

ISACB

Devoted to Translating Research in
Cardiovascular Biology Into Clinical Practice.



eCirculator Newsletter

June 2020

Message of Solidarity Against Racism

As an international professional society, the ISACB embraces messages against racism and stands together with people of all races, ethnicity, and backgrounds. ISACB does not tolerate racism in any form and advocates for productive change enacted through collaborative, supportive, and peaceful measures. Our message here is unequivocal. Black Lives Matter. ISACB is committed to making sure that this statement rings true in our own society, and we will take steps to evaluate our own actions to ensure that Black voices are represented in our leadership and at our scientific meetings.

Message from the President

SPREAD LOVE NOT COVID

I hope you are safe and well during these tough times around the world. We were able to flatten the curve in many states and nations, and some have begun to reopen amid COVID-19. However, under-served communities continue to be impacted by high COVID-19 infection rates and many now also face increased violence across the United States. As we emerge from the unprecedented difficulties wrought by COVID-19, we must find the strength to spread love and support each other. We strive to be an inclusive society that raises up all voices and broadens participation in cardiovascular biology and medicine. We must all do what we can to combat systemic issues that stand in the way of this goal.



Difficult times can reveal harsh realities about society but can also bring out the best in people. On the front lines of the pandemic crisis, the individuals who exemplify the best of the best are the medical professionals. Every day they risk their own health and lives to treat COVID-19 patients. Lacking protective gear and burdened with new cases, doctors, nurses and volunteers are dealing with an unfamiliar enemy and saving patients' lives. Medical students are graduating early to help in the fight and retired medical personnel have returned to help their colleagues. Their remarkable medical care and empathy makes them true heroes. They all deserve our appreciation and gratitude.

To highlight achievements in our own society, you will notice some slight changes in how we communicate with you. This is the first issue of our reformatted eCirculator Newsletter. We will now send these communications on a monthly basis, and each edition will include a short feature that may spotlight an ISACB member or news within the society. We will also include a list of studies published by our members within the past month. Please also follow us on Twitter ([@AppliedCVB](#)) for regular announcements, and don't forget to send us your good news!

As the pandemic continues, we all must find our own ways to carry on, help each other and give our best. Like much of the world, we continue to work from home to do our part to stop the spread of COVID-19. We should also continue following important but simple rules: 1) exercise social distancing; 2) continue working from home if possible; 3) engage with your colleagues and collaborators through virtual meetings and other social media; 4) spend more time outdoors; and 5) most importantly, wear a face mask – the simplest way to prevent the spread of COVID-19.

Finally, the leadership of the ISACB and organizers of our biennial meeting in Tokyo 2020 would like to announce that due to COVID-19 the meeting will be postponed to March 12-14, 2021. It will continue to be part of Cardiovascular and Metabolic Week, a joint conference with the Japanese Vascular Biology and Medicine Organization, the Japanese Society for Cardiovascular Endocrine and Metabolism, and the International Association for Heart Research - Japanese Section. The venue will be Hamamatsucho Convention Hall in downtown Tokyo. Tokyo in March is beautiful. I look forward to seeing many of you there!

Elena Aikawa, MD PhD
ISACB President

Recent Publications from ISACB Members

May Publications

1. **Gamrah MA, Xu J, El Sawy A, Aguib H, Yacoub M, Parker KH.** **Related Articles**

Mechanics of the aortic notch: An acceleration hypothesis.

Proc Inst Mech Eng H. 2020 May 13;:954411920921628. [Epub ahead of print]

PMID: 32403992

- 2. Avazmohammadi R, Soares JS, Li DS, Eperjesi T, Pilla J, Gorman RC, Sacks MS. Related Articles**

On the in vivo systolic compressibility of left ventricular free wall myocardium in the normal and infarcted heart.

J Biomech. 2020 Apr 5;:109767. [Epub ahead of print]

PMID: 32386714
- 3. Crawford EE, McCarthy PM, Malaisrie SC, Puthumana JJ, Robinson JD, Markl M, Liu M, Andrei AC, Guzzardi DG, Kruse J, Fedak PWM. Related Articles**

Applications of a Specialty Bicuspid Aortic Valve Program: Clinical Continuity and Translational Collaboration.

J Clin Med. 2020 May 5;9(5).

PMID: 32380775
- 4. Vogt F, Marianowicz J, Jessl J, Eckner D, Fischlein T. Related Articles**

Balloon transcatheter aortic valve replacement after aortic valve repair with HAART 300 device.

Ann Thorac Surg. 2020 May 3;. [Epub ahead of print]

PMID: 32376351
- 5. Howsmon DP, Rego BV, Castillero E, Ayoub S, Khalighi AH, Gorman RC, Gorman JH 3rd, Ferrari G, Sacks MS. Related Articles**

Mitral valve leaflet response to ischaemic mitral regurgitation: from gene expression to tissue remodelling.

J R Soc Interface. 2020 May;17(166):20200098.

PMID: 32370692
- 6. Kanwar MK, Gomberg-Maitland M, Hoepfer M, Pausch C, Pittow D, Strange G, Anderson JJ, Zhao C, Scott JV, Druzdzel MJ, Kraisangka J, Lohmueller L, Antaki J, Benza RL. Related Articles**

Risk stratification in pulmonary arterial hypertension using Bayesian analysis.

Eur Respir J. 2020 May 4;. [Epub ahead of print]

PMID: 32366491
- 7. Vasanthan V, Fatehi Hassanabad A, Pattar S, Niklewski P, Wagner K, Fedak PWM. Related Articles**

Promoting Cardiac Regeneration and Repair Using Acellular Biomaterials.

Front Bioeng Biotechnol. 2020;8:291.

PMID: 32363184 [PubMed]
- 8. Forbes TL. Related Articles**

Vascular surgery activity condition is a common language for uncommon times.

J Vasc Surg. 2020 Apr 30;. [Epub ahead of print]

PMID: 32360373

9. **Berretta P, Arzt S, Fiore A, Carrel TP, Misfeld M, Teoh K, Villa E, Albertini A, Fischlein T, Martinelli G, Shrestha M, Savini C, Miceli A, Santarpino G, Andreas M, Mignosa C, Phan K, Meuris B, Solinas M, Yan T, Di Eusanio M.** **Related Articles**

Current trends of sutureless and rapid deployment valves: an 11-year experience from the Sutureless and Rapid Deployment International Registry.

Eur J Cardiothorac Surg. 2020 May 1;. [Epub ahead of print]

PMID: 32356876

10. **Wilson RL, Sylvester CB, Wiltz DC, Kumar A, Malik TH, Morrisett JD, Grande-Allen KJ.** **Related Articles**

The Ryanodine Receptor Contributes to the Lysophosphatidylcholine-Induced Mineralization in Valvular Interstitial Cells.

Cardiovasc Eng Technol. 2020 Jun;11(3):316-327.

PMID: 32356274 [PubMed - in process]

11. **Deindi E, Quax PHA.** **Related Articles**

From Increased Fluid Shear Stress to Natural Bypass Growth.

Int J Mol Sci. 2020 May 25;21(10).

PMID: 32466112

12. **Scherman J, Zilla P.** **Related Articles**

Poorly suited heart valve prostheses heighten the plight of patients with rheumatic heart disease.

Int J Cardiol. 2020 May 25;. [Epub ahead of print]

PMID: 32464247

13. **Kawakami R, Katsuki S, Travers R, Romero DC, Becker-Greene D, Araujo Passos LS, Higashi H, Blaser MC, Sukhova GK, Buttigieg J, Kopriva D, Schmidt AM, Anderson DG, Singh SA, Cardoso L, Weinbaum S, Libby P, Aikawa M, Croce K, Aikawa E.** **Related Articles**

S100A9-RAGE Axis Accelerates Formation of Macrophage-Mediated Extracellular Vesicle Microcalcification in Diabetes Mellitus.

Arterioscler Thromb Vasc Biol. 2020 May 28;:ATVBAHA118314087. [Epub ahead of print]

PMID: 32460581

14. **Salmon EE, Breithaupt JJ, Truskey GA.** **Related Articles**

Application of Oxidative Stress to a Tissue-Engineered Vascular Aging Model Induces Endothelial Cell Senescence and Activation.

Cells. 2020 May 22;9(5).

