

## CURRICULUM VITAE

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### BIOGRAPHICAL

**Name:** Tetsuro Sakai, MD, PhD, MHA, FASA      **Birth Date:**

**Home Address:**      **Birthplace:**

**Home Phone:**      **Citizenship:**

**Business Address:** UPMC Montefiore Hospital  
N469.11, 200 Lothrop Street,  
Pittsburgh, PA 15213      **E-Mail Address:** [sakait@upmc.edu](mailto:sakait@upmc.edu)

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### EDUCATION AND TRAINING

#### UNDERGRADUATE AND GRADUATE:

April/83 – March/89      **Faculty of Medicine**      **MD, 1989**  
**Kyoto University**  
Konoe - cho, Yoshida,  
Sakyo - ku, Kyoto, Japan, 606-8507

July/97 – March/01      **Faculty of Medicine**      **PhD, 2001**  
**Kyoto University**      **Medicine**  
Konoe - cho, Yoshida  
Sakyo - ku, Kyoto, Japan, 606-8507

September/2015 –  
December/2017      **Master of Health Administration (MHA) Programs**      **MHA, 2017**  
**Pennsylvania State University**  
118J Keller Building  
University Park, PA 16802

#### POSTGRADUATE:

May/89 – April/91      **Intern**      **Takanobu Imanaka, MD**  
Department of General Internal      **Shunzo Koizumi, MD, FACS**  
Medicine and Surgery  
Tenri Hospital  
(An affiliated hospital of Kyoto University)  
200 Mishima, Nara, Japan, 632

May/91 – April/95      **Resident**      **Yuichi Ueda, MD, PhD**  
Department of Cardiovascular Surgery  
Tenri Hospital  
200 Mishima, Nara, Japan, 632

May/95 – June/96      **Clinical Instructor**      **Yuichi Ueda, MD, PhD**  
Department of Cardiovascular Surgery  
Tenri Hospital  
200 Mishima, Nara, Japan, 632

June/96 – Sept./96      **Observer**      **Tirone E. David, MD**

Sept./96 – June/99	<p>Division of Cardiovascular Surgery The Toronto Hospital, University of Toronto 200 Elizabeth St. Toronto, Ontario, Canada, M5G 2C4</p> <p><b>Clinical Fellow</b> Division of Cardiovascular Surgery The Toronto Hospital University of Toronto 200 Elizabeth St. Toronto, Ontario, Canada, M5G 2C4</p>	<p>Tirone E. David, MD Charles M. Peniston, MD</p>
July/97 – Oct./99	<p><b>Research Fellow</b> Division of Cardiovascular Surgery The Toronto Hospital University of Toronto 200 Elizabeth St. Toronto, Ontario, Canada, M5G 2C4</p>	<p>Richard D. Weisel, MD Ren-Ke Li, MD, PhD</p>
Nov./99 – June/01	<p><b>Visiting Instructor</b> Division of Cardiothoracic Surgery (Heart &amp; Lung Transplantation) Department of Surgery University of Pittsburgh School of Medicine UPMC Presbyterian 200 Lothrop Street Pittsburgh, PA 15213-2582</p>	<p>Bartley P. Griffith, MD</p>
June/01 – June/02	<p><b>Intern</b> Department of Medicine University of Pittsburgh School of Medicine UPMC Montefiore, N713 200 Lothrop Street Pittsburgh, PA 15213</p>	<p>Frank J. Kroboth, MD</p>
June/02 – June/05	<p><b>Resident</b> Department of Anesthesiology University of Pittsburgh School of Medicine Liliane S. Kaufmann Building 3471 Fifth Avenue, Suite 910 Pittsburgh, PA 15213</p>	<p>Rita M. Patel, MD</p>

#### APPOINTMENTS AND POSITIONS

##### ACADEMIC:

May/95 – June/96	<p>Department of Cardiovascular Surgery Tenri Hospital 200 Mishima, Nara, Japan, 632</p>	<p>Clinical Instructor</p>
Nov./99 – June/01	<p>Division of Cardiothoracic Surgery (Heart &amp; Lung Transplantation) Department of Surgery University of Pittsburgh School of Medicine UPMC Presbyterian 200 Lothrop Street Pittsburgh, PA, 15213-2582</p>	<p>Visiting Instructor</p>
July/01 – Present	<p>The McGowan Institute for Regenerative Medicine, University of Pittsburgh School of Medicine</p>	<p>Member Faculty</p>

July/05 – Oct./06	100 Technology Drive, Suite 200 Pittsburgh, PA 15219-3110 Department of Anesthesiology, University of Pittsburgh School of Medicine A-1305 Scaife Hall 3550 Terrace St. Pittsburgh, PA 15261	Visiting Instructor
Nov./06 – May/07	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Visiting Assistant Professor
June/07 – Sept./10	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Assistant Professor
Oct./10 – Aug./14	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Associate Professor
July/14 – Sept./14	The Clinical and Translational Science Institute University of Pittsburgh School of Medicine Pittsburgh, PA	Associate Professor (Secondary)
Sept./14 – Present	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Professor
Sept./14 – Present	The Clinical and Translational Science Institute University of Pittsburgh School of Medicine Pittsburgh, PA	Professor (Secondary)

**ADMINISTRATIVE:**

July/15 – Present	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Director of Scholarly Development
July/16 – June/20	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Associate Program Director, Anesthesiology Residency Program
July/19 – Present	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Vice Chair for Professional Development
July/19 – Present	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Chair, Academic Promotions Committee

**CLINICAL:**

July/05 – Present	Department of Anesthesiology University of Pittsburgh Medical Center UPMC Presbyterian / Montefiore 200 Lothrop Street Pittsburgh, PA, 15213-2582	Staff Anesthesiologist (Hepatic and Intestinal Transplantation Anesthesia)
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**CERTIFICATION AND LICENSURE**

**SPECIALTY CERTIFICATION:**

- Educational Commission for Foreign Medical Graduates 1994
- Advanced Trauma Life Support 1994
- Diplomate, Japan Surgical Society 1995
- Diplomate, The Japanese Association for Thoracic Surgery 1995
- Diplomate, The American Board of Anesthesiology 2006-2016
- Diplomate, The American Board of Anesthesiology (re-certification) 2016-2026

