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Reconstructive Microsurgery

THE AMERICAN SOCIETY FOR RECONSTRUCTIVE MICROSURGERY • VOLUME 33.1

Spring-Summer 2022

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Report

What's New in RM? Highlights from an Extraordinary Meeting

By 2022 Scientific Program Co-Chairs



**Aldona
Spiegel,
MD**



**Bauback
Safa, MD,
MBA**



**Dirk
Schaefer,
MD**

We were very thankful and excited to finally come together for our first post-pandemic live meeting in beautiful Carlsbad, California. This was an enormous undertaking complicated by the ever-changing landscape of the pandemic, but the meeting was indeed an extraordinary educational opportunity.

The symposium kicked off with a collaboration between the World Society for Reconstructive Surgery (WSRM) and the American Society for Reconstructive

Transplantation (ASRT), at a combined session that focused on education in new reconstructive options using vascularized composite allotransplantation (VCA).

The traditional combined program followed, with the American Association for Hand Surgery (AAHS), the American Society for Lymphatic Surgery (ASLS), and the American Society for Peripheral Nerve (ASPN) partnering to provide innovative concepts, state-of-the-art technology, advanced methods, and microsurgery advice to our societies' members.

The Women's Microsurgery Group presented a strong program that featured a Wellness Retreat, followed by a well-attended luncheon featuring a panel doing a Q&A session related to navigating and transitioning into a microsurgery practice. (See page 15 for more about the WMG program.) The Master Series in Microsurgery "How to Stay out and Get Out of Trouble," again expertly chaired by Babak Mehrara, MD, showcased the most current advances in subspecialty areas featuring National and international speakers. Their presentations included perspectives on cutting-edge specialty topics, including Breast, Head and Neck, and Lymphedema.

Popular elements of the in-person meeting format were welcomed back with great enthusiasm. Attendees took the opportunity to get hands-on experience



*The Women's
Microsurgery
Group kicked
off their
meeting
program with
a Wellness
Retreat*

Photo courtesy of Stephanie Caterson, MD

Continued on page 2

2022 ASRM ANNUAL MEETING HIGHLIGHTS

Continued from page 1

in “Sewing with the Masters” sessions. Many thanks to all of the faculty (aka “Masters”) who held 20-minute sessions with participants. Joint Presidential Keynote Lecturer Scott Parazynski, MD, a physician and former NASA astronaut, spoke of how his relentless curiosity for exploration drove him to become an astronaut and summit Mount Everest, and how important training, teamwork, and planning were in his work and life successes. He encouraged everyone in the audience to likewise be trailblazers and intrepid explorers in the field of plastic surgery.

The Best Case/Best Save presentation as a program highlight never disappoints. Stepping in as host this year was Babak Mehrara, MD, and it was sponsored as always by Synovis. Thanks to our judges, Paul Cederna, MD, Michael Neumeister, MD, William C. Pederson, MD, and Carolyn De La Cruz, MD, for their quick wit and the wisdom they bestowed on



Photo courtesy of Jonlin Chen, MD

ViOptix Travel Scholarship recipient Dr. Jonlin Chen learning microsurgery techniques in a “Sewing with the Masters” session with Dr. James Butterworth

the participants. Congratulations to Milan Stevanovic, MD, Keck School of Medicine of USC Los Angeles, CA, for the winning Best Case and Edward I. Chang, MD, FACS, The University of Texas MD Anderson Cancer Center, Houston, TX, for winning the Best Save.

We had 729 registrants with 550 in attendance throughout the three-day event. We truly brought the microsurgical world together with the participation of world-renowned experts, bringing together top national and international talent to share their knowledge and cutting edge techniques and treatment.

Our sincere thanks to everyone who worked diligently and tirelessly to make the ASRM 2022 a resounding success. This meeting would not be possible without the support of the participants, society members, society staff, and our industry sponsors. Hope to see you at the ASRM 2023 meeting in beautiful Miami, Florida. **RM**

RECONSTRUCTIVE MICROSURGERY

Spring-Summer 2022

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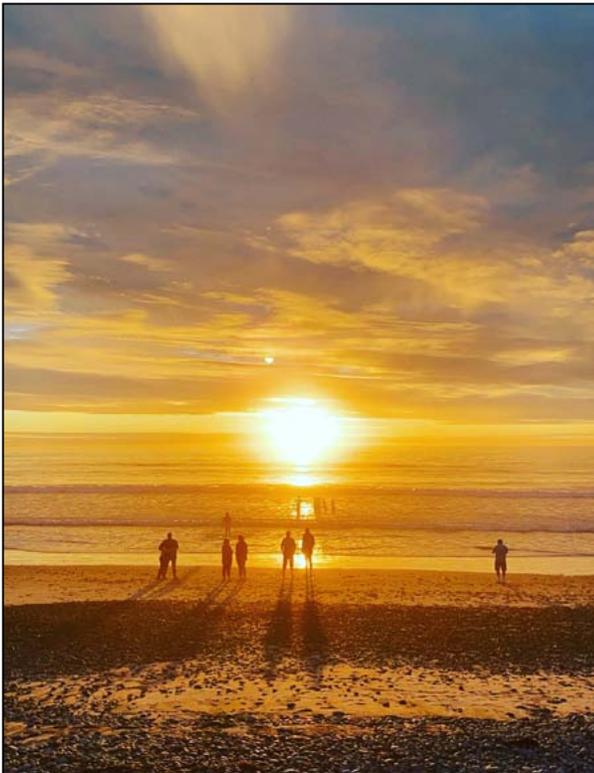


Photo courtesy of Washington Lima, MD, PhD

A beautiful sunset in Carlsbad.

FROM THE EDITOR

Nothing Beats Meeting In Person



Bauback Safa, MD
ASRM Secretary,
RM Editor

Welcome to the Spring-Summer 2022 edition of *Reconstructive Microsurgery*. After nearly two years of virtual meetings and travel bans, it was a treat to see many of our colleagues from around the world in Carlsbad, to exchange ideas, innovations and laughs, and to finally socialize in person. Under the leadership of our 2020-2021 President Dr. Guenter Germann and along with my co-chairs, Dr. Aldona Spiegel and Dr. Dirk Schaefer, we were fortunate to hold a very successful 2022 meeting of the American Society for Reconstructive Microsurgery. We owe a debt of gratitude to all of our speakers and attendees in their roles in making the meeting such a fantastic success.

