Pilot Research Grant

Facial-outcomes data for transgender patients

The following is part of an ongoing series highlighting The PSF Research Grant Award winners, and the research they're conducting to improve patient safety and develop new technologies for plastic surgeons.

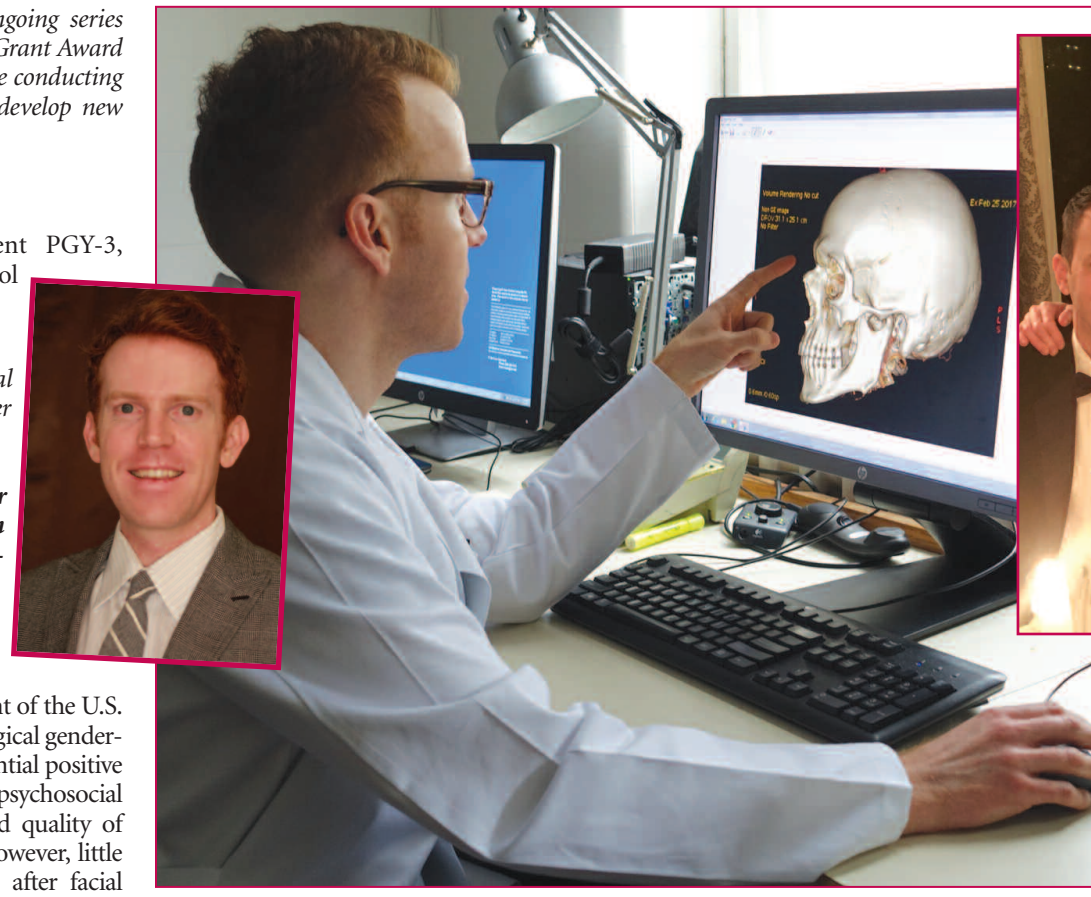
THE RESEARCHER

Shane Morrison, MD

Title: Plastic surgery resident PGY-3, University of Washington School of Medicine, Seattle

Award: Pilot Research Grant

Project: *Perceptions of Facial Femininity and Outcomes After Facial Feminization Surgery*



Dr. Morrison examines a computer-generated image of a frontal bossing in his laboratory at University of Washington School of Medicine in Seattle; and (inset) relaxing with a couple of friends at a wedding in 2016.

PSN: What do you think your facial-feminization research can provide to the field of transgender surgery?

Dr. Morrison: Recent estimates suggest there are at least 25 million transgender people worldwide, including up to 0.9 percent of the U.S. population. Medical and/or surgical gender-confirmation has shown substantial positive impact on the physiologic and psychosocial outcomes along with improved quality of life for transgender patients. However, little data is available on outcomes after facial feminization surgery (FFS). In our project, we're trying to determine the quality-of-life outcomes after FFS in a multi-institution prospective manner. We are also analyzing predictors of outcomes of FFS.

As the face is the first and oftentimes most relied upon feature to assess gender, FFS can have a profound impact on transgender patients' quality of life. We hope our data will add to the growing literature base supporting the medical necessity of many of these procedures. Ultimately, we hope our data will offer support for insurance providers to cover these procedures due to their abilities to positively affect patient's lives.

PSN: Are there any noteworthy discoveries to cite at this stage?