#### MEDICAL OR OTHER PROFESSIONAL LICENSURE:

- Ministry of Public Health and Welfare / Japan 1989 – Present
- Commonwealth of Pennsylvania State Board of Medicine 2005 – Present

#### MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

- The Japanese Association for Thoracic Surgery 1991 – 2002
- The Japanese Society for Cardiovascular Surgery 1991 – 2002
- Japanese Heart Society 1991 – 2002
- Japanese Surgical Society 1991 – 2002
- Department of Cardiovascular Surgery in Kyoto University 1995 – 2019
- American Society of Anesthesiologists (ASA) 2002 – Present
- International Anesthesia Research Society (IARS) 2002 – Present
- Pennsylvania State Society of Anesthesiologists (PSA) 2003 – Present
- The International Liver Transplantation Society (ILTS) 2004 – Present
- Society of Cardiovascular Anesthesiologists (SCA) 2009 – 2018
- Society for Education in Anesthesia (SEA) 2010 – Present
- Association of University Anesthesiologists (Elected Member) (AUA) 2013 – Present
- Society for the Advancement of Transplant Anesthesia (SATA) 2016 – Present

#### EDITORIAL BOARD MEMBERSHIPS

- “Annual Review: Japan – North America Medical Exchange” 2000  
*Japan-North America Medical Exchange Foundation*
- World Journal of Transplantation 2011 – Present
- Open Journal of Anesthesiology 2011 – Present
- The Korean Journal of Anesthesiology 2013 – Present
- Seminars in Cardiothoracic and Vascular Anesthesia 2016 – Present
- Seminars in Cardiothoracic and Vascular Anesthesia (Associate Editor) 2017 – Present
- BioMed Central Anesthesiology (Associate Editor) 2019 – Present

#### HONORS

1. **Finalist**, The C. Walton Lillehei Residents’ Award 1999  
The American Association for Thoracic Surgery
2. **Doctoral Fellowship Award** (awarded, but declined due to clinical training of anesthesiology) (2001 – 2003)  
American Heart Association, Mid-Atlantic Research Consortium
3. **Nominee**, Little Apple Award 2002  
University of Pittsburgh Medical Center
4. **Limbach Entrepreneurial Center Scholarship Grant** 2005

- Office of Enterprise Development, Health Sciences, University of Pittsburgh
5. **Best in Section**, Economics, Education & Patient Safety: Improving Patient Outcomes 2005  
International Anesthesia Research Society, the 79th Congress,  
Honolulu, Hawaii, March 11-15, 2005.
  6. **Resident Teaching Award**, Hepatic Transplantation Anesthesia, 2007  
Department of Anesthesiology, University of Pittsburgh Medical Center
  7. **Travel Award, A Poster of Distinction (Top 10%)**: Anesthesia/Critical Care Medicine 2008  
Joint International Congress of ILTS, ELITA & LICAGE, Paris, France, July 9-12, 2008.
  8. **The Best Curriculum Poster**, 2010  
Society for Education in Anesthesia, the 25<sup>th</sup> Annual Meeting,  
Pittsburgh, PA, June 4-6, 2010.
  9. **A Poster of Distinction (Top 10%)**: Anesthesia/Critical Care Medicine 2010  
The 16<sup>th</sup> Annual Meeting of the International Liver Transplantation Society,  
Hong Kong, China, June 16-19, 2010.
  10. **The Best Curriculum Poster**, 2011  
Society for Education in Anesthesia, the 26<sup>th</sup> Annual Meeting,  
San Antonio, Texas, June 3-5, 2011.
  11. **Resident Teaching Award (Mentoring Resident Scholarly Activity)** 2011  
Department of Anesthesiology, University of Pittsburgh Medical Center
  12. **Chairman's Recognition for Teaching Contributions** 2011  
Department of Anesthesiology, University of Pittsburgh Medical Center
  13. **Nominee**, the Teacher of the Year Award 2012  
Department of Anesthesiology, University of Pittsburgh Medical Center
  14. **Elected Member, Association of University Anesthesiologists** 2013 – Present
  15. **Faculty Honoree**, 2015  
The 39<sup>th</sup> Honors Convocation, University of Pittsburgh  
Carnegie Museums of Pittsburgh Music Hall, Pittsburgh, PA, February 28, 2015.  
(Outstanding faculty members who have distinguished themselves through teaching,  
research, and public service)
  16. **Elected Member, Academy of Master Educators** 2015 - 2020  
The University of Pittsburgh School of Medicine
  17. **Faculty Honoree**, 2016  
The 40<sup>th</sup> Honors Convocation, University of Pittsburgh  
Carnegie Museums of Pittsburgh Music Hall, Pittsburgh, PA, February 26, 2016.  
(Outstanding faculty members who have distinguished themselves through teaching,  
research, and public service)
  18. **Faculty Honoree**, 2017  
The 41<sup>st</sup> Honors Convocation, University of Pittsburgh  
Carnegie Museums of Pittsburgh Music Hall, Pittsburgh, PA, February 24, 2017.  
(Outstanding faculty members who have distinguished themselves through teaching,  
research, and public service)
  19. **Faculty of American Society of Anesthesiologists (FASA)** 2018
  20. **The Dr. Peter M. Winter Award for Excellence in Medical Student Teaching** 2018  
(For outstanding contribution to medical student education;  
voted by the medical students rotated at UPMC anesthesiology  
during the academic year 2018)
  21. **The Distinguished Educator in Anesthesiology Award** 2019  
(For outstanding contribution to anesthesia education, awarded jointly by  
American Society of Anesthesiology and Society for Education in Anesthesia)

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## PUBLICATIONS

**Complete List of Published Work in My Bibliography:**  
<https://www.ncbi.nlm.nih.gov/myncbi/1NGVXacYbmDQy/bibliography/public/>