I have no doubt that the upcoming 2023 ASRM meeting, under the direction of our president, Dr. Gregory Buncke, and headed by co-chairs Dr. Rudy Buntic and Dr. Arash Momeni will be another tremendous success. The upcoming program will bring together thought leaders and innovators in the field of reconstructive microsurgery from across the globe to offer an exciting opportunity for our members to help advance the field.

I would like to mention some of this newsletter's exciting features. Our Historian's Corner, led by ASRM Historian Dr. Evan Matros, highlights the history of Southern Illinois University, a microsurgical and leadership hotbed. ASRM's Women's Microsurgery Group update, led by Dr. Stephanie Catterson, emphasizes the importance of resilience and collaboration, fundamental tenets of the WMG. Our Education Committee Chair, Dr. Michele Manahan, discusses a topic that is critical in our field: the best way to give feedback during training. And Dr. Jay Agarwal, ASRM's Microsurgery Fellowship Chair, highlights a tremendous achievement in our field: A record high number of participants in the 2022 Microsurgery Fellowship Match. We hope that you enjoy this newsletter and we look forward to seeing you in Florida in January! **RM**

"After nearly two years of virtual meetings and travel bans, it was a treat to see many of our colleagues from around the world in Carlsbad, to exchange ideas, innovations and laughs, and to finally socialize in person."



SAVE THE DATE

SATURDAY AUGUST 6 ~ 10:00AM - 12:30PM EDT - US

"Reconstructive Challenges" is a virtual education event premiering interesting, challenging, complex microsurgical cases from young microsurgeon members. Panelists will share their advice, experience, and potential approaches for the case presented.

This event is intended to be an indications conference to discuss difficult reconstructive challenges. Attendance is limited to a small group on a first come first serve basis to promote discussion.

ASRM Members: No Charge / ASRM Non-Members: \$50

REGISTRATION OPENS IN JULY

PRESIDENT'S MESSAGE

ASRM Turns 40 This Year



Gregory M. Buncke, MD
ASRM President

I am honored to be president of ASRM during the 40th anniversary of the founding of our society.

Berish Strauch was the first president and a few early adopters of microsurgery were founding members. I have included here my father's framed certificate commemorating the beginning of ASRM. We will have several programs related to the early days of ASRM and the future of microsurgery at the upcoming meeting, January 20-24, 2023, at the JW Marriot Turnberry, in Miami, Florida. Scientific co-chairs Rudy Buntic and Arash Momeni are putting together a fantastic meeting with information regarding all aspects of Microsurgery.

Fingers crossed; we might have a "normal" meeting in January. We had to postpone the in-person 2021 meeting and convert it into a very successful three-day virtual meeting that was well attended by microsurgeons from all over the world. The 2022 meeting was plagued by the Omicron Covid variant, with a little less attendance especially from the microsurgeons from Asian countries. However, we all enjoyed a very instructive meeting but most of all, we were very happy to see the occasionally masked smiling faces our friends and colleagues in person.

We must recognize the tireless work that President Guenter Germann and his scientific program co-chairs, Bauback Safa, Aldona Spiegel and Dirk Schaefer accomplished through their lengthy two-year commitment. Due to the resur-



gence of Omicron and travel restrictions, many speakers and panel members were not able to attend at the last minute. President Germann's team was able to reorganize seamlessly.

The JW Marriot Turnberry is located in the northern Maimi, specifically in Aventura, about 20 mins from either Fort Lauderdale or Miami airports. The hotel is self-contained, with the meeting and social gathering areas within the hotel grounds. A less expensive Residence Inn by Marriott and the massive Aventura shopping center are across the street. Two championship golf courses are on the property along with a very large pool, water slides and other water activities for the junior members and a quiet pool area for the more senior members. The beautiful sundrenched northern Miami beaches are minutes away. The location is perfect for learning, socializing and having fun with the family.

Continued on page 5

"We will have several programs related to the early days of ASRM and the future of microsurgery at the January 2023 annual meeting in Miami, Florida."

PRESIDENT'S MESSAGE

Continued from page 4

We should mention a few past and upcoming events and improvements in ASRM. Keep an eye out for second annual midyear virtual ASRM case-based indication conference organized and hosted by our Vice President Babak Mehrara. This meeting should take place summer/early fall. Also, thanks to Eric Santamaria MD and his team, the WSRM meeting in June, which was pushed back from

last year to be in person this year, was robustly attended in beautiful Cancun, Mexico. Evan Matros and members of the newly created Website Committee, updated the ASRM website with an abundance of information and videos. Melissa Poh and the newly created Social Media Committee will be creating content that you may see on your cell phone soon for the social media aficionados. Jim Butterworth has worked diligently with the PRS task force to help streamline a path for the Best Papers

presented at the ASRM meeting to be published in our home journal, *PRS*.

On behalf of the Council and ASRM staff, we thank you for your support of ASRM. We are all so fortunate to be working in an exciting and ever-changing field of surgery. After attending an ASRM meeting, we always come away with something inspiring, fascinating and new. I look forward to seeing you all in Miami. **RM**

AMERICAN SOCIETY FOR RECONSTRUCTIVE MICROSURGERY

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BEST CASE OF THE YEAR WINNER:

Milan Stevanovic, MD

Six Digit Toe to Hand Transfer

BEST SAVE OF THE YEAR WINNER:

Edward Chang, MD

Complex Multi Flap Reconstruction Twice with a Flap Salvage

ASRM – "SHARK TANK" INNOVATIONS AWARD:

Rudy Buntic, MD

Quantitative Fluorometer for Fluorescence Angiography

ELISABETH BEAHM BEST BREAST PAPER AWARD:

Jaime L. Bernstein, MD, MS

Counting the Beats: Is Post-Operative Tachycardia a Reason to Worry in Autologous Free Flap Breast Reconstruction?

OUTSTANDING PAPER AWARDS:

Counting the Beats: Is Post-Operative Tachycardia a Reason to Worry in Autologous Free Flap Breast Reconstruction?

Work Done At: New York-Presbyterian-Weill Cornell, New York

Jaime L Bernstein, MD, MS; Hao Huang, BS; David M. Otterburn, MD

Neurotization Techniques and Outcomes in Innervated Breast Reconstruction: A Systematic Review and Pooled Analysis

Work Done At: Beth Israel Deaconess Med. Ctr., Harvard Med. School, Boston

Eric Shiah, BA; Elizabeth Laikhter, BA; Carly D. Comer, MD; Samuel M. Manstein, MD; Valeria P Bustos, MD; Paul A. Bain, PhD, MLIS; Bernard T. Lee, MD, MBA, MPH; Samuel J. Lin, MD, MBA

2022 ANNUAL MEETING: INTERNATIONAL TRAVEL GRANT RECIPIENTS

The 2022 Meeting Through the Eyes of the International Travel Grant Recipients



MAHMOUD GOUDA, MD

Assistant Lecturer of Plastic and Reconstructive Surgery, Zagazig University Zagazig, Egypt

It was a great opportunity for me as an evolving microsurgeon from Egypt to meet the world gurus of microsurgery in one meeting. The annual meeting of ASRM is the best chance to get updated to the recent advances in reconstructive microsurgery. I had attended the 2021 meeting online due to the COVID pandemic and when I saw the 2022 brochure I wished that I would be able to travel and attend this time. It was a pleasure to receive the International Travel Grant.

The meeting was highly enriched with all flavors of microsurgical practice. I attended all the related sessions to breast reconstruction as I am adopting breast reconstruction project in my region. I discussed the problems I faced in starting DIEP flap with the leaders of this field like Dr. Haddock, Dr. Teotia, Dr. Mostapha Hamdi and I got their valuable recommendations. They were so humble and I can say it was a precious experience that helped me a lot after I have returned home.

The Best Case/Best Save was a lot of fun and added to the



Dr. Mahmoud Gouda (left) with ASRM President Gregory Buncke, MD

meaning of resilience and persistence that we should adopt in our practice in microsurgery. The speakers were open to present the real challenges they faced and how to overcome them. Also I

Continued on page 8



WASHINGTON LIMA, MD, PhD

Plastic Surgeon at São Camilo Oncology São Paulo, Brazil

I am a plastic surgeon and fully trained microsurgeon living in São Paulo, Brazil. I am also an assistant at a cancer center, and have a very busy practice in breast reconstruction. Last January, I was honored to receive the International Travel Grant to attend the 2022 ASRM Meeting that took place in Carlsbad, California. It is my pleasure to write about my experience during the meeting.

First of all, I would like to congratulate everyone involved in this very success-



Dr. Lima with Dr. Robert Allen

ful event. Each day there were incredible presentations. I had such a wonderful time learning from each.

I had the privilege to watch many of the leaders in the microsurgical breast recon-

struction field. The high impact of a team's efficiency demonstrated by Dr. Nicholas Haddock and Dr. Sumeet Teotia is impressive, to say the very least. It positively affects the patients and the surgical team's life, and it's an objective to be pursued in my career as well. The journey of innovation by Dr. Robert Allen is inspiring, and encourages us all to

continue our paths of growth in microsurgery. The first years of Dr. Jaume Masià's practice were full of challenges. He emphasized his common mistakes, and gave

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2022 ANNUAL MEETING: INTERNATIONAL TRAVEL GRANT

DR. GOUDA *Continued*

was inspired by the talk of Godina fellow, Dr. Maciejewski; that was impressive and he is a real role model microsurgeon. The President's Lecture by Dr. Guenter Germann was a pursuit of beauty from the dawn of history to the present.

The technology and innovation had an exclusive part in this meeting especially the fluorescein flowmeter developed by Dr. Buntic and the machine learning of myoelectric prosthesis by Dr. Cederna. These sessions really were beyond the frontier of imagination. In "Sewing



Dr. Gouda (left) and colleagues from Egypt

with the Masters" I enjoyed the precise tools and powerful microscope to do a quick microsurgical anastomosis.

The 'Oktoberfest dinner' was a nice social meeting with the German music band. I made new friends and I have invited them to visit Egypt.

I really appreciate the ASRM program committee and all who helped to present this meeting in this prestigious location. My words can't express how I am grateful to the International Travel Grant Committee of the ASRM for choosing me for this grant. It was an outstanding experience and I am looking forward to attending the next meeting. Thank you so much. **RM**



Getting in some quick microsurgical sewing practice



Dr. Gouda with plastic and reconstructive surgeon Dr. Nicholas Haddock



Enjoying the amenities with hand and plastic surgeon Dr. Mirsad Mirza Mujadzic (center)

FUTURE ASRM MEETING CALENDAR



**JANUARY 20-24, 2023
ASRM 38TH ANNUAL MEETING**

JW Marriott Turnberry Resort and Spa
Aventura, Florida



**JANUARY 12-16, 2024
ASRM 39TH ANNUAL MEETING**

Grand Hyatt Baha Mar
Nassau, Bahamas



**JANUARY 17-21, 2025
ASRM 40TH ANNUAL MEETING**

Hilton Waikoloa
Big Island, Hawaii

2022 ANNUAL MEETING: INTERNATIONAL TRAVEL GRANT RECIPIENTS

DR. LIMA *Continued*

pertinent advice to young microsurgeons beginning their practices. Also, Dr. Andrea Moreira showed how creativity is a valuable skill that can lead to better results. It was terrific to see so many masters sharing their wide experience in one place, right in front of us.

The special lecture held by physician and astronaut, Dr. Scott Parazynski, was both touching and motivating. He displayed the importance of training, teamwork, planning, and tenacity to achieve consistent and outstanding results in our practices, and in our lives. We should always look for improvement in our work-life balance.

Amidst all this learning and self-insight, it was a great opportunity to see old friends, and make new ones as well. The social events at the beautiful Omni La Costa Resort were amazing, well organized, and helped us relax after a day loaded with valuable information.

I want to kindly thank the International Surgeon Travel Grant Committee of ASRM for giving me this incredible opportunity. It has already impacted my practice. I have come back full of inspiration. For sure, the lesson that I heard most and that I can't



Dr. Lima (left) with Dr. Guilherme Barreiro

get out of my head is: "Be selfless! Build a team!"

My goal in this lifelong learning process is to raise my performance to a higher standard and continue to develop my skills... but not alone. We must also think about future generations of microsurgeons. I want to transmit the knowledge that I'm acquiring, and in some way, help form and inspire new plastic surgeons to get involved in microsurgery.