Dr. Morrison: A very limited number of centers or practices worldwide offer high-volume surgery and reproducible outcomes of FFS. Over the last year, we've been recruiting patients from a variety of these centers and hope to produce a large, collaborative data set from which to analyze our data. We're constantly discussing with other providers the possibility of including their patients, should our various IRBs allow. So far, our preliminary data show a substantial improvement in the quality of life of patients after FFS. All sectors of their life are improved – mental, physical and social aspects. Although we have retrospective data from other studies on outcomes of FFS, ours will likely be the first to show the outcomes from multiple institutions in a prospective manner. As with many multi-institutional studies, the most difficult aspect has been coordination across centers in regard to patient enrollment, IRB approval and data analysis, but it's all coming together quite nicely.

PSN: How can your research advance the field of transgender surgery?

Dr. Morrison: Our ultimate goal is to add to the growing literature of the medical necessity of many of these procedures in FFS. The procedures have long been viewed as cosmetic, but FFS can be crucial to our patients' identities and psychosocial well-being. Gender-confirming surgery is very patient specific and each patient should be evaluated individually. Combining that evaluation with shared decision-making between provider and patient will allow for the best overall expectations and outcomes, and FFS should be included if patients desire. Currently, we are evaluating FFS as a whole, but we also hope our research will allow for avenues to study individual procedures within FFS and foster the collaborative environment amongst the group of surgeons performing these procedures.

PSN: Has anything unexpected resulted from your research?

Dr. Morrison: Previous data from retrospective studies using our same instrument showed improved quality-of-life outcomes in transgender patients who underwent FFS. However, our data show a more substantial impact when studied in a prospective manner – even one year postoperatively. These data will not change the focus of the project, but they will strengthen our conclusions. As we enroll more patients, we hope to continue to see these results.

PSN: What are your thoughts as to what's behind this impact?

Dr. Morrison: After patients have undergone FFS, they likely experience a significant change in their quality of life and how society interacts with them. They feel they're becoming the women they've always been. Thus, when asked retrospectively about their experiences of FFS, they mainly have positive outlooks. But when evaluated prospectively, we can objectively evaluate how patients are feeling before and after the surgeries. The changes in their lives are likely more profound than patients can remember retrospectively, and this is echoed in the results we've been obtaining.

PSN: Who are your mentors?

Dr. Morrison: I've been very lucky to have a number of mentors who have helped me along my path into plastic surgery. As a medical student at Stanford, I worked with Michael Longaker, MD, PhD, who cultivated the drive and inquisitive nature in me that have been necessary to continue to conduct research as a resident. Gordon Lee, MD, inspired me to follow my interests in plastic surgery and has supported me along the way more than I ever expected. Thomas Satterwhite, MD, who I met while he was a chief resident in plastic surgery at Stanford, has been an example of the type of surgeon I would like to become – not just because of his skill in the O.R., but also his ability to engage with, interact with and support patients. Dr. Satterwhite has been one of my primary research mentors in plastic surgery and is partly the reason I am excited to pursue gender-confirming surgery as a part of my future practice.

Aside from Dr. Satterwhite, I have been greatly influenced by The PSF President Paul Cederna, MD, and Jeffrey Friedrich, MD, both of whom have played a major role in mentoring me through research related to our FFS outcomes project. Their expertise and guidance has allowed me to develop my research interests while still being able to function as a resident.

I realize that I've been fortunate to have a rich network of collaborators and fellow researchers including Jens Berli, Curtis Crane, Mang Chen, the FacialTeam in Spain and Michael Sorkin. Various residents and medical students have been instrumental in our productivity. The entire University of Washington plastic surgery family has also been incredibly supportive and has helped guide me along the way.

PSN: Were there any particular jobs or hobbies that appealed to you when you were younger?

Dr. Morrison: I always wanted to be either a soccer player or snowboarder. Both of these appealed, as they were exciting and required more technical skill than meets the eye. I played soccer for a number of years, but during the end of high school I dedicated my time to running, as we had the potential to be the best team in Arizona. And in regard to snowboarding, after falling pretty hard a couple times I realized it would be fine for recreation – but not as a profession.

PSN: Has there been a particular research project outside of plastic surgery that you enjoyed?

Dr. Morrison: In middle school, we were studying bugs and our teacher asked us if they were edible. As a class, we investigated whether or not certain bugs could be eaten, and then we held a class party where we made different dishes with bugs as an ingredient. I made chocolate-covered crickets. It was gross, but fun at the same time and I will never forget it – especially eating the earthworm guacamole.

PSN: How do you spend time away from your lab?

Dr. Morrison: As I'm still a resident, much of my time outside of my residency duties is spent preparing for cases and doing research. I find research so enjoyable, especially when working with an excellent team, that I can do it in the wee hours of the night. You can also find me spending time with my wife as we explore the Pacific Northwest; trying to learn to boulder (climb); or listening to live music. Little-known facts about me are that I speak Albanian, I've successfully flown through the air and been caught by another person on a flying trapeze, and I used to be mistaken for the snow boarder Shaun White – when my hair was long.

PSN: What kind of music would we hear if we decided to pay a visit to your O.R.?

Dr. Morrison: My music tastes have changed since moving to the Pacific Northwest; I listen to a bit more country now. The Pacific Northwest has a great music tradition, so we also listen to many of the bands from the region. But when I'm in the O.R., it's whatever the attending or Fellow desires – which likely falls between Top 40 and hip-hop. PSN

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