

A new generation of dermatologists is using modern technology to promote their practices, educate their patients, and entertain the rest of us ...

Permatology is perhaps the most visual of medical specialties. Increasingly, the younger generation of dermatologists is making the most of our age's most visual modes of communication — videos, broadcast media and, in particular, social media — to reach, educate and yes, entertain, their patients.

Queen of the online generation of dermatologists is Dr Sandra Lee, a California-based physician who took her personal Instagram account and turned it into a social media empire spanning Facebook, Twitter, and YouTube.

Just 18 months ago Dr Lee — a.k.a. Dr Pimple Popper — had less than 60000 subscribers to her YouTube channel. Today she has over 1.3 million, with some of her videos garnering in excess of 4 million views.

Dr Lee, who is also a skin cancer specialist and qualified cosmetic surgeon, stumbled across a community of "popaholics" people who enjoy watching videos of blackhead extractions, cyst excisions and other "pimple-popping" phenomena.

She was already used to being a broadcaster. For 5 years she had been a regular on US television on shows such as *The Doctors*.¹

"I was on Instagram, and I noticed that people who were interested in beauty, hair, fashion were posting pictures of their lives and interests," Dr Lee tells the *MJA*. "Dermatology is very visual, so I thought maybe I can post something that offers something a bit different. So I put little 15-second clips up of things that happened during my day, and I noticed they were getting a bit more attention."

Reddit was her next port of call and it was there she found the "popaholics".²

"It's like a whole subculture," she says.

Although her reddit following produced what she calls a "modest uptick" in clicks on her website, it wasn't until Buzzfeed came calling in March of 2015 that the Dr Pimple Popper rocket took off.³

"My phone went wild," Dr Lee says. "I literally had to turn off the notifications because it was just constant. Every time I posted a video it was like throwing another log on the fire.

"It was fascinating to see what would catch people's attention."

A client she calls "Mr Wilson" — a 90-year-old gentleman with rosacea and rhinophyma and therefore a nose full of "spectacular" blackheads — accompanied his wife, who was having Mohs surgery on her forehead.

Dr Lee offered to extract his blackheads for no charge if he allowed her to film the procedure. The original video in what turned out to be a series of Mr Wilson clips, has had almost 11.5 million views on YouTube.⁴

"It's fascinating," Dr Lee says. "There are some people who find watching

extractions very satisfying, and relaxing. Some people tell me they like to watch before they go to sleep because they find it calming."

Until Dr Pimple Popper, blackheads and cysts made up just 1% of Dr Lee's practice. These days, it's more like 15–20%, she says. And that's not all good news.

"I avoided doing [pimple popping] in the past because they're not covered by insurance, they can be messy, sometimes they're very difficult to resolve well."

So why continue to do them?

"In many ways it's fascinating," she says. "It's such a simple thing, but it can be life-changing for some people. I love hearing a bit of [the patient's] story and that's part of what I try to show. A bit like Humans of New York", referring to the blog featuring street portraits and interviews collected on the streets of New York City.⁵

One example of the life-changing effect of Dr Pimple Popper's videos is the story of a patient she calls "Pops".

An elderly gentleman, Pops was widowed recently and was struggling to settle into his new home and life without his wife. Dr Lee monitored him regularly for skin cancer and offered to extract his blackheads in exchange for permission to film.

"People watching just fell in love with him and his story," she says. The result was a GoFundMe campaign that raised \$14000 for Pops.⁶

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Dr Sandra Lee

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Apart from the obvious marketing value of being a presence online, there are downsides to fame, Dr Lee says.

"I see a lot of cysts now, which are not my favourite thing," she laughs.

On a more serious note, patients come from far and wide to see Dr Lee, a situation that can prove difficult for her.

"I'm humbled and flattered, but I don't want people to feel that I'm the only answer for them. I understand they feel a connection to me, but I don't want them spending five times as much money as they need to, trying to get to me."

The other problem is people turning up on Dr Lee's doorstep expecting a 10-minute fix.

But so far, for Dr Lee at least, the benefits of being "Dr Pimple Popper" outweigh the negatives.

"The one thing I really didn't expect was that I've become a bit of a role model," she says. "I can't tell you how many messages I get from people in medical school and dermatology trainees saying they want to do what I'm doing."

It's a teaching moment as well.

"It's a chance to teach better bedside manner," Dr Lee says. "I think it's extremely important and it's not stressed nearly enough in medical school."

Dr Lee's father was also a dermatologist. "He said to me 'you could be bottom of your class, but if you have a good bedside manner, your patients will love you'."

