



COLUMBIA UNIVERSITY

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Dear Faculty,

As 2016 comes to a close, I want to congratulate you on your outstanding contributions to surgical research.

This newsletter has proven to be a valuable resource so I hope you will continue to email [Paul Kurlansky \(pk2245@columbia.edu\)](mailto:pk2245@columbia.edu) or me ([crs2@cumc.columbia.edu](mailto:crs2@cumc.columbia.edu)) with regular updates on your grants, publications, and presentations, by the first of every month.

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

Wishing you a happy, healthy holiday season and a very productive new year,

Craig R. Smith, MD

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## CONGRATULATIONS

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Yoshifumi Naka, MD, PhD gave a landmark presentation at the American Heart Association with simultaneous publication in the *New England Journal of Medicine* for A Fully Magnetically Levitated Circulatory Pump for Advanced Heart Failure, a comparison of the new MOMENTUM 3 (Heartmate 3) with the current standard of care. (See AHA presentations below).

James Guarrera, MD, was named the 2016 Rising Star in Transplantation by the American Society of Transplant Surgeons.

Steven Lee-Kong, MD, received The Research Foundation of the American Society of Colon and Rectal Surgeons (ASCRS) and the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) first Investigative Robotic Surgery Grants for his work on the Effects of a Simulation-based Robotic Surgery Training Curriculum on Operative Performance (ASCRS).

Nicholas Morrissey, MD received funding with co-investigator Maya Rao, MD in the Department of Nephrology for an NIH sponsored study: A pilot randomized trial of arteriovenous fistula versus arteriovenous graft in elderly patients with advanced kidney disease.

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## CARDIAC SURGERY

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### Presentations

*Transcatheter Cardiovascular Therapeutics (TCT), Washington, DC*  
*October 29-November 2, 2016*

Craig R Smith, MD

- Discussant, Live Case
- Discussant, Late-breaking Clinical Trials 2

Michael Argenziano, MD

- Presentation, How good can surgical outcomes be in secondary MR?
- Presentation, Repair or replacement for severe ischemic mitral regurgitation
- Discussant, Mitral Regurgitation: Evolution of Surgical Therapy

Michael Borger, MD

- Moderator, Intermediate risk patients with severe aortic stenosis
- Moderator, Management of isolated severe TR postcardiac surgery
- Presentation, The case for sutureless/rapid deployment valves
- Live Case Operator
- Discussant, Structural heart disease technologies

Yoshifumi Naka, MD, PhD

- Presentation, Jarvik: Has the problem of driveline infections been solved?
- Discussant, Durable LVADs

Hiroo Takayama, MD

- Presentation, Flash perspectives on percutaneous circulatory support: ECMO and ECMO circuit modifications are the best methods to achieve true maximal circulatory support!
- Discussant, Interventional heart failure
- Discussant, Ventricular dysfunction and hemodynamics in the CHIP patient
- Discussant, Focus Session: Rediscovering cardiovascular hemodynamics

Isaac George, MD

- Live Case Operator x4
- Presentation, Leaflet thrombosis following transcatheter valve-in-valve: Could it have been prevented?
- Presentation/Debate, TAVR for low risk patients – Is it time? NO, We don't yet know if it's as durable as surgical AVR!
- Discussant, Frequently used TAVR systems
- Discussant. Live Cases

*TCT Abstracts*

Baron S, Alu M, Thourani V, Kodali S, Arnold S, Chinnakondepali K, Magnuson E, Wang K, Pichard A, Babaliaros V, George I, Miller DC, Tuzcu M, Greason K, Hermann H, Smith CR, Leon M, Dohen D. Effect of Sapien-3 Transcatheter Valve Implant on Health Status in Patients with Severe Aortic Stenosis at Intermediate Surgical Risk: Results from the PARTNER S3i Trial, *J Am Coll Cardiol.* 2016; 68(18\_S):B14-B14. doi: 10.1016/j.jacc.2016.09.056.

[Link](#)

Nouri SN, Takeda K, Topkara V, Kalra S, Garber L, Doshi D, Karpaliotis D, Yuzefpolskaya M, Takayam H, Naka Y, Colombo P, Kirtane A, Garan AR. Use of a Micro-axial Percutaneous Left Ventricular Assist Device (pLVAD) for Patients with Cardiogenic Shock.

[Link](#)

Popma J, Dibu G, Hughes GC, Kodali S, George I, Oh J, Slater J, Williams M. Transcatheter Aortic Valve Replacement with a Repositionable Self-expanding Bioprosthesis in Patients With Severe Aortic Stenosis at High Risk for Surgery: One-Year Results from the Evolut R US Pivotal Study.

[Link](#)

Szerlip M, Gualano S, Squiers J, White J, Doshi D, George I, Vazquez N, Dimairo JM, Makkar R, Williams M, Hermann H, Svensson L, Webb J, Han R, Kirtane A, Babaliaros V, Thourani V, Alu M, Kodali, Leon M, Mack M. Sex Specific Outcomes of TAVR with the Sapien 3 Valve: Insights From The PARTNER 2 S3 High-Risk and Intermediate-Risk Cohorts.

[Link](#)

White J, Doshi D, Williams M, Szerlip M, Squiers J, Webb J, Hahn R, Kirtane A, Litherland C, Cohen D, Tuzcu EM, Szeto W, Zajarias A, Malaisrie SC, Alu M, Smith C, Leon M, Mack M, Kodali S. Sex-Specific Differences After Transcatheter or Surgical

Aortic Valve Replacement in Intermediate Risk Patients: An Analysis from the PARTNER 2 Randomized Trial in Valvular Disease: Aortic November 01, 2016 Journal of the American College of Cardiology.

[Link](#)

*American Heart Association, New Orleans*  
November 14-16, 2016

Mehra MR, Naka Y, Uriel N, Goldstein DJ, Cleveland JC, Colombo PC, Walsh MN, Milano CA, Patel CB, Jorde UP, Pagani FD, Aaronson KD, Dean DA, McCants K, Itoh A, Ewald GA, Horstmanshof D, Long JW, Salerno C, for the MOMENTUM 3 (Heartmate 3) Investigators. A Fully Magnetically Levitated Circulatory Pump for Advanced Heart Failure. November 16, 2016 DOI: 10.1056/NEJMoa1610426.

[Link](#)

Anderson BR, Wallace AS, Hill KD, Gulack BC, Matsouaka R, Jacobs JP, Bacha EA, Glied SA, Jacobs ML. The Impact of Surgeon Experience on Congenital Heart Surgery Outcomes. *Circulation*. 2016;134:A19400.

[Link](#)

Castillero E, Ji R, Kheysin N, Patel S, Leung D, Hegde S, Park JS, Stein S, Cuenca C, Akashi H, Wang C, Ali ZA, Colombo PC, Sweeney HL, Schulze PC, George I. Bone Morphogenetic Protein 1/Tolloid-Like Metalloproteinase (BMP-1/TLD) is Increased in Heart Failure and Regulates MMP12 and TIMP1 Levels in Cardiomyocytes. *Circulation*. 2016;134:A16584.

[Link](#)

Chyou JY, Whang W, Dizon J, Biviano A, Garan H, Naka Y, Colombo P, Garan AR. Characteristics, Therapeutic Efficacy, and Clinical Implications of Ventricular Tachycardias Detected Early After Implant of Continuous-flow Left Ventricular Assist Device. *Circulation*. 2016;134:A17132.

[Link](#)

Kurlansky, P, Baser O, Nemeth S, Tingley J, Argenziano, Smith C. East Meets West in the Assessment of Cardiac Risk: A Multicenter Comparative Study of the Influence of Racial, Ethnic and Cultural Risk Factors on Cardiac Surgical Risk Model Performance. *Circulation*. 2016;134:A12044.

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Rubin G, Bayne J, Givens R, Noonavath M, Takayama H, Takeda K, Naka Y, Garan H, Farr M, Wan E. Increased Cardiac Conduction Abnormalities After Tricuspid Annuloplasty During Cardiac Transplantation: A Single Center 3 Year Retrospective

Review. *Circulation*. 2016;134:A14021.

[Link](#)

Venkatesh P, Maw AM, Evans AT, Patel AD, Pashun RA, Fujikura K, Minhas I, Kim LK, Swaminathan RV, Feldman DN, Minutello RM, Bergman G, Wong SC, Bacha E, Singh HS. Sudden cardiac death after atrial switch repair for D-transposition of the great arteries: A systematic review and meta-analysis. *Circulation*. 2016;134:A20647.

[Link](#)

Wang L, Baser O, Wells P, Peacock WF, Coleman C, Fermann GJ, Schein J, Crivera C. Benefit of early discharge among patients with low-risk pulmonary embolism: Focus on net clinical impact. *Circulation*. 2016;134:A13112.

[Link](#)

Wang L, Baser O, Wells P, Peacock WF, Coleman C, Fermann GJ, Schein J, Crivera C. Effectiveness of Rivaroxaban among patients diagnosed with pulmonary embolism. *Circulation*. 2016;134:A13140.

[Link](#)

## **Publications**

Argenziano M, Smith CR, Spotnitz HM, Steinglass KM, Bacha E. History of Cardiothoracic Surgery at Columbia University: A Century at the Vanguard of Clinical Care, Education, and Innovation. *Seminars in Cardiovascular Surgery* 2016: DOI:10.1053/j.semtcvs.2016.10.014.

[Journal link](#)

Barnhart GR, Accola KD, Grossi EA, Woo YJ, Mumtaz MA, Sabik JF, Slachman FN, Patel HJ, Borger MA, Garrett HE Jr, Rodriguez E, McCarthy PM, Ryan WH, Duhay FG, Mack MJ, Chitwood WR Jr; TRANSFORM Trial Investigators. TRANSFORM (Multicenter Experience With Rapid Deployment Edwards INTUITY Valve System for Aortic Valve Replacement) US clinical trial: Performance of a rapid deployment aortic valve. *J Thorac Cardiovasc Surg*. 2016 Oct 15. pii: S0022-5223(16)31292-2.

[Journal link](#)

[Pubmed link](#)

Clerkin KJ, Naka Y, MD, Mancini DM, Colombo PC, Topkara VK, The Impact of Obesity on Patients Bridged to Transplantation With Continuous-Flow Left Ventricular Assist Devices. *JCHF*. 2016;4(10):761-768.

[Journal link](#)

[Pubmed link](#)

Fukuhara S, Stephens EH, Glotzbach JP, Borger MA. Repair of ascending aortic aneurysms following cardiac transplantation. *J Card Surg.* 2016 Nov 1. doi: 10.1111/jocs.12865. [Epub ahead of print]

[Journal link](#)

[Pubmed link](#)

Kurlansky P. On-pump versus off-pump: It's all about the grafts! *J Thorac Cardiovasc Surg.* 2016 Oct 24. pii: S0022-5223(16)31377-0. doi: 10.1016/j.jtcvs.2016.10.006.

[Journal link](#)

[Pubmed link](#)

Roffi M, Patrono C, Collet JP, Mueller C, Valgimigli M, Andreotti F, Bax JJ, Borger MA, Brotons C, Chew DP, Gencer B, Hasenfuss G, Kjeldsen K, Lancellotti P, Landmesser U, Mehilli J, Mukherjee D, Storey RF, Windecker S. [2015 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation. Task Force for the Management of Acute Coronary Syndromes in Patients Presenting without Persistent ST-Segment Elevation of the European Society of Cardiology (ESC)]. *G Ital Cardiol (Rome).* 2016 Oct;17(10):831-872. doi: 10.1714/2464.25804. Italian.

[Pubmed link](#)

Spampinato RA, Tasca M, Borger MA, Schloma V, Dmitrieva Y, Mende M, Noack T, Strottdrees E, Mohr FW. Advanced symptoms are associated with myocardial damage in patients with severe aortic stenosis. *J Cardiol.* 2016 Nov 19. pii: S0914-5087(16)30245-3.

[Journal link](#)

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Takeda K, Garan AR, Topkara VK, Kirtane AJ, Karmaliotis D, Kurlansky P, Yuzefpolskaya M, Colombo PC, Naka Y, Takayama H. Novel minimally invasive surgical approach using an external ventricular assist device and extracorporeal membrane oxygenation in refractory cardiogenic shock. *Eur J Cardiothorac Surg.* 2016 Nov 6. pii: ezw349. [Epub ahead of print]

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[Pubmed link](#)

Yoshioka D, Takayama H, Garan AR, Topkara VK, Han J, Boyganzi L, Kurlansky P, Yuzefpolskaya M, Colombo PC, Naka Y, Takeda K. Bridge to durable left ventricular assist device for refractory cardiogenic shock. *J Thorac Cardiovasc Surg.* 2016; DOI:

10.1016/j.jtcvs.2016.10.085.

[Journal link](#)

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## CENTER FOR INNOVATION AND OUTCOMES RESEARCH (CIOR)

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### Presentations

*ASH Hematology 58th Annual Meeting & Exposition, San Diego, CA  
December 3-6, 2016*

Parikh K, Pandya S, Abouzaid S, Baser O, Xie L, Patel MI. Real world treatment outcomes and cost among newly-diagnosed multiple myeloma patients treated with bortezomib and dexamethasone in combination with cyclophosphamide or lenalidomide.

