On average, you earned 45 link clicks

per day



## REVIEW ARTICLE

# Diagnostic Approach and Prognostic Factors of Cancers

Se Jin Jang, MD,\* Jerad M. Gardner, MD,† and Jae Y. Ro, MD, PhD\*†

Abstract: When one follows a systematic approach to make a diagnosis of a malignant lesion, it is relatively easy to render a correct cancer diagnosis in most cases during routine daily practice. The first step is to recognize whether or not the specimen contains a lesion and then to determine whether the lesion is neoplastic or non-neoplastic. As a neoplasm is a clonal proliferation, neoplastic conditions are consisted of a single cell type, whereas non-neoplastic conditions consist of multiple different cell types. After determining that a lesion is neoplastic, the next step is to decide

Pathologic diagnosis is still ranked as a gold standard of tumor diagnosis despite remarkable advances in imaging techniques and molecular biology of tumors. As modern medicine is built on the basis of pathology, pathologic terminology has become a common language system between doctors, especially in the oncology related fields. In most instances, treatment of cancer patients starts after pathologic diagnosis; therefore, correct diagnosis is extremely important for timely and appropriate treatment.

Adv Anat Pathol • Volume 18, Number 2, March 2011



## My mentor Dr. Ro created this amazing

## Tweet Activity



Jerad Gardner, MD @JMGardnerMD

My mentor Dr. Ro created this amazing algorithmic approach to diagnosing cancer: 1. Neoplasm or not? 2. Epithelial vs mesenchymal? 3. Benign vs malignant. Check out our paper; perfect for new #pathologists starting in July! https://www.ncbi.nlm.nih.gov/m/pub med/21326014/ ... #pathology #uscap2019 #Match2019 pic.twitter.com/Pu0DevqMPa

7	Reach a bigger audience Get more engagements by promoting this Tweet!
	3 3 7 1 3

**Get started** 

**Impressions** 6,189 Total engagements 1.295 648 Media engagements 225 Link clicks 173 Likes 111 Detail expands 81 Retweets 27 Profile clicks 23 Hashtag clicks Replies

ologic features.



TABLE 2. Differential Diagnosis c Neoplaums (f)

Feature

Differentiation
Growth patter
Growth patter
Melastians
About (sare exc

## **FACEBOOK DISCUSSION GROUPS**





I created both groups in 2013

Now: 28,000+ & 18,000+ members

500-800 teaching cases discussed in each group (as of 2015)

Major turning point in my career



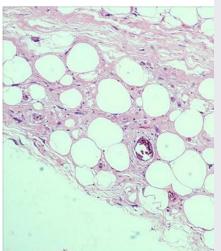


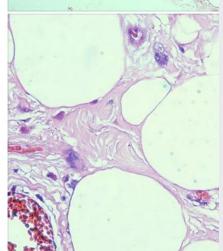


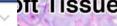
## Sandhya Ramachandran added photos to 487/15.

June 10

An adult M mass in neck & shoul 3 yrs. ? Atypical Lipomatous Nec









lerad Gardner (USA) César Alvarenga (Brasil) Oscar Messa (Colombia) Jonathan Boyd (USA) Willy Changchien (Hungary) me Mejia (Colombia) rônimo Jr. (Brasil) son Gondim (USA) cole Riddle (USA)

urag Sharma (India)

Notifications

rch this group

53 of 84

17,154 Members (74 new)

ople to Group











You, Jaime Arturo Mejia, Kalyani Bambal, Nejib Ben Yahia and 33 others like this.

#### View previous comments

Rajeshree Moni Sandhya Ramachandran thanks for posting the immunos, so I agree with Dr.Gardner given the histology and ihc to call it Atypical Lipomatous tumor.Dr.Jaime Arturo Mejia



Niveditha Shankaran Rukmini Thank you Sandhya! I guess still the immunos and histopath are clashing... What have you reported it as???

June 15 at 3:52am · Like · ₼ 1



Sandhya Ramachandran Tanx so much Jerad, Rajeshree, Niveditha... yes, it is not starightfwd! I'm going to go along wJerad n Rajeshree ..1) relying more on H&E morphol. and 2) the p16....3) lipobalsts are nicely highlighted on S-100 !! 4) in the inavailability of both ... See More

June 15 at 4:10am · Edited · Like · 1 1



Niveditha Shankaran Rukmini Thank u Sandhya. I guess you are looking at Al the slides as a whole and will have a better perspective.. Your case did elicit lot of discussion .. Thank you.. It was a learning experience for me too..

June 15 at 4:18am · Like · 1 1



Sandhya Ramachandran tanx to u all guys for all inputs... i feel i'm not alone in reporting <u>U</u> 3 cheers to all Path fora!

June 15 at 4:26am · Edited · Unlike · 1 1



Jerad Gardner ALT is uncommon superficially but absolutely occurs. 9 cm is pretty large for a spindle cell/pleomorphic lipoma. I've seen them that large but only rarely. Thanks for sharing this nice case and stimulating some great discussion, Sandhya!

June 15 at 4:32am · Like · € 2



Jerad Gardner Although ALT/WDL often does have pleomorphic lipoblasts (as this case shows), lipoblasts are not required for the diagnosis. The only

# Facebook Discussion Groups Provide a Robust Worldwide Platform for Free Pathology Education

Raul S. Gonzalez, MD; Sadiq M. Amer, MD; Nejib Ben Yahia, MD; Felipe D'Almeida Costa, MD; Manu Noatay, MD; Jian-Hua Qiao, MD; Flavia G. Rosado, MD; Yale Rosen, MD; Bruno Tavares Sedassari, DDS; Rhonda K. Yantiss, MD; Jerad M. Gardner, MD

• Context.—Facebook (Menlo Park, California) is one of many online sites that provide potential educational tools for pathologists. We have each founded Facebook groups dedicated to anatomic pathology, in which members can share cases, ask questions, and contribute to discussions.

Objectives.—To report our experiences in founding and maintaining these Facebook groups and to characterize the contributed content.