If there is an Australian equivalent of Dr Pimple Popper, then Dr Davin Lim, a dermatologist based in Brisbane, is probably the closest. His YouTube channel is a mix of education and entertainment.⁷

"Ten years ago I created a website and my colleagues frowned on it," Dr Lim tells the *MJA*.

"Now I'm on the steering committee for the College's website."

The three big questions for Dr Lim are:

- 1. Is an online presence good for business?
- 2. Does it make him a better doctor?
- 3. Does it improve outcomes for patients?

"It's too early to tell if it builds patient trust," Dr Lim replies. "I'm just at the

"I'm humbled and flattered, but I don't want people to feel that I'm the only answer for them"

beginning of this, although it's building at a ridiculous pace — well beyond what I expected. But the reality is most of the viewers are probably overseas.

"My main aim is to inform patients about procedures.

"Does it make me a better doctor? I think so, yes. If you're going to go online, you've got to know your stuff. You don't want to be the moron talking nonsense about outdated equipment or procedures.

"From my point of view it makes me more efficient. Instead of explaining to a patient something that I have to do several times a day, I can show them a video and they can see exactly what I mean in an instant.

"Dermatology is a visual field, and when they can see the effects of a procedure with their own eyes, then it means no nasty surprises.

"Does it improve outcomes for patients? I think so. It's early to tell but I think we can influence patients to make good decisions using explanatory videos."

Another Australian physician with one foot in the media door is Dr Gavin Chan, a Victorian cosmetic surgeon who is a regular on shows like *The Project* and breakfast television.⁸

He too believes being in front of the public eye means he has to be on top of his game.

"Cosmetic surgery is different from other specialties in that patients seek us out without a referral, so it's important to establish trust from the beginning. There's no question that [when patients see you on television] they feel like they know you already."

Dr Chan's practice concentrates on anti-wrinkle injections, dermal fillers, liposuction, fat transfer, skin needling, and laser treatments. He is a doctor trainer for various dermal fillers and anti-wrinkle injections.

"A lot of our videos are directed at educating patients, trying to establish trust in our skills and credentials."

In Australia, doctors with a strong online presence walk a fine line when it comes to adhering to Australian



Dr Davin Lim



Dr Gavin Chan

Health Practitioner Regulation Agency (AHPRA) advertising and social media guidelines.^{9,10}

"Obviously we can't offer discounts or gifts," Dr Chan says. "We can't make false claims, or sell scheduled drugs, but we also can't use brand names — we have to use generic terms like 'dermal fillers'."

The final word on the life of online fame goes to Dr Lee.

Dermatology is "on the cusp of something pretty big", she believes.

"I don't really know yet what my colleagues think of [Dr Pimple Popper]. I think the older ones are split between 'why didn't I think of that' and 'she's ruining it for me by doing blackhead extractions'.

"The people who trained with me ... I'm pretty sure they're proud of me. I'm promoting the specialty and I find younger residents saying that this is what they would like to be doing.

"This experience has been stratospheric. This [social media presence] is a new direction and I think this is the way things are going to be in the future. We're changing how people get their information — they don't Google it any more, they go to YouTube.

"Sometimes I think 'get me off this rollercoaster'," Dr Lee says. "It's not a burden, but I get so busy. It is fascinating, though."

- 1. The Doctors website: http://www. thedoctorstv.com/
- 2. reddit.com: https://www.reddit.com/
- Buzzfeed: This doctor shares her amazing blackhead extractions on Instagram https://www.buzzfeed.com/ rachelzarrell/this-instagram-is-theperfect-cure-for-people-who-love-poppi
- 4. Dr Lee's patient "Mr Wilson": https://www.youtube.com/ watch?v=4daKOqHkDbU
- 5. Humans of New York website: http:// www.humansofnewyork.com/
- 6. GoFundMe website: https://www. gofundme.com/
- 7. Dr Davin Lim's YouTube channel: https://www.youtube.com/channel/ UC9SIYzAqsCmfHsZrxdPGvzA
- 8. Dr Gavin Chan's website: https://www. thevictoriancosmeticinstitute.com.au/ detail/about-us-surgeons/
- 9. AHPRA's advertising guidelines: http:// www.ahpra.gov.au/Publications/ AHPRA-FAQ-and-Fact-Sheets/ advertising-fact-sheet.aspx
- 10. AHPRA's social media guidelines: http://www.nursingmidwiferyboard. gov.au/Codes-Guidelines-Statements/ Policies/Social-media-policy.aspx

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MJA Careers

Around the universities and research institutes

Seven members of the medical scientific community have been elected as new Fellows to the Australian Academy of Science:



Professor Simon Foote, from the National Centre for Indigenous Genomics at the Australian National University, was the first to purify the renin protein. He identified one of the two chloroguine resistance

genes in *P. falciparum* and was key in identifying the mechanisms of resistance to two other antimalarials. He produced the first physical map of a human chromosome and was instrumental in the subsequent map of the human genome that was crucial for the sequencing of the human genome. He has mapped the genetic loci for many diseases and has found a new function for the platelet — as a hunter killer cell against malaria.



