



COLUMBIA UNIVERSITY

*College of Physicians
and Surgeons*



ColumbiaDoctors | *Surgery*

Dear Faculty,

This month we have a very full report on our department's outstanding presentations and contributions to surgical research.

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 that journal links below require a subscription or connection through the Columbia University library e-journal system, 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
Chair
Department of Surgery

CONGRATULATIONS

Dr. Matthew Bacchetta recently received recognition for his groundbreaking work on ex-vivo lung perfusion in *Translational Scientist*. Click on video prompt below.

This keeps donor lungs alive



Credit: ScienceNaturePage  follow @inventious 

Megan Sykes received the following grant from NIH/NIAIDU01AI063594-13 (Subcontract: Ancillary Studies)

Effects of inhibiting early inflammation in kidney transplant patients

The goal of this one-year ancillary pilot study is to assess the feasibility of working with samples collected from the CTOT-19 multicenter clinical trial, and to determine whether alterations in TCR repertoires over time can be detected and are informative.

Dr. Rose Fu of Plastic Surgery won first place in the resident research competition at the American Association of Plastic Surgeons Annual Meeting in Austin, TX, March 25-28, 2017.

Department of Surgery Research Grants

Kudos to the Junior Faculty, Surgical Residents and Clinical Fellows who received highly competitive Department of Surgery Research Grants.

The awards to **Surgical Residents and Clinical Fellows** provide up to \$7,500 to support research by residents and clinical fellows supervised by faculty. These went to:

- Kazuki Sugahara for Isolation Of Tumor-Derived Exosomes Using Etchable Nanoprobes
- Aqsa Shakoor for Characterization And Therapeutic-Targeting Of Lymphatic endothelial Cells Isolated From Post-Operative Chylothorax
- Scott DeRoo for Assessment Of Frailty In Cardiac Surgery. Dr. DeRoo also received the John Jones Fellowship
- Benjamin Kuritzkes for Utility of Visceral Fat Area and Other CT-Derived Anthropometrics in Predicting Outcomes After Elective Surgery For Diverticulitis
- Benjamin van Boxtel for Prospective Translational Study On Amiodarone-Induced Primary Graft Dysfunction (PGD) Following Orthotopic Heart Transplantation (OHT)
- Jeremy Song for A Novel, Non-Invasive Assessment Of Mechanical Stress On The Aortic Valve In Patients With continuous flow left ventricular assist devices. Dr. Song

also received the Michael Treat Award

—Andrew Marano: for Development Of A Lower Limb Lymphedema Animal Model And Assessment Of The Efficiency Of Vascularized Lymph Node Transfer (VLNT) In Reversing Lymphedema. Dr. Marano also received the Michael Treat award

The Junior Faculty Research Awards provide up to \$25,000 to generate preliminary data for applications for major extramural funding and went to:

—David Kalfa for Electrical Maturation Of A Hybrid Biomimetic Clinical-Scale Cardiac Tissue-Engineered Mesh

—Isaac George for MSTN/ AMPK Signaling In Cardiac Metabolic Failure In Diabetic Heart Disease

—June Wu for An Intra-Patient Dose Escalation Study of Propranolol in Patients with Lymphedema

—Steven Lee Kong for Does Intratumoral Genomic Heterogeneity In Rectal Cancer Influence Degree Of Response To Neoadjuvant Therapy? Dr. Kong also received the Forde Award

—Hiroo Takayama: Vasoplegic Syndrome In Heart Transplantation (The VENDETTA Study)

In the News

Although not a standard entry for this e-letter, this article in *The Observer* by Dr. Mehmet Oz is worth noting because it highlights the importance of obtaining reliable information based on sound scientific process. "[EEG Brain Scans Reveal Fake News Threatens Your Health.](#)"

CARDIAC SURGERY

Inventions

David Kalfa

—A Provisional patent was filed by Columbia Technology Ventures on his invention of a Microfluidics-based heart valve prosthesis.

—A Provisional patent was filed by Columbia Technology Ventures for his invention of a Self-expandable growing heart valve prosthesis.

Presentations

*Heart Valve Society 2017 Annual Scientific Meeting
Monaco, March 2-4, 2017*

Borger M. Neurological Complications: Is it Contraindicated to do Surgery?

Borger M Should All Patients Undergoing Mitral Valve Surgery be Treated with Tricuspid Annuloplasty or Should We Make a Selective Approach?

Stephens EH, Han J, Trawick E, Dimartino E, Akkiraju H, Brown LM, K. JGrande-Allen J, Connell J, Vunjak-Novakovic G, Takayama H. Aortic Valve Mechanical, Compositional and Structural Changes with Left-Ventricular Assist Device (LVAD) Implantation.

