



Inside:

- 2**
Editor's Message
- 3**
President's Letter
- 4**
2012 New Members
- 6**
Society Updates
- 7**
Committee Report: New ASRM Web site
- Meetings Calendar*
- 8**
2012 Annual Meeting Highlights
- 9**
2012 ASRM Council and Committees
- 10**
Historian's Corner
- 14**
The Young Microsurgeons' Group
- 15**
Invitation to Attend 2013 Annual Meeting

RECONSTRUCTIVE MICROSURGERY

Viva ASRM!

By David H. Song, MD, MBA, FACS
Scientific Program Chair, ASRM 2012

Looking back on the whirlwind week of ASRM 2012, I remember fondly the fellowship; Vegas style social events and the exceptional speakers with new concepts and ideas. ASRM 2012 attracted the highest number of attendees in recent history who thoroughly enjoyed the outstanding Keynote Speaker, Steven Levitt, the best selling author of *Freakonomics*. Dr. Samir Mardini's Godina lecture was stunning and Dr. Susan Mackinnon's Presidential Address was inspiring and a testament to a celebrated surgical career. The best paper of the meeting was by Dr. Maria LoTempio who introduced us to a new perforator flap for breast reconstruction based on the profunda artery and a posterior thigh donor site. I heard many positive comments about the masters of microsurgery panel sharing with us their distinguished career of microsurgery moderated by Dr. Neligan (the narrated movie by Dr. Pederson is an instant classic). Again the Best Case/Best Save panel



Dr. Keith E. Brandt welcoming Dr. Michael Neumeister in as new ASRM President

was a hit and so was the Disasters of the Masters panel.

While I look back with fond memories and new ideas and concepts learned, I look forward to a vibrant and growing society with visionary leaders and young members who are constantly innovating and extending our armamentarium of microsurgical tools and as a result expanding the scope of what we do. I'd like to thank Dr. Keith Brandt for the opportunity to put this meeting together, the program committee and their efforts in populating the outstanding content and a special thank you to Krista and Lauren, and the entire ASRM staff; their tireless efforts made this meeting great.

I trust everyone safely made it back home without facial tattoos and stolen tigers and with all your dentition intact. It was an honor serving you as the program chair and I look forward to seeing all of you again at ASRM 2013 in Florida.



2011 President Dr. Keith E. Brandt and Program Chair, Dr. David Song

The Evolution of Something Big

We all tend to get too caught up from time to time in the fast-paced pragmatic day-to-day aspects of contemporary microsurgical practice. I believe it is helpful to step back (or up in this instance) to get a 10,000 foot perspective to appreciate where we are and where we are going in ASRM—and how this relates directly to reconstructive microsurgery. As this is my first editorial as your Secretary, I thought it would be helpful to start with an account of some personal perspectives on our society.

It seems like only yesterday when ASRM was but a little “mom and pop” organization that served as a sounding board for microscopically-focused surgeons and researchers who engaged in debate and ongoing dialogue. Meetings were really small—but really fun. There was excitement in the air in anticipation of the discussions that followed each new or controversial presentation. It was a “no holds barred” venue that stimulated new thought and questioned the restrictive dogma of the time. New flaps, new techniques, new agendas that were introduced at our meetings collectively raised the bar of expectations on outcomes—and have brought us to where we are today. I clearly remember (and I am not that old!) when just getting the flap “up there” and getting it to live was the “end-game”. From this vantage point, it is quite remarkable how far we have come in such a short period of time.

As our scientific and technological advances in reconstructive microsurgery have evolved, so has ASRM as an organization. ASRM has made great strides as an organization over the past 25 years with a near tripling of its active membership and an ever-expanding agenda that encompasses “reconstructive” as a global imperative. Indeed, ASRM has become

EDITOR'S MESSAGE



Elisabeth Beahm, MD

ASRM has evolved unique capabilities for community outreach, partnership with major specialty organizations, promotion of research, and the mentoring of young microsurgeons.

not only the home base for Reconstructive Microsurgery but for all of Reconstructive Surgery as well. Armed with an efficient and effective administrative core, ASRM has evolved unique capabilities for community outreach, partnership with major specialty organizations, promotion of research, and the mentoring of young microsurgeons. For this we should all be proud.

As I reflect on the great advances ASRM and reconstructive microsurgery has made over the past three decades, it is noteworthy that not much has changed in terms of the excitement and energy that embodies each of our annual meetings. Yes, we still have the great debates and ongoing dialogues. Yes, there are still presentations focused on the interesting innovations in flap design and

RECONSTRUCTIVE MICROSURGERY

The mission of the American Society for Reconstructive Microsurgery is to promote, encourage, foster and advance the art and science of microsurgical and other complex reconstructions; and to establish a forum for teaching, research and free discussion of reconstructive microsurgical methods and principles among the members.

President Michael Neumeister, MD

Editor Elisabeth Beahm, MD

Executive Director Krista A. Greco

Managing Editor Anne Behrens

© Copyright 2012 The American Society for Reconstructive Microsurgery, Inc.

Reconstructive Microsurgery is published two times yearly for members of ASRM, a non-profit organization. The subscription price is included in the annual membership dues. All correspondence and address changes should be addressed to:

ASRM Reconstructive Microsurgery
20 N. Michigan Avenue, Suite 700
Chicago, IL 60602
312-456-9579 www.microsurg.org

The views expressed in articles, editorials, letters and or publications published by ASRM are those of the authors and do not necessarily reflect the society's point of view.

approaches to complex reconstruction. Yes, we continue to have group huddles at the coffee bar and in the exhibit areas to extend our discussions and learning. Yes, there are the young and old alike in the meeting halls and poster areas with mouths agape at the scientific and technical wonders before them. And yes, the meeting continues to be a great venue for networking, meeting new friends who share similar interests, and for renewing old acquaintances.