Design.—We circulated a survey among the group founders, then compiled and analyzed the responses.

Results.—The groups varied in membership and in the quality of member contribution. Most posts were of pathology cases, although other topics (such as research articles) were also shared. All groups remained active and

received posts from users all over the world, although all groups had many noncontributing members and received unwanted messages (which were screened and removed). Most founders were glad they had founded the groups because they provided an opportunity to both teach and learn.

Conclusions.—Each analyzed Facebook group had a different character, and some downsides exist, but the groups all provided a no-cost way for pathologists and others across the world to interact online with many colleagues.

(Arch Pathol Lab Med. doi: 10.5858/arpa.2016-0369-OA)

United States Saudi Arabia Tunisia Brazil India

2







Tweets **1,716** 

Following 186

Followers 2,903 Likes 2,028

## **PhillipMckeeDermpath**

@phmckee1948 Follows you

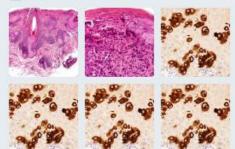
Dermatopathologist - retired Special interests-skin cancer particularly melanoma. Author of text books on the pathology of skin disease. 2017 Mckee Derm on FB.

- © France
- Joined September 2015
- O Born on April 09

Tweet to

Message

#### 352 Photos and videos

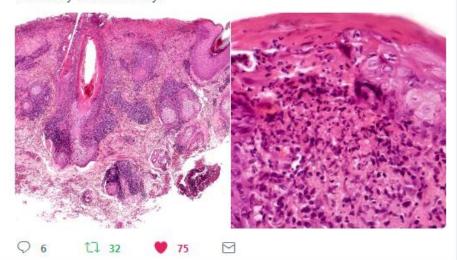


#### Tweets & replies Media



PhillipMckeeDermpath @phmckee1948 · 30 Dec 2017

McKee Derm is consuming me. I am sorry for not having tweeted for so long. A New Year's resolution!! Here's a nice spot diagnosis from a case kindly shared with me by Eduardo Calonje.



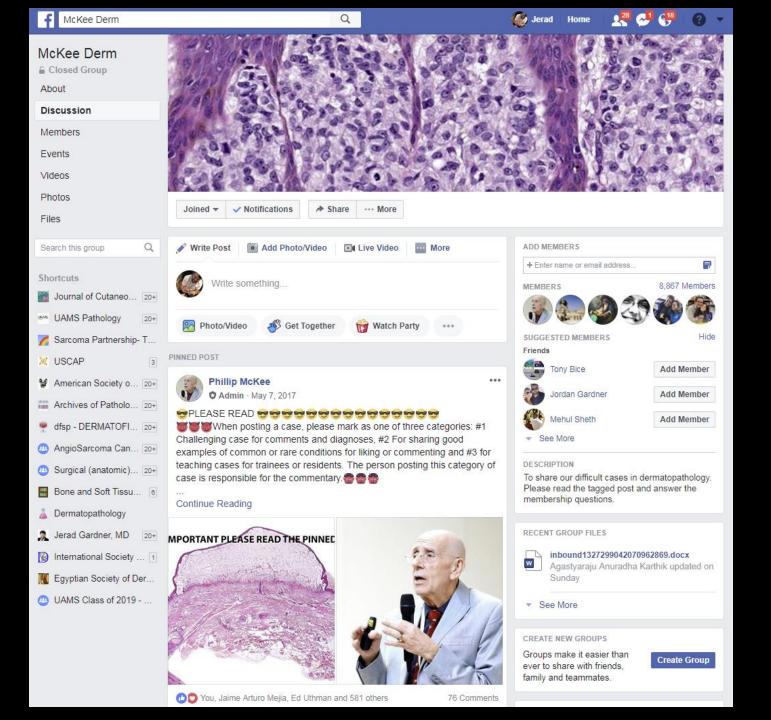


PhillipMckeeDermpath @phmckee1948 ⋅ 29 Nov 2017 Well done

#### Dermpath-L @Dermpathl

Replying to @phmckee1948

There are intercellular bridges between some of the pale pagetoid cells. Pagetoid Bowen's d.? Initially wondered whether the bx is oblique



## Social Media Use for Pathologists of All Ages

Jerad M. Gardner, MD; Phillip H. McKee, MD, FRCPath

Dathologists have shown an increasing acceptance of professional social media use in recent years. There are currently more than 4700 pathologists and pathologyrelated accounts on Twitter per an online list maintained by one of the authors (J.M.G.). Many pathology organizations and journals have social media accounts.2 Facebook, Twitter, and other social media platforms provide numerous potential benefits to the global pathology community.<sup>2-21</sup> Despite this growing popularity and acceptance, some pathologists are still reticent to use social media professionally. 22,23 One of the authors (J.M.G.) has given more than 60 invited lectures related to professional social media use. In discussions with many pathologists, he has often heard some variation of "but I'm too old" as a reason that many pathologists from the Baby Boomer generation or beyond choose not to use social media. To the contrary, the authors know pathologists of all ages, generations, and experience levels who effectively use social media. We suspect that many pathologists, particularly those from older generations, are still unaware of the many potential benefits of social media regardless of age or career stage.

The authors of the present work are both dermatopathologists who use social media professionally but are from different ends of the generational and career stage spectrum. J.M.G. has been in academic practice for 6 years at the University of Arkansas for Medical Sciences. P.H.M. is currently retired after having an academic career at Brigham and Women's Hospital, The Institute of Dermatology, and other centers that spanned more than 30 years. The authors became acquainted with one another via social media in 2016. They interact often online but have yet to meet face to face "in real life." Both authors have experienced significant benefits from using social media, and they sought to share some of those experiences here to represent different perspectives across the age/generation/career stage spectrum.