Professor Geoffrey Lindeman, joint head of the Division of Stem Cells and Cancer at the Walter and Eliza Hall Institute of Medical Research, and his team identified the stem and progenitor cells that

generate all ductal tissue in the breast, in both mice and humans. His laboratory was the first to identify the culprit progenitor cell responsible for breast cancer in *BRCA1* mutation carriers. Discoveries from his group have provided a new framework for studying the molecular and cellular events that lead to breast cancer, with direct implications for the treatment and prevention of breast cancer. He has translated his group's fundamental research findings into novel early-phase clinical trials.



Professor Patrick McGorry, executive director of Orygen, the National Centre of Excellence in Youth Mental Health, has created new concepts for psychotic disorders and a new clinical and

research focus on youth mental health. His work commenced with the development of a novel clinical service — Early Psychosis Prevention and Intervention Centre (EPPIC) — that focused on the early phase of illness. This approach has been replicated worldwide and recently expanded to include other psychiatric illnesses. The concept of youth mental health has led to national mental health reform including headspace, a model that has also been replicated internationally. His work has led to earlier diagnosis, and better treatment and outcomes for young people with mental illness.



Professor Stephen Nutt, head of the Division of Molecular Immunology at the Walter and Eliza Hall Institute of Medical Research, has devoted his scientific career to investigating the cell fate

determination process, and particularly how a select group of transcription factors act as the master regulators of haemopoietic lineage commitment and cellular differentiation. Professor Nutt has made some of the most important findings in this field, including defining the roles of Pax5 and Blimp1 in B cell and plasma cell commitment, respectively. These studies had a major impact on both our theoretical understanding of cellular decision-making processes and in deciphering what goes awry in diseases such as leukaemia and autoimmunity.



Professor Sarah Robertson, director of the Robinson Research Institute at the University of Adelaide, is a worldrenowned reproductive biologist whose innovative research in reproductive

immunology has formed the basis for a new understanding of the origins of health at conception. She has identified specific cytokines and immune cells that regulate embryo implantation and fetal development, and has demonstrated that male seminal fluid acts to induce adaptations in the female immune response that promote receptivity to pregnancy. Her work shows that the immune system channels environmental signals from both female and male parents to contribute to reproductive success and shape offspring phenotype through non-genomic pathways. These discoveries are improving practice in reproductive medicine and providing insight into early life origins of child health.

Professor Naomi Wray, co-director of the Centre for Neurogenetics and Statistical Genomics at the Queensland Brain



Institute at the University of Queensland, is a leading complex trait statistical geneticist. She has significantly contributed to quantitative genetic and evolutionary selection

theory, with applications in agriculture and medicine. Her theoretical work on the prediction of rates of inbreeding in populations undergoing selection. led to changes in agricultural selection programs worldwide in balancing genetic improvement with levels of inbreeding. She has developed innovative quantitative genetic methods for the estimation of genetic parameters from genetic epidemiology studies and methods for genetic risk prediction. She has applied these to psychiatric disorders, thereby contributing to the elucidation of the genetic basis of common, distressing, complex diseases.



Professor Matthias Hentze (corresponding member), director of the European Molecular Biology Laboratory, is a world leading biomedical researcher and early pioneer of RNA research.

His contributions to translational control, including IRE regulation of ferritin mRNAs, are now enshrined in all leading textbooks of biochemistry and molecular cell biology. His recent work, in collaboration with Australian scientists, has led to the discovery of hundreds of new RNA-binding proteins involved in gene regulation. These discoveries foreshadow a new phase in our understanding of genome functions and metabolism, with numerous biological processes affected by genomically transcribed RNAs that control the functions of existing proteins. In 2013, Hentze was appointed Director of the European Molecular Biology Laboratory, one of the premier biology research centres in the world and an official strategic partner of Australian science. Australia was the first EMBL Associate Member state and the laboratories provide important training opportunities for Australian scientists. Hentze has received numerous prestigious research awards, including Germany's highest research honour, the Gottfried Wilhelm Leibniz Prize (2000), and the Feodor Lynen Medal and Lecture (2015).

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