



COLUMBIA UNIVERSITY

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Dear Faculty,

This month our physicians and researchers had a strong presence at the Transcatheter Cardiovascular Therapeutics (TCT) meeting in Denver. Below you'll also find a list of our colleagues' contributions in Basic Science, Pediatric, Thoracic and Plastic surgery along with Immunology and Transplantation.

Please continue to email Paul Kurlansky (pk2245@columbia.edu) or me (crs2@cumc.columbia.edu) with regular updates on your grants, publications, and presentations by the first of every month.

Remember, journal links may require subscriptions or a log-in through the Columbia library while PubMed links are accessible to all.

For easy reference, we now post all issues of this [newsletter](#) on the Center for Innovations and Outcomes Research website.

Craig R. Smith, MD, FACS
Chair, Department of Surgery

CONGRATULATIONS

Megan Sykes, MD, and her team have received two new NIH grants:

– NIH-NIAID, U19, Principal Investigator, Regulatory T cells to promote mixed chimerism for tolerance to islets and kidneys from deceased and living donors, 2017-2022

– NIH/NIAID, PO1, Contact Principal Investigator, Project Leader, Tolerance of Adaptive and Innate Human Anti-Pig Immune Responses in Humanized Mice, 2017-2021

Christine Rohde, MD, was recognized by the Plastic Surgery Foundation for her project grant from the National Endowment for Plastic Surgery: Electromagnetic

Fields and Pectoral Block for Breast Reconstruction Pain Control.



The Center for Adolescent Bariatric Surgery at NYP/MSCHONY is one of only six children's hospitals to earn accreditation from the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program of the ACS as an Adolescent Center for metabolic and bariatric surgery.

Nicholas J. Morrissey, MD, has been named to the American Heart Association Strategically Focused Research Network for Vascular Disease, for a term beginning in October 2017.

BASIC SCIENCE

Publications

Yarwood RE, Imlach WL, Lieu T, Veldhuis NA, Jensen DD, Klein Herenbrink C, Aurelio L, Cai Z, Christie MJ, Poole DP, Porter CJH, McLean P, Hicks GA, Geppetti P, Halls ML, Canals M, Bunnett NW. Endosomal signaling of the receptor for calcitonin gene-related peptide mediates pain transmission Proc Natl Acad Sci U S A. 2017 Oct 30. pii: 201706656. doi: 10.1073/pnas.1706656114. [Epub ahead of print]

[Journal Link](#)

[PubMed Link](#)

CARDIAC SURGERY

Presentations

31st Annual Meeting European Association of CardioThoracic Surgery

Vienna, October 7-11, 2017

Kalfa D. Bioresorbable valved tube for pulmonary valve replacement and in situ regeneration.

Transcatheter Cardiovascular Therapeutics (TCT) 2017

Denver, Colorado, October 29-November 2, 2017

Session Moderators/Commentators

Vinayak Bapat, MD

- Valve Disease Mitral/Tricuspid Valve Replacement
- Live Cases
- Transapical Mitral Valve in Valve with Lotus

Session II: TMVR Complications

- First Report Investigations
- TMVR: Preparing for the Next Revolution
- New York-Presbyterian Hospital/Columbia University Medical Center

Isaac George, MD

- Case #5: Trans-septal Mitral VIR
- Cardiac Surgery
- Session II. Live Cases: TAVR/SHD
- Session 1. Technology Forum – Most Frequently Used TAVR Systems
- New York-Presbyterian Hospital/Columbia University Medical Center

Craig Smith, MD

- Session II. Ongoing Structural Heart Disease Trials: Predicting the Future
- Live Cases #2
- Session I. Novel, Provocative and Controversial Topics in Aortic Valve Disease
- Live Cases #4
- Treatment of Left Main Disease With CABG: Insights From EXCEL

Hiroo Takayama, MD, PhD

- Treatment of Left Main Disease with CABG: Insights from EXCEL
- Session 1. Live Case Demonstrations: Aortic Intervention
- Session II. Trends in the Treatment of Aortic Disease
- Session III. New Technologies for Aortic Aneurysms
- Session II. Mechanical Circulatory Support

Michael Argenziano, MD

—Surgical Bailout of MitraClip Complications and Failures

Vinayak Bapat, MD

– The New 4Tech Approach for Percutaneous Tricuspid Valve Repair

– Understanding Surgical Aortic Valve "Anatomy": Implications for Valve-in-Valve Therapy

– Editorial Perspective: The TMVR Field: unmet Technological Needs, Competitive Landscape and Future Opportunities

– Established TMVR 4: Intrepid - Device Description, Strengths and Weaknesses, and Updated Summary Outcomes

– Antithrombotic Therapy Considerations After TMVR: What Can We Learn From the Surgical Experience?

– Screening and Selecting the Appropriate Patients for TMVR

Isaac George, MD

– Case Presentation: Valve-in MAC

– Valve-in-Valve: Patient Selection, Technical Pearls and Outcomes

Paul Kurlansky, MD

– PCI vs. CABG: The Impact of Medication Adherence on Comparative Outcomes

Craig Smith, MD

– Predicting the Future: Will the Ongoing LOW RISK TAVR Trials Change How we Treat Low Surgical Risk Patients with Aortic Stenosis

Hiroo Takayama, MD

– Current State of Thoracic Branch Devices and Ongoing Clinical Trials

– Flash Perspectives: ECMO and ECMO Circuit Modifications Are the Best Methods to Achieve True Maximal Circulatory Support During High-Risk PCI

– State-of-the-Art: Acute and Chronic Cardiopulmonary Support

Publications

Douglas PS, Leon MB, Mack MJ, Svensson LG, Webb JG, Hahn RT, Pibarot P, Weissman NJ, Miller DC, Kapadia S, Herrmann HC, Kodali SK, Makkar RR, Thourani VH, Lerakis S, Lowry AM, Rajeswaran J, Finn MT, Alu MC, Smith CR, Blackstone EH; PARTNER Trial Investigators. Longitudinal Hemodynamics of Transcatheter and Surgical Aortic Valves in the PARTNER Trial. *JAMA Cardiol.* 2017 Sep 27. doi: 10.1001/jamacardio.2017.3306. [Epub ahead of print]

[Journal Link](#)

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Garan AR, Eckhardt C, Takeda K, Topkara VK, Clerkin K, Fried J, Masoumi A, Demmer RT, Trinh P, Yuzefpolskaya M, Naka Y, Burkhoff D, Kirtane A, Colombo PC, Takayama H. Predictors of survival and ability to wean from short-term mechanical circulatory support device following acute myocardial infarction complicated by cardiogenic shock. *Eur Heart J Acute Cardiovasc Care*. 2017 Nov 1:2048872617740834. doi: 10.1177/2048872617740834. [Epub ahead of print]

[Journal Link](#)

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Généreux P, Pibarot P, Redfors B, Mack MJ, Makkar RR, Jaber WA, Svensson LG, Kapadia S, Tuzcu EM, Thourani VH, Babaliaros V, Herrmann HC, Szeto WY, Cohen DJ, Lindman BR, McAndrew T, Alu MC, Douglas PS, Hahn RT, Kodali SK, Smith CR, Miller DC, Webb JG, Leon MB. Staging classification of aortic stenosis based on the extent of cardiac damage. *Eur Heart J*. 2017 Jul 21. doi: 10.1093/eurheartj/ehx381. [Epub ahead of print]

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Gillespie MJ, Benson LN, Bergersen L, Bacha EA, Cheatham SL, Crean AM, Eicken A, Ewert P, Geva T, Hellenbrand WE, Hor KN, Horlick EM, Jones TK, Mayer J, McHenry BT, Osten MD, Powell AJ, Zahn EM, Cheatham JP. Patient Selection Process for the Harmony Transcatheter Pulmonary Valve Early Feasibility Study. *Am J Cardiol*. 2017 Oct 15;120(8):1387-1392. doi: 10.1016/j.amjcard.2017.07.034. Epub 2017 Jul 26.