## WHICH SOCIAL MEDIA PLATFORMS DO YOU USE AND HOW?

J.M.G.: "Twitter, Facebook, Instagram (parent company: Facebook), Snapchat, YouTube (parent company: Google). I use Twitter and my public Facebook page as my main platforms for publicly sharing pathology educational content (eg, images of interesting cases, teaching pearls, links to articles or useful resources, etc). 4,8,16 I use Twitter for live tweeting content from pathology meetings such that pathologists who could not attend the meeting, both back home and around the world, can keep up with the cuttingedge information arising from the meeting (as well as the excitement of the social interactions at the meeting).7 I use Twitter for pathology journal clubs (#pathJC and #dermpathJC) where colleagues from around the world can come together and discuss a preselected article from the published literature in real time. 17 I participate in Facebook groups for more in-depth discussion of cases with other pathologists.8 Examples include my own dermatopathology (www.facebook.com/groups/dermatopathology/) and bone and soft tissue pathology (www.facebook.com/groups/ softtissue/) Facebook groups as well as many other Facebook groups that I am a member of (including McKee Derm; www.facebook.com/groups/mckeederm/). I volunteer in a variety of sarcoma and other rare cancer patient Facebook support groups, where I educate patients and also learn from them about their diseases. 9,15,24 I also share pathology content on Instagram and Snapchat, but I post less frequently and tend to filter content to some extent on those platforms, posting images and topics that may appeal to a broader audience that includes many nonpathologists.<sup>25</sup>

YouTub Gardner tool tha Instead basic fea

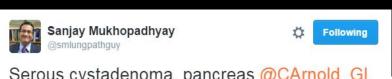
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of Pathology & Laboratory Medicine

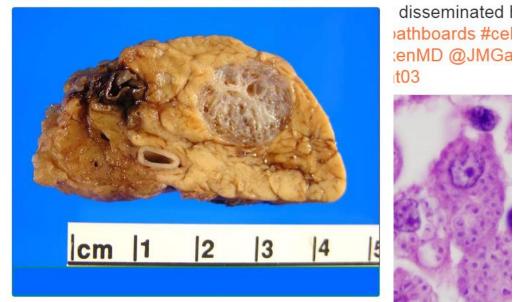
#### Article Citation:

Jerad M. Gardner and Phillip H. McKee (2019) Social Media Use for Pathologists of All Ages. Archives of Pathology & Laboratory Medicine: March 2019, Vol. 143, No. 3, pp. 282-286.

# #pathboards



Serous cystadenoma, pancreas @CArnold\_Gl @PancPathologist @djaiims @btgxo @yanling60 @H\_Elshoni #gipath #pathboards













2:55 PM - 9 Jun 2016

Q Cleveland, OH



Female, pleural effusion. Check out cytoatlas for the dx!

@marenwhymd @DrJDBoyd #cytopath











Following





hopadhyay

disseminated I

6:32 PM - 20 Apr 2016



# **Twitter Homework**



## Christina Arnold, MD

@CArnold GI FOLLOWS YOU

#GI #SoftTissue #Pathology #OSU #PSIG #TraineeAdvocate Author of Atlas of Gastrointestinal Pathology: A Pattern Based Approach to Non-Neoplastic Biopsies

Oclumbus, OH

pathology.med.ohiostate.edu/ext/Faculty pa...

Joined October 2014



Christina Arnold, MD @CArnold GI

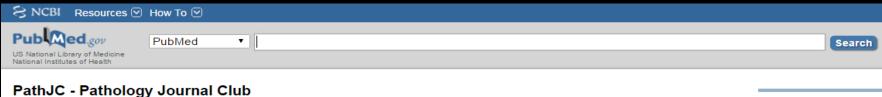


**Following** 

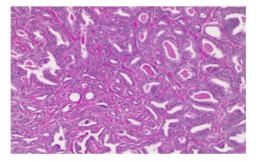
@JMGardnerMD @smlungpathguy board prep so much easier w #pathboards & #knoworfail. mike & I give "twitter homework" to encourage trainees

RETWEETS LIKES 🍾 🤧 🚳 👰 🏙 墨 👧 📦 🧿 13 11:06 AM - 29 Jul 2016 **13** 4 13

# #pathjc (Twitter pathology journal club)



#### PathJC - Pathology Journal Club



PubMed Commons Journal Club member since September 2016

Genevieve Crane (UT Southwestern) serves as guarantor for this PubMed Commons Journal Club.

Our goal is to discuss research and articles on the forefront of the field of pathology. Journal club discussions are conducted once a month on the social media platform Twitter, using the hashtag #pathic and using @Path\_JC as the official handle. Twitter allows for open international discussion of articles and is free to all-you can follow the discussion without a Twitter account but will need an account to participate and ask questions (which is the fun part!). PathJC is organized by the founders for educational purposes only. It is not medical advice. It is not formally affiliated with any journal or any pathology organization, nor with the employers of any of the PathJC founders.

#### PathJC founders

- Christina Arnold (@CArnold GI)
- Michael Arnold (@MArnold PedPath)
- Matt DeNicola (@drmattdenicola)
- Simon Chiosea (@chioseasi)
- Eve Crane (@evemariecrane)
- Maren Fuller (@marenwhymd)
- Jerad Gardner (@JMGardnerMD)
- Sara Jiang (@Sara Jiang)
- Matthew Wasco (@Gleason4plus5)
- Sean Williamson (@Williamson SR)



Latest Comments

The founders of the Pathology Journal Club are:

Christina Arnold @CArnold\_GI

Michael Arnold @MArnold\_PedPath

Matt DeNicola @drmattdenicola

Simon Chiosea @chioseasi

Eve Crane @evemariecrane

Maren Fuller @marenwhymd

Jerad Gardner @JMGardnerMD

Sara Jiang @Sara\_Jiang

Matthew Wasco @Gleason4plus5

Sean Williamson @Williamson\_SR

The #EuroTime #PathJC team are:

Eduardo Alcaraz @edusqo

Claudio Bellevicine @pathologyfinder

Rita Carvalho @ritaescarvalho

Eva Comperat @evacomperat

Laura Guerra @DraEosina

Tania Labiano @tlabiano

Stefania Landolfi @steland011

Yasmine Lys @yasminelys

Lara Pijuan @Lara\_Pijuan

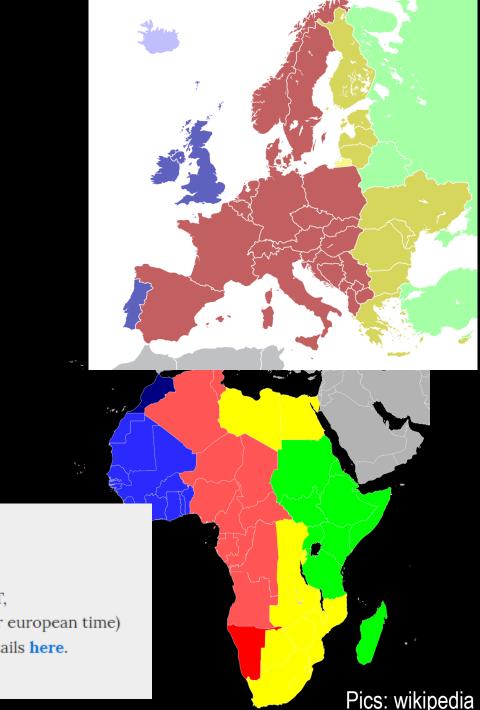
Irene Sansano @sansanovalero

#### How do I participate?

Get on Twitter at the journal club times

- Americas time zone: Tuesday, 9 pm EST / 8 pm CST,
- -#EuroTime: Wednesday, 9pm CEST (central summer european time)

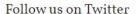
Follow the hashtag **#pathjc** and **@Path\_JC**. More details **here**.



## #dermpathJC

The Dermatopathology Online Journal Club





Tweets by @DermpathJC •







@karenckelly

It's Thursday, must be time for ice cream at @CafeKubal #yum @GirlAtTheScope @NogginPath

## Introducing #dermpathJC

Posted on March 28, 2017 by dermpathic

The 1st Dermpath Online Journal club brought to you by the ASDP Social Media Subcommittee. Twitter handle: @dermpathJC. Twitter hashtag: #dermpathJC.

Leave a comment











DermpathJC @DermpathJC · Mar 14

Replying to @DermpathJC @JMGardnerMD and 25 others

Save the Date! Next #dermpathJC is scheduled for 03/28/2019, 9pm EST. Open access article from @ArchivesPath. Cutaneous metastases... how would you approach them?! 😂 😌 Link: doi.org/10.5858/arpa.2...

#dermpath #pathology #dermatology

## **Cutaneous Metastases**

## A Review and Diagnostic Approach to Tumors of Unknown Origin

Gabriel Habermehl, MD; Jennifer Ko, MD, PhD

Context.—Cutaneous metastases from a distant malignancy are a diagnostic challenge for pathologists. Secondary involvement of the skin by a metastatic process portends a much worse clinical prognosis than any primary cutaneous malignant mimickers. Immunohistochemical staining methods continue to evolve and are of paramount importance in diagnosis.

Objective.—To review the clinical, histopathologic, and immunohistochemical staining patterns for commonly encountered entities and discuss potential pitfalls in diagnosis. A practical guide useful in approaching cutaneous metastases of unknown primary is outlined.

Data Sources.—An extensive search and review of literature in PubMed was performed, processed, and condensed.

Conclusions.—Cutaneous metastases have broad histopathologic patterns. They are nearly always dermal based, with an overall foreign appearance. They can be single papules/nodules or multiple in number, mimicking an inflammatory or infectious process. Ultimately, immunohistochemistry remains an essential diagnostic tool, and clinical correlation is paramount in the workup of these entities.

(Arch Pathol Lab Med. doi: 10.5858/arpa.2018-0051-RA)





#### Jerad Gardner, MD

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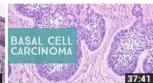
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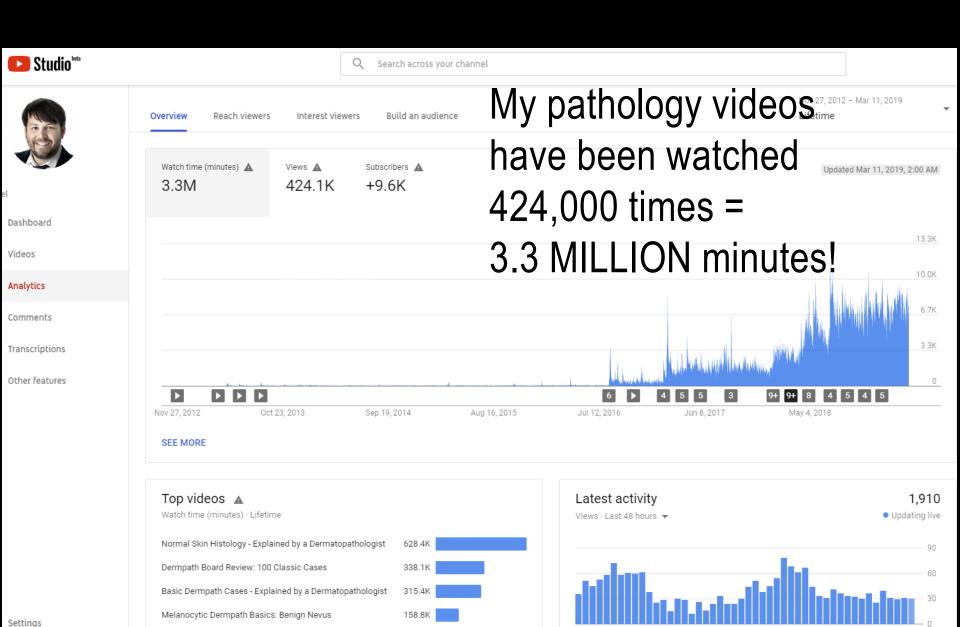
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VIEW FULL PLAYLIST