**ORIGINAL PEER REVIEWED ARTICLES:**

1. Ueda Y. Miki S. Kusuhara K. Okita Y. Tahata T. Yamanaka K. **Sakai T.** [A technique for distal anastomosis in replacement of the ascending aorta and aortic valve with a composite graft: application of an open aortic anastomosis under retrograde cerebral perfusion and deep hypothermic systemic circulatory arrest]. [Japanese] *Kyobu Geka - Japanese Journal of Thoracic Surgery*. 44(8 Suppl):677-81;1991.
2. Okita Y. Miki S. Kusuhara K. Ueda Y. Tahata T. **Sakai T.** Matsuyama K. [Analysis of left ventricular performance after mitral valve replacement with a technique of preservation of all chordae tendineae: comparison with conventional mitral valve replacement or mitral valve repair]. [Japanese] *Japanese Circulation Journal*. 56 Suppl 5:1399-402;1992.
3. Ueda Y. Miki S. Okita Y. Tahata T. **Sakai T.** Matsuyama K. [The protective effect of continuous retrograde cerebral perfusion on the central nervous system during deep hypothermic systemic circulatory arrest]. [Japanese] *Nippon Kyobu Geka Gakkai Zasshi - Journal of the Japanese Association for Thoracic Surgery*. 41:559-68;1993.
4. Ueda Y, Miki S, Okita Y, Tahata T, **Sakai T**, Matsuyama K. Continuous retrograde cerebral perfusion. (Japanese) *JATS* 13:503-9;1993. [*n/a in PubMed*]
5. Ueda Y. Miki S. Okita Y. Tahata T. **Sakai T.** Matsuyama K. Yamanaka K. [Usefulness of retrograde cerebral perfusion with deep hypothermic systemic circulatory arrest on the operation for aortic arch aneurysms]. [Japanese] *Myakkan Gaku (Circulation)*. 33:319-23;1993. [*n/a in PubMed*]
6. Okita Y. Miki S. Ueda Y. Tahata T. **Sakai T.** Matsuyama K. Comparative evaluation of left ventricular performance after mitral valve repair or valve replacement with or without chordal preservation. *Journal of Heart Valve Disease*. 2: 159-66;1993.
7. Okita Y. Miki S. Ueda Y. Tahata T. **Sakai T.** Matsuyama K. Replacement of chordae tendineae using expanded polytetrafluoroethylene (ePTFE) sutures during mitral valve replacement in patients with severe mitral stenosis. *Journal of Cardiac Surgery*. 8:567-78;1993.
8. Ueda Y, Miki S, Okita Y, Tahata T, Ogino H, **Sakai T**, Morioka K, Matsuyama K. Protective effect of continuous retrograde cerebral perfusion on the brain during deep hypothermic systemic circulatory arrest. *Journal of Cardiac Surgery*. 9:584-94;discussion 594-5;1994.
9. Okita Y, Miki S, Ueda Y, Tabata T, **Sakai T**, Matsuyama K. Reduction of homologous blood transfusion in preoperative valve surgery. *Journal of Heart Valve Disease*. 3:411-6;1994.
10. Okita Y, Miki S, Ueda Y, Tahata T, **Sakai T**, Matsuyama K. Mitral valve replacement with maintenance of mitral annulopapillary muscle continuity in patients with mitral stenosis. *Journal of Thoracic & Cardiovascular Surgery*. 108:42-51;1994.
11. Okita Y, Miki S, Ueda Y, Tahata T, **Sakai T.** Left ventricular function after mitral valve replacement with or without chordal preservation. *Journal of Heart Valve Disease*. 4 Suppl 2:S181-92;discussion S192-3;1995.
12. Ueda Y, Miki S, Tahata T, Ogino H, Morioka K, **Sakai T**, Matsubayashi K, Matsumura M, Long-term results of mitral valvuloplasty for mitral regurgitation. (Japanese) *Kyobu Geka - Japanese Journal of Thoracic Surgery*. 48: 683-8;1995.
13. Okita Y, Miki S, Ueda Y, Tahata T, **Sakai T**, Matsuyama K, Matsumura M, Tamura T. Early and late results of repair of tetralogy of fallot with subarterial ventricular septal defect. A comparative evaluation of tetralogy with perimembranous ventricular septal defect. *Journal of Thoracic & Cardiovascular Surgery*. 110:180-5;1995.
14. Okita Y, Miki S, Ueda Y, Tahata T, **Sakai T**, Matsuyama K. Mitral valve replacement with a collar-reinforced prosthetic valve for disrupted mitral annulus. *Annals of Thoracic Surgery*. 59:187-9;1995.
15. Okita Y, Miki S, Ueda Y, Tahata T, Ogino H, **Sakai T**, Morioka K, Matsubayashi K, Nomoto T. Mid-term results of mitral valve replacement combined with chordae tendineae replacement in patients with mitral stenosis. *Journal of Heart Valve Disease*. 6:37-42;1997.
16. Ogino H. Miki S. Ueda Y. Tahata T. Morioka K. **Sakai T.** Matsubayashi K. Matsumura M. Surgical management of aortic regurgitation associated with ventricular septal defect. *Journal of Heart Valve Disease*. 6:174-8;1997.
17. Ogino K, Miki S, Ueda Y, Tabata T, Morioka K, **Sakai T**, Matsubayashi K, Nomoto T, Outcome of surgical treatment of acquired mitral valve diseases: efficacy of preservation or reconstruction of the chordae tendineae and mitral