Huntington S, Keshishian A, Xie L, Baser O, McGuire M. Evaluating the economic burden and health care utilization following first-line therapy for diffuse large B-cell lymphoma patients in the US Medicare population.

See also AHA Wang L, et al.

### Publications

Cai J, Wang Y, Baser O, Xie L, Chow W. Comparative persistence and adherence with newer anti-hyperglycemic agents to treat patients with type 2 diabetes in the United States. *J Med Econ.* 2016 Dec;19(12):1175-1186.

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Nelson WW, Milentijevic D, Wang L, Baser O, Damaraju CV, Schein JR. Patterns of international normalized ratio values among new warfarin patients with nonvalvular atrial fibrillation. *Blood Coagul Fibrinolysis.* 2016 Dec;27(8):899-906.

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Shorr AF, Zilberberg MD, Wang L, Baser O, Yu H. Mortality and Costs in Clostridium difficile Infection Among the Elderly in the United States. *Infect Control Hosp Epidemiol.* 2016 Nov;37(11):1331-1336.

[Journal link](#)

[Pubmed link](#)

Yu H, Baser O, Wang L. Burden of Clostridium difficile-associated disease among patients residing in nursing homes: a population-based cohort study. BMC Geriatr. 2016 Nov 25;16(1):193.

[Journal link](#)

[Pubmed link](#)

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## COLON AND RECTAL SURGERY

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### *Book Chapters*

Apakama C and Lee-Kong SA: Diverticulitis, in *Textbook of Hepatobiliary & Gastrointestinal Surgery*, Nandakumar G (ed), Jaypee Brothers Medical Pub, 2016 ISBN 10: 9351529398 ISBN 13: 9789351529392.

Feingold DF, Lee-Kong SA. Difficult Colonoscopy: tricks and new techniques for getting to the cecum, in *Advanced Colonoscopy and Endoluminal Surgery*. Lee SA, Ross H, Rivadeneira DE, Steele SR, Feingold DF (eds), Springer. 2016 ISBN 978-3-319-48368-9.

Lee-Kong SA, Feingold DF. Basic colonoscopic interventions: cold, hot biopsy techniques, submucosal injection, clip application, snare biopsy in *Advanced Colonoscopy and Endoluminal Surgery*. Lee SA, Ross H, Rivadeneira DE, Steele SR, Feingold DF (eds), Springer. 2016 ISBN 978-3-319-48368-9.

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## GI SURGERY

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### **Publications**

Lim JY, Herman MC, Bubis L, Epelboym I, Allendorf JD, Chabot JA, Lee JA, Kuo JH. Differences in single gland and multigland disease are seen in low biochemical profile primary hyperparathyroidism. *Surgery*. 2016 Nov 12. pii: S0039-6060(16)30497-4.

[Journal link](#)

[Pubmed link](#)

Park JS, Kuo JH, Young JN, Wong MS. Rigid Sternal Fixation Versus Modified Wire Technique for Poststernotomy Closures: A Retrospective Cost Analysis. *Ann Plast Surg*. 2016 Oct 6. [Epub ahead of print]

[Journal link](#)



[Pubmed link](#)

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## IMMUNOLOGY

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### Presentations

*American Association for the Study of Liver Disease, Boston, MA  
November 11-15, 2016*

Guarrera J: Debate: In 10 Years Liver Machine Perfusion will be Universal (PRO)

Gurarrera J. Innovation in Liver Transplantation: Hypothermic Machine Perfusion

### Publications

Ali ZA, Karimi Galougahi K, Nazif T, Maehara A, Hardy MA, Cohen DJ, Ratner LE, Collins MB, Moses JW, Kirtane AJ, Stone GW, Karpaliotis D, Leon MB. Imaging- and physiology-guided percutaneous coronary intervention without contrast administration in advanced renal failure: a feasibility, safety, and outcome study. *Eur Heart J*. 2016 Oct 21;37(40):3090-3095.

[Journal link](#)

[Pubmed link](#)

Duran-Struuck R, Sondermeijer HP, Bühler L, Alonso-Guallart P, Zitsman J, Kato Y, Wu A, McMurchy AN, Woodland D, Griesemer A, Martinez M, Boskovic S, Kawai T, Cosimi AB, Wuu CS, Slate A, Mapara M, Baker S, Tokarz R, D, Agati V, Hammer S, Pereira M, Lipkin WI, 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*. 2016 Nov 15. PMID: 27846155.

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Duran-Struuck R, Matar AJ, Crepeau RL, Teague AG, Horner BM, Pathiraja V, Spitzer TR, Fishman JA, Bronson RT, Sachs DH, Huang CA. Donor Lymphocyte Infusion-Mediated Graft-versus-Host Responses in a Preclinical Swine Model of Haploidentical Hematopoietic Cell Transplantation. *Biol Blood Marrow Transplant*. 2016 Nov;22(11):1953-1960.

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[Pubmed 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*. 2016 Sep 16. PMID: 27611615.

[Journal link](#)

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Mandell MS, Smith AR, Dew MA, Gordon DB, Holtzman S, Howell T, DiMartini AF, Butt Z, Simpson MA, Ladner DP, Freise CE, McCluskey SA, Fisher RA, Guarrera JV, Olthoff KM, Pomfret EA. Early Postoperative Pain and its Predictors in the Adult to Adult Living Donor Liver Transplantation Cohort Study. *Transplantation*. 2016 Nov;100(11):2362-2371.

[Journal link](#)

[Pubmed link](#)

Quillin RC 3rd, Guarrera JV. "In 10 years" of debate: Pro-machine perfusion for liver preservation will be universal. *Liver Transpl*. 2016 Nov;22(S1):25-28.

[Journal link](#)

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Salerno DM, Tsapepas D, Papachristos A, Chang JH, Martin S, Hardy MA, McKeen J. Direct oral anticoagulant considerations in solid organ transplantation: a review. *Clin Transplant*. 2016 Nov 16. doi: 10.1111/ctr.12873. [Epub ahead of print] Review.

[Journal link](#)

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## **PEDIATRIC SURGERY**

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### **Publications**

Ko RR, Pinyavat T, Stylianos S, Lambert SM, Anderson RC, Gallin PF, Maxwell LG, Ward CG, Deshpande JK, Houck CS. Optimal Timing of Surgical Procedures in Pediatric Patients. *J Neurosurg Anesthesiol*. 2016 Oct;28(4):395-399.

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[Pubmed link](#)

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## PLASTIC SURGERY

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### Presentations

*42nd Annual Meeting, the Israel Society of Plastic and Aesthetic Surgery, Tel Aviv  
November 2016*

Ascherman, J. Defining the association between diabetes mellitus and plastic surgery outcomes: An analysis of 40,465 patients from the American College of Surgeons database.

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## THORACIC SURGERY

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### Presentations

*62nd Annual Meeting Southern Thoracic Surgical Association. Naples, Florida  
November 2016*

Costa J, Sreekandh S, Shah L, Robbins H, Raza K, Arcasoy S, Sonett JR, D'Ovidio F. Donation After Cardiac Death Donors: A Single Center Experience.

### Publications

Armstrong HF, Lederer DJ, Bacchetta M, Bartels MN. Primary graft dysfunction: Long-term physical function outcomes among lung transplant recipients. *Heart Lung*. 2016 Nov -Dec;45(6):544-549.

[Journal link](#)

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Chicotka S, Rosenzweig EB, Brodie D, Bacchetta M. The "Central Sport Model": Extracorporeal Membrane Oxygenation Using the Innominate Artery for Smaller Patients as Bridge to Lung Transplantation. *ASAIO J*. 2016 Aug 22. [Epub ahead of print]

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Diamond JM, Arcasoy S, McDonnough JA, Sonett JR, Bacchetta M, D'Ovidio F, Cantu E 3rd, Bermudez CA, McBurnie A, Rushefski M, Kalman LH, Oyster M, D'Errico C,

Suzuki Y, Giles JT, Ferrante A, Lippel M, Singh G, Lederer DJ, Christie JD; Lung Transplant Body Composition Study. Adipose Gene Expression Profile Changes With Lung Allograft Reperfusion. *Am J Transplant*. 2016 Jul 16. doi: 10.1111/ajt.13964. [Epub ahead of print]

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### **Book Chapters**

Agerstrand C, Mongero L, Abrams D, Bacchetta M, Brodie D. Chapter 11: Crises in ECLS, in *Extracorporeal Life Support for Patients with ARDS*, Schmidt G, editor. Springer. ISBN 978-1-4939-3005-0, 1st ed. 2016, XIII, 269 p. 59 illus., 45 illus. in color.



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