Congratulations to the organization committee for breaking boundaries, and providing opportunities to young surgeons from all over the world to be part of this first-class event. I will definitely be back again. **RM**

CALL FOR ABSTRACT SUBMISSIONS



"HONORING THE PAST AND CREATING A BRIGHT FUTURE"

We welcome your abstract submission for consideration of presentation during the upcoming meeting of the American Society for Reconstructive Microsurgery

Submission Deadline
Monday, July 11, 2022 11:59pm (CT)

A special thank you to these ASRM Annual Meeting 2022 Sponsors

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DePuy Synthes	May Clinic Microvascular Surgery Training Center	Olympus America, Inc.	Thieme New York
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MICROSURGICAL PEARLS

What Is the Best Way to Give Feedback During Training?



**Michele Manahan,
MD, MBA, FACS**
Education Committee
Chair

It's a tightrope, and it's tough to walk. How do we provide meaningful, real-time feedback in surgical education (operative and didactic) while avoiding perceptions of bullying and harassment? Any educator has faced this conundrum.

Sometimes the answer is easy. If patient harm is imminent, educators speak out. We coolly and calmly, yet clearly and immediately, intervene. We get away with it because the trainee is likely relieved to be saved from a "mistake with consequences."

It's a little more difficult in other situations. Consider a trainee who is struggling with multiple aspects of the procedure. How many times can you correct before you become a nag (at least in the eyes of the beholder)?

There is also the audience to consider. I doubt any of us think it is easy to gracefully receive criticism. Yet we ask our newest, potentially most fragile, colleagues to repeatedly do this in very public forums. The circulating nurse, the scrub technician, the anesthesiology team, other trainees, students, etc. are all witness to the educational process. While we like to think that all of these individuals will display the best qualities of human nature, some might find it tempting to allow the "feedback" to color their perceptions of the trainee. The next time the same trainee arrives in the operating room, they might face a steeper uphill climb toward respect.

On the other (sterilely gloved) hand, if we allow our desire to create an unfettered environment of respect and appreciation interfere with education, we may descend a slippery slope toward failing to make training worthwhile. I doubt any trainee loves the hours, wages, and lack of control enough to spend a residency NOT learning. Tips and tricks for smoother, safer, more efficient operations will be nothing but beneficial to everyone.



Of course, an easy solution to some of these situations is to consider a private debriefing, just at the end of the case. This works quite well most of the time, but not always. However, it's definitely a tool that should sit toward the top of your box. Another for-sure-not-revolutionary answer would be to simply ask the trainee how and when they prefer to receive their feedback.

As usual, I submit to you these thoughts for consideration only. Best of luck to all as we seek to maintain humanization of surgical training. **RM**

"I doubt any of us think it is easy to gracefully receive criticism. Yet we ask our newest, potentially most fragile, colleagues to repeatedly do this in very public forums."

HISTORIAN'S CORNER

A Microsurgical and Leadership Hotbed: Historical Spotlight on Southern Illinois University



Co-authored by

Evan Matros, MD

ASRM Historian

and



Haripriya S. Ayyala

Microsurgery Fellow

Memorial Sloan

Kettering Cancer Center,

New York, NY

The Institute for Plastic Surgery at Southern Illinois University (SIU) School of Medicine was established by Elvin Zook, MD in 1973. A triple board-certified surgeon in general, cardiothoracic and plastic surgery, Dr. Zook led the plastic surgery division to national and international preeminence. He was a benevolent and inspiring human, able to recruit many top trainees (affectionately dubbed “Zookies”) who would go on to become giants, including Drs. Allen Van Beek, Robert Russell, William Zamboni, Julian Pribaz, and Michael Neumeister. Notably he was the service chief for the first female president of the American Society of Plastic

Surgeons, Dr. Roxanne Guy. Dr. Zook’s legacy is perhaps best measured through the accomplishments of his trainees who have helped shape the fields of hand, nerve and microvascular surgery.

Dr. Robert Russell started his training in general surgery in Indianapolis at Wishard Memorial Hospital in 1972. There he was a co-resident with Dr. Van Beek and heavily influenced by the new chief of plastic surgery, Dr. Elvin Zook. Aspiring to be at the forefront of microsurgery and, with the

support of Dr. Zook and mentorship of Jim Steichen – a future ASRM president – Russell decided to complete a training fellowship under Drs. Bernard O’Brien and Wayne Morrison at St. Vincent’s in Melbourne, Australia. The fellowship program in clinical microsurgery and research at St. Vincent’s has become a mecca with over 200 trainees, most returning to their own countries to become leaders in their field. While overseas Russell met a plastic surgery

Continued on page 13



Mike Neumeister (left) and Robert Russell



Robert Russell, the outdoor enthusiast



SIU present and former faculty/trainees at a tribute for Elvin Zook

HISTORIAN'S CORNER



Left to right: Elvin Zook, Roxanne Guy, and Allen Van Beek



Clinical and research fellows at SIU. From right: Drs. Russell, Zook, Pribaz, and Merrell about to enjoy cake with some plastic surgery staff

SPOTLIGHT ON SIU *Continued from page 13*

registrar, Dr. Julian Pribaz, and encouraged Pribaz to complete a second two-year residency in the US rather than the more traditional route of a one-year fellowship abroad. In 1979, when Dr. Zook came to Melbourne for an international hand meeting, he offered Pribaz a residency position. At SIU the roles were reversed with Pribaz the trainee and Russell now the attending.

Dr. Allen Van Beek had early exposure to Dr. Zook as a general surgery resident at Indiana University Purdue University training program. During general surgery training and again as a fellow, Dr. Van Beek completed training at

the University of Louisville under the tutelage of Dr. Harold Kleinert. During his hand fellowship, Van Beek rubbed shoulders with many future giants, including Robert Acland, James May, Rollin Daniels, Tsu Min Tsai, and Don Serafin. In 1977 he moved to the new plastic surgery residency program established at SIU to rejoin Dr. Zook.



Dr. Guenter Germann

Dr. Allen Van Beek and Dr. Robert Russell were the second and third plastic surgery residents to matriculate through the new SIU plastic surgery residency in its infancy. They quickly became instrumental in furthering microsurgery at SIU in the setting of copious hand trauma necessitating digit and major limb replantation. Between 1977-1980, they performed the

world's first successful double arm replant in a 22-month-old child as well as one of the first simultaneous bilateral free flap transfers.

Van Beek and Russell also established a laboratory that would receive NIH funding to study ischemia reperfusion injury in addition to microsurgery and peripheral nerve science. They continued to foster strong international collaborations, so pivotal in their own maturation, inviting to the lab European colleagues including Drs. Hans Steinau, Herbert Hussel, **Guenter Germann**, Axel Feller, Thomas Schoeller, Gottfried Wechselberger, Christian Rainer, Detlev Erdmann, and Elov Eriksson. Dr. Eriksson was subsequently retained by Dr. Zook at SIU as the Director of the Burn Center for four years prior to moving to Boston as chief of plastic surgery at Brigham and Women's Hospital.

A native Nevadan, William Zamboni came to SIU as a general and plastic surgery resident. He was an assistant professor at SIU for 3 years before ascending to prominence at the University of Nevada School of Medicine (UNLV), ultimately serving as the



Dr. Pribaz enjoying the outdoor life during his time in the US

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HISTORIAN'S CORNER

SPOTLIGHT ON SIU

Continued from page 14



William Zamboni at the 2009 Annual Meeting

division chief of plastic surgery and chairman of the Department of Surgery. Dr. Zamboni started a replantation center at UNLV so patients could receive care for amputated digits and limbs without being flown a great

distance out of state. He did a great amount of research utilizing hyperbaric oxygen therapy, specifically looking into extending the length of time from amputation to re-attachment to improve survival and functional outcomes. Due to these contributions to microsurgery, Dr. Zamboni was named the ASRM Godina fellow in 2001.

Dr. Michael Neumeister came to the US from Canada to train at SIU under the advice of his mentor, Dr. Ken Murray, a graduate of the SIU hand and microsurgery fellowship. Expecting to stay for a year of fellowship to return to a job in Canada, Neumeister instead



Hans Suchy (left) and Ken Murray setting up lab studies

chose to stay on as SIU faculty. Dr. Michael Neumeister is now the chairman of surgery and chief of the division of plastic surgery and has continued in the leadership footsteps of his predecessor attracting top applicants into plastic surgery at SIU. Dr. Neumeister



Mike Neumeister and Elvin Zook

strongly believes in mentorship and looks forward to the rise of future generations of plastic surgeons as they become presidents and chairs of plastic surgery organizations.

Over the past 50 years, the plastic surgery division at SIU has produced so many great leaders in our field. Next time someone asks you how to become an ASRM president, just tell them their odds will be greatly improved if they train at SIU! **RM**



SIU MEDICINE

Surgeons with an SIU connection who took on leadership positions

ASRM President

Allen Van Beek, 1990
Robert Russell, 1994
William Zamboni, 2009
Michael Neumeister, 2012
Guenter Germann, 2021

PSRC Chair

Elvin Zook, 1981
William Zamboni, 2003
Michael Neumeister, 2008

PSF President

Robert Russell, 1998
Allen Van Beek, 2004
Michael Neumeister, 2012

ASPN President

Allen Van Beek, 1997
Robert Russell, 2008
Michael Neumeister, 2022

AAHS President

Allen Van Beek, 1996
Robert Russell, 1997
Michael Neumeister, 2016
Nash Naam, 2020

ABPS Chair

Elvin Zook, 1991
Michael Neumeister, 2022

Godina Fellow

William Zamboni, 2001
Michael Neumeister, 2004

Editor-in Chief

Michael Neumeister - *HAND*
Brent Graham - *Journal of Hand Surgery*

ASPS President

Elvin Zook, 1994
Roxanne Guy, 2007

WOMEN'S MICROSURGERY GROUP

Resilience and Collaboration: Fundamental Tenets of the ASRM Women's Microsurgery Group



Stephanie Catterson, MD
Chair, Women's Microsurgery Group

Co-authored by
Katie Weichman, MD
Committee Member, Women's
Microsurgery Group

As we navigate the turbulent waters of COVID surges, travel restrictions, and mask mandates, we were thrilled to be back "in person" for ASRM 2022 in Carlsbad. The Women's Microsurgery Group (WGM) committee had several Zoom planning meetings throughout the year, to develop a packed program for the ASRM annual meeting.

The WGM kicked off their events with the second annual Wellness Retreat, held on Thursday, January 13th. After her incredibly impactful sessions during the 2020 WGM Wellness Retreat, we invited Dr. Maria Sirois back to lead another intimate workshop. This year's focus was on developing Resilience in Hard Times and her unique perspective proved very effective to the group in this moment. Dr. Sirois used her immense experience as a consultant and licensed psychologist to help the group identify skills, language, and agency to navigate challenges facing all women in work and life. The select WGM retreat group made the most of this distinctive experience, connecting with old friends and making new ones. After the workshop, we were able to enjoy a delicious dinner at Bob's Steakhouse, thanks to sponsorship from Axogen, and continue the camaraderie that we built during the day sessions.

As the meeting began, the collaborative WGM Mentor/Mentee program went into full swing, with small groups meeting throughout the resort. Mentors offered perspective and guidance on



WGM Luncheon panel addressed concerns related to navigating and transitioning into a microsurgery practice



WGM past chairs (from left to right): Drs. Summer Hanson, Aldona Spiegel, Julie Park, and Joan Lipa

requested topics, individualized for the Mentee and their personal concerns. As one Mentee quoted, "The WGM Mentor/Mentee program allowed me my first exposure to a successful female microsurgery – I really think I can do this now!" The WGM encourages the matched Mentor/Mentees to coordinate future sessions, either in person or via tele-conference, to continue the supportive relationship.

On Sunday, the WGM Luncheon took place and was as popular as ever. The attendees were a mix of medical students, residents, fellows, and attending physicians. With the guidance of moderator Dr. Summer Hanson (WGM President), the panel conducted in a Q and A format addressed concerns related to navigating and transitioning

"The collaborative WGM Mentor/Mentee program went into full swing right from the start, with small groups meeting throughout the resort."

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WOMEN'S MICROSURGERY GROUP

Continued from page 15

into a microsurgery practice. The panel had diverse representation including Academic Practice, Private Practice, Managed Health Care Systems, and Mixed Specialty Practice. The candor of the panelists was refreshing and helpful to the younger attendees in the audience! Many thanks to those who attended to support this important forum.

The WMG Cocktail Reception, held on Monday was both the highlight and the culmination of the WMG program. The group photo highlights the attendance and growth of this lively event. Summer Hanson, (outgoing WMG President), Aldona Spiegel (ASRM 2022 Meeting Co-Chair), and Julie Park (founding member of WMG) set the tone for the evening! The event was open to all and welcomed the ViOptics Scholarship recipients to the microsurgery community. Everyone was excited to enjoy the evening on the Omni



WMG Cocktail Reception

patio with drinks and conversations with friends.

In summary, I am honored to be taking the reins as the Chair of the WMG Committee for 2022-2023, with big shoes to fill from Dr. Summer Hanson's successful WMG program this past year. The current

WMG Committee members are Drs. Noopur Gangopadhyay, Katie Weichman, Dung Nguyen, Carrie Chu, Amanda Silva, Meredith Collins, Christine Rohde, Andrea Moreira, and Summer Hanson (ex-officio). We look forward to creating a vibrant WMG experience for 2023! **RM**

There were two scholarship recipients in 2022. Both of their reports are presented here.

Reflections of the WMG ViOptix Travel Scholarship Winners



ELIZABETH BOUDIAB, MD

Class of 2022

It was such an honor to receive the Women's Microsurgery Group ViOptix Travel Scholarship to attend the American Society

for Reconstructive Microsurgery annual meeting in Carlsbad, California! I feel fortunate to have met so many accomplished surgeons from around the world.

There were many highlights of the event. During the first day of the conference, I enjoyed the instructional course, "Nerve reconstruction in the head and neck."

Dr. Shai Rozen discussed his experience with reusing the masseteric nerve for dynamic smile restoration. Dr. Michael Klebuc then reviewed dual innervation using a cross-face-nerve graft and the ipsilateral masseter nerve to optimize the outcome of smile restoration in facial paralysis. It was inspiring to listen to the various approaches to managing such complex problems.

The following day, I had the pleasure of attending the Women in Microsurgery luncheon where the discussion focused on, "Practice management: microsurgeons and different practice models." The participants on the panel discussed their journey into

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WOMEN'S MICROSURGERY GROUP

VIOPTIX TRAVEL SCHOLARSHIP
WINNER REFLECTIONS*Continued from page 16*

private and academic practices, and several panelists discussed their transition from one type of practice model to another. A few of the women also shared how



Left to right: Elizabeth Boudiab with Dr. Summer Hanson and Jonlin Chen

their transition into motherhood coincided with their first few years of practice and how this influenced their practice choice. As a young female surgeon in training, it was empowering to listen to this panel and encouraged me to envision what my own practice may look like in the next several years.

That evening, I got to attend the beloved ASRM best case/best save award ceremony and show support for my mentor, Dr. Kongkrit Chaiyasate, as he summarized the long and arduous reconstructive journey of one of his international patients. All the cases presented were incredibly inspiring, but it was the enthusiasm, creativity, and witty banter of the judges that made it evident why the ceremony is a favorite amongst attendees.

The next morning, I attended the breakout panel, "Microsurgical burn Reconstruction," moder-

ated by Dr. Lawrence Gottlieb. Having recently completed a surgical critical care fellowship, I found this session particularly insightful. Dr. Gottlieb reviewed the different phases of care in managing patients with devastating burn injuries, highlighting the importance of rehabilitation prior to reconstruction, and delineating the indications for microsurgery. Dr. Andrei Odobescu gave a comprehensive overview on the management of burns based on the etiology of injury and highlighted his experience with venous flaps.

I then attended the session on, "The art of DIEP flap design," where Dr. Katie Weichman discussed pre-operative considerations in her practice. Following this session, I attended the Women in Microsurgery Group

(WMG) break-out panel, where the surgeons discussed different perspectives and practice patterns in a game show format, which was especially entertaining.

I was able to conclude the weekend with the ASRM WMG reception, which was incredibly special. I was able to meet several amazing leaders in the microsurgery field, including Dr. Summer Hanson, Dr. Katie Weichman, Dr. Angela Cheng, and Dr. Aldona Spiegel. It was a pleasure and an honor to receive this award and attend this year's conference. As if the cherished memories of the experience were not enough, I was also gifted an awesome beaded lanyard that I wear proudly. I am eager to attend future events and interact with such inspiring colleagues in the future! **RM**



JONLIN CHEN, MD

PGY-1 at Johns Hopkins & Univ. of Maryland Dept. of Plastic & Reconstructive Surgery

Thank you to the Women's Microsurgery Group (WMG) and ViOptix for providing me the opportunity to attend the 2022 ASRM Annual Meeting in Carlsbad, California. I would also like to extend a special thank you to my mentor at Johns Hopkins, Dr. Kristen Broderick, for encouraging me to apply and supporting medical student research endeavors in microsurgery.

I left Baltimore as a fourth-year medical student in the midst of

applying for plastic surgery residency, grateful for the break from Zoom interviews and the opportunity to learn about the latest in microsurgery while soaking up the California sun.

On my first day at ASRM, I walked into the conference room bright-

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Meeting up with fellow researchers at ASRM

WOMEN'S MICROSURGERY GROUP

VIOPTIX TRAVEL SCHOLARSHIP
WINNER REFLECTIONS*Continued from page 17*

eyed and bushy-tailed. I had created my schedule days before, highlighting speakers I was excited to hear from and panels I did not want to miss. As I stepped foot into the first event on my schedule, a panel on the “Latest Advances in Neurotization,” I gazed ahead in amazement. I had never seen so many surgeons together discussing how to preserve breast sensation in autologous reconstruction or perform sensate latissimus flaps for lower extremity reconstruction. I was admittedly starstruck by the way the panelists carefully deliberated the pros and cons of various reconstructive techniques. The camaraderie between the panelists and attendees was palpable.

The warmth and supportive nature of the microsurgery community became even more apparent to me at the WMG luncheon later in the conference. There, I immediately felt welcomed as I found other medical students and fellow plastic surgery applicants I had seen frequently on the residency Zoom interview trail but not yet met in person. As we sat together and listened to the panelists provide helpful advice on how to start a microsurgery practice and negotiate job contracts, it felt empowering to be among so many female microsurgeons, residents, and medical students—all in one room.

One of the recurring themes I noted throughout the conference was the great privilege of being a microsurgeon—to be able to learn from and take care of patients in a highly specialized field. At his presidential address, Dr. Günter Germann ended his talk with “let

us be grateful for what we do.” This sentiment was perhaps most apparent to me at the entertaining yet inspiring “Best Case, Best Save” event. As I listened to case presentations on six toe transfers and multiple free flaps for severely burned extremities, I learned how microsurgery could improve a patient’s quality of life by restoring form and function. As I watched the video of a patient playing his electronic guitar again after



Enjoying the palm trees and coastal views at the Omni La Costa Resort in Carlsbad, California.

recovering from multiple upper extremity free flap reconstructions, I felt reaffirmed by why I was here and the career I hope to build.

Another recurring theme I noted at ASRM was the importance of “staying curious”. One of the first talks I attended was by Dr. Scott Parazynski, a former physician and NASA astronaut. He spoke of how his “relentless curiosity for exploration” allowed him to travel to outer space, summit Mount Everest, and hike an active volcano. He urged the audience to do the same—to become trailblaz-

ers and intrepid explorers in plastic surgery. Inspired by his mindset, I took it upon myself to stay curious throughout the conference. At the breakout session “Flap’s Down! Now What?!” I learned how microsurgical reconstruction can go wrong and more importantly, how to troubleshoot common reasons for flap failure. At the “Sewing with the Masters” session, I sat under the microscope for the first time and quickly developed an appreciation for how technically demanding microsurgery is. At the WMG luncheon panel, I learned the importance of teamwork in microsurgery as one panelist commented, “Microsurgery is not a one-person team sport...it takes a village!” At the Godina Lecture, I learned how Dr. Adam Maciejewski forged his own path in reconstructive microsurgery and honed his surgical skills for years. Each day at ASRM, I began to see pathways opening for me as I learned more about the field. I left ASRM excited and inspired to take the first steps of my own path in plastic and reconstructive surgery.

Again, I am incredibly appreciative to the WMG and ViOptix for this amazing opportunity to attend my first ASRM meeting. I feel lucky to have had the chance to gain early exposure to the field as a medical student. I aspire to become a member of the plastic and reconstructive community in the future and look forward to attending ASRM meetings in the coming years! **RM**

MICROSURGERY FELLOWSHIP COMMITTEE REPORT

The Match Season Records Highest Number of Participants in 2022



Jay Agarwal, MD
Chair,
Microsurgery
Fellowship

The 2022 microsurgery match season is about to mark another successful conclusion. Fellows once again interviewed at a variety of outstanding programs across the country. For the 2022 season, there were 31 fellowship programs and 62 registered applicants. This is the highest number of microsurgery programs we have had since the ASRM Microsurgery match began.

This year we once again asked all programs to conduct virtual interviews due to the uncertainties around the Covid-19 pandemic. Our post-match surveys conducted during the pandemic informed us that the virtual interviews were well received by both programs and applicants. The virtual nature of interviews allowed applicants to accept more interviews

due to cost savings and ease of scheduling without the need to travel. Our hope is that the virtual format would allow programs to interview more applicants and choose from the full spectrum of outstanding fellowship candidates. Additionally, programs would be able to give applicants a good overview of the fellowships and the hospital systems despite being in a virtual format. We also resumed the normal timeline with rank lists due June 1st and match results out on June 8th for fellows starting in July 2023.

This year the Microsurgery Fellowship Committee implemented some changes to the website and interview notification process for the microsurgery match. We have asked all programs to post their interview dates on the microsurgery fellowship match website to allow for one central location where applicants and programs can see all of the interview dates. Additionally, we asked all programs to send their initial interview invi-

tations on one uniform date and time. This occurred on March 14, 2022 at 8AM PST. This was done to better organize the initial interview invitations for the applicants. As with anything new, there were a few hiccups, but overall the process seems to have gone smoothly. The committee will be monitoring the process closely and invites any feedback from programs or applicants about these changes. This year, 23 of the 31 fellowship programs were able to post their interview dates on the microsurgery website. In the future, our hope is that all programs will post their interview dates ahead of time on the website, which will streamline the process for applicants and programs and allow for full transparency of interview dates.

I'm truly excited about microsurgery and ASRM's future. Reconstructive microsurgery made it through the height of the Covid-19 pandemic with flying colors. Interest in pursuing microsurgery as a career is very high and case volumes continue to increase. We continue to see growth in the number of microsurgery training programs and outstanding applicants. Training in microsurgery affords us a unique skill set, one that can be used to overcome nearly any existing surgical challenge and one that can be used to extend boundaries and develop solutions for future challenges. I look forward to the conclusion of another exceptional microsurgery fellowship match season. **RM**

ASRM is now on

TikTok @asrm_micro!

Follow for interesting and informative videos about all things related to microsurgery and reconstructive surgery!

2022 RESEARCH GRANT AWARD

Conclusions from Medical Student Research Grant Award Recipient

TEMPORAL STRATIFICATION OF 2,851 MICROSURGICAL OUTCOMES IN PATIENTS WITH A HISTORY OF SARS-COV-2



Authors: Susan M. Taghioff, BS (photo at left), Benjamin R. Slavin, MD, Tripp Holton, MD, Devinder Singh, MD

Primary Investigator: Devinder Singh, MD

Affiliation: Division of Plastic Surgery, Dept. of Surgery, University of Miami Miller School of Medicine, Miami, Florida

Although the pandemic was declared by the World Health Organization (WHO) over two years ago, there remains a paucity of information when it comes to surgical guidelines. Specifically, there is a need for recommendations aimed at optimizing post-operative outcomes in patients that are either currently positive for or have a history of COVID-19. The present lack of guidelines may impact surgical procedures which are vulnerable to the inflammatory nature of COVID-19, particularly microsurgery.

Multiple studies have shown that COVID-19-positive patients undergoing surgery may experience worse post-operative outcomes, such as increased pulmonary and thrombotic complications, as well as increased morbidity and mortality. For patients undergoing microsurgical procedures, these risk factors must be heavily considered as post-operative outcomes are particularly vulnerable to vascular compromise. Specifically, arterial, and venous thrombi, which have been shown to increase vascular compromise and

thus decrease flap salvage rates, may be induced by the increased susceptibility to a hypercoagulable state caused by COVID-19. Combined with the baseline inflammatory stress that a microsurgical procedure places on patient vasculature, the advancement of understanding of surgical management in this patient population is imperative. Given the scant data available to assist practitioners with navigating how long to wait before proceeding with microsurgery following a COVID-19-positive diagnosis, our team aimed to temporally stratify the risks of 90-day-post-operative surgical site outcomes in patients with a history of SARS-CoV-2 by utilizing a continuously updated, federated electronic medical record (EMR) network.

Using the TriNetX database, we retrospectively screened 57 healthcare organizations globally using eighteen ICD-10 procedure codes (*Figure 1*) for microsurgery between January 2020 and June 2021. A total of 2,851 patients met criteria, and two cohorts were created. The first cohort consisted of 1,450 patients that did not have a history of COVID-19. The rest of the patients were temporally stratified based on when they had been COVID-19-positive (one day-one week (n=802), one-three weeks (n=235), three-seven weeks (n=201), seven-fifteen weeks (n=163) prior to microsurgery.

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CPT Codes Used
Microsurgery Codes
20972 - Free osteocutaneous flap with microvascular anastomosis; metatarsal
15842 - Graft for facial nerve paralysis; free muscle flap by microsurgical technique
20970 - Free osteocutaneous flap with microvascular anastomosis; iliac crest
64822 - Sympathectomy; Ulnar artery
20956 - Bone graft with microvascular anastomosis; Iliac crest
20955 - Bone graft with microvascular anastomosis; Fibula
19364 - Breast reconstruction with free flap
20970 - Free osteocutaneous flap with microvascular anastomosis; Iliac crest
20969 - Free osteocutaneous flap with microvascular anastomosis; other than iliac crest, metatarsal, or great toe
20962 - Bone graft with microvascular anastomosis; other than fibular, iliac crest, or metatarsal
26556 - Transfer, free toe joint, with microvascular anastomosis
20973 - Free osteocutaneous flap with microvascular anastomosis; great toe with web space
64821 - Sympathectomy; radial artery
64820 - Sympathectomy; digital arteries, each digit
15756 - Free muscle or myocutaneous flap with microvascular anastomosis
15757 - Free skin flap with microvascular anastomosis
64823 - Sympathectomy; superficial palmar arch
15758 - Free facial flap with microvascular anastomosis

Figure 1: CPT codes used to capture patients having undergone Microsurgery

2022 RESEARCH GRANT AWARD

Continued from page 20

We then compared the non-COVID-positive group to each of the groups that had a history of COVID-19. Each comparative cohort was stringently balanced for potential confounders including: age, race, gender obesity, nutritional deficiencies, diabetes, heart disease, COPD, history of neoplasm, smoking, and more. This magnitude of balancing allows for there to be a significant reduction in bias introduced by cofactors that may affect morbidity and mortality during microvascular surgery. In patients that are COVID-positive, propensity score matching may be an especially important mediator which might affect outcomes. Hence, after successful balancing, post-operative outcomes were identified and compared within 90 days of undergoing microsurgery using ICD-10 codes.

“In patients that are COVID-positive, propensity score matching may be an especially important mediator which might affect outcomes.”

Patients with a positive history of COVID-19 one day to one week (Risk Ratio=1.42, $p<0.01$) and 1-3 weeks (Risk Ratio=2.19, $p<0.01$) prior to microsurgery were associated with a significantly increased risk of infection within 90 days post-operatively when compared to patients with no history of COVID-19 (Figure 2). Addition-

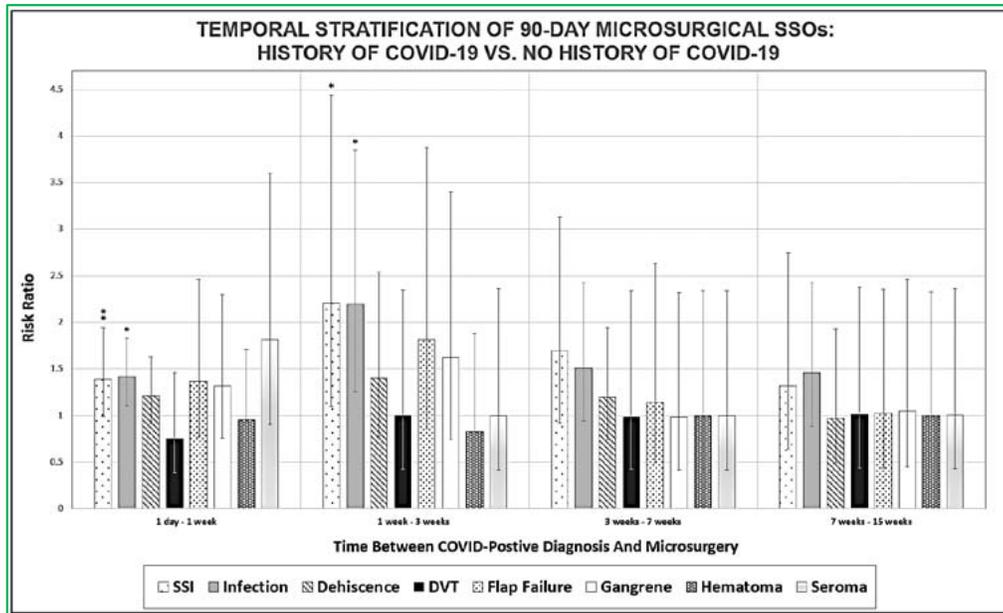


Figure 2: Temporal stratification of 90-day surgical site outcome risk in patients having tested positive for COVID-19 within: 1 day-1 week, 1-3 weeks, 3-7 weeks, & 7-15 weeks of undergoing microsurgery as compared with microsurgery patients with no history of testing positive for COVID-19

* Significantly increased risk of adverse outcome in patients with history of COVID-19 ($p<0.05$)
** Approaching significance ($p=0.0535$)

ally, patients with COVID-19 history one to three weeks prior to microsurgery experienced significantly increased risk of surgical site infections (Risk Ratio=2.20, $p<0.05$). Meanwhile, patients with a COVID-positive history three to seven weeks and seven to fifteen weeks prior to microsurgery experienced no significant differences in adverse outcomes. Notably, there was a non-significant increased risk of seroma, flap failure, and gangrene from one day to three weeks.

Our study measures an association between the timing of SARS-CoV-2 infection and post-operative outcomes within 90 days in microvascular patients. While this study represents the first temporal analysis of microsurgery following COVID-19 diagnosis, several previous studies have examined this question in broader general surgery populations. One such study, found an increased risk of

all post-operative complications for major elective general surgery procedures within 0-4 weeks of being COVID-19 positive. Likewise, our results show increased adverse outcomes in patients with a history of COVID-19 from one day until three weeks prior to undergoing microvascular surgery. Hence, our analysis suggests that delaying microsurgery more than 3 weeks following a positive Covid test may provide significant protection against post-operative complications. However, delaying until seven weeks after a Covid-positive diagnosis may further reduce risk of complications as risk begins to return to baseline. Ultimately, the findings of this study are constrained by the limits of medical coding and it is important to note that these measures of association do not portend causation, thus future prospective studies are needed. **RM**