technique projected the trajectories of the vessels in the subcutaneous layer onto a two-dimensional transparent sheet and showed the depth by color gradation. The stem portion of the perforator vessels, as estimated by PAT, was correlated with the operative findings at the points that penetrated the fascia.

**CONCLUSION:** The first clinical trial protocol revealed the efficacy of PAT in creating a three-dimensional vascular map of the anterolateral thigh in the clinical setting.

**REFERENCES:**
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The American Society of Plastic Surgeons Conference Hashtag #PSTM17 Dramatically Increased Global Exposure of Academic Plastic Surgery

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**INTRODUCTION:** Social media is a growing communication platform connecting millions of individuals worldwide. Twitter, one of the largest social media enterprises, is a public and easily accessible forum used by both healthcare professionals and non-healthcare professionals in daily communications regarding plastic surgery. We used Plastic Surgery, The Meeting 2017 (PSTM) as a model to analyze tweet demographics, content, and impressions to understand twitter impact on global exposure of plastic surgery.

**METHODS:** Twitter data for the hashtag #PSTM17, the official designated conference hashtag, and #biaALCL, a specific sub-topic discussed at the conference, was obtained from the Symplur Signals database. These hashtags were used to identify pertinent tweets, analyze content, frequency per conference day, author demographics, and quantify impressions. The most popular tweets were further qualitatively examined.

**RESULTS:** Sixty percent of attendees posted tweets during PSTM 2017. During the meeting, there were 5,018 tweets by 1848 unique participants, creating 90 million total impressions. The most popular trending subtopic with the hashtag #PSTM17 was social media itself. Tweet frequency peaked on Day 2 of the conference. Nine of the ten most impressionable tweets using #PSTM17 were made by healthcare professionals, almost equally by private and academic surgeons. Six of the ten tweets relayed information for scientific promotion, while four were social in content. In using the BIA-ALCL panel as a paradigm for information dissemination during the meeting pertaining to a specific topic, the hashtag #biaALCL was analyzed. This hashtag was tweeted 46 times during the meeting, with 23 tweets specifically pertaining to a BIA-ALCL panel, resulting in 581,000 total impressions. Tweets with links to the new BIA-ALCL guidelines resulted in a 230 percent increase in traffic to the guidelines from the nadir in August.

**CONCLUSION:** Nearly two thirds of the 3,071 attendees at Plastic Surgery The Meeting 2017, the most heavily attended plastic surgery meeting in the US, tweeted meeting-related content using #PSTM17 during the five day conference. Twitter plays an instrumental role in communicating meeting-related academic content between healthcare professionals. A single tweet has the potential to reach millions of viewers. The most commonly discussed topic was social media, highlighting the increasing recognition of this topic as vital to plastic surgery academia. #biaALCL tweets showcase a particularly consequential use of tweeting, in which a single tweet correlated with more than doubled traffic to the most up-to-date guidelines regarding BIA-ALCL treatment. By recognizing the importance of social media in promoting academic information, healthcare providers can move to control the dialogue and tap into the wealthy platform Twitter provides for knowledge dissemination and opportunities for collaboration.
Mobile Application for Flap Design & Projection

*Presenter: Lohrasb Sayadi, MD*

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**PURPOSE:** Markings for planning incisions in reconstructive surgery are commonly drawn free-hand and to the surgeon’s best estimate, leading to potential mistakes that can lead to increased procedure time and patient risk. A previous study performed by our group has shown that flap marking can be improved by designing accurate flaps on google SketchUp and projecting the image as a stencil onto a patient using a handheld projector. The purpose of manuscript is to introduce a new surgical planning mobile application developed by our group that allows for surgeons to select, modify and personalize a database of local flaps. These flaps can then be projected onto a patient requiring reconstruction to offer a more accurate and personalized flap design.

**MATERIAL AND METHODS:** A mobile application was developed with a variety of flaps including but not limited to Rhomboid, Bilobed, Z-plasty, W-plasty, and nipple reconstruction markings. Using the mobile interface, photographs of areas requiring reconstruction were taken and uploaded onto the device. The application was then used to superimpose a flap and modify it to best fit the area requiring reconstruction in the photograph. The personalized and accurate flap was then projected using a wireless projector onto the patient. Projected flaps were then analyzed and compared based on expected geometric parameters.

**DATA:** Using the mobile application accurate and personalized flaps were created for Rhomboid, Bilobed, Z-plasty, W-plasty, and nipple reconstruction. All flaps served as accurate stencils with 0% deviation in each angles and limb measured.

**SUMMARY OF RESULTS:** Using our mobile application flap can be designed and projected onto an area requiring reconstruction with 0% deviation from expected measurements.

**CONCLUSION:** We have developed a surgical planning mobile application for reconstructive surgeons that allows for selection, modification and personalization of a database of local flaps. These flaps can then be projected wirelessly onto a patient’s defect requiring reconstruction serving as an accurate stencil.

Extending the Utility of 3D Printing in Your Practice: A Novel Technique for Complex Cases, Combining CT and MR Imaging into a Single 3D Print

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**PURPOSE:** The value of 3D printing for surgical planning has become well recognized in craniofacial surgery. Tangible 3D replication of patient-specific anatomy provides surgeons with immediate understanding of complex dysmorphology, enables accurate surgical planning and creation of customized implants, and aids in intraoperative orientation. However to date, 3D printing in craniofacial reconstructive surgery has focused on replication of bony anatomy based on CT imaging.

**METHODS:** Over the past two years, we have utilized a novel method for overlaying CT and MRI images to simultaneously 3D print both hard and soft tissue anatomy in complex craniofacial cases. To construct each 3D model, MR and CT imaging are first reviewed to identify complementary imaging sets with similar slice thickness and similar patient position. CT and MR images are imported into Materialise Mimics as separate files, and anatomy of interest is isolated into masks. The masks of isolated anatomy from the CT are copied into the MR segmentation file and a simulation engineer manually registers the CT to the MR using a 3D-positioning panel. A radiologist reviews the imaging overlay prior to printing the fused data set.

**RESULTS:** Over the past two years, we have utilized this 3D printing technique for six patients with the following diagnoses: arachnoid cyst (n=1), myxoma (n=1), occipital