PMID: 32455928

15. **Baxter BT, Matsumura J, Curci JA, McBride R, Larson L, Blackwelder W, Lam D, Wijesinha M, Terrin M.** **Related Articles**
 Effect of Doxycycline on Aneurysm Growth Among Patients With Small Infrarenal Abdominal Aortic Aneurysms: A Randomized Clinical Trial.
 JAMA. 2020 May 26;323(20):2029-2038.
 PMID: 32453369
16. **Wong DJ, Chaikof EL.** **Related Articles**
 Safety in numbers as administrative data supports the use of endovascular aneurysm repair in ruptured abdominal aortic aneurysms.
 J Vasc Surg. 2020 Jun;71(6):1879-1880.
 PMID: 32446506
17. **Janko MR, Woo K, Hacker RI, Baril D, Bath J, Smeds MR, Kashyap VS, Szeberin Z, Magee G, Elsayed R, Wishy A, St John R, Beck A, Farber M, Motta F, Zhou W, Lemmon G, Coleman D, Behrendt CA, Aziz F, Black J, Shutze W, Garrett HE Jr, de Caridi G, Liapis C, Kakkos S, Obara H, Wang G, RhÃ©aume P, Davila V, Ravin R, DeMartino R, Milner R, Shalhub S, Jim J, Lee J, Dubuis C, Ricco JB, Coselli J, Lemaire S, Fatima J, Sanford J, Yoshida W, Schermerhorn M, Menard M, Belkin M, Blackwood S, Conrad M, Wang L, Crofts S, Nixon T, Wu T, Chiesa R, Bose S, Turner J, Moore R, Smith J, Ciocca R, Hsu J, Czerny M, Cullen J, Kahlberg A, Setacci C, Joh JH, Senneville E, Garrido P, Sarac T, Rizzo A, Go M, Bjorck M, Gavali H, Wanhainen A, Lawrence PF, Chung J.** **Related Articles**
 In-situ Bypass and Extra-anatomic Bypass Procedures Result in Similar Survival in Patients with Secondary Aorto-Enteric Fistulae.
 J Vasc Surg. 2020 May 20; . [Epub ahead of print]
 PMID: 32445832
18. **Chu J, Chen L, Mo Z, Bowlin GL, Minden-Birkenmaier BA, Morsi Y, Aldalbahi A, El-Newehy M, Wang W, Mo X.** **Related Articles**
 An atorvastatin calcium and poly(L-lactide-co-caprolactone) core-shell nanofiber-covered stent to treat aneurysms and promote reendothelialization.
 Acta Biomater. 2020 May 19; . [Epub ahead of print]
 PMID: 32442783
19. **Rubino AS, Nicolini F, Tauriainen T, Demal T, De Feo M, Onorati F, Faggian G, Bancone C, Perrotti A, Chocron S, DalÃ©n M, Santarpino G, Fischlein T, Maselli D, Musumeci F, Santini F, Salsano A, Zanobini M, Saccocci M, Bounader K, Gatti G, Ruggieri VG, Mignosa C, Juvonen T, Mariscalco G, Biancari F.** **Related Articles**
 Failure to achieve a satisfactory cardiac outcome after isolated coronary

- surgery in low-risk patients.
Interact Cardiovasc Thorac Surg. 2020 May 23;. [Epub ahead of print]
PMID: 32442254
20. **Cunnane EM, Lorentz KL, Ramaswamy AK, Gupta P, Mandal BB, O'Brien FJ, Weinbaum JS, Vorp D.** **Related Articles**
Extracellular vesicles enhance remodeling of cell-free silk vascular scaffolds in rat aortae.
ACS Appl Mater Interfaces. 2020 May 22;. [Epub ahead of print]
PMID: 32441910
21. **Stegmayr B, Willems C, Groth T, Martins A, Neves NM, Mottaghy K, Remuzzi A, Walpoth B.** **Related Articles**
Arteriovenous access in hemodialysis: A multidisciplinary perspective for future solutions.
Int J Artif Organs. 2020 May 22;;391398820922231. [Epub ahead of print]
PMID: 32438852
22. **Barozzi L, Biagio LS, Meneguzzi M, Courvoisier DS, Walpoth BH, Faggian G.** **Related Articles**
Novel, digital, chest drainage system in cardiac surgery.
J Card Surg. 2020 May 21;. [Epub ahead of print]
PMID: 32436655
23. **Sathanandam SK, Gutfinger D, O'Brien L, Forbes TJ, Gillespie MJ, Berman DP, Armstrong AK, Shahanavaz S, Jones TK, Morray BH, Rockefeller TA, Justino H, Nykanen DG, Zahn EM.** **Related Articles**
Amplatzer Piccolo Occluder clinical trial for percutaneous closure of the patent ductus arteriosus in patients ≥ 700 grams.
Catheter Cardiovasc Interv. 2020 May 20;. [Epub ahead of print]
PMID: 32433821
24. **Zhang Q, Zhang X, Truskey GA.** **Related Articles**
Vascular Microphysiological Systems to Model Diseases.
Cell Gene Ther Insights. 2020;6(1):93-102.
PMID: 32431950
25. **Goossens EAC, de Vries MR, Jukema JW, Quax PHA, Nossent AY.** **Related Articles**
Myostatin Inhibits Vascular Smooth Muscle Cell Proliferation and Local 14q32 microRNA Expression, But Not Systemic Inflammation or Restenosis.
Int J Mol Sci. 2020 May 15;21(10).
PMID: 32429150
26. **Zilla P, Bolman RM 3rd, Boateng P, Sliwa K.** **Related Articles**
A glimpse of hope: cardiac surgery in low- and middle-income countries

(LMICs).

Cardiovasc Diagn Ther. 2020 Apr;10(2):336-349.

PMID: 32420116

ISACB Webinar Series

The ISACB Webinar Series has hosted over 40 speakers giving presentations from 6 different countries. Webinar recordings are now exceeding over 3000 views! We would like to extend our 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!*



Medtronic

Early 2020 Webinars

January 8, 2020 Webinar

Strategies for Empowered Mentee-ing

Speaker: Frederick Schoen, MD PhD

In this webinar tailored to mentees and mentors alike, Dr. Schoen provides insightful advice to structure, nurture, and maintain proactive and productive relationships. He addresses what qualities and behaviors constitute an empowered mentee, how to "mentor-up", reaching beyond comfort zones, inviting serendipity, taking measured risks, and more!

February 20, 2020 Webinar:

Heart Valve Tissue Engineering

Speakers: Carlijn Bouten, PhD and Robert Tranquillo, PhD

In this webinar event, tandem talks by Dr. Bouten and Dr. Tranquillo together highlight the latest multi-disciplinary approaches in heart valve tissue engineering including both "brilliant failures" and "quite encouraging" progress.

May 20, 2020- Joint Webinar with the Society for Biomaterials

Speakers: Holly Bauser-Heaton MD PhD

Nicolas L'Heureux PhD

Vahid Serpooshan, PhD

In this joint webinar, speakers Vahid Serpooshan and Holly Bauser-Heaton discussed collaborative projects led by their bioengineering and clinical research teams, employing the principles of tissue engineering and 3D bioprinting technologies to address some of the most pressing challenges in the field of pediatric cardiology. Nicolas L'Heureux presented his group's creation of yarn of CAM, a tissue-engineered vascular graft can be produced using a textile-based assembly strategy. These human textiles represent a new approach for the production of tissue-engineered constructs that combine string mechanical strength and the potential for complete tissue integration in the host.

View recordings of past ISACB webinars

Upcoming 2020 Webinars

Other upcoming speakers in 2020 include **Janice Tsui MD** and **Luke Brewster MD PhD** (August 2020), **Paul Fedak MD PhD** and **Sara Nunes Vasconcelos PhD** (November 2020).

Coming soon!

- Later in 2020, we will host webinar previews to spotlight upcoming ISACB webinar speakers. These interviews will be published in future issues of eCirculator.
- The ISACB **Early Career Mentorship** and **Women's Leadership** Committees are working with the **Membership Committee** to create new webinar formats to address the concerns and questions of our membership amidst the COVID-19 pandemic.

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 webinar events.

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

Webinar Corner contributor:

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Meeting Updates



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If you are not already a member, please consider joining today. The link to membership information is isacb.org/membership-information.

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