- valve replacement. (Japanese) Nippon Kyobu Geka Gakkai Zasshi - Journal of the Japanese Association for Thoracic Surgery. 45:412-3;1997. (copy not available).
18. **Sakai T** (corresponding), Okita Y, Ueda Y, Tahata T, Ogino H, Matsuyama K, Miki S, Distance between mitral annulus and papillary muscles: anatomic study in normal human hearts. *Journal of Thoracic & Cardiovascular Surgery*. 118:636-41;1999.
  19. Tomita S, Li RK, Weisel RD, Mickle DA, Kim EJ, **Sakai T**, Jia ZQ. Autologous transplantation of bone marrow cells improves damaged heart function. *Circulation*. 100(19 Suppl):II247-56;1999.
  20. **Sakai T**, Li RK, Weisel RD, Mickle DA, Jia ZQ, Tomita S, Kim EJ, Yau TM. Fetal cell transplantation: a comparison of three cell types. *Journal of Thoracic & Cardiovascular Surgery*. 118:715-24; discussion 724-5;1999.
  21. **Sakai T**, Li RK, Weisel RD, Mickle DA, Kim EJ, Tomita S, Jia ZQ, Yau TM. Autologous heart cell transplantation improves cardiac function after myocardial injury. *Annals of Thoracic Surgery*. 68:2074-80; discussion 2080-1;1999.
  22. Li RK, Yau TM, Weisel RD, Mickle DA, **Sakai T**, Choi A, Jia ZQ. Construction of a bioengineered cardiac graft. *Journal of Thoracic & Cardiovascular Surgery*. 119:368-75;2000.
  23. Li RK, Weisel RD, Mickle DA, Jia ZQ, Kim EJ, **Sakai T**, Tomita S, Schwartz L, Iwanochko M, Husain M, Cusimano RJ, Burns RJ, Yau TM. Autologous porcine heart cell transplantation improved heart function after a myocardial infarction. *Journal of Thoracic & Cardiovascular Surgery*. 119:62-8;2000.
  24. **Sakai T**, Li RK, Weisel RD, Mickle DA, Kim EJ, Jia ZQ, Yau TM. The fate of a tissue engineered cardiac graft in the right ventricular outflow tract in the rat. *Journal of Thoracic & Cardiovascular Surgery* 121:932-42, discussion 942;2001.
  25. Kim EJ, Li RK, Weisel RD, Mickle DA, Jia ZQ, Tomita S, **Sakai T**, Yau TM. Angiogenesis by endothelial cell transplantation. *Journal of Thoracic & Cardiovascular Surgery* 122: 963-71;2001.
  26. Payne TR, Oshima H, **Sakai T**, Ling Y, Gharaibeh B, Cummins J, Huard J. Regeneration of dystrophin-expressing myocytes in the mdx heart by skeletal muscle stem cells. *Gene Therapy* 12:1264-74;2005.
  27. Oshima H, Payne TR, Urish KL, **Sakai T**, Ling Y, Gharaibeh B, Tobita K, Keller BB, Cummins JH, Huard J. Differential myocardial infarct repair with muscle stem cells compared to myoblasts. *Molecular Therapy* 12:1130-41;2005.
  28. **Sakai T**, Planinsic RM, Quinlan JJ, Handley LJ, Kim TY, Hilmi IA. The incidence and outcome of perioperative pulmonary aspiration in a university hospital: a 4-year retrospective analysis. *Anesthesia & Analgesia* 103:941-7;2006.
  29. **Sakai T**, Repko BM, Griffith BP, Waters JH, Kameneva MV. Intravenous infusion of a drag reducing polymer extracted from aloe vera prolonged survival time in a rat model of acute myocardial ischemia. *British Journal of Anesthesia* 98:23-8;2007.
  30. Fujimoto KL, Guan J, Oshima H, **Sakai T**, Wagner WR. In vivo evaluation of a porous, elastic, biodegradable patch for reconstructive cardiac procedures. *Annals of Thoracic Surgery* 83:648-54;2007.
  31. **Sakai T**, Planinsic RM, Hilmi IA, Marsh W. Complications associated with percutaneous placement of internal jugular vein cannula for venovenous bypass in adult orthotopic liver transplantation. *Liver Transplantation* 13:961-5;2007.
  32. Hilmi IA, Horton CN, Planinsic RM, **Sakai T**, Nicolau-Raducu R, Damian D, Gligor S, Marcos A. The impact of postreperfusion syndrome on short-term patient and liver allograft outcome in patients undergoing orthotopic liver transplantation. *Liver Transplantation*. 14:504-8;2008.
  33. **Sakai T**, Planinsic RM, Mathier MA, de Vera ME, Venkataramanan R. Initial experience using continuous intravenous treprostinil to manage pulmonary arterial hypertension in patients with end stage liver disease. *Transplant International*. 22:554-61;2009.
  34. **Sakai T** (corresponding), Gligor S, Diulus J, McAfee R, Marsh JW, Planinsic RM. Insertion and Management of Percutaneous Veno-Venous Bypass Cannula for Liver Transplantation: A Reference for Transplant Anesthesiologists. *Clinical Transplantation*. 24:585-91;2010.
  35. **Sakai T** (corresponding), Matsusaki T, Marsh JW, Hilmi IA, Planinsic RM. Comparison of Surgical Methods in Liver Transplantation: Retrohepatic Caval Resection with Venovenous Bypass (VVB) vs. Piggyback (PB) with VVB vs. PB without VVB. *Transplant International*. 23:1247-58;2010.
  36. **Sakai T** (corresponding), Xu Y. Stem Cells Decreased Neuronal Cell Death after Hypoxic Stress in Primary Fetal Rat Neurons in vitro. *Cell Transplantation* 21:355-64;2012.