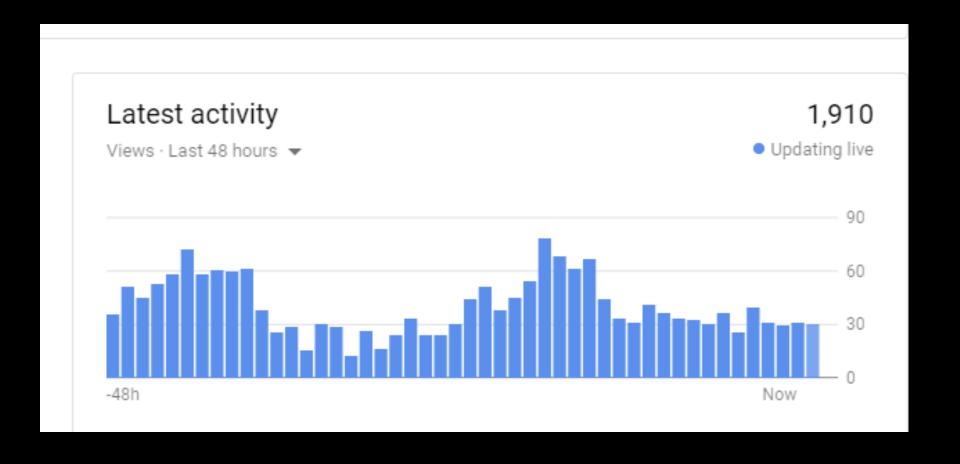


Dermpath for Beginners

VIEW FULL PLAYLIST



Basal Cell Carcinoma (BCC) - Dermpath Basics Explained b...



My pathology videos are viewed 24/7/365 I'm teaching constantly, even when I'm sleeping!



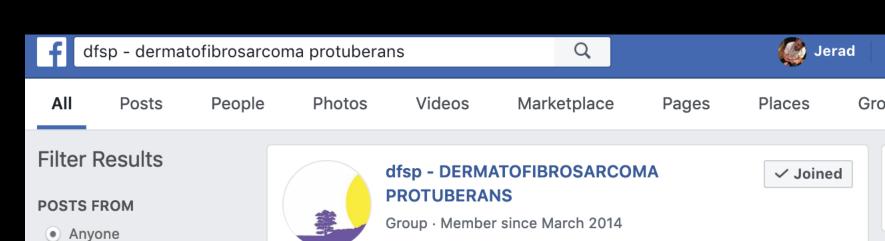
You

Your Friends

Your Groups and Pages



# Patient Advocacy



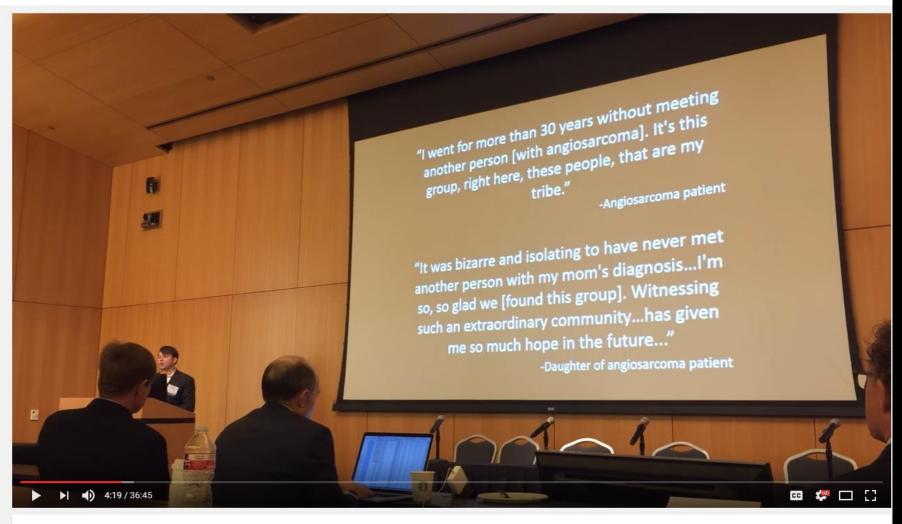
Worldwide · This group was created in 2008 by Pip Motson

Caliskan, who is located in the United Kingdom. Pip created...

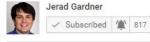
6 members said they work at UAMS - University of Arkansas for I



Search



Pathologist Involvement in Patient Support Groups on Facebook









469 views



# Impact of Pathologist Involvement in Sarcoma and Rare Tumor Patient Support Groups on Facebook

## A Survey of 542 Patients and Family Members

Jasmine Haller, BA; Marjorie Parker David, MD; Nathan E. Lee, MD; Sara C. Shalin, MD, PhD; Jerad M. Gardner, MD

 Context.—Patients with rare tumors have difficulty finding reliable information about their disease. Facebook patient support groups allow patients to educate one another.

Objective.—To investigate how these patients perceive the value of pathologists, both in Facebook groups and real-world patient care.

Design.—Survey links were posted in 12 Facebook patient groups: 6 with an active pathologist member (angiosarcoma, epithelioid hemangioendothelioma, epithelioid sarcoma, dermatofibrosarcoma protuberans [×2], and desmoid fibromatosis), and 6 without "active" pathologist involvement (aggressive angiomyxoma, chondrosarcoma, Ewing sarcoma, leiomyosarcoma, liposarcoma, and osteosarcoma).