Pontailler M, Ahmad B, Blanch M, Voisin A, Villerman O, Menashe P, Williams G, Kalfa D. TPU/PCL polymer as a candidate for tissue engineered heart valve replacement scaffold.

*American College of Cardiology, 66th Annual Scientific Session
Washington, D.C., March 17-19, 2017*

Bacha E. A Night at the Movies with Some Congenital Heart Surgeons—How Do They Actually Do That? Joint Symposium of the American Association for Thoracic Surgeons and the American College of Cardiology, Panelist.

Bacha E. Engage @ ACC.17 Studio: The Newlywed Game for Pediatric Cardiac Providers, Participant.

Borger M. Transcatheter Mitral Valve Repair: Neochord Chordal Replacement: Case and Overview.

Borger M. Mitral Valve Guidelines: Closing Knowledge Gaps; How Should We Be Treating Secondary MR in 2017?

Forrest JK, Mangi A, Popma J, Khabbaz K, Reardon M, Kleiman N, Yakubov S, Watson D, Kodali S, George I, Tadros P, Zorn G, Brown J, Ipperman R, Staniloae C, Williams M.1 Initial Use of the Evolut Pro Self-Expanding Transcatheter Aortic Valve.

Mehta RH, Leimberger JD, van Diepen S, Meza J, Wang A, Jankowich R, Harrison RW, Hay D, Fremes S, Duncan A, Soltesz EG, Luber J, Park S, Argenziano M, Murphy E, Marcel R, Kalavrouziotis D, Nagpal D, Bozinovski J, Toller W, Heringlake M, Goodman SG, Levy JH, Harrington RA, Anstrom KJ, Alexander JH; LEVO-CTS Investigators.

Levosimendan in Patients with Left Ventricular Dysfunction Undergoing Cardiac Surgery. Simultaneous publication in New England Journal of Medicine, citation below.

Cerebral Embolic Protection in Patients Undergoing Surgical Aortic Valve Replacement (SAVR)—Cerebral Embolic Protection Devices During SAVR. Presented by Michael J Mack on behalf of CTSNet—Dr Argenziano participating.

Publications

Kalfa D. Postoperative pulmonary artery stenosis: current options and future directions. *Transl Pediatr.* 2017 Jan;6(1):57-58.

[Journal link](#)

Kalfa D. Pulmonary vasodilator therapy in the Fontan circulation: a world of

uncertainties. J Thorac Cardiovasc Surg. 2017; doi.org/10.1016/j.jtcvs.2017.03.029

[Journal link](#)

Kasmi L, Bonnet D, Montreuil M, Kalfa D, Geronikola N, Bellinger D, Calderon J. Neuropsychological and Psychiatric Outcomes in Dextro-Transposition of the Great Arteries across the Lifespan: A State-of-the-Art Review Front. Pediatr., 24 March 2017 doi.org/10.3389/fped.2017.00059.

[Journal link](#)

Kurlansky P. Postoperative atrial fibrillation: the truth is stranger than fiction. J Thorac Cardiovasc Surg. 2017; 10.1016/j.jtcvs.2017.03.057.

[Journal link](#)

Kurlansky P. Saphenous vein graft patency and the fountain of youth. J Thorac Cardiovasc Surg 2017; 10.1016/j.jtcvs.2017.03.112.

[Journal link](#)

Mehta RH, Leimberger JD, van Diepen S, Meza J, Wang A, Jankowich R, Harrison RW, Hay D, Fremes S, Duncan A, Soltesz EG, Lubner J, Park S, Argenziano M, Murphy E, Marcel R, Kalavrouziotis D, Nagpal D, Bozinovski J, Toller W, Heringlake M, Goodman SG, Levy JH, Harrington RA, Anstrom KJ, Alexander JH; LEVO-CTS Investigators. Levosimendan in Patients with Left Ventricular Dysfunction Undergoing Cardiac Surgery. N Engl J Med. 2017 Mar 19. doi: 10.1056/NEJMoa1616218. [Epub ahead of print]

[Journal link](#)

[PubMed link](#)

Yoshioka D, Takayama H, Colombo PC, Yuzefpolskaya M, Garan AR, Topkara VK, Han J, Kurlansky P, Naka Y, Takeda K. Changes in End-Organ Function in Patients With Prolonged Continuous-Flow Left Ventricular Assist Device Support. Ann Thorac Surg. 2017 Mar;103(3):717-724. doi: 10.1016/j.athoracsur.2016.12.018.

[Journal link](#)

[PubMed link](#)

CENTER FOR INNOVATION AND OUTCOMES RESEARCH

Presentations

*13th International Conference on Alzheimer's & Parkinson's
Vienna, Austria: March 29-April 2, 2017*

Black CM, Fillit H, Xie L, Khandker RK, Kariburyo MF, Baser O, Yuce H, Ambegaonkar BM. Rates of Institutionalization among Newly Diagnosed AD Patients.

*Academy of Managed Care Pharmacy Managed Care Specialty Pharmacy Annual Meeting
Denver, CO, March 27-30, 2017*

Lee S, Xie L, Wang Y, Baser O. Evaluating the impact of treatment persistence on the economic burden of moderate-to-severe psoriasis and/or psoriatic arthritis patients in the US Department of Defense population.

Ganapathy V, Xie L, Wang Y, Zhang Q, Baser O. Prescription fill patterns after reaching the Medicare Part D coverage gap among chronic obstructive pulmonary disease patients on maintenance bronchodilators.

Ye F, Zhou FL, Xie L, Kariburyo F, Meneghini L. Clinical outcomes of patients with type 2 diabetes (T2D) who switched to insulin glargine 300 U/mL (Gla-300) from insulin glargine 100 U/mL (Gla-100) in real-world US treatment settings.

Chippis B, Ferro T, Wang L, Shrestha S, Baser O, Parikh R. Healthcare costs in asthma and/or chronic obstructive pulmonary disease patients using albuterol inhalation aerosol with and without an integrated dose counter.

*National Comprehensive Cancer Network (NCCN) 22nd Annual Conference
Orlando, FL, March 23-25, 2017*

Pandya S, Abouzaid S, Xie L, Parikh K, Baser O, Patel MI. Real-world health care costs among newly-diagnosed multiple myeloma patients in the United States veteran population (FY 2011-2015).

*American College of Cardiology (ACC) 66th Annual Scientific Session & Expo
Washington, DC, March 17-19, 2017*

Amin A, Keshishian A, Trocio J, Dina O, Le H, Zhang Q, Baser O, Vo L. Effectiveness and safety of apixaban, dabigatran, and rivaroxaban compared to warfarin among non-valvular atrial fibrillation patients in the US Medicare population.

*AMDA (Society for Post-acute and Long-term Care Medicine) Annual Conference 2017
Phoenix, AZ, March 16-19, 2017*

Ganapathy V, Xie L, Wang Y, Zhang Q, Baser O. Hospital readmissions among chronic obstructive pulmonary disease patients treated in skilled nursing facilities in the US.

*American Academy of Dermatology (AAD) 2017 Annual Meeting
Orlando, FL, March 3-7, 2017*

Lee S, Xie L, Wang Y, Baser O. Evaluating the economic burden and incidence of comorbidities among moderate-to-severe PsO and/or PsA patients in the US Department of Defense population.

GI/ENDOCRINE

Presentations

12th International Symposium on Regional Cancer Therapies
Salt Lake City, UT, February 2017

Kluger MD, Leinwand J, Bates GE, Taub RN, Chabot JA. Operative Management of 200 Patients with Diffuse Malignant Peritoneal Mesothelioma: Intention to Treat with Cytoreduction and IP Chemotherapy.

Publications

Lee MC, McCubbin JA, Christensen AD, Poole DP, Rajasekhar P, Lieu T, Bunnett NW, Garcia-Caraballo S, Erickson A, Brierley SM, Saleh R, Achuthan A, Fleetwood AJ, Anderson RL, Hamilton JA, Cook AD. G-CSF Receptor Blockade Ameliorates Arthritic Pain and Disease. *J Immunol.* 2017 Mar 20. pii: 1602127. doi: 10.4049/jimmunol.1602127. [Epub ahead of print]

[Journal link](#)

[PubMed link](#)

IMMUNOLOGY/TRANSPLANTATION

Presentations

University of Toronto Charles Easton Seminar Series
February 13, 2017

Sykes, M. Tracking the human alloresponse in transplant recipients

Publications

Duran-Struuck R, Buhler L, Alonso-Guallart P, Zitsman J, Kato Y, Wu A, McMurchy A, Woodland D, Griesemer A, Martinez M, Boskovic S, Kawai T, Cosimi A, Wu C, Slate A, Mapara M, Baker S, Tokarz R, D'Agati V, Hammer S, Pereira M, Lipkin W, Wekerle T, Levings M, Sykes M. Effect of ex vivo expanded recipient regulatory T cells on hematopoietic chimerism and kidney allograft tolerance across MHC barriers in cynomolgus macaques. *Transplantation.* 2017 Feb;101(2):274-283 2016.

[Journal link](#)

Halazun KJ, Najjar M, Abdelmessih RM, Samstein B, Griesemer AD, Guarrera JV, Kato T, Verna EC, Emond JC, Brown RS Jr. Recurrence After Liver Transplantation for Hepatocellular Carcinoma: A New MORAL to the Story. *Ann Surg.* 2017 Mar;265(3):557-564.

[Journal link](#)

Pathiraja V, Villani V, Tasaki M, Matar AJ, Duran-Struuck R, Yamada R, Moran SG, Clayman ES, Hanekamp J, Shimizu A, Sachs DH, Huang CA, Yamada K. Tolerance of Vascularized Islet-Kidney Transplants in Rhesus Monkeys. *Am J Transplant.* 2017

Jan;17(1):91-102.

[Journal link](#)

[PubMed link](#)

Salerno DM, Tsapepas D, Papachristos A, Chang JH, Martin S, Hardy MA, McKeen J. Direct oral anticoagulant considerations in solid organ transplantation: A review. *Clinical transplantation*. 2017 January;31(1).

[Journal link](#)

[PubMed link](#)

Sprangers B, DeWolf S, Savage TM, Morokata T, Obradovic A, LoCascio SA, Shonts B, Zuber J, Lau SP, Shah R, Morris H, Steshenko V, Zorn E, Preffer FI, Olek S, Dombkowski DM, Turka LA, Colvin R, Winchester R, Kawai T, Sykes M. Origin of enriched regulatory t cells in patients receiving combined kidney/bone marrow transplantation to induce transplantation tolerance. *American Journal of Transplantation*. 2017 Mar. 1, doi: 10.1111/ajt.14251. [Epub ahead of print]

[Journal link](#)

[PubMed link](#)

Weiner J, Zuber J, Shonts B, Yang S, Fu J, Martinez M, Farber D, Kato T, Sykes M. Long-term persistence of innate lymphoid cells in the gut after intestinal transplantation. *Transplantation*. 2016 Dec 8, DOI: 10.1097/TP.0000000000001593. [Epub ahead of print] PMC journal.

[Journal link](#)

PEDIATRIC SURGERY

Presentations

33rd Annual Children's National Symposium: ECMO and the Advanced Therapies for Respiratory Failure
February 26-March 2, Keystone, CO, 2017

Okochi S, Tam S, Schad C, Street C, Streltsova S, Shakoora A, Collins C, Middlesworth W, Duron V. Risk Factors for Pressure Ulcer Development in Pediatric Patients on Extracorporeal Membrane Oxygenation.

12th Annual Academic Surgical Congress
February 7-9, 2017, Las Vegas, NV

Tam S, Mobargha A, Tobias J, Schad C, Okochi S, Shakoora A, Middlesworth W, Duron V. Risk Factors for Pressure Ulcer Development in Pediatric Patients on Extracorporeal Membrane Oxygenation.

Books

Relles D, Jeffrey Zitsman J “Bariatric Surgery in Adolescents” to the 2nd edition of the textbook *Pediatric Obesity: Etiology, Pathogenesis and Treatment*. (Springer International Publishing AG) Editors: Michael Freemark ISBN: 978-1-60327-873-7 (Print) 978-1-60327-874-4 (Online).

[Link](#)

PLASTIC SURGERY

Presentations

*American Association of Plastic Surgeons Annual Meeting
Austin, TX, March 25-28, 2017*

Fu R, Toyoda Y, Li L, Rohde C, Otterburn DM. Smoking and Postoperative Complications in Plastic and General Surgical Procedures; A Propensity-Score Matched Analysis of 294,903 Patients from the NSQIP Database from 2005-2014.

New York Regional Plastic Surgeons Residents’ Night

Toyoda Y, BA; Fu R, Li L, MS; Otterburn, Christine Rohde C. Smoking as an Independent Risk Factor for Postoperative Complications in Plastic Surgical Procedures; A Propensity-Score Matched Analysis of 36,454 Patients from the NSQIP Database from 2005-2014.

THORACIC SURGERY

Publications

Biscotti M, Gannon WD, Agerstrand C, Abrams D, Sonett J, Brodie D, Bacchetta M. Awake Extracorporeal Membrane Oxygenation as Bridge to Lung Transplantation: A 9-Year Experience. *Ann Thorac Surg*. 2017 Feb 24. pii: S0003-4975(16)31777-5.

[Journal link](#)

[PubMed link](#)

Ebright MI, Sridhar P, Litle VR, Narsule CK, Daly BD, Fernando HC Endoscopic Fundoplication: Effectiveness for Controlling Symptoms of Gastroesophageal Reflux Disease *Innovations (Phila)*. 2017 Mar 14. doi: 10.1097/IMI.0000000000000351. [Epub ahead of print]

[Journal link](#)

[PubMed link](#)