37. Ball RD, Scouras NE, Orebaugh S, Wilde J, **Sakai T** (corresponding). Randomized, prospective, observational simulation study comparing residents' needle-guided vs free-hand ultrasound techniques for central venous catheter access. *British Journal of Anaesthesia*. 108:72-9;2012.
38. **Sakai T**, Matsusaki T, Abu-Elmagd K, Amesur N, Thaete FL, Zak MF, Aggarwal S. The role of ultrasonography in determining central venous patency in patients undergoing bowel transplantation. *Clinical Transplantation*. 26:E78–83;2012.
39. **Sakai T** (corresponding), Matsusaki T, Dai, F, Tanaka, KA, Donaldson, JB, Hilmi, IA, Marsh, JW, Planinsic, RM, Humar, A. Pulmonary Thromboembolism during Adult Liver Transplantation: Incidence, Clinical Presentation, Outcome, and Risk Factors. *British Journal of Anaesthesia*. 108:469-77;2012.
40. Matsusaki T, **Sakai T** (co-first and co-corresponding), Boucek CD, Abu-Elmagd K, Martin LM, Amesur N, Thaete FL, Hilmi IA, Planinsic RM, Aggarwal S. Central Venous Thrombosis and Perioperative Vascular Access in Adult Intestinal Transplantation. *British Journal of Anaesthesia*. 108:776–83;2012.
41. Lang RS, Gorantla VS, Esper SA, Montoya M, Losee, JE, Hilmi IA, **Sakai T**, Lee WPA, Raval JS, Kiss JE, Shoes J, Brandacher G, Planinsic RM. Anesthetic Management in Upper Extremity Transplantation - The Pittsburgh Experience. *Anesthesia and Analgesia*.115:678-88;2012
42. Ogawa S, Richardson JE, **Sakai T**, Ide M, Tanaka KA. High mortality associated with intracardiac and intrapulmonary thromboses after cardiopulmonary bypass. *Journal of Anesthesia*. 26:9-19;2012.
43. Matsusaki T, Hilmi, IA, Planinsic, RM, Humar, A, **Sakai, T** (corresponding). Cardiac Arrest during Adult Liver Transplantation: a Single Institution's Experience with 1,238 Deceased Donor Transplants. *Liver Transplantation*. 19:1262-71;2013.
44. Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Hilmi IA, Planinsic RM, **Sakai T** (corresponding). Complications Related to Invasive Hemodynamic Monitors during Adult Liver Transplantation. *Clinical Transplantation*. 27:823-8;2013.
45. Hilmi, IA, Planinsic, RM, Nicolau-Raducu R, Damian D, Al-Khafaji A, **Sakai T**, Abu-Elmagd K. Isolated small bowel transplantation outcomes and the impact of immunosuppression: Experience of a single transplant center. *World Journal of Transplantation* 3:127-33;2013.
46. Backeris ME, Patel RM, Metro DG, **Sakai T** (corresponding). Impact of a Productivity-Based Compensation System on Faculty Clinical Teaching Scores, as Evaluated by Anesthesiology Residents. *Journal of Clinical Anesthesia*. 25:209-13;2013.
47. Emerick TD, Metro DG, Patel RM, **Sakai T** (corresponding). Scholarly Activity Points: A New Tool to Evaluate Resident Scholarly Productivity. *British Journal of Anaesthesia*. 111:468-76;2013.
48. **Sakai T** (corresponding), Hudson ME, Davis PJ, Williams JP. Integration of Academic and Clinical Performance-Based Faculty Compensation Plans: the System and its Impact on an Anesthesiology Department. *British Journal of Anaesthesia*. 111:636-50.2013.  
(Accompanied by editorial: Liu EHC. Linking pay and performance. *Br J Anaesth* 111:526-8;2013.)
49. **Sakai T** (corresponding), Karausky PL, Valenti SL, Sandusky SL, Hirsch SC, Xu Y. Use of a Problem Based Learning Discussion Format to Teach Anesthesiology Residents Research Fundamentals. *Journal of Clinical Anesthesia*. 25:434-8;2013.  
(Accompanied by editorial: Eckenhoff RC. Using the problem-based learning discussion (PBLD) to facilitate research. *J Clin Anesth* 25:433;2013.)
50. Schott NJ, Emerick TD, Metro DG, **Sakai T** (corresponding). Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. *Anesthesia and Analgesia*. 117:1211-6;2013.  
(Featured in the web news at Anesthesia & Analgesia educational supplement <http://aa2.me/1fiv8RX>)
51. **Sakai T** (corresponding), Emerick TD, Metro DG, Patel RM, Hirsch SC, Winger DG, Xu Y. Facilitation of Resident Scholarly Activity: Strategy and Outcome Analyses Using Historical Resident Cohorts and a Rank-to-Match Population. *Anesthesiology*. 120:111–9;2014.  
(Accompanied by editorial: Todd MM, Fleisher L. Avoiding Professional Extinction. *Anesthesiology*. 120:2-3;2014.)
52. Hackett PJ, Guirguis M, Sakai N, **Sakai T** (corresponding). Fate of Abstracts Presented at the 2004-2008 International Liver Transplantation Society Meetings. *Liver Transplantation*. 20:355-60;2014.
53. Lu SY, Tanaka KA, Abuelkasem E, Planinsic RM, **Sakai T** (corresponding). Clinical Applicability of Rapid Thrombelastography and Functional Fibrinogen Thrombelastography in Adult Liver Transplantation. *Liver Transplantation*. 20:1097-105;2014.



54. Hilmi IA, Damian D, Al-Khafaji A, Planinsic R, Boucek C, **Sakai T**, Chang C-CH, Kellum JA. Acute kidney injury following orthotopic liver transplantation: incidence, risk factors, and effects on patient and graft outcomes. *British Journal of Anaesthesia*. 114:919-26;2015.
55. Hilmi IA, Damian D, Al-Khafaji A, **Sakai T**, Donaldson J, Winger DG, Kellum JA. Acute kidney injury after orthotopic liver transplantation using living donor versus deceased donor grafts: A propensity score-matched analysis. *Liver Transplantation*. 21:1179-85;2015.
56. **Sakai T** (corresponding), Emerick TD, Patel RM. A Retrospective Review of Required Projects in Systems-Based Practice in a Single Anesthesiology Residency: A Ten-Year Experience. *Journal of Clinical Anesthesia*, 27:451-6;2015.
57. Lim KG, Krohner RG, Metro DG, Rosario BL, Jeong J-H, **Sakai T**. Low-Fidelity Haptic Simulation versus Mental Imagery Training for Epidural Anesthesia Technical Achievement in Novice Anesthesiology Residents: a Randomized Comparative Study. *Anesthesia and Analgesia*,122:1516-23;2016.
58. Abuelkasem E, Mazzeffi MA, Lu SY, Planinsic RM, **Sakai T**, Tanaka KA. Ex vivo evaluation of four different viscoelastic assays for detecting moderate to severe coagulopathy during liver transplantation. *Liver Transplantation*. 22:468-75;2016.
59. Damian D, Esquenazi J, Duvvuri U, Johnson JT, **Sakai T** (corresponding). Incidence, outcome, and risk factors for postoperative pulmonary complications in head and neck cancer surgery patients with free flap reconstructions. *Journal of Clinical Anesthesia*, 28:12-8; 2016.
60. Abuelkasem E, Lu SY, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). Comparison between Thrombelastography and Thromboelastometry in Hyperfibrinolysis Detection during Adult Liver Transplantation. *British Journal of Anaesthesia*,116:507-12;2016.
61. Schreiber KL, Chelly JE, Lang RS, Abuelkasem E, Geller DA, Tsung A, Marsh JW, **Sakai T** (corresponding). Bilateral Paravertebral Block Versus Epidural Block for Postoperative Analgesia in Open Liver Resection: A Prospective Randomized Clinical Trial. *Regional Anesthesia & Pain Medicine* 41:460-8;2016.
62. Abuelkasem E, Hasan S, Mazzeffi MA, Planinsic RM, **Sakai T**, Tanaka KA. Reduced Requirement for Prothrombin Complex Concentrate for the Restoration of Thrombin Generation in Plasma from Liver Transplant Recipients. *Anesth Analg*. 125:609-615;2017.
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<https://cme.hs.pitt.edu/ISER/servlet/IteachControllerServlet?actiontotake=displaymainpage&site=akgr>