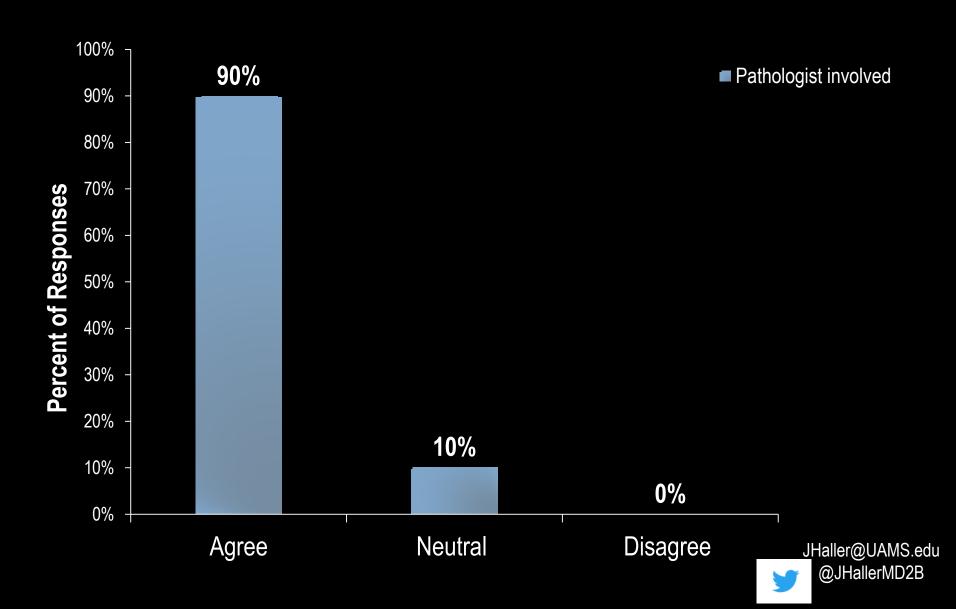
Results.—A total of 542 people responded (403 were patients): 264 from groups with a pathologist, and 278 from groups without active pathologist involvement. Of groups with an active pathologist, respondents agreed the pathologist's posts helped them better understand their disease

(107 of 119; 90%) and relieved some of their disease-related anxiety (92 of 119; 77%). And for these groups 98% (117 of 119) of respondents agreed that having a pathologist in their group was a good thing; 83% (192 of 232) wanted more pathologists involved. More respondents from groups with an active pathologist (219 of 236; 93%) than without one (215 of 252; 85%) agreed: "pathologists are an important part of the patient care team for patients with cancer and other rare tumors" (P = .008).

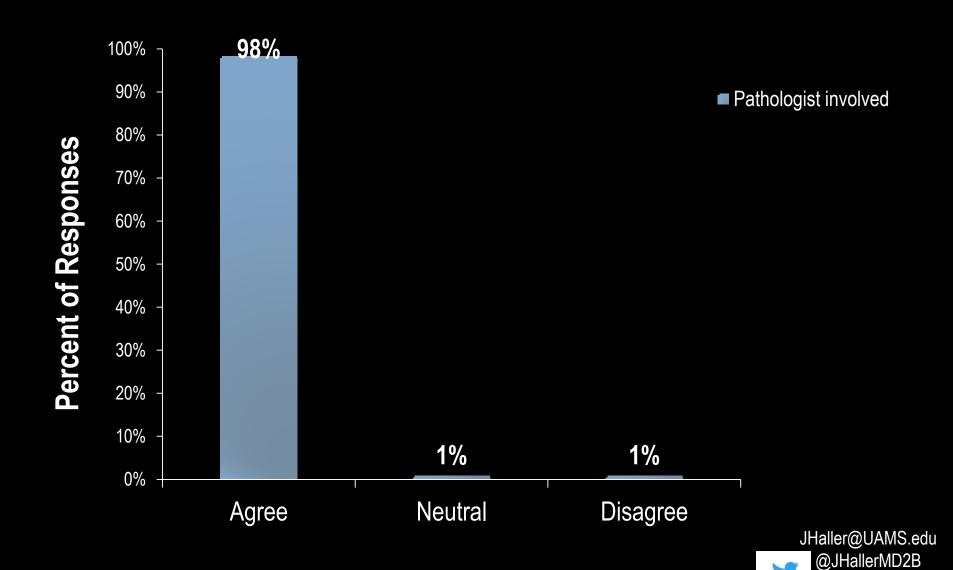
Conclusions.—This study is the first to evaluate the impact of pathologist interaction with Facebook patient support groups and to assess perceptions about the specialty of pathology from a large group of patients with rare tumors. Pathologist involvement in Facebook patient groups appears to positively influence patient perception of the importance of pathologists. We hope these data will encourage more pathologists to participate in Facebook patient support groups.

(Arch Pathol Lab Med. doi: 10.5858/arpa.2017-0408-OA)

# THE PATHOLOGIST'S POSTS HELPED ME UNDERSTAND MY DISEASE.



# OVERALL, HAVING A PATHOLOGIST INVOLVED IN THIS GROUP IS A GOOD THING.



# THE HEALING ART of Pathology



ARCHIVES

of Pathology & Laboratory Medicine

**Editorial** 

Marilyn M. Bui Katherine A. Galaga



# How Angiosarcoma and Facebook Changed My Life

Jerad M. Gardner, MD

restaurant in Seattle. A hotel lobby in Boston. My living room in Little Rock. Disney World. Two years ago, I would never have imagined that I would be met and warmly embraced by angiosarcoma patients and their family members in these unusual locations. I would have thought it unlikely that I would *ever* meet or interact with even a single patient with this rare aggressive blood vessel cancer, even though I am a sarcoma pathologist who has diagnosed this tumor many times. Most pathologists rarely meet their patients face to face, and many cancer patients mistakenly think it is their oncologist or surgeon who diagnoses their cancer, rather than their pathologist.

Two years ago, I joined an angiosarcoma patient support group on Facebook. I introduced myself as a pathologist who

out the last of her strength to ease the suffering of others. I still stand in awe of that level of compassionate devotion.

