I want to wish everyone a happy and successful New Year! Behind us is a productive 2018 during which we have focused on advancing the ISACB mission by promoting five equally important key areas: LEADERSHIP, GROWTH, SCIENCE, VISIBILITY and PARTNERSHIP.

**LEADERSHIP:** To raise a new generation of ISACB leaders, we have established Women’s Leadership Committee and Early Career Mentorship Committees. Women’s Leadership Committee, co-chaired by Cynthia St Hilaire and Joy Lincoln, promotes visibility and engagement of women in ISACB activities and leadership. Early Career Mentorship Committee, co-chaired by Giovanni Ferrari and Craig Goergen, aims to foster the development of trainees and early career investigators by providing mentorship and early career advice.

**GROWTH:** To engage a new generation of ISACB members and to increase our membership and diversity, we recently formed the Membership Committee chaired by Ngan Huang. It was created to increase ISACB visibility and attract more members, particularly early career investigators and female researchers.

**SCIENCE:** To connect with scientists in new areas and broaden our research scope, we are working to build on the successes of our biennial and off-year meetings and continue the momentum year-round. The Off-Year 2017 Meeting celebrated the 30th anniversary of ISACB. The Planning Committee, led by Tim Pennel, Dan Simionescu and Luke Brewster, organized an exciting scientific program in Cape Town, South Africa. Our ISACB 2018 meeting was held in beautiful Bordeaux, France. ISACB 2018 Programing Committee, led by Nico L’Heureux, built innovative sessions with outstanding speakers from across the globe. The Off-Year 2019 Meeting is planned to be held in Zurich, Switzerland (ISACB Organizing Committee chair – Christopher Breuer) in collaboration with ISVTE (International Symposium on Vascular Tissue Engineering). ISACB 2020 will be held in Tokyo, Japan (Organizing Committee chair – Masanori Aikawa).

**VISIBILITY:** To promote our visibility through interactions with other societies, and enhance our recognition outside of the US, we established European Partnership Committee, chaired by Carlijn Bouten, and Asian Partnership Committee, chaired by Masanori Aikawa.

**PARTNERSHIP:** Our newly formed Partnership with Industry Committee, chaired by Mike Wolf, facilitates interactions with industry. This group aims to foster collaborations between academic scientists and industry to accelerate translation of basic discoveries.

I would specifically like to recognize our members who have been so active during 2018, including Luke Brewster (chair of Long Range Planning Committee), Gary Bowlin (secretary/treasurer), Julie Philippi (chair of ISACB webinar series), Josh Hutcheson (editor of eCirculator), Alexey Kamenskiy, Agie Simionescu, Janice Tsui, Toshi Shinoka, Claudia Goettssch, Art Coury, Glenn Gaudette, Tina Ridker, Julie Wolfram Smith, Sara Vigmostad, David Vorp, Steve Shmidt and Frederick Schoen. And our special thanks to Lisa Bowlin for her help with many administrative issues.

In 2019, we will continue advancing the mission of the ISACB by continuing our collaborations with other societies (e.g., ATVB, NAVBO), expanding our membership, facilitating new mentorships, increasing industry presence, and revitalizing our relationships with ISACB founding members. We welcome participation and input from all members. We also encourage you to join our ISACB family!

Elena Aikawa, MD PhD
ISACB President
ISACB eCirculator Interview: Dr. Ngan Huang

Name: Ngan F. Huang, PhD  
Title: Assistant Professor of Cardiothoracic Surgery, Stanford University

Describe your research in a tweet (< 140 characters):
We employ instructive biomaterials and therapeutic stem cells to engineer biomimetic cardiovascular tissues for regeneration.

What is your relationship with ISACB? 
Since joining the Executive Committee this summer, I serve as the membership chair of ISACB.

Why did you get involved with ISACB, and what are your favorite things about the society? 
I was attracted to the international nature of this cardiovascular biology organization, as well as to the multidisciplinary backgrounds of members that spanned bioengineering to clinical translation. My favorite thing about the society is the social element of research conferences that foster collegiality and organic collaboration.

What is a routine day in your lab? 
The highlight of my day in the lab consists of meeting with trainees one-on-one to discuss research findings and to plan for upcoming studies. As my teaching duties are light, I am able to devote the remaining time to thinking of new research ideas for grant applications and learning about new technologies that can be applied to our research.

You trained as an engineer, but your current appointment is in a Cardiothoracic Surgery department, right? Can you discuss life as an engineer in a clinically-minded department? 
I might be considered to be in a unique situation as a bioengineer in a clinical department. Since our research is highly translational, being in a clinical department has made it easy to engage the clinical fellows in our preclinical studies. Also, I feel that our lab’s tissue engineering research enhances the diversity of research in the department.

How did you become interested in cardiovascular research in general and cardiovascular tissue engineering in particular? 
My pathway to cardiovascular tissue engineering originated at MIT, where I did my undergraduate studies in chemical engineering. Around that time, one of my professors, Dr. Robert Langer, was pioneering the field of tissue engineering. I instantly became captivated by this new field and was fortunate to have the chance to work in his lab for two years. During that time, I really enjoyed tissue engineering research and decided to pursue my doctoral studies in bioengineering at UC Berkeley. But my interest in cardiovascular-specific tissue engineering research stems from a summer internship prior to graduate school at the company, Abbott, where learning about their cardiovascular products enabled me to grasp the urgent need for improved cardiovascular therapies. By the end of the summer internship, I was certain that I wanted to focus on cardiovascular tissue engineering research to alleviate the shortage of organ donors for heart transplants.

If you could solve one research problem, what would it be? 
One of the major bottlenecks to the scalability of engineered cardiovascular tissues is the insufficiency of vascularization. Although this problem is currently being investigated using both biological approaches and improved bioreactor systems, so far the ability to create a vascularized tissue greater than 1 cm in thickness has not yet been achieved. To achieve this milestone would be a dream for us. Our lab is currently developing ways to employ both vascular lineages as well as instructive biomaterials to create pre-vascularized tissues prior to surgical implantation. We hope these approaches, along with the development of new technologies in the future, might be able to one-day help us achieve this goal.

What advice would you give to trainees seeking a career in research? 
A career in research can be really fulfilling if you like to think about solving problems or if find yourself thinking about new ideas. However, research also requires patience and stamina, as solutions to problems are not easy to find. If you have these necessary qualities, research is the field for you!
You seem to have a passion for increasing diversity in STEM education and research. Can you tell us about some of your efforts in this area?
I am co-appointed by both Stanford University and the Veterans Affairs Palo Alto Health Care System. Since my laboratory is located within the VA hospital, I often interact with various staff members who are veterans. In the past 6 years that I have been at the VA hospital, I noticed that there no formal programs for veterans to engage in biomedical summer research. By meeting and giving guest seminars at local underserved community colleges with sizable veteran populations, I saw that I could make a difference by helping veteran undergraduate students engage in STEM research. Accordingly, for the past few years, I have had veteran undergraduates conduct research in my laboratory. These students had very positive experiences that impacted their career choices, and many of these students became co-authors on research publications.

Any final thoughts?
Thanks again for this invitation.
ISACB Women’s Leadership and Early Career Committee Networking Event

By Dr. Cynthia St. Hilaire

ISACB meeting in Bordeaux was the first event since the creation of the ISACB Women’s Leadership Committee and we were thrilled to partner with the Early Career folks for an informal discussion at La Comtesse. Together we discussed what types of events and programs ISACB members in attendance would like to see at future meetings and came up with several ideas such as a session on unconscious bias training, CV or personal statement workshops, and a formal poster session where individuals could compete for a prize.

Additionally, we discussed the importance of individuals from minority and underrepresented groups to seeing “people like them” in positions of leadership. To that end, I analyzed the demographics of the presenters at the Bordeaux meeting. As the fields of Cardiology, Cardiothoracic Surgery, and Bioengineering have historically been male-dominated it is refreshing to see that more females are perusing research and training in these fields, as seen by the postdoc and student numbers. 39% of those registered were female as were 39% of all speakers. Breaking that number down further we found that invited speakers were more likely to be male, highlighting an area that can work to improve upon at future meetings. Overall, these number are encouraging and the WLC looks forward to working with future planning committees to ensure that we improve upon our current success. In the future, we would like to collect additional demographic data up registrants to allow for more comprehensive assessments.

See you in Zurich!
Junior Investigators Participate in ISACB Pre-Meeting Workshop

Within the context of the 16th biannual meeting in Bordeaux, the ISACB organized a one-day workshop for early stage researchers to provide network opportunities and promote personal development. 18 young researchers coming from 5 different countries (FR, GB, IE, NL, USA) attended the pre-meeting, which featured lectures of world-renowned speakers from 3 European countries (DE, IE, NL) and a team challenge for the attendees on unsolved issues in the field of cardiovascular biology. The attendees and speakers positively evaluated their experience, particularly appreciating the high quality of the lectures and the convivial atmosphere during the brainstorming session.

The pre-meeting started with lectures from Prof. dr. Rafael Kramann (RWTH, Aachen University) and Dr. ir. Frank Gijsen (Erasmus Medical Center), elaborating over the topic “The heart is central: the interplay between heart diseases and other organs’ functionality”. Prof. dr. Caitríona Lally (Trinity College Dublin) and Prof. dr. Robert Passier (University of Twente) later discussed the current state and future challenges of personalized cardiovascular medicine, focusing on approaches coupling in silico, in vitro, and in vivo experiments.

After the morning session, the attendees were divided into 4 teams and challenged to find solutions for well-known limitations in the field of applied cardiovascular biology. Discussion during the brainstorming session was facilitated by the lecturers themselves, who mentored the groups. At the end of the day, the attendees pitched their ideas in front of a selected jury (Dr. Claudia Goettsch, Dr. Joshua Hutcheson, and Dr. Cynthia St Hilaire). Congratulations to Eline van Haaften (TU/e Eindhoven), Merle Krepper (University Medical Center Utrecht), and Scott Robinson (NUI Galway), who won free ISACB memberships with their proposal of a new approach to increase the success rate of vascular access.

We would like to thank the lecturers and attendees for their enthusiasm and participation. This edition of the ISACB pre-meeting workshop was the first step towards the creation of a scientific community of young talented researchers within the ISACB community, and we are confident that many other successful editions will follow.

The pre-meeting organizers:
Prof. Dr. Carlijn Bouten
Dr. Claudia Goettsch
Dr. Valentina Bonito
Dr. Tommaso Ristori
Tamar Wissing, MSc
ISACB WEBINAR SERIES:
We would like to extend our heartfelt gratitude to Medtronic for their continued sponsorship of the ISACB Webinar Series. Their sponsorship funds help to defray the society’s cost for the Adobe Connect license renewal each year. Thank you!

MEMBERSHIP DISCOUNTS: The ISACB is continuing to offer a membership discount to webinar registrants! The first 10 non-member webinar registrants received a promo code to enter for 50% off a new ISACB membership*. In 2018, we welcomed 5 new members to the ISACB in this way and we will continue to offer membership discounts to new members who register for webinars in 2019.

Updates on 2018 Webinars: Our most recent ISACB Webinar was held on December 5, 2018. We were delighted to host ISACB member and Chair of the Membership Committee, Ngan Huang, PhD from Stanford University and Christopher Bashur, PhD from Florida Institute of Technology who each delivered excellent and complementary talks on “Vascular grafts: in vitro design and in vivo response”. Update on Bordeaux webinar: We apologize that we were not able to share a recording of the 9/18/18 webinar from Bordeaux due to unforeseen on-site technical difficulties. Our webinar committee is working to correct these issues so we can continue to provide a reliable webinar experience for the ISACB community.

Coming up in 2019: Upcoming topics in 2019 will include an Early Career Workshop organized by the ISACB Early Career and Mentoring Committee: Craig Goergen PhD, Giovanni Ferrari PhD, Marie Billaud PhD and Alexey Kamenskiy, PhD. Other upcoming speakers include Dr. Francois Saucy (Centre Hospitalier Universitaire Vaudois), ISACB executive council member and secretary Dr. Gary Bowlin (University of Memphis), ISACB executive council member Dr. Glenn Gaudette (Worcester Polytechnic Institute), and Dr. Harald Ott (Harvard University). Stay tuned for special webinar events on best practices in mentoring, publishing, networking, and more! Look out for announcements on upcoming webinars in early 2019.

Recorded webinars can be accessed by ISACB Members on the society’s website: www.isacb.org/webinars. We have hosted over 30 speakers giving presentations from 5 different countries. Webinar recordings are approaching 3000 views! 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), Josh Hutcheson, PhD, and Michael Wolf
*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

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ISACB Well Represented at 2018 AHA Scientific Sessions

ISACB members presented eight talks at the AHA Scientific Sessions and gathered for an intersocietal social get together between AHA and ISACB Members at the Woven and Bound lounge of the Marriott Marquis Hotel (see pictures from the social gathering below).
ISACB Emeritus Status Awarded to Five Members

The ISACB is happy to announce that Emeritus status has been offered to five members based on their outstanding contribution to the mission of ISACB and continuous support of the Society. Emeritus status comes with a lifetime membership in ISACB and free access to ISACB webinars. The Emeritus members will remain in an advisory capacity to the Executive Council. Future editions of the eCirculator will highlight each of these pioneers in applied cardiovascular biology:

1. Manfred Deutsch, KH Wien-Lainz, Vienna, Austria.
2. Roland Fasol, The Jilin Heart Hospital, Changchung, China.
3. Bo Risberg, Sahlgrenska University Hospital, Gothenburg, Sweden.
4. Bauer Sumpio, Yale University School of Medicine, Dept. of Surgery, New Haven, Connecticut.
5. Magdi Yacoub, Harefield Hospital, Heart Science Centre, Harefield, Middlesex, United Kingdom.
ISACB Member News

A perspective on the future of applied cardiovascular research co-authored by ISACB members Dr. Joshua Hutcheson, Dr. Craig Goergen, Dr. Frederick Schoen, Dr. Masanori Aikawa, Dr. Peter Zilla, Dr. Elena Aikawa, and Dr. Glenn Gaudette is featured in a special Frontiers in Cardiovascular Medicine issue on Exploring the Frontiers of Regenerative Cardiovascular Medicine edited by Dr. Joshua Hutcheson, Dr. Julie Phillippi, and Dr. Elena Aikawa: https://www.frontiersin.org/research-topics/5987/exploring-the-frontiers-of-regenerative-cardiovascular-medicine

Dr. Ngan Huang was awarded a grant from the Department of Veteran Affairs entitled “Engineering Vascularized Skeletal Muscle for Treatment of Volumetric Muscle Loss”

A New Postdoc position is open in Dr. Elena Aikawa’s laboratory at Brigham and Women’s Hospital, Harvard Medical School: https://cics.bwh.harvard.edu/careers

A New Postdoc position is open in Dr. Julie Phillippi’s laboratory at the University of Pittsburgh: http://www.mirm.pitt.edu/thoracicaorticresearch/openings.asp

Vascudyne, a new startup company based on the work of Dr. Robert Tranquillo, officially launched: https://twin-cities.umn.edu/news-events/university-minnesota-startup-vascudyne-commercialize-biologic-engineered-tissue

A recent paper by Dr. Michael Sacks’ group entitled “The Three-Dimensional Microenvironment of the Mitral Valve: Insights into the Effects of Physiological Loads” was featured on the cover of Cellular and Molecular Bioengineering

Research by Dr. Scott LeMaire and Dr. Ying Shen led to new FDA guidelines regarding the risk associated with ciprofloxacin and other antibiotics of the same class of fluoroquinolones in the progression of aortic aneurysms. The original study published by Dr. LeMaire et al. can be found here: https://jamanetwork.com/journals/jamasurgery/fullarticle/2689031

Dr. Julie Phillippi was named Director of Postdoctoral Research, Department of Cardiothoracic Surgery, University of Pittsburgh

Cardiovascular Pathology offers a reduced rate subscription to ISACB members: https://www.journals.elsevier.com/cardiovascular-pathology
SAVE THE DATE!

19th-21st June 2019, Zurich, Switzerland

Combined International Symposium for Applied Cardiovascular Biology and Vascular Tissue Engineering

www.irem.uzh.ch/isacb-isvte-zh2019