

ISACB

Devoted to Translating Research in
Cardiovascular Biology Into Clinical Practice.



eCirculator Newsletter

November 2017

Fall Issue

Letter from the President



It is hard to believe that one year has passed since I accepted the position as President of ISACB. 2017 has been an exciting year for ISACB Leadership with the involvement of more early career investigators. This has led to an influx of new ideas and creativity to our society. Since last year, we established many new initiatives focusing on increasing our membership and diversity, promoting our visibility through interactions with other societies and industry, and enhancing our recognition outside of the US by expanding into Europe and Asia.

I would like to thank our members who have been so active during this past year to help advance the mission of the ISACB and bring about positive change through our new initiatives. I would specifically like to recognize Luke Brewster for his tireless leadership and commitment to ISACB. One of our goals is to build on the successes of our previous biennial meetings and continue the momentum year-round. The Off Year ISACB 2017 Meeting Planning Committee, including Tim Pennel, Dan Simionescu and Luke have put together an exciting Program and helped recruit many members for the upcoming meeting in South Africa to celebrate the 50th Anniversary of the 1st Heart Transplant with our colleagues at Cape Town ([see the accompanying piece on the exciting events planned](#)). ISACB 2018 Programing Committee led by Nico L'Heureux is working together with our European Partnership Committee chaired by Carlijn Bouten and early career researcher Claudia Goettsch. Thanks to their tremendous efforts the planning for our next meeting has progressed swiftly, and we are rapidly building innovative sessions with outstanding speakers from across the globe. The ISACB 2018 meeting will be held in beautiful Bordeaux, France ([see the accompanying piece for more information](#)), and stay tuned for details on abstract submission deadlines). We hope to see you all there!

In addition to planning exciting meetings we have continued our efforts in growing ISACB

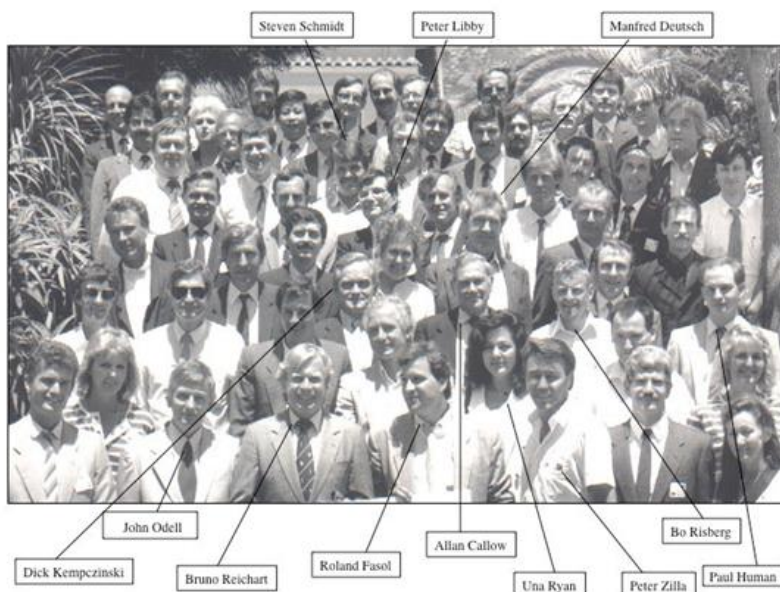
together. To accomplish this goal, we have established committees and scientific interest groups that will help to provide continuity between the meetings by encouraging interdisciplinary and international dialogue. Within these committees we aim to have a synergy of early career investigators and senior researchers to provide both fresh ideas and experience. I hope that by fostering a culture of mentorship within ISACB, we can grow new leaders and ensure the continuity and future success of the society.

I would like to acknowledge the efforts of ISACB Women's Leadership Committee co-chaired by Cynthia St Hilaire and Joy Lincoln with Agneta Simionescu as an active member. The goal of this committee is to promote visibility and engagement of women in ISACB activities and leadership ([see the accompanying piece for more details on how to join the WLC](#)). I am also happy to announce that Dan Simionescu has agreed to chair the Special Interest Groups (SIGs) representing communities of experts with shared interest in advancing specific areas of research, including cardiac surgery, heart valve disease, vascular biology, regenerative medicine, big data/-omics and many others ([see the accompanying piece for more information on the SIGs](#)). We encourage members to provide topics of interest and apply for the leadership positions as co-chairs for each group. Our newly formed Partnership with Industry Committee chaired by Mike Wolf aims to increase interactions with industry. The goals of this group are to foster collaborations between academic scientists and industry representatives to help facilitate and expedite translation of basic discoveries. We would also like to thank Jane Grande-Allen for her long-term service on the ISACB Executive Committee and chairing the Early Career Committee. Jane recently stepped down from both responsibilities as she was named the new Chair of the Department of Bioengineering at Rice University! Congratulations, Jane, we are proud of you! We are now looking for other ISACB members to step forward to lead this important initiative.

I would like to welcome the following new members to ISACB: Joy Lincoln, Nationwide Children's Hospital; Ulf Hedin, Karolinska Institute; Hai Shang, Edwards Life Sciences; Praveen K Sobhan, Sree Chitra Tirunal Institute for Medical Sciences and Technology India; Jillian Noblet, Cook Medical; and Francois Saucy, Center Hospitalier Universitaire Vaudois. Our future plans include expanding ISACB membership by connecting with scientists in new research areas to broaden ISACB scientific scope, establish new collaborations with other academic societies and industry, and foster Trainee Initiatives. If your membership is currently in arrears an email will be forthcoming with a link to renew your membership. Additionally, I want to highlight the hard work of Julie Phillippi and Josh Hutcheson who work to keep us informed and connected using modern technologies ([be sure to check out our exciting webinars](#)) and social media platforms. Please share your news with us so that we can celebrate your accomplishments in future editions of our eCirculator newsletter. Also look for special features in this and upcoming editions of eCirculator that [profile the important work](#) being performed by ISACB members. We welcome your participation and input from all members. We also encourage you to communicate your ideas about how ISACB can better serve our community and advance the careers of the next generation of applied cardiovascular scientists. Finally, please forward the eCirculator along to your friends and colleagues and encourage them to join our ISACB family!

ISACB Off Year Meeting In Cape Town

Almost 50 years ago, on the 3rd of December 1967, the world's first human to human heart transplant was performed by Dr Christiaan Barnard at Groote Schuur Hospital. This was, and probably will remain, the most publicized medical event of all time, headlining nearly every international newspaper, magazine and tabloid within days of the transplant. The idea of transplanting a heart from one human to another captured the minds and imaginations of the public like no other medical event before or since. The only other iconic event in that era which was equally well-publicized was Apollo 11's landing on the moon 18 months later. Two decades on, a small group of cardiovascular surgeons, cardiologists, and vascular biologists met in Cape Town to commemorate the 20th anniversary celebration of this historic event. It was at this meeting that the International Society for Applied Cardiovascular Biology (ISACB) was conceived with the election of Allan Callow as the first president of the Society.



Since this first meeting, ISACB has grown into an international society with a diverse membership of physician scientists and researchers across the cardiovascular spectrum and has held 15 biennial meetings throughout North America and Europe. ISACB is unique among cardiovascular societies in both its applied mission and international scope. ISACB exists to promote the development and implementation of applied cardiovascular biology

discoveries and to encourage international collaborations. Sub-committees within North America, Europe, and Asia facilitate our international efforts. The biennial ISACB meetings offer intimate settings and feature premier cardiovascular researchers as invited speakers along with junior researchers from around the globe, promoting mentorship and networking opportunities. Quarterly webinars allow researchers within the society to reach a large global audience and bridge the discussions between the biennial meetings. Members of ISACB include academic scientists and engineers, clinicians, and industry representatives. This diverse membership allows vertical integration of session in webinars and meetings that highlight the strengths and differences in approach from basic research to industrial development to clinical implementation.

In commemoration of the 50th anniversary of the world's first heart transplant, Groote Schuur hospital and the University of Cape Town are hosting a celebratory event entitled "*Courage and Innovation*", which has received tremendous interest and support from some of the world's

major cardiothoracic surgery societies and journals who will be contributing to the program; European Society of Cardiothoracic Surgery (EACTS), the Society of Thoracic Surgery (STS), the American Association of Thoracic Surgery (AATS) and the International Society of Heart-Lung Transplantation (ISHLT) and these various societies' affiliated Journals. Furthermore, the leading Cardiovascular Device- and Pharmaceutical companies, CEO's or senior staff will be joining us in the debate around modern cardiovascular interventions role in providing for the large areas of the world where such therapy does not exist.

Pictured at the 20th Anniversary Celebration: Una Ryan, Tom Macaig, Peter Libby, Steven Schmidt, and Manfred Deutsch.



The ISACB is proud to announce that in collaboration with this historic event, the society will be celebrating three decades since the founding event entitled; **“ISACB is 30 YEARS OLD: The era of Repair, Replacement and Regeneration”**, to be held at Groote Schuur hospital on the 4th of December. This off-year meeting will focus on the progress made since the society was first conceived with a round table discussion focusing on “The Role of Failure in Life, Clinical Practice, and Translational Research”. It is clear that cardiovascular biology has taken a more convoluted path in solving the challenges of tissue engineering and regeneration than initially proposed three decades ago. This off year meeting provides an excellent opportunity to engage with an experienced and distinguished faculty to discuss:

- Aneurysmal degeneration: The interaction of Nature and Nurture
- Valve replacement and repair
- Tissue engineering and regeneration

We look forward to hosting a memorable off year meeting, which commemorates a significant date in heart transplantation as well as the birth of the ISACB.

ISACB eCirculator Interview: Julie Phillippi

Name: Julie Phillippi, PhD

Title: Assistant Professor of Cardiothoracic Surgery and Bioengineering



Describe your research in a tweet (< 140 characters):

Influence of perivascular ECM on microvascular function in aortic disease and development of matrix-mediated therapies for aneurysm.

What is your relationship with ISACB?

Member since 2010, Founding Chair- Webinar Committee (2014), Women's Committee (2017) and Member of Executive Board (2016-2018)

Why did you get involved with ISACB, and what are your favorite things about the society?

I was initially drawn to the society because it truly held up to its mission as an interdisciplinary society. The first meeting I attended was in Boston in 2010. The relatively small size of the meeting and the society was the perfect opportunity for me, as junior faculty to make new connections with established investigators in the field, as well as other junior faculty and trainees. I would say the ISACB has that "small town feel with all the big city perks"!

What is a routine day in your lab?

No two days are ever exactly alike. However, I do try to set aside a little time early each morning at home to do some writing. When I get to the office, I return e-mails, schedule meetings, and review my to-do list for the day. I will stop in the lab to check on our staff, inquire about experiments in progress, and answer any questions. I like to do some of my own benchwork as well. My favorite days include making progress on writing a grant proposal, designing an experiment, or analyzing data.

You hold appointments in both the Schools of Medicine and Engineering. What are the challenges and opportunities in bridging these disciplines? Any advice for those interested in interdisciplinary research?

While it is sometimes a challenge to successfully interface with clinicians and contribute to the goals of clinical department, the opportunities far outweigh the challenges. The bridge is built through open and frequent communication among surgeons, biologists, and engineers which is a challenge as well as an opportunity. We're beginning to see some exciting ideas emerge when

minds from these disciplines are in the same room. My advice to trainees is to be mindful of a clinician's priorities to their patients and remain flexible (e.g. be willing to meet at 6am!).

How did you become interested in cardiovascular research in general and vascular wall remodeling in particular?

In 2007, as a post-doc working in extracellular matrix signal patterning of stem cell behavior, I was presented with the amazing opportunity to team up with a Cardiac Surgeon (Dr. Thomas Gleason) and help start a new research program at Pitt in the Division of Cardiac Surgery. Since then, I've been pursuing my interests in matrix signaling and applying that work toward understanding the important clinical problem of aortic disease. Having a dedicated clinical collaborator has been an indispensable component in my work.

If you could solve one research problem, what would it be?

I would figure out a way to determine lifetime risk for aortic rupture for any given patient.

What is it like to be a Penn State alum working at Pitt? Any divided sports loyalties?

There are many Penn Staters at Pitt and I think we'll always share a fondness for our alma mater "Dear Old State"; however, I have developed a strong appreciation for Pitt as an institution of academic and research excellence that is exemplary for medical advancement and collaborative biomedical research. I'm extremely grateful to have the opportunity to build my academic career at Pitt. And no, there are no sport rivalries. WE ARE...!

What advice would you give to trainees seeking a career in research?

My advice is to nurture your friendships from college and graduate school. These friends will become part of your broader network and your collaborators. That college roommate who switched into business school could help connect you to a CEO for your start-up company. Or that pre-med major might become your primary clinical collaborator. My other piece of advice is to learn to speak the languages of other disciplines so that you can ask the important questions that helps them help you to move your research forward. Don't be afraid of following non-traditional paths in academia.

Any final thoughts?

Research can be stressful, frustrating, and full of rejections. Believe in yourself, be patiently tenacious, build on strengths, and stretch your creativity. I believe it's important to actively encourage others as well.

ISACB 16th Biennial Meeting

ISACB Biennial Meeting: New Horizons and Challenges in Translational and Applied Cardiovascular Science.

16th Biennial Meeting in Bordeaux, France September 16-19, 2018

Are you focused on APPLIED vascular biology? Do you sometimes feel lost in these huge vascular meetings? No matter if you are studying a clinically available device or developing the next tissue-engineered heart, the ISACB meeting is for you! Known for their convivial atmospheres, ISACB meetings bring together pioneers and taught leaders from all areas of the vascular field. These single-track meetings are designed to promote discussions between academia and industry, between super stars and rising stars, and between physician and scientists. This Euro-centric 2018 edition will be held in Bordeaux and promises to be a remarkable event. This meeting will include a pre-meeting workshop specifically designed for young scientists. Come enjoy the warm September weather and take a walk along the Garonne River. Historic Bordeaux is a UNESCO world heritage site filled with picturesque streets and fantastic restaurants. Visit the new interactive wine museum La Cité du Vin or take a short trip outside the city to visit directly the vineyards brimming with ripe grapes in world-renowned place like Saint-Émilion, Sauternes, or Margaux. Taste these fabulous wines with French cuisine including local specialties such as foie gras, duck, fish or oysters from the near-by Bassin d'Arcachon bay. The 2018 Bordeaux meeting will be a meeting to remember both from a scientific and social perspective!



Women's Leadership Committee

Did you know that Women with MDs constitute 33% of all Full Professors, while Women with PhD's represent only 25%?

While these numbers have increased over the last decade there is still significant work to be done when it comes to addressing gender equity, recruitment and retention, awards and recognition, and career advancement for women in academic medicine.

Newly appointed Co-Chairs of the Women's Leadership Committee Cynthia St. Hilaire, PhD (Assistant Professor, University of Pittsburgh) and Joy Lincoln, PhD (Associate Professor, Nationwide Children's Hospital) are looking to build resources to support the mission of the ISACB: ***To promote engagement and advancement of female from academia or industry within the International Society of Applied Cardiovascular Biology (ISACB) and academic medicine by providing opportunities to enhance career development, scientific networking, and clinical translation of innovative cardiovascular-related discoveries.***

Our vision strives for a future of gender parity in the field of cardiovascular medicine and sciences and is committed to helping to solve issues relevant to the professional growth and development of females in academic medicine and industry related to the cardiovascular system. One key aspect to achieving equality is to expose trainees and junior faculty to successful female role models and we encourage individuals at all career levels to participate in the WLC.

Look out for upcoming additions to the ISACB communications and ways of engaging in promoting today's women for improving tomorrow's opportunities! We welcome your participation and suggestions to achieve these goals. If you are interested in joining the Women's Leadership Committee please contact sthilaire@pitt.edu

ISACB Special Interest Groups

ISACB Special Interest Groups

We are excited to announce the formation of ISACB Special Interest Groups (SIGs). The motivation for these groups arose from the recognition that ISACB consists of researchers, clinicians, and industry partners with diverse skillsets and expertise. Creation of the SIGs will enhance the mission of the Society by concentrating these experts around themes of interest, without deviating attention from the overall goal of ISACB to “enhance discovery, development and clinical translation”.

Envisioned SIG activities would include proposals for specific workshops or thematic meetings, discussions, debates, publication sharing, and any other actions that would strengthen the core philosophy of the SIG and thus sustain, promote, and enhance the mission of ISACB. To begin, we propose the establishment of the 7 SIGs listed below.

Proposed SIGs

1. **Cardiac** surgery, regeneration, cell therapies and biomaterials
2. **Heart valves** biology, pathology, repair, replacement and regeneration
3. **Vascular** biology, pathology, repair, replacement and regeneration
4. **Models** for cardiovascular biology and pathology; in vitro and in vivo
5. **Aneurysms** mechanisms, prevention and treatment
6. **Peripheral vascular diseases** mechanisms, prevention and treatment
7. **Translational** cardiovascular regenerative medicine

We are now looking for volunteers to serve as leaders of the SIGs. If you would like to lead a SIG, join a SIG, or propose the formation of a new SIG please contact Dan Simionescu (dsimion@clemsun.edu). We also welcome any questions and recommendations.

Webinar Corner

2017 Webinar Re-Cap:

Our final installment of the 2017 Webinar Series was held on November 1, 2017, 11am (EST) on the topic "*MSCs in Cardiovascular Health & Disease: The Role of CD73 and Adenosine*". Dynamic presentations were given by [Dr. Cynthia St. Hilaire](#) from the University of Pittsburgh and [Dr. Rebecca Levit](#) from Emory University.

Upcoming Webinars



"MSCs in Cardiovascular Health & Disease: The Role of CD73 and Adenosine"
November 1, 2017
11am (EST)



Cynthia St. Hilaire, PhD
University of Pittsburgh

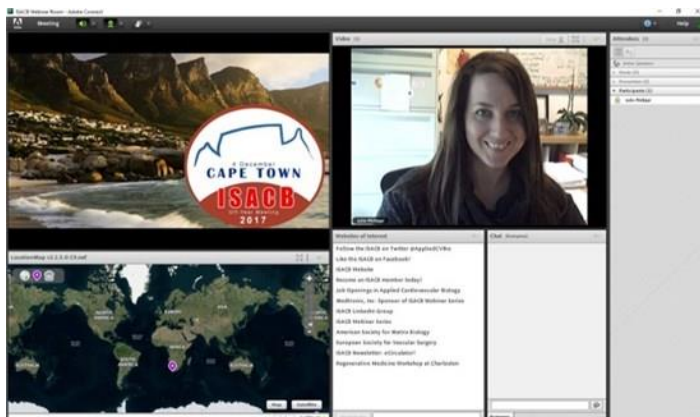
Rebecca Levit, MD
Emory University

2018 Speakers:

Glenn Gaudette, PhD- Worcester Polytechnic Institute
Gary Bowlin, PhD- University of Memphis
Kareen Coulomb, MD- Brown University
Joseph Wu, MD, PhD- Stanford University
Francois Saucy, MD- Centre Hospitalier Universitaire Vaudois, Lausanne

In 2017, ISACB began offering a membership discount to webinar registrants! The first 10 non-member webinar registrants will **receive a promo code to enter for 50% off a new ISACB membership***. Recorded webinars can be accessed by ISACB Members on the society's website: www.isacb.org/webinars. We have hosted over 22 speakers giving presentations from 4 different countries. Webinar recordings have now reached nearly 2000 views!

What's new for 2018:



satellite meeting live via web to participate in a plenary lecture by Dr. Simon Hoerstrup "*Translational Challenges in Cardiovascular Tissue Engineering*". E-mail flyers will be distributed in mid-November for this special ISACB Webinar, exclusive for ISACB members.

Live from Cape Town! In December, the ISACB will host a satellite meeting as part of "[Courage and Innovation: 50th Anniversary of the 1st Heart Transplant](#)" in Cape Town, South Africa. As a Special ISACB Webinar Event, we will be broadcasting a recording of the Welcome Address by Dr. Elena Aikawa, President of the ISACB followed by Dr. Peter Zilla's Welcome Lecture "The Surgeon Scientist"! We will also join the

Webinar topics in 2018: Upcoming topics will include Heart Failure and Myocardial Repair and presentations from new member Dr. Francois Saucy, Dr. Karen Coulomb (Brown University), Dr. Joseph Wu (Stanford University), Dr. Gary Bowlin (University of Memphis) and Dr. Glenn Gaudette (Worcester Polytechnic Institute).

Please send your suggestions for topics and speakers to isacbwebinars@gmail.com. Self-nominations are welcome! Visit our [Webinars website](#) to access recorded versions, view upcoming topics, and register for the next event.

Webinar committee members: Julie Phillippi, PhD (Chair), Glenn Gaudette, PhD, Josh Hutcheson, PhD, Michael Wolf and Sarah Vigmostad, PhD



Medtronic

**Valid for 50% off one (1) senior or trainee new one year membership only. Valid 30 days from date of Webinar. Limit 1 per person. Cannot be combined with other offers. Webinar fee waived if membership payment received at least 1 day before Webinar.*

Webinar Corner contributor: Dr. Julie Phillippi, ISACB Webinar Committee Chair

ISACB Member News

Professor **Gary Bowlin, PhD**, is a co-inventor on a novel hemostatic fibrin-based surgical dressing, SURGICLOT, that recently had its first commercial use in New Zealand. For more information please see the press release at <http://www.stteresamedical.com/press-releases-st-teresa-medical>.

Julie Phillippi, PhD, Assistant Professor in the Department of Cardiothoracic Surgery, University of Pittsburgh School of Medicine received an R01 award from the NHLBI for her project entitled “Matrix mediated vasa vasorum dysfunction in thoracic aortic disease”. The 5-year total award is \$1.9 million for the funding period 08/01/2017-06/30/2022.

The Department of Biomedical Engineering at Florida International University will host Miami Heart Month in February 2018. Each Friday of the month will feature an expert in applied cardiovascular biology. Confirmed speakers include Dr. Sheldon Weinbaum, Dr. Masanori Aikawa, Dr. David Merryman, and Dr. Frederick Schoen. Miami Heart Month will be highlighted by a special Heart Day Symposium on Friday, February 16th, which will include a poster session from the Miami cardiovascular research community. If you would like to participate, please contact Josh Hutcheson (jhutches@fiu.edu).