Finally, this group taught me that pathologists still possess the art of healing. Yes, we know that the diagnoses we make are crucial to patient care, but we often feel that since we do not *treat* patients, we cannot *heal* patients. We forget that healing does not always equal treatment or cure. A year ago, I asked group members if they would share pictures of their own angiosarcoma (it often arises in the skin) for a lecture I was giving to educate my medical colleagues. Of the numerous pictures that flooded my inbox, one stood alone and always will in my mind: Cindy, just prior to her death, her once lovely face now graphically disfigured by angiosarcoma. My audience sat in stunned silence at her visage. She is the face of angiosarcoma that they will never forget. I know I will never

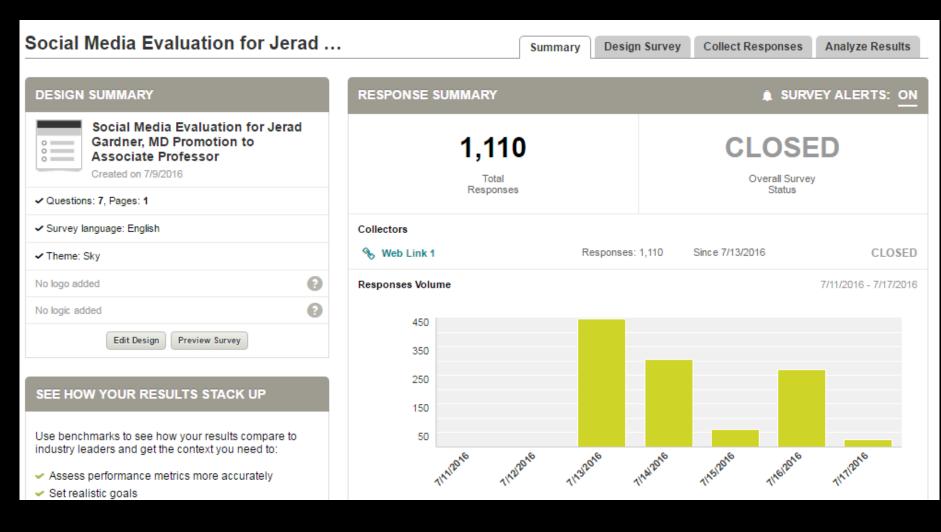
# **SURVEY (2016)**

- Surveyed my followers for feedback re: my social media teaching
- (I actually included results in my application packet for promotion to Associate Professor with tenure)





#### 1110 responses from 85 countries in 4.5 days



JMGardnerMD@gmail.com Social Media 101: www.bit.ly/1Aaxuiz

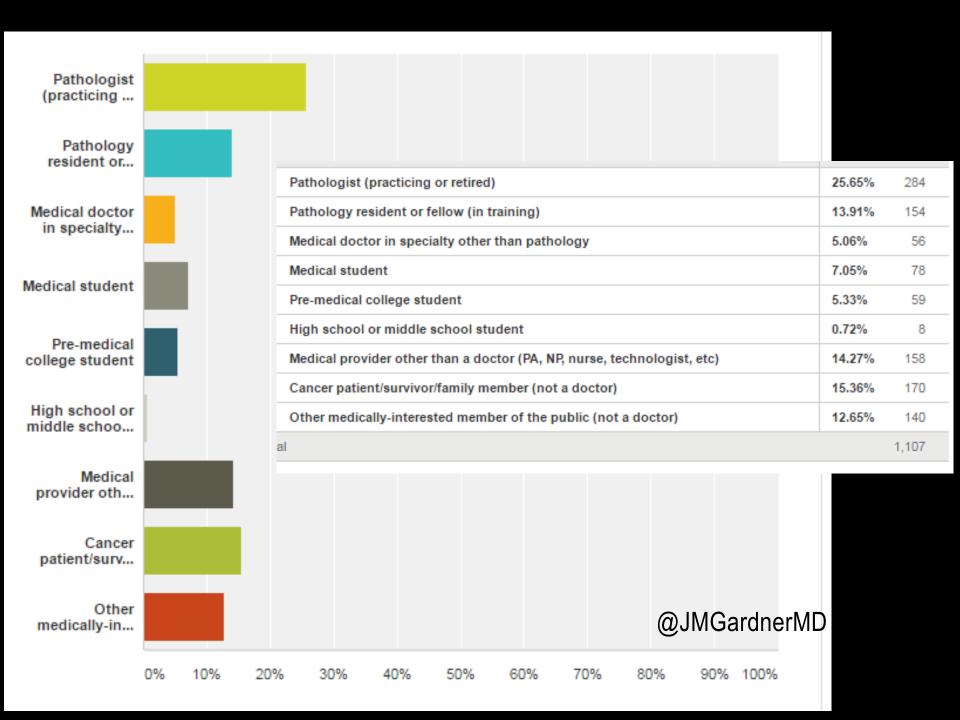






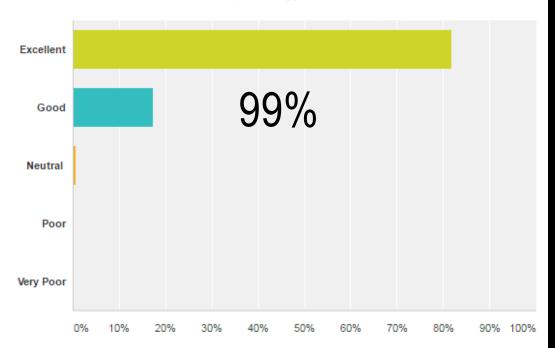
## **GLOBAL REACH**

USA	610	South Africa		3	Nepal	1
India	109	Russia		3	Ecuador	1
Canada	46	Norway		3	Croatia	1
England	45	Iran		3	Lebanon	1
Australia	28	Dominican Republic		3	Switzerland	1
Brazil	18	Syria		3	Greece	1
Pakistan	18	UAE		3	Rep. of Moldova	1
Malaysia	16	Jordan		3	South Korea	1
Turkey	12	Venezuela		3	Estonia	1
Sweden	8	Nigeria		3	Panamá	1
Spain	8	Austria		3	Trinidad & Tobago	1
Saudi Arabia	8	Thailand		3	Dutch Antilles	1
Denmark	6	Viet Nam		3	Kuwait	1
Germany	6	Afghanistan		2	Haiti	1
México	6	Chile		2	Sri Lanka	1
Egypt	6	Scotland		2	Sudan	1
Ireland	6	Bahrain		2	China	1
Romania	6	New Zealand		2	Wales	1
Algeria	5	Serbia		2	Bermuda	1
Iraq	5	Colombia		2	Albania	1
Italy	5	Honduras		2	Ukraine	1
Indonesia	5	Liberia		2	Uruguay	1
Finland	4	Slovenia		2	Morocco	1
The Netherlands	4	Costa Rica		2	Yemen	1
Philippines	4	Myanmar (Burma)		2	Japan	1
France	4	Tunisia	o	1	Bangladesh	1
Argentina	4	Congo DRC		1	Libya	1
Oman	4	Macedonia	o	1		
Poland	4	Bolivia		1		



# How would you rate Dr. Gardner's TEACHING SKILLS based purely on his social media posts about pathology and medicine (on Facebook, Twitter, Instagram, or Youtube)?