One might ask what is different between the ASRM of old and ASRM now? A resounding answer would appropriately be “BIGGER.” But in deference to other organizations that “lost” their intimacy as they grew, ASRM simply got better. The annual meeting is a really fun event that we all look forward to. It is an important event that we should all strive to support and promote as ASRM truly represents the future of Reconstructive Surgery. **RM**

Great Things to Come!

Technology is wonderful. And perhaps the most used technology by many is social media. Indeed, my daughters text me daily from their iPhones. They text me about everything. They text me about nothing. They text me even when we are in the same room. Twitter, Facebook, HeyTell, and many other social media creations are commonplace for my daughters. I don't consider myself old by any means, but I have not been able to wrap my arms around all of the worldwide technology.

For the 2013 ASRM meeting, we have incorporated panels and courses that bring the latest in technology to the forefront. The younger generation will have a chance to shine and show all of us what technology can do... in the realm of reconstructive microsurgery. With that in mind, how-

PRESIDENT'S LETTER



**Michael Neumeister, MD,
FRCS, FACS**

*It is only through
research that answers
will be forthcoming to
problems for which we
now seek solutions.*

ever, there is ample opportunity to experience the knowledge of the ages from around the world.

This upcoming annual meeting, to be held in Naples, Florida, will offer worldwide experience with national and international reconstructive surgeons populating panels, courses, and paper presentations. It will also offer a glimpse into the international arena of the World Society for Reconstructive Microsurgery (WSRM), to be held in July of 2013 in Chicago. Robert Walton, ASRM past president, is the host of the 2013 WSRM Congress and has aligned leaders from around the world to discuss the latest innovative approaches to reconstructive surgery. The program looks amazing!

Dr. Walton has also invited the ASRM to hold an "ASRM Day" immediately preceding the main

continued on page 4

THE **ASRM** COUNCIL AND THE 2012 ANNUAL MEETING PROGRAM AND TECHNICAL EXHIBITS COMMITTEES WOULD LIKE TO EXTEND THEIR **THANKS** TO THE **2012 EXHIBITORS** FOR THEIR SUPPORT AND PARTICIPATION:

American Society of Hand
Therapists

Angiotech

Aptis Medical, LLC

ASSI-Accurate Surgical

Auxilium Pharmaceuticals, Inc.

AxoGen

Buxton Biomedical

Checkpoint Surgical, LLC

Cobalt Health

Cook Medical

Core Essence Orthopaedics, Inc.

Elsevier Inc.

Hand Biomechanics Lab

Hand Rehabilitation Foundation

Hologic, Inc

Instratek, Inc.

Integra Lifesciences

Leica Microsystems

Lifecell Corporation

Lippincott Williams & Wilkins

Materialise

Mayo Foundation

Medartis, Inc.

Medical Modeling Inc.

Medlink USA, Inc.

Microsurgery Instruments, Inc.

Orthoscan, Inc.

Osteomed

Plastic Surgery Education

Network (PSEN)

Razek Equipamentos Ltd.

Skeletal Dynamics

Small Bone Innovations, Inc.

Spectros Corp.

Surgical Acuity, Inc.

Synovis Micro Companies
Alliance, Inc.

Synthes CMF

Tornier

TriMed, Inc

ViOptix, Inc.

Wound Care Technologies, Inc.

President's Letter

continued from page 3

WSRM meeting. We plan to highlight the creativity of ASRM members with panels, surgeries and open discussions. This is truly an event we should all attend... here on North American soil.

Apart from our national annual meeting, we, as creative reconstructive surgeons, should have a long-term focus on the future of our specialty. That is, we should

have a focus on the *research* that changes our practice in reconstruction. Many have heard the phrase "Research is our Future". I would like to see that formally supported with donations to a research fund... an ASRM research foundation that believes in the merit of promoting research to improve our ability to restore what was once lost.

The ASRM is poised to be the foundation of collaboration between institutions, countries, national societies, foundations, and national agencies, like the Department of Defense or the National Institute of Health. Collaboration in clinical expertise and clinically relevant research offers numerous advantages over

continued on next page



American Society for Reconstructive Microsurgery

2012 New Members

Active

Gary Arishita, MD
San Antonio, TX

Shannon Colohan, MD, MSc, FRCSC
Seattle, WA

John M. Eggleston III, MD
Santa Clara, CA

Goetz A. Giessler MD, PhD
Staffelsee, Germany

Riccardo Giunta, MD
Munchen, Germany

David Greenspun, MD, MSc
New York, NY

Ron Israeli, MD
Great Neck, NY

Stephanie Olivier, MD, FRCSC
Winnipeg, MB, Canada

Jennifer Robinson, MD
Houston, TX

Bauback Safa, MD
San Francisco, CA

William Samson, MD
New York, NY

Dennis Schimpf, MD
Charleston, SC

Hooman Soltanian, MD
Lyndhurst, OH

Arik Zaretski, MD
Tel Aviv, Israel

Candidate

Hattan Abdulhafedh H. Aljaaly, MD
Montreal, Quebec, Canada

John R. Barbour, MD
St. Louis, MO

Kongkrit Chaiyasate, MD
Columbus, OH

Angela Cheng, MD
Dallas, TX

Ying Chi, MD
Cincinnati, OH

Jose G. Christiano, MD
Rochester, NY

Regina M. Fearmonti, MD
Durham, NC

Partick J. Greaney, Jr., MD
New York, NY

Nicholas T. Haddock, MD
Philadelphia, PA

S. Daniel Huang, MD
New York, NY

Matthew Iorio, MD, PhD
Washington DC

Karly Kaplan, MD
New York, NY

Mark Leyngold, MD
Las Vegas, NV

Robert Najera, MD
Frisco, TX

Alexander Nguyen, MD
Houston, TX

Karoline Nowillo, MD
San Francisco, CA

Aaron Pelletier, MD
Chicago, IL

Ivo A. Pestana, MD
Winston Salem, NC

Jason M. Petrungaro, MD
Houston, TX

Alyssa Reiffel, MD
New York, NY

Forrest S. Roth, MD
Houston, TX

Michele Roughton, MD
Morton Grove, IL

Jamie Shores, MD
Pittsburgh, PA

Ross L. Stutman, MD
Las Vegas, NV

Ian L. Valerio, MD
Bethesda, MA

Mark Walsh, MD
Atlanta, GA

President's Letter

continued from page 4

individual pursuits. Such advantages include diminished duplication of resources, improved funding, and better outcomes.

ASRM members offer a plethora of surgical options for patients that need complex reconstruction. Let's channel our efforts to build some-

thing bigger than ourselves. Let's create a future through research. There is much to be accomplished in the fields of vascularized tissue allotransplantation, stem cell regeneration, nerve regeneration, soft tissue deficits, wound healing, ischemia/reperfusion, and scar

management, to name only a few areas. We need to collaborate with our basic science colleagues. Microsurgery and complex reconstruction can interface with elements of regenerative medicine to build tissues and flaps not identified in the past. Cell and tissue culturing can be vascularized through prefabrication or engineered capillary beds.

It is only through research that answers will be forthcoming to problems for which we now seek solutions. Therefore I would encourage all of you to donate to a research foundation that is being developed for the benefit of our future in reconstructive surgery.

The field of reconstructive microsurgery is growing. Plan on attending this year's meeting in Naples, Florida, to witness firsthand the latest innovations, to learn from the experience of our members, and to be a part of our future. [RM](#)



NOW AVAILABLE

www.microsurgerymatch.com

The **Microsurgery Fellowship Match** is now available. The goal of the **Microsurgery Fellowship Match** is to coordinate fellowship appointments, thus relieving the pressure of uncoordinated appointments and forced early choices. Please visit www.microsurgerymatch.com to register and view all the pertinent information.

Program Registration:	June 1 – September 15
Resident Registration:	June 1 – September 30
Match Site Opens:	October 1
Match List Certification:	November 8
Match Run Date:	November 15
Match Notification Date:	November 19

www.microsurgerymatch.com

312-456-9579

contact@microsurg.org

Mowing the Lawn Can Be a Dangerous Chore

As the school year drew to a close, thousands of children across the country took on a familiar chore: mowing the lawn. With the summer mowing season here, the American Academy of Orthopaedic Surgeons (AAOS) and the American Academy of Pediatrics (AAP) are joining the American Society for Reconstructive Microsurgery (ASRM) in educating adults and children about the importance of lawn mower safety.

Sadly, 253,000 people were treated for lawn mower-related injuries in 2010—nearly 17,000 of them children under age 19, the U.S. Consumer Product Safety Commission reports. Lawn mower-related injuries are up 3 percent since 2009.

"Lawn mowers are not meant to be toys and are certainly not to be used for joy rides," said ASRM President Michael Neumeister, MD. "Most lawn mower injuries occur when the operator is distracted momentarily and injuries can range from finger tips to entire hands and feet." The three national medical organizations are warning families that the routine task of lawn mowing can be extremely dangerous to children, the operator, and those nearby if proper safety precautions aren't taken.

"Every year at this time, in far too many neighborhoods, children are operating or playing around lawn mowers in unsafe ways. And every summer, thousands get hurt," said AAP President Robert W. Block, MD, FAAP. "We want parents and kids to be more aware of precautions to take so that injuries can be prevented."

"The dangers of using a lawn mower should not be taken lightly," said AAOS President John R. Tongue, MD. "There are still too many careless injuries that happen to children because of these powerful machines. Parents should take the time to discuss lawn mower safety precautions with their kids as most of these injuries can be prevented."



Lawn mower injury prevention tips include:

- Only use a mower with a control that stops the mower blade from moving if the handle is let go.
- Children should be at least 12 years of age before operating a push lawn mower, and age 16 to operate a driving lawn mower.
- Make sure that sturdy shoes (not sandals or sneakers) are worn while mowing.
- Prevent injuries from flying objects, such as stones or toys, by picking up objects from the lawn before mowing begins. Have anyone who uses a mower or is in the vicinity wear polycarbonate protective eyewear at all times.
- Do not pull the mower backward or mow in reverse unless absolutely necessary, and carefully look for children behind you when you mow in reverse.

- Always turn off the mower and wait for the blades to stop completely before removing the grass catcher, unclogging the discharge chute, inspecting or repairing lawn mower equipment or crossing gravel paths, roads, or other areas.
- Use a stick or broom handle (not your hands or feet) to remove debris in lawn mowers.
- Do not allow children to ride as passengers on ride-on mowers and keep children out of the yard while mowing.
- Drive up and down slopes, not across to prevent mower rollover.
- Keep lawn mowers in good working order. When using a lawn mower for the first time in a season, have it serviced to ensure that it is working correctly.

Many lawn mower-related injuries require a team of physicians from various specialties to properly repair them. Often, patients must endure painful reconstructive operations for months, sometimes years, to restore form and function. Some of these procedures can be as complex as moving the big toe to the hand to simulate a thumb.

Thank you for your support of this worthy safety campaign. As you know, it takes a team of physicians from various specialties to properly repair these devastating injuries. Join forces to alert the public on how to keep yourself and kids safe. [RM](#)

Internet Update: Web Site Launch

*Michael Klebuc, MD, Past
Chair, Electronic
Communications Committee*

The rejuvenated face of the ASRM was rolled out on the World Wide Web in early March. In addition to the fresh new look the web site offers a series of additional features which includes a selected article of the month from the *Hand Journal* and the *Journal of Reconstructive Microsurgery* as well as links to the Plastic Surgery Education Network and other educational sites.

There are new resources available to younger members of the society via the Young

Microsurgeons' Group and further emphasis and exposure has been provided to the Microsurgery Fellowship Match. There is a new patient education section describing reconstructive microsurgery and its potential benefits. Additionally, the new site hosts a "Find a Surgeon" tool that will assist potential patients to find an ASRM member in their area who specializes in dealing with a particular problem. I would encourage all members to spend a few minutes to fill out the online data fields to be included in this program.

This is an exciting time for the ASRM on line and during the course of the year you will see an expansion of the web site services with the roll out of an online journal club, surgical instructional videos and links to electronic journals.

It has been a privilege to serve as the Chairman of the Electronic Communications Committee during this period of growth and development and I will turn the reins over to Dr. Matthew Concannon for 2012. [RM](#)

ASRM FUTURE ANNUAL MEETINGS

2013

JANUARY 12-15, 2013

Naples Grande
Naples, FL

2014

JANUARY 11-14, 2014

Grand Hyatt Resort & Spa
Kauai, HI

2015

JANUARY 24-27, 2015

Atlantis
Paradise Island, Bahamas

UPCOMING INTERNATIONAL MEETINGS

WSRM WORLD CONGRESS 2013

July 11-14, 2013
Chicago, IL
www.wsrw2013.org

New Web Site Launched!

The American Society for Reconstructive Microsurgery is pleased to announce the launch of its new Web site www.microsurg.org! Our Web site has many new features to strengthen our membership, provide additional benefits and easily accessible information. We encourage you to tour the Web site and log on to view the Members Section. We also now have a mobile site that provides organization information including recent news, membership information, dues payment and annual meeting information at the touch of your fingers. Some of the new and improved resources now available are:

- Public surgeon search directory (optional)
- Interactive membership roster
- Ability to update your roster profile
- Microsurgery Fellowship Match participant roster
- Microsurgery fellowship search
- Monthly featured journal articles
- Mobile site
- Public education and awareness
- Young Microsurgeons Group dedicated section

Don't forget to check out the BRAND NEW "Find a Surgeon" tool made available on the ASRM website. This added membership benefit allows you to be included in a searchable public listing. Please keep in mind this is an optional resource so you are not required to input your information, but if you wish to participate you must follow the proper membership login process. [RM](#)

**ANNUAL MEETING
HIGHLIGHTS**



Young Microsurgeons Group attendees



Exhibitor Hall

A SPECIAL THANK YOU TO THE FOLLOWING
2012 SPONSORS:

ASSI-Accurate Surgical

Synovis, MCA

California Pacific Medical Center

ViOptix

**ASRM “Best”
Awards 2012**

**Best Microsurgical Case
of the Year Award**

Rudy Buntic, MD
*“Lip Reconstruction with Free
Gracilis Flap”*

**Best Microsurgical Save
of the Year Award**

Jim Higgins, MD
*“Hand Reconstruction with Ectopic
Banking of Amputation and Toe
Transfer”*

**Best Clinical Paper:
Brad Gandolfi, MD**

*“Using Angiosome Based Flap
Design to Extend the Utility of the
Abdominal Donor Site in the Obese
Patient”*

**Best Research Paper:
Michael Yoo, MD**

*“Full Face Transplantation—
Transferring a Neurovascularly
Intact and Functioning Mandible”*



**Godina Lecturer
Samir Mardini, MD**



American Society for Reconstructive Microsurgery

2012 Council and Committees

COUNCIL

President

Michael W. Neumeister, MD

President-Elect

Joseph Serletti, MD

Vice-President

Allen T. Bishop, MD

Secretary

Elisabeth Beahm, MD

Treasurer

Charles E. Butler, MD

Immediate Past President

Keith E. Brandt, MD

Senior Members-At-Large

Joseph Disa, MD

Lawrence J. Gottlieb, MD

Junior Members-At-Large

Michael Klebuc, MD

Joan E. Lipa, MD MSc, FRCS

Historian

A. Lee Dellon, MD

YMG Representative

Liza C. Wu, MD, FACS

COMMITTEE CHAIRS

Audit

Elisabeth Beahm, MD, *Chair*

Scott Oates, MD

Roman Skoracki, MD

Buncke Lectureship

Keith E. Brandt, MD, *Chair*

Greg Buncke, MD

James Higgins, MD

Samir Mardini, MD

Michael Neumeister, MD

Michael Sauerbier, MD

Bylaws

Paul Cederna, MD, *Chair*

David Mathes, MD

Michael Zenn, MD

Clinical Guidelines & Outcomes

Roman Skoracki, MD, *Chair*

David Mathes, MD

Lee Pu, MD

Hakim Said, MD

CPT/RUC

Paul Cederna, MD, *Chair*

Charles Butler, MD

Scott Hansen, MD

Gabriel Kind, MD

Dan Nagle, MD

William Pederson, MD

David Song, MD

Education

Michael Miller, MD, *Chair*

John Hijjawi, MD

Thomas Hayakawa, MD

Samir Mardini, MD

Endowment

L. Scott Levin, MD, FACS, *Chair*

Lawrence Colen, MD

Joseph Serletti, MD

Ronald Zuker, MD

Electronic Communications

Matthew Concannon, MD, *Chair*

Elisabeth Beahm, MD

Michael Klebuc, MD

Howard Langstein, MD

Vu T. Ngyuen, MD

Finance

Joseph Serletti, MD, *Chair*

Charles Butler, MD

Raymond Dunn, MD

Godina Fellowship Selection

Joseph Serletti, MD, *Chair*

Professor Uros Ahcan

Otway Louie, MD

Samir Mardini, MD

Michael Neumeister, MD

Michael Zenn, MD

Master Series Symposium

William Pederson, MD, *Chair*

John Hijjawi, MD

Membership

Joseph Serletti, MD, *Chair*

Allen Bishop, MD

David Chang, MD

E. Gene Deune, MD

Jeffrey Friedrich, MD

David Mathes, MD

Micro Fellowship

Michel Saint-Cyr, MD, *Chair*

Liza Wu, MD

Peter Cordiero, MD

Peter Neligan, MD

Thomas Hayakawa, MD

Nominating

Keith E. Brandt, MD, *Chair*

Lawrence Gottlieb, MD

John Hijjawi, MD

Michel Saint-Cyr, MD

Jesse Selber, MD

Milan Stevanovic, MD

Program

James Higgins, MD, *Chair*

Michael Sauerbier, MD, *Chair*

Elisabeth Beahm, MD

Allen Bishop, MD

Philip Blondeel, MD

Ruben Bueno, MD

Paul Cederna, MD

Gregory Evans, MD

Lawrence Gottlieb, MD

Joan Lipa, MD

Steve Moran, MD

Jesse Selber, MD

David Song, MD

Robert Walton, MD

Robert Whitfield, MD

Technical Exhibits

Liza Wu, MD, *Chair*

Melissa Crosby, MD

William Dwyerzinski, MD

Time & Place

Keith E. Brandt, MD, *Chair*

Peter Neligan, MD

William Zamboni, MD

Young Microsurgeon's Group

Robert Whitfield, MD, *Chair*

Ruben Bueno, MD

Melissa Crosby, MD

Matthew Hanasono, MD

John Hijjawi, MD

Doan Nguyen, MD

Vu T. Ngyuen, MD

Julie Park, MD

Jesse Selber, MD

Complex Reconstruction

By A Lee Dellon, MD, PhD

As the new Historian for ASRM, I must confess that I am an “old” historian. It is now fun for me to view what did not exist when I was trained in plastic surgery, hand surgery and microsurgery as it exists today in a historical context.

While we were using microvascular techniques to replant fingers and do toe-to-hand transfers during my fellowship at the Raymond M. Curtis, MD (1913-1994) Hand Center in Baltimore, the first microvascular free tissue transfer in our city, Baltimore, was done at the former Baltimore City Hospital, in 1977 by G. Patrick Maxwell, MD. Pat was the year behind me in residency at Johns Hopkins Hospital, and had just finished a fellowship with Harry J. Buncke, Jr. MD (1922-2008), the “Father of Microsurgery” as we know it today. Pat transferred a dorsalis pedis flap from one foot to reconstruct a defect on the contralateral foot/ankle, with the “life boat” option being a cross-leg pedicle flap. In 1977 this was a very “complex reconstruction”, indeed, at the height of the “reconstructive ladder”.¹

The earliest history of microsurgery is that of vascular surgery, but done without a microscope. Although what follows may be well known to some, it seems always worth recalling, so we may learn from it and honor our pioneers. The history that follows is important today as ASRM places the new membership requirement of “Complex Reconstruction” into

alignment with purely “Microvascular” procedures.

In 1912, the Nobel Prize in Medicine or Physiology was awarded to Alexis Carrel, MD (1873-1944), a general surgeon at the University of Chicago (Figure 1A). The recognition stated that the



Figure 1: Alexis Carrel MD, winner of the 1912 Nobel Prize in Medicine or Physiology

award was “in recognition of his work on vascular suture and the transplantation of blood vessels and organs.” In 1938, after working at the Rockefeller Institute in New York City, Carrel published a book, *The Culture of Organs*, co-authored with Charles A. Lindbergh (1902-1974), the famous aviator. In the intro-

duction to this book, Lindbergh explained how he came to work with Carrel:

“My wife’s older sister had developed a seriously defective heart valve as a complication of rheumatic fever. I had asked her doctor why surgery would not be beneficial. He replied that the heart could not be stopped long enough to permit a surgical operation. I asked why an artificial heart could not be used during the operation. He said he didn’t know, and showed little interest in the problem. I asked other doctors. To my amazement, none of them could tell me, and none seemed to have much interest until I came to Paluel Flagg. He said that while he could not

answer my questions, he had a friend who could—the French surgeon Alexis Carrel.”

Lindbergh then went on to developed a perfusion pump that maintained a sterile, pulsating circulation of fluid through excised organs, and enabled Carrel to keep organs such as the thyroid and kidney alive and functioning. Lindbergh’s pump was the forerunner of apparatus now in use in heart surgery. Carrel did not use vascular surgery to transplant organs, but rather did whole organ tissue perfusion. Carrel did not use a microscope.

The Nobel Prize for free, vascularized transplantation of tissue went to plastic surgeon Joseph E. Murray, MD in 1990 (Figure 2). He did the first kidney transplant between identical twins in 1954, the first kidney allograft in humans in 1959, and first kidney human cadaver allo-



Figure 2A: Joseph E. Murray, MD

continued on next page

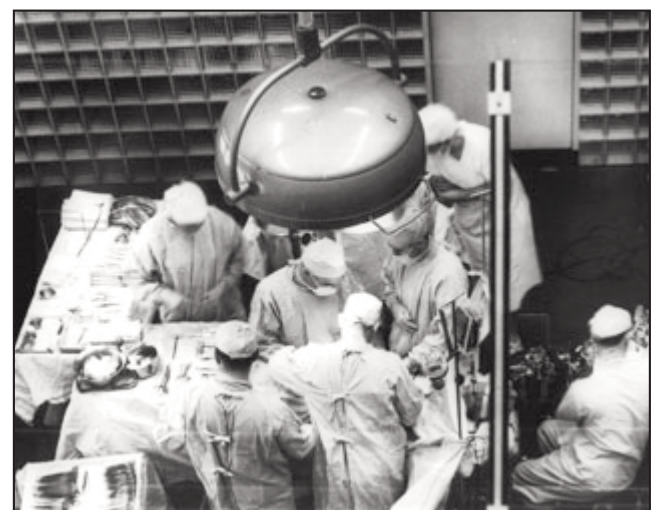


Figure 2B: The first kidney transplantation in a human. Note that no microscope is present.

1. We are all well aware of the earlier, “classic” 1973 publications [Daniel, RK, Taylor, IG, The free flap: composite tissue transfer by microvascular anastomosis, *Plast Reconstr Surg*, 1973;52:111-117, and Harii, K, Ohmori, S, ...transfer of composite flaps by microvascular anastomosis, *Plast Reconstr Surg*, 1973;52:541-548.].
2. *Surg Gyn & Obst*, 106:743, 1958
3. Seidenberg, B, Rosenak, SS, Hurwitz, ES, Som, ML, Immediate reconstruction of the cervical esophagus by means of a revascularized isolated jejunal loop, *Ann Surg*, 149:162, 1959)

Historian's Corner

continued from page 10

graft in 1962. He did not use a microscope.

A general surgeon, Bernard Seidenberg, MD, at Montefiori Hospital in New York, where Berish Stauch, MD (founding member and past-president of ASRM) trained in surgery, reported, with co-authors, "The technique for anastomosing small arteries,"² and followed with the first report of a vascularized tissue transfer of the jejunum, without using a microscope.³ This was



Fig. 2C: Dr. Murray receiving the 1990 Nobel Prize in Medicine or Physiology

clearly a "complex reconstruction" which required a vascular repair but without the use of the microscope.

Julius H. Jacobson, II, MD (Figure 3) deserves the credit for introducing the microscope into the operating room. He graduated from Johns Hopkins University School of Medicine in 1952, and did his General and Thoracic surgery at Columbia-Presbyterian

in New York City. He then stayed in New York City working at Mt. Sinai before moving to the University of Vermont as Director of Surgical Research. He was using the microscope in his lab to do vascular repairs. In 1962, he published, with co-authors, "Microsurgery in ureteral reconstruction."⁴ This was probably the first recording, to the best that I can determine of the words "microsurgery" and "reconstruction" in the same sentence, and the use of the microscope for a non-vascular reconstruction. That same year, he published on "Microsurgery as an aid to middle cerebral artery endarterectomy", using the microscope for vascular access and vessel repair.⁵

Jacobson was a surgical innovator who created the first diploscope (now in the Smithsonian Institute) so that he could teach and have an assistant learn during vascular surgery. In 1970, the year I graduated from Johns Hopkins University School of Medicine, Jacobson wrote with, along with Gazi Yasargil (Neurosurgery's Man of the Half-Century, 1950-1999) "Microneurosurgical arterial reconstruction."⁶ Here we have the combination of "micro", "nerve", "artery" and "reconstruction" in the same sentence!⁷

Harry J. Buncke Jr., MD (Figure 4) published his first paper in *Plastic and Reconstructive Surgery* in 1955 ("Safety sleeve for wire brush abrasive therapy with use of local anesthesia"); however by then, his wife, Constance Buncke, MD, a dermatologist, had already published three papers on

her own. His second paper in *Plastic and Reconstructive Surgery*, in 1957, written with Herbert Conway, MD, the first Chief of Plastic Surgery at Cornell University in New York City, was on "Surgery of decorative tattoos". (By then, Constance had published two more papers.) Dr. Buncke's next paper pointed in the direction in which we now think of him, being published in the *Transplantation Proceedings*, which was part of *Plastic and Reconstructive Surgery* in 1959; however, its subject was "Manometric evaluation of palatal function in cleft palate patients"!

During this time frame Harry Buncke Jr., MD was inspired by Mr. Thomas Gibson (1915-1983). Gibson was a pioneer of plastic surgery and bioengineering, ending his career as Chief of Plastic Surgery at Canniesburn Hospital, Scotland. Gibson inspired Buncke to develop techniques for transplanting blocks of tissue on small vessels 1 mm in size. In March of 1964, Buncke reported the first successful rabbit ear replantation to the Plastic Surgical Research Council meeting. He and his wife, Constance Buncke, MD, performed the first great toe-to-thumb transplant in the rhesus monkey in 1964. This work appeared in 1965 and 1966.⁸ WP Shulz was a physicist working at the Stanford linear accelerator, and worked to develop the customized needles made from metalized nylon threads from women's stockings that could be used for sutures, as the smallest then available were 6-0. Harry Buncke Jr's next paper (according to PubMed.com) was on "The evalua-

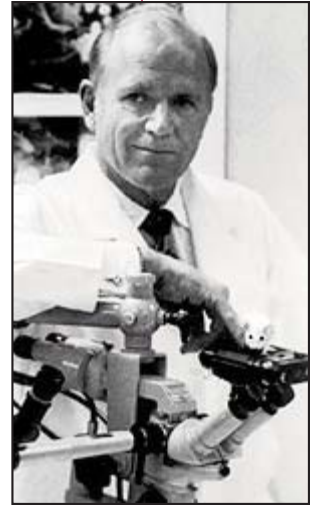


Figure 4: Harry J. Buncke Jr., MD

4. J Urol , 1962;87:48-55

5. "Microsurgery as an aid to middle cerebral artery endarterectomy" J Neurosur, 1962;19:108-115

6. "Microneurosurgical arterial reconstruction", Surgery, 1970;67:221-233

7. For those who cannot get enough on the history of microsurgery, please read Jacobson's remembrance, a tribute to Leonard Mallis, MD. "The early days of Microsurgery in Vermont", Mount Sinai Journal of Medicine, 34; 160-163, 1997.

8. Buncke, H J Jr, Schulz, WP, "Experimental digital amputation and reimplantation", Plastic and Reconstructive Surgery, 1965;36:60-70; and Buncke, H J Jr, Schulz, WP, "Total ear transplantation in the rabbit utilizing microminiature anastomosis" Brit J Plastic Surg, 1966;19:15-22

Historian's Corner

continued from page 11

tion and management of velopharyngeal insufficiency".¹⁰

During the early 1960's there were others pioneering experimental microvascular procedures that we must recognize. In Boston, Robert M. Goldwyn, MD (1930-2010) and co-authors published on island flaps¹¹ and on limb transplantation¹². Goldwyn and co-workers transplanted abdominal flaps based on the epigastric vessels into the neck, using the carotid vessels as recipients. They used 8-0 nylon sutures and heparin. In Cleveland, Thomas J. Krizek, MD and co-authors published on experimental microsurgical transfer of tissue.¹⁰ Krizek and co-workers used a similar vascular model, but used 7-0 silk sutures and a Zeiss operating microscope (6-10X).