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Kasmi L, Calderon J, Montreuil M, Geronikola N, Lambert V, Belli E, Bonnet D, Kalfa D. Neurocognitive and Psychological Outcomes in Adults With Dextro-Transposition of the Great Arteries Corrected by the Arterial Switch Operation. *Ann Thorac Surg*. 2017 Oct 12. pii: S0003-4975(17)30952-9. doi: 10.1016/j.athoracsur.2017.06.055. [Epub ahead of print]

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Lee CL, Colombo PC, Eisenberger A, Diuguid D, Jennings DL, Han J, Salna MP, Takeda K, Kurlansky PA, Yuzefpolskaya M, Garan AR, Naka Y, Takayama H. Abciximab/Heparin Therapy for Left Ventricular Assist Device Implantation in Patients With Heparin-Induced Thrombocytopenia. *Ann Thorac Surg*. 2017 Oct 4. pii: S0003-4975(17)30911-6. doi: 10.1016/j.athoracsur.2017.06.031. [Epub ahead of print]

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Smith CR. Tissue adhesive innovations derived from the natural world. *J Thorac Cardiovasc Surg*. 2017 doi: 10.1016/j.jtcvs.2017.09.014.

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Terré JA, George I, Smith CR. Pros and cons of transcatheter aortic valve implantation (TAVI). *Ann Cardiothorac Surg*. 2017 Sep;6(5):444-452. doi: 10.21037/acs.2017.09.15. Review.

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Wang H, Kalfa D, Rosenbaum MS, Ginns JN, Lewis MJ, Glickstein JS, Bacha EA, Chai PJ. Scimitar Syndrome in Children and Adults: Natural History, Outcomes, and Risk Analysis. *Ann Thorac Surg*. 2017 Oct 18. pii: S0003-4975(17)30961-X. doi: 10.1016/j.athoracsur.2017.06.061. [Epub ahead of print]

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Terré JA, George I, Smith CR. Pros and cons of transcatheter aortic valve implantation (TAVI). *Ann Cardiothorac Surg*. 2017 Sep;6(5):444-452. doi: 10.21037/acs.2017.09.15. Review.

[Journal Link](#)

[PubMed Link](#)

IMMUNOLOGY/TRANSPLANTATION

Presentations

*Third International Workshop on Clinical Tolerance
Stanford University, California, September 8-9, 2017*

Session 6: Update on immune monitoring of tolerance trials. Megan Sykes, Clonal Deletion and Immune Regulation in Clinical Tolerance Trials.

*International Xenotransplantation Association 14th Congress
Baltimore, Maryland, September 20-23, 2017*

Megan Sykes, Honorary Member Lecture. The Future of Xenotransplantation.

David Sachs, Mixed Chimerism from Allograft to Xenograft.

*ESOT 2017 Transplantation BigBangBarcelona
Barcelona, Spain, September 23-27, 2017*

Educational Track Session 4: Pathophysiology and Endpoints on Tolerance; Megan Sykes, New York, United States "Clinical tolerance studies."

*XVII Great Lakes Transplant Immunology Forum
Madison, Wisconsin, October 12-13, 2017*

Special Guest and Charles G. Orosz lecturer; Megan Sykes, "Combined TCR sequencing and phenotyping to understand dynamics of human allograft lymphocyte turnover, establishment of tissue resident memory and tolerance."

*The Japanese Society for Histocompatibility and Immunogenetics 26th Annual Meeting
Hiroshima, Japan, October 27-28, 2017*

Keynote Lecturer, Megan Sykes: Toward the comprehensive understanding of human alloresponse and immune tolerance.

Publications

DeWolf S, Sykes M. Alloimmune T cells in transplantation. *J Clin Invest.* 2017 Jun 30;127(7):2473-2481. doi: 10.1172/JCI90595. Epub 2017 Jun 19.

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Sondermeijer H, Witkowski P, Seki T, van der Laarse A, Itescu S, Hardy MA. RGDfK-peptide modified alginate scaffold for cell transplantation and cardiac neovascularization. *Tissue Eng Part A.* 2017 Sep 22. doi: 10.1089/ten.TEA.2017.0221

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Zuber J, Sykes M. Mechanisms of Mixed Chimerism-Based Transplant Tolerance. *Trends Immunol.* 2017 Aug 18. pii: S1471-4906(17)30146-1. doi: 10.1016/j.it.2017.07.008. [Epub ahead of print]

[Journal Link](#)

[PubMed Link](#)

PEDIATRIC SURGERY

Presentations

Obesity Week, sponsored by the American Society for Metabolic & Bariatric Surgery and The Obesity Society

Washington D.C., October 29-November 2, 2017

Ani J, Fennoy I, Ranish E, Sysko R, Woo-Baidal JA, and Zitsman J Age of Onset of Obesity, Duration of Obesity, and Weight Loss during the Evaluation Period Prior to Bariatric Surgery in Adolescents are not Predictors of Weight Loss Outcomes at 12 Months Post Surgery.

Handel MB, Lynch L, Fennoy I, Zitsman JL Changes in Body Composition in Adolescents following Adjustable Gastric Banding and Sleeve Gastrectomy.

36th Annual International Fetal Medicine and Surgery Society Meeting

Jackson Hole, Wyoming, October 8-12, 2017

Shieh HF, Ahmed A, Rohrer L, Zurakowski D, Fauza DO. Donor Mesenchymal Stem Cell Kinetics after Transamniotic Stem Cell Therapy (TRASCET) for Experimental Spina Bifida.

Shieh HF, Ahmed A, Tracy SA, Zurakowski D, Fauza DO. Fetal Bone Marrow Homing of Donor Mesenchymal Stem Cells after Transamniotic Stem Cell Therapy (TRASCET).

Shieh HF, Estroff JA, Barnewolt CE, Zurakowski D, Tan WH, Buchmiller TL. Prenatal Imaging Throughout Gestation in Beckwith-Wiedemann Syndrome.

PLASTIC SURGERY

Presentations

*American Society of Plastic Surgeons Annual Meeting
Orlando, Florida, October 6-10, 2017*

Fu R, Toyoda Y, Lu L, Rohde C, Otterburn D. Smoking May Have a Different Risk Factor Profile for Postoperative Complications in Plastic and General Surgical Procedures; A Propensity-Matched Analysis of 294,903 Patients from the NSQIP Database from 2005-2014.

Lee JC, Ishtibar S, Means JJ, Wu J, Rohde CHA Randomized, Controlled Study of OctylINR-cyanoacrylate and Adhesive Mesh Closure System Versus Subcuticular Suture Closure in Reduction Mammoplasty.

Marano AA, Henderson PW, Prince MR, Dashnaw S, ARMRIT, Rohde CH. Effect of MRI on Breast Tissue Expanders and Recommendations for Safe Use.

Toyoda Y, Fu R, Lu L, Otterburn D, Rohde C. Smoking Independently Increases Postoperative Wound Complications in Plastic Surgical Procedures; A Propensity-Matched NSQIP Analysis.

THORACIC SURGERY

Presentations

*European Respiratory Society International Congress
Paris, France, September 15-17, 2017*

G. Singh, J. Vandenberg, P. Jellen, D. Lamber¹, W. Bulman, B. Thomashow, J. Sonett, M. Ginsburg. Functional Outcomes Long Term Survival and Surgical Risk After Lung Volume Reduction Surgery: A 12-year Single Center Experience.

Annual Meeting of The American College of Chest Physicians (CHEST)

Toronto, Canada, October 2017

Kamelhar D, Singh G, McGoldrick M, Vandenberg J, Sonett J, Ginsburg M. Impact of Laparoscopic Paraesophageal Hernia Repair on Respiratory Function and Dyspnea – A Single Institutional Study².

VASCULAR SURGERY

Presentations

Transcatheter Cardiovascular Therapeutics (TCT) 2017

Denver, Colorado, October 29-November 2, 2017

Virendra Patel, MD

– Session Moderator/Commentator:

– Session I. Long SFA Lesions

– Session III. Aorto-Iliac Rupture: A Case-Based Discussion

– Session I. Live Case Demonstrations: Aortic Intervention

– Session II. Trends in the Treatment of Aortic Disease

– Session III. New Technologies for Aortic Aneurysms

– Session IV. Large Vessel Closure and Management of Aortoiliac Complications

Fenestrated EVAR: Current and Future Technology



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