Answered: 1,107 Skipped: 3



Answer Choices	Responses	~
- Excellent	81.93%	907
₩ Good	17.25%	191
→ Neutral	0.54%	6
₩ Poor	0.00%	0
	0.27%	3
Total		1,107



#### FREE-TEXT COMMENTS (N=1000)

"I am a Professor of Pathology at a large tertiary academic center and strongly feel that Dr. Gardner has helped foster a vibrant online community of Pathology residents, fellows, and faculty that did not exist previously."

"I wish I had a professor like him! I could even state he is the professor from which I learn the most, although he doesn't even live in my own country!"

"He is awesome!!! I'm so glad he has interest in DFSP (a rare cancer), I feel he is the voice for our disease." – DFSP patient

"I've used one of your posts to make a diagnosis! (I'm an internist)"

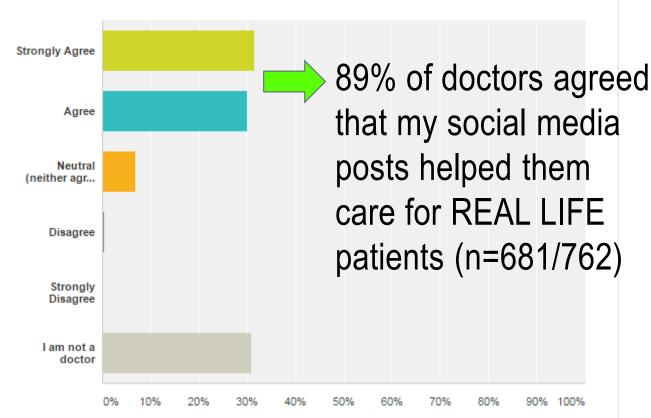
# Impact is more important than metrics

Dr. Gardner's social media posts about medicine or pathology have helped me improve the way I practice medicine (enabling me to better care for or diagnose my own patients in real life).

Answered: 1,104 Skipped: 6







Answer Choices	▼ Responses	7
Strongly Agree	31.61%	349
- Agree	30.07%	332
Neutral (neither agree nor disagree)	6.79%	75
Disagree	0.36%	4
Strongly Disagree	0.18%	2
I am not a doctor	30.98%	342
Total		1,104

Whatever we are trying to accomplish as teachers...

Social media can help us do it faster, bigger, bear.

BeST!

Our students are on social media

We should be willing to teach in the way that they learn

"You can never repay your mentors...

You can only pay them forward"

-Thomas Helm, MD







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*AMA Journal of Ethics*. <u>August 2016</u>, Volume 18, Number 8: 817-825. doi: 10.1001/journalofethics.2016.18.08.stas1-1608.

STATE OF THE ART AND SCIENCE





#### Pathology Image-Sharing on Social Media: Recommendations for Protecting Privacy While Motivating Education

Genevieve M. Crane, MD, PhD, and Jerad M. Gardner, MD

#### **Abstract**

There is a rising interest in the use of social media by pathologists. However, the use of pathology images on social media has been debated, particularly gross examination, autopsy, and dermatologic condition photographs. The immediacy of the interactions, increased interest from patients and patient groups, and fewer barriers to public discussion raise additional considerations to ensure patient privacy is protected. Yet these very features all add to the power of social media for educating other physicians and the nonmedical public about disease and for

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March ethics poll
March podcast ◀¹)
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#### **Keep Calm and Tweet On**

#### Legal and Ethical Considerations for Pathologists Using Social Media

Jerad M. Gardner, MD; Timothy C. Allen, MD, JD

 Recent privacy breaches by a major social media company have again raised questions from some pathologists regarding the legality and ethics of sharing pathology images on social media. The authors examined ethical principles as well as historic and legal precedents relevant to pathology medical photography. Taking and sharing photographs of pathology specimens is embedded into the culture of the specialty of pathology and has been for more than a century. In general, the pathologist who takes the photograph of a gross or microscopic specimen owns the copyright to that photograph. Patient consent is not legally or ethically required to take or use deidentified photographs of pathology specimens. Current US privacy laws (Health Insurance Portability and Accountability Act [HIPAA] of 1996) permit public sharing of deidentified pathology photographs without specific patient consent, even on social media. There is no case law of action taken against pathologists for sharing deidentified pathology images on social media or elsewhere. If there is any legal risk for pathologists or risk of patient harm in sharing pathology photographs, it is very small. The benefits of professional social media use for pathologists, patients, and society are numerous and well documented in the literature.

(Arch Pathol Lab Med. doi: 10.5858/arpa.2018-0313-SA)

billion active monthly users as of April 2018.4,5 We are not passing judgment on Facebook; however, this episode and the resulting public and governmental responses prompt a renewed consideration of the effect of privacy issues on pathologists using social media. As strong and long-time public advocates of the many benefits of social media for pathologists and other physicians, we have often responded to concerns of social media-wary pathologists.<sup>6-9</sup> We now address concerns raised by the Facebook privacy breach and subsequent enhanced scrutiny of social media privacy to provide evidence to help pathologists better understand the concrete benefits of social media, as well as any real risks or potential pitfalls to be avoided to continue using social media professionally for the betterment of our patients, our colleagues, and the pathology profession.

Social media provides value to pathologists. Facebook, Twitter (San Francisco, California), YouTube (parent company: Google, Mountain View, California), Periscope (parent company: Twitter), Instagram (parent company: Facebook), and other social media platforms are powerful tools for amplifying the pathologists' voice, networking with colleagues, teaching and learning pathology, and educating patients and families, payers, and policymakers about the value we provide our patients. Many methods have been used, including, among others, live and recorded pathology lectures, real-time Twitter journal clubs discussing peer-