Cross-fertilization began at a 1966 conference in New England, probably the first conference held on Microsurgery. This was organized by the Chief of Neurosurgery at the University of Vermont, Raymond M. Dongahy, MD (1910-1991). Gazi Yassagil, MD, a neurosurgeon from Switzerland, and Julius H. Jacobson, II, MD, who was then working at the University of Vermont, were co-organizers of this conference. Harry J. Buncke, Jr, MD, Berish Strauch, MD and Avron Daniller, MD attended this conference. Yassagil went on to become Chief of Neurosurgery in Zurich, Switzerland, although he

did not do microsurgery. Jacobson went on to become Chief of Vascular Surgery at Mt Sinai, in New York, although he did not do microsurgery. After Dongahy started the journal *Microsurgery* in 1979, he transferred the editor position to Jacobson in 1983. Jacobson accepted,

and asked Leonard Mallis, MD, a neurosurgeon to be his co-editor.

Harry Buncke Jr's next publication, in an animal model, was on "The fate of autogenous whole joints transplanted by microvascular anastomosis", co-authored with Avron Daniller, WP Schulz, and Robert A. Chase.¹⁴ A microsurgery research laboratory was set up at Stanford University, by Robert A. Chase, MD, a pioneer not only in Hand Surgery and Surgical Education. He offered a research fellowship to Avron Daniller, MD (Figure 5), who had completed his surgery training in England. Avron began the microsurgery research activities of that lab. Buncke's insistence that microsurgery would require mastery of vessels at the 1mm level, required a research model, and Daniller developed this using rat kidney transplantation. This work was awarded a Plastic



Figure 5A: Avron Daniller, MD

Surgery Educational Foundation Prize, the first given in Microsurgery, and the work entitled, "Renal transplantation in rats using microsurgical techniques: a new method," was published in 1968.¹⁵

Workshops on microsurgery began. The proceedings from such a workshop and symposium, organized by

Berish Strauch, MD and Avron Daniller, MD, held in New York City at the Roosevelt Hotel, in 1974 was published and became the first American book on microsurgery.¹⁶ Drs Daniller set up the first microsurgery/transplant lab at Montefiori Hospital with a Zeiss microscope donated to him for that purpose, and he and Berish Strauch ran the microsurgery fellowship program there together. This is where Julia K. Terzis, MD, PhD, trained in clinical microsurgery.

Fast forward three decades, to the mid-1990's. Those doing aesthetic surgery started a movement to delete the word "reconstructive" from the name of the national society that represented all Plastic Surgeons, the American Society for Plastic and Reconstructive Surgeons. ASPRS became the ASPS. By default, only the American Society for Reconstructive Microsurgery continued in name alone as the standard bearer for the surgeon doing reconstructive surgery. How did ASRM get its name and its start?

In 1977, Julia K. Terzis, MD, PhD, a past president of ASRM, and possibly the first plastic surgeon to have a PhD, co-authored a book with Rollin Daniels, MD while they were at McGill University in Canada. It was enti-

10. Cleft Palate J, 1966;3:171-180. In case you wonder about the inclusion of these palatal references, my first few papers while in medical school involved evaluation of peripheral nerve sensory function and papers on velopharyngeal function!
11. Goldwyn, RM, Lamb, DL, White, WL, An experimental study of large island flaps in dogs, Plastic and Reconstructive Surgery, 1963;31:528-536) gus by means of a revascularized isolated jejunal loop, Ann Surg, 149:162, 1959
12. Goldwyn, RM, Beach, PM, Feldman, D, Wilson, RE, Canine limb homotransplantations, Plastic and Reconstructive Surgery, 1966; 37:184-195
13. Krizek, TJ, Tani, T, Desprez, JD, Kiehn, CL, Experimental transplantation of composite grafts by microsurgical vascular anastomosis, Plastic and Reconstructive Surgery, 1965;36:538-546
14. Plastic and Reconstructive Surgery, 1967; 39:333-341
15. Daniller, A, Bucholtz, R Chase, RA, Renal transplantation in rats using microsurgical techniques: a new method, Surgery, 1968; 63:956-963.
16. Daniller, A and Strauch, B, eds, Microsurgery: Symposium Proceedings of the Educational Foundation of the American Society of Plastic and Reconstructive Surgeons, volume 14, 1977

Historian's Corner

continued from page 12

tled *Reconstructive Microsurgery*. It was to include their techniques for microvascular surgery, not just for replantation, but also to include nerve repair and tissue reconstruction, with contributions from 27 authors. The term "reconstructive microsurgery" was

Founding Council. Its name would be the American Society for Reconstructive Microsurgery. That first Council wrote the Bylaws for ASRM in 1984 at the Hyatt Hotel on 42nd street in NYC. ASRM would have its first meeting in 1985 in Las Vegas. That foresight

So what is "complex reconstruction"? For me, similar to the phrase, "There is no minor surgery,.....", I believe there is no "simple" reconstruction. For me, all reconstruction is complex, and may or may not require microvascular techniques. As evidenced by the cases presented at our annual ASRM meetings, reconstructions requiring skin, muscle, bone, tendon, and nerve are being done to reconstruct the head and neck after cancer and after trauma. In deed, such complex reconstruction can be required in many anatomic areas, such as penile reconstruction, and, of course, in the new era of composite tissue allotransplantation. The microvascular anastomosis, with magnification, but perhaps without a microscope, is an integral part of the very complex process of reconstruction. It is appropriate that "complex reconstruction" remains to be defined, and refined as we move into the future with ASRM.



Figure 5. The members who met for the 1983 International Society for Reconstructive Microsurgery in New York City, from whom came the Founding Council of ASRM, and many of its future leaders.

introduced as the title of their book.

In 1983, the International Society for Reconstructive Microsurgery met at the Roosevelt Hotel in New York City, and had their dinner at the World Trade Center. Those in attendance are recorded in Figure 5 (Both Pat Maxwell and I are in that photograph). Berish Strauch, with whom Julia had done her microsurgery fellowship, and Julia realized that these international leaders would take microsurgery meetings outside the United States for years to come, and assembled an American subgroup from these attendees to form the Founding Council of a new society. Berish Strauch, Julia K. Terzis, James B. Steichen, James R. Urbaniak, and Allen L. Van Beek comprised that

proved accurate, as the next international meeting to be held in the USA will be the WSRM in Chicago in 2013, hosted by Robert Walton, MD, a past president of ASRM.

In 2006, the ASRM Council approved by-laws changes that permitted membership to those whose surgical practice included "Complex Reconstruction", even if they were not doing "microvascular free tissue transfers" to accomplish that reconstruction. At that time, I had the honor of being Vice President of ASRM, and the meaning of "complex reconstruction" was left undefined so that ASRM could embrace all those who viewed themselves as wishing to be part of our very inclusive society.

Acknowledgements: I wish to thank Berish Strauch, MD, Julia K. Terzis, MD, PhD, Robert L. Walton, MD and the archives of Historians of ASRM past from the ASRM newsletter (and of course the internet) for many of the above facts. A further source of invaluable information is the book History of Microsurgery, edited by Julia, K. Terzis, MD, PhD, published in 2008. [RM](#)

Making a Difference After Fellowship Training

What do we miss once we finish our residency or fellowship training?

This is the question I recently asked some of my former residents and fellows. In plastic surgery we have developed some unfavorable stereotypes: narcissistic, difficult to work with, and overconfident to name a few. I would prefer that we are thought of more as: team players and indispensable in the care of complex cancer patients. I was curious to find out what the experiences had been like for these trainees. Each of the former trainees I asked informally has gone into private practice.

I wanted to know what they missed most about their training. All but one stated that the “team” or the “camaraderie” of working in a team was something they missed. The one different response came from someone who has unforgettable images of a particular attending where they trained.

I followed up with a question about what they like most about being in private practice. The overwhelming response was autonomy and being responsible for everything instead of being the resident.

All of their comments are of particular interest. I found it reassuring that they missed working in a team but enjoyed being the ultimate responsibility for their patients. After nine years of training and seven years as a full-time faculty member I would expect nothing more. This gave me an opportunity to reflect on the most rewarding portion of my practice over the past several years. I was fortunate enough to be introduced to the Multidisciplinary Sarcoma Group at the Medical College of Wisconsin by my senior partner and ASRM member, James Sanger, MD, FACS. The group cares for a unique set of patients. Sarcoma in itself is a wide array of soft tissue

COMMITTEE CHAIR



Robert Whitfield, MD

I would prefer that plastic surgeons be thought of as team players and indispensable in the care of complex cancer patients.

and bone tumors with great deal of variety. I felt as plastic surgeons that we had cornered the market on reconstructive surgery until I witnessed a few complex skeletal reconstructions with endoprostheses and participated in a rotation-plasty with the musculoskeletal oncologists at our institution. This last procedure involves removal of the knee joint and rotation of the tibia. Ultimately the foot is now backwards and acts as the knee.

I started attending the Multidisciplinary Sarcoma Tumor Board each Wednesday back in 2008. It has truly been a unique experience to be involved in the management of these patients. Of course it did not start that way. You have to earn your stripes with

the musculoskeletal oncologists. This group of orthopaedic surgeons is a rare blend of oncologist, orthopedist and surgeon. They truly are very comfortable all over the body in the same way we are as plastic surgeons.

At your hospital there is a breast surgeon, colorectal, urology, vascular surgeon, who either needs your help now or in the future. Young microsurgeons can make an immediate impact in the care of so many cancer patients if we put in the time to get to know their providers. Do you think it makes a subconscious difference to your oncologic surgeon that no matter the hole he or she makes, you can fill it, empowering them to perform the most aggressive cancer operation possible to give that patient the best chance at survival? We all have been—or will be—in the position where the margins come back positive after we have performed some type of reconstruction. This is devastating to our patients. In most instances it was unavoidable. But, we never want it to be because the surgical oncologist was concerned about the closure of the wound instead of removing the tumor. That is our “speciality”. We are the best “closers” in the world.

Be humble and get involved with the care of the difficult patients at your hospital. They will be your most rewarding, personally and professionally. These are a few thoughts as I head into private practice to support the cancer surgeons and their patients who need our help the most. [RM](#)



New Ideas, New Faces and Novel Formats!

Come join your friends at the ASRM 2013 Annual Meeting in Naples, Florida. We have several exciting programs filled with new ideas, new faces, and novel formats. Our program this year will have a focus on innovation with many young panelists and speakers from around the world. The program includes a wide variety of topics, including head and neck reconstruction, breast reconstruction, lower extremity trauma management, complex nerve reconstruction, and upper extremity surgery. We are looking forward to innovative panels on topics such as tissue engineering, lymphedema reconstruction, and computer aided design/modeling, composite tissue allotransplantation, robotic and endoscopic assisted microsurgery and flap perfusion technology. We have expanded our Young Microsurgeons Group programming to both a panel session (featuring YMG surgeons) and an YMG forum. The YMG forum will include invited lecturers of the YMG Committee's choice.

Exciting social events and a beautiful setting will make this a meeting you won't want to miss. The education is planned to be interesting and thought-provoking and will make this a meeting to remember.

We look forward to seeing you January 12-15, 2013 at the Naples Grande hotel in Naples, Florida.



James Higgins, MD
2013 Program Co-Chair



Michael Sauerbier, MD
2013 Program Co-Chair