## Podcasts:

1. **Seminars in Cardiothoracic and Vascular Anesthesia March 2017 Podcast** <http://sagecardiology.sage-publications.libsypnro.com/webpage/category/Seminars%20in%20Cardiothoracic%20and%20Vascular%20Anesthesia>

## Website

1. Owner and Developer of the website “Academic Professional Development”  
<https://www.academicprofessionaldevelopment.org/> (since January 2020)
2. Update and Maintenance, “Research”, Department of Anesthesiology and Perioperative Medicine, UPMC.  
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3. Update and Maintenance, “Basic Research”, Department of Anesthesiology and Perioperative Medicine, UPMC. <https://www.anesthesiology.pitt.edu/research/basic-research> (June 2020)
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#### ABSTRACTS (since 1998):

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17. Hilmi IA, Planinsic RM, **Sakai T**, Nicolau-Raducu R, Mahoudeau G. Impact of Post-Reperfusion Syndrome on Patient and Liver Allograft Outcome in Orthotopic Liver Transplantation. (The 12<sup>th</sup> Annual Meeting of the International Liver Transplantation Society, Milan, Italy, May 3-6, 2006)
18. **Sakai T** (corresponding), Planinsic RM, Hilmi IA, Marsh JW. Adult orthotopic liver transplantation with or without venovenous bypass: A retrospective study. (The 101<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 14-18, 2006)
19. **Sakai T** (corresponding), Planinsic RM, Hilmi IA, Marsh W. A retrospective comparative study among 3 surgical techniques in OLT: conventional with veno-venous bypass (VVB), piggyback without VVB, and piggyback with VVB.(The 13<sup>th</sup> Annual Meeting of the International Liver Transplantation Society, Rio de Janeiro, Brazil, June 20-23, 2007)
20. **Sakai T** (corresponding), Hilmi IA, Planinsic RM. Incidence and outcome of cardiac arrest during adult orthotopic liver transplantation. (The 102<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007)
21. Hilmi IA, Planinsic RM, Damian D, **Sakai T**, Moayeri N. Endotoxin levels as marker for liver graft performance in Patients Undergoing Liver Transplantation. (The 102<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007)
22. Gligor S, Hilmi IA, Damian D, **Sakai T**, Planinsic RM. Simultaneous Combined Heart-Liver and Lung-Liver Transplantation Outcomes. (The 102<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007)
23. **Sakai T** (corresponding), Aggarwal S, Tanaka KA, Hilmi IA, Boucek CD, Talarico J, Gligor S, Planinsic RM. Incidence and outcome of intra-cardiac thrombus formation and pulmonary thromboembolism during adult orthotopic liver transplantation (The 2008 Joint International Congress of ILTS, ELITA & LICAGE, Paris, France, July 9-12, 2008. **Travel Award: A Poster of Distinction**)
24. Boucek CD, Abu El-Magd K, **Sakai T**, Gasior T, Krishnamurthy P. UNCONVENTIONAL VASCULAR ACCESS FOR TRANSPLANTATION SURGERY IN PATIENTS WITH VENOUS OCCLUSIONS. (The 2008 Joint International Congress of ILTS, ELITA & LICAGE, Paris, France, July 9-12, 2008)

25. Borsari TE, Hilmi IA, **Sakai T** (corresponding). Perioperative pulmonary aspiration of patients who have had esophagectomy with a gastric pull up. (The 103<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Orlando, FL, October 18-22, 2008)
26. **Sakai T**, Planinsic RM, Mathier MA, de Vera ME, Venkataramanan R. Initial experience of continuous intravenous treprostinil to manage pulmonary arterial hypertension in patients with end stage liver disease. (The 83<sup>rd</sup> Annual Congress of the International Anesthesia Research Society, San Diego, CA, March 14-17, 2009)
27. **Sakai T** (corresponding), Xu Y. Stem cells decreased apoptosis of primary fetal rat neurons under a prolonged culture condition. (The 56<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Galveston, TX, April 2-5, 2009)
28. **Sakai T** (corresponding), Tanaka KA, Dai F, Hilmi IA, Planinsic RM. Potential risk factors for pulmonary embolism during adult liver transplantation. (The 15<sup>th</sup> Annual Meeting of the International Liver Transplantation Society, New York City, NY, July 8-11, 2009. **Oral Presentation**)
29. **Sakai T** (corresponding), Xu Y. Stem Cells Decreased Neuronal Cell Death after Hypoxic Stress in Primary Fetal Rat Neurons. (The 104<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 17-21, 2009); (The 57<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Denver, CO, April 7-9, 2010)
30. **Sakai T** (corresponding), Metro DG, Patel R, Hirsch S, Xu Y. Can We Facilitate Anesthesiology Residents' Research Activity? (The 25<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Pittsburgh, PA, June 4-6, 2010. **The Best Curriculum Poster**)
31. Matsusaki T, **Sakai T**, Morimatsu H, Mizobuchi S, Morita K. Anesthesiology Resident Education in Okayama University Hospital, Japan. (The 25<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Pittsburgh, PA, June 4-6, 2010)
32. **Sakai T**, Abu-Elmagd K, Amesur K, Theat L, Aggarwal S. Venography vs Contrast Venography in Determining Venous Patency of the Upper Body in Patients Undergoing Small Bowel/Multivisceral Transplantation. (The 16<sup>th</sup> Annual Meeting of the International Liver Transplantation Society, Hong Kong, China, June 16-19, 2010. **A Poster of Distinction**)
33. **Sakai T** (corresponding), Tanaka KA, Dai F, Hilmi IA, Planinsic RM. Risk Factors for Intraoperative Pulmonary Thromboembolism in Adult Liver Transplantation. (The 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010)
34. Scouras NE, Ball RD, Orebaugh S, Wilde J, **Sakai T** (corresponding). Use of a Needle Guide for Ultrasound Assisted Internal Jugular Venous Access: An Interim Analysis. (The 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010)
35. Matsusaki T, **Sakai T** (corresponding), Boucek CD, Hilmi IA, Planinsic RM, Aggarwal S. Alternative Vascular Access in Patients Undergoing Small Bowel/multivisceral Transplantation. (The 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010)
36. Matsusaki T, **Sakai T** (corresponding), Boucek CD, Hilmi IA, Planinsic RM, Aggarwal S. Risk Factors for Requiring Alternative Vascular Access in Patients Undergoing Small Bowel/Multivisceral Transplantation. (The 64<sup>th</sup> Annual Meeting of the Postgraduate Assembly in Anesthesiology, New York City, NY, December 10-14, 2010)
37. Lang RS, Esper S, Montoya M, **Sakai T**, Hilmi I, Planinsic R. Development of a New Anesthetic Protocol for Hand Transplantation. (The 58<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Philadelphia, PA, May 12-14, 2011)
38. Matsusaki T, **Sakai T**, Al-Khafaji A, Hilmi I, Planinsic R. Prognostic Value of King's College Criteria, Meld Score and Apache II in Patients With Fulminant Hepatic Failure. (The 58<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Philadelphia, PA, May 12-14, 2011); (The 2011 Annual Meeting of the International Anesthesia Research Society, Vancouver, BC, Canada. May 21-24, 2011)
39. Emerick T, Metro DG, Patel RM, **Sakai T** (corresponding). Scholarly Activity Points: A New Tool for Evaluation of Scholarly Productivity by Residents. Scholarly Activity Points: A New Tool for Evaluation of Resident Scholarly Productivity. (The 58<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Philadelphia, PA, May 12-14, 2011); (The 26<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, San Antonio, TX, June 3-5, 2011); (The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)



40. **Sakai T** (corresponding), Metro DG, Patel R, Xu Y. Can we facilitate the scholarly activity of anesthesiology residents? (The 2011 Annual Meeting of the International Anesthesia Research Society, Vancouver, BC, Canada. May 21-24, 2011)
41. Backeris ME, Matsusaki T, Metro DG, Patel RM, **Sakai T** (corresponding). Impact of Incentive System on Faculty Teaching in Operative Room Evaluated by Anesthesiology Residents. (The 26<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, San Antonio, TX, June 3-5, 2011. **Oral presentation**); (The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)
42. **Sakai T** (corresponding), Patel RM, Xu Y, Metro DG. Director of Resident Research Rotation: a Facilitator for Resident Scholarly Activity. (The 26<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, San Antonio, TX, June 3-5, 2011. **The Best Curriculum Poster**): (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.)
43. **Sakai T** (corresponding), Karausky PL, Valenti SL, Sandusky SL, Hirsch SC, Emerick T, Xu Y. Research Training for Residents as Lead Investigators in a Simulated Prospective Randomized Clinical Trial: Use of PBLD Format. (The 26<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, San Antonio, TX, June 3-5, 2011)
44. Matsusaki T, Hilmi, IA, Aggarwal, S, Boucek, CD, Planinsic, RM, Humar, A, **Sakai, T** (corresponding). Cardiac arrest during adult liver transplantation: Incidence, cause, outcome and risk factors. (The 2011 Joint International Congress of ILTS, ELITA, & LICAGE, Valencia, Spain. June 22-25, 2011. **Oral Presentation**); (The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)
45. Xu Y, Karausky PL, Valenti SL, Sandusky SL, Hirsch SC, Emerick T, **Sakai T** (corresponding). Research Training for Residents as Lead Investigators in a Simulated Prospective Randomized Clinical Trial: Use of PBLD Format. (The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)
46. Matsusaki T, Hilmi, IA, Boucek, CD, Planinsic, RM, **Sakai, T** (corresponding). Complications due to Invasive Hemodynamic Monitors used during Adult Liver Transplantation. (The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)
47. Emerick T, Metro DM, **Sakai, T** (corresponding). From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. (PRACTICE MANAGEMENT 2012, Orlando, FL, January 27-29, 2012. **Second Place, Overall Posters**); (The 27<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
48. Emerick T, Metro DG, Patel RM, **Sakai T** (corresponding). Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? (The 59<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Cleveland, OH, May 17-19, 2012); (The 27<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Washington DC., October 13-17, 2012. **Oral Presentation**)
49. **Sakai T** (corresponding), Hudson ME, Davis PJ, Williams JP. Integration of Clinical and Academic Performance-Based Faculty Compensation Plans: the System and its Impact on an Anesthesiology Department (The 59<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Cleveland, OH, May 17-19, 2012); (The 27<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
50. **Sakai T** (corresponding), Metro DG, Emerick T, Patel RM, Xu Y. Resident Scholarly Activity: A Comparison Study Using a Rank-to-Match Population. (The 59<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Cleveland, OH, May 17-19, 2012); (The 27<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
51. Resti J, Williams JP, **Sakai T** (corresponding). Creation of a Web-Based Education Module Using the Knowledge Gaps Report from ABA/ASA Joint Council of Anesthesiology (The 27<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
52. Jayaraman AL, Matsusaki T, Chen Y-F, Fabio A, **Sakai T** (corresponding). Comparing the Incidence of Post-reperfusion Syndrome in Orthotopic Liver Transplantation Using Live Donor Versus Deceased Donor Grafts: A Propensity Score Matched Analysis. (The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)

53. Jayaraman AL, Matsusaki T, Chen Y-F, Fabio A, Planinsic RM, Humar A, **Sakai T** (corresponding). Impact of graft type on the incidence of post reperfusion syndrome in liver transplantation (LT): A propensity score matched analysis between live donor LT versus deceased donor LT. (The 19<sup>th</sup> Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013)
54. Hackett PJ, Guirguis M, Sakai N, **Sakai T** (corresponding). Fate of the Abstracts Presented at the International Liver Transplantation Society Meetings (2004 – 2008). (The 19<sup>th</sup> Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013); (NYSSA 67<sup>th</sup> Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013)
55. Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Planinsic RM, **Sakai T** (corresponding). Complications Related to Invasive Hemodynamic Monitoring during Adult Liver Transplantation (The 19<sup>th</sup> Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013. **Oral presentation**)
56. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T** (corresponding). Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. (The 60<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Miami, FL, April 4-6, 2013); (The 28<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Salt Lake City, UT, May 31 - June 2, 2013. **Best Poster, Research Section**); (The 108<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013)
57. Ponte E, Sciruba FC, Crespo MM, **Sakai T** (corresponding). Lung Volume Reduction Coil (LVRC) Treatment: the first clinical case in the United States. (Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013 **Oral Presentation**)
58. Lu SY, Abuelkasem E, Planinsic RM, Tanaka KA, **Sakai T** (corresponding). Comparison between Kaolin Thromboelastography and Rapid Thromboelastography in Liver Transplantation. (NYSSA 67<sup>th</sup> Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013)
59. Damian D, Esquenazi J, Johnson J, Duvvuri U, **Sakai T** (corresponding). Incidence, Outcome, and Risk Factors for Postoperative Pulmonary Complications in Head and Neck Cancer Surgery Patients with Free Flap Reconstructions (NYSSA 67<sup>th</sup> Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013)
60. Lu SY, Tanaka KA, Abuelkasem E, Planinsic RM, **Sakai T** (corresponding). Applicability of Rapid Thromboelastography and Functional Fibrinogen Assay in Adult Liver Transplantation. (The 2014 Joint International Congress of ILTS, ELITA & LICAGE, London, United Kingdom, June 4-7, 2014. **Oral presentation (Young Investigator Award)**); (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)
61. Abuelkasem E, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). Comparison between Thromboelastography and Thromboelastometry in Liver Transplantation. (The 61<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Stanford, California. April 24-26, 2014. **Poster presentation**) (The 2014 Joint International Congress of ILTS, ELITA & LICAGE, London, United Kingdom, June 4-7, 2014. **Poster presentation**); (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
62. Schott NJ, Lischner M, Schott CK, McHugh S, Meng L, Orebaugh SL, **Sakai T** (corresponding). Developing an Anesthesiology Resident Curriculum for Focus-Assessed Transthoracic Echo Cardiac Examinations (The 29<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**)
63. Schott NJ, Lischner M, Schott CK, McHugh S, Meng L, Orebaugh SL, **Sakai T** (corresponding). Initial Evaluation of a New Teaching Curriculum of Focus-Assessed Transthoracic Echocardiographic Examinations for Anesthesiology Residents (The 29<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**); (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)
64. Schreiber KL, Chelly JE, Abuelkasem E, Lang RS, Geller D, Marsh JW, Tsung A, **Sakai T**. Bilateral Paravertebral Block versus Epidural Block for Postoperative Analgesia in Open Liver Resection: A Prospective Randomized Clinical Trial. (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)

65. Damian D, **Sakai T**, Tanaka KA. The Effect of Protamine and Hemodilution on the Thrombus Formation Under Flow Condition. (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
66. Lim KG, Kroner R, Metro DG, **Sakai T**. Low-fidelity haptic simulation versus "mental imagery" training for epidural anesthesia technical achievement in novice anesthesiology residents: a randomized comparative study. (NYSSA 68<sup>th</sup> Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2014. **Poster presentation**) (The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015. **Oral presentation**).
67. Lin C, Metro DG, **Sakai T**. Stress Survey of Anesthesiology Residents. (The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015. **Oral presentation**).
68. **Sakai T** (corresponding), Emerick TD, Patel RM. Systems-Based Practice Project for Anesthesiology Residents: a 10-year Single Center Experience. (The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015. **Oral presentation**) (The 2015 Annual Meeting of the International Anesthesia Research Society, Honolulu, Hawaii, March 21 – 24, 2015) **Poster presentation**).
69. **Sakai T** (corresponding), Beaman S, Ibinson J, Vogt, K, Metro DG. Anesthesiology Professional Practice Rotation for Clinical Base Year Interns. (The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015. **Poster presentation**).
70. Abuelkasem E, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). FIBTEM is More Sensitive than EXTEM and Kaolin-TEG in Detecting Fibrinolysis: Part II of a Prospective Comparative Study Between ROTEM<sup>®</sup> vs. TEG<sup>®</sup> in Liver Transplantation (The 2015 International Congress of ILTS, Chicago, IL, July 8-11, 2015. **Oral presentation**): (The 110<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 24-28, 2015. **Poster Discussion presentation**)
71. **Sakai T** (corresponding), Beaman S, Ibinson J, Vogt, K, Metro DG. Anesthesiology Professional Practice Rotation for Clinical Base Year Interns: Impact on Scholarly Participation (The 110<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 24-28, 2015. **Poster presentation**)
72. Giedraitis A, Emerick T, Nelson D, **Sakai T**, Hudson M. Anesthesiologist Operating Room Performance Metrics Based on Pairing with Resident vs. CRNA in a Large, Multi-Specialty Health Care System. (ASA Practice Management, San Diego, CA. January 29-31, 2016. **Poster presentation**).
73. Nelson D, Emerick T, Giedraitis A, **Sakai T**, Hudson M. Does a Dedicated Charge Anesthesiologist Affect OR Performance Metrics in a Large Tertiary-Care Teaching Hospital? (ASA Practice Management, San Diego, CA. January 28-30, 2016. **Poster presentation**).
74. Mandell D, Planinsic RM, Melean F, Hughes C, Humar A, Cassidy BJ, Simmons R, De Wolf, A, **Sakai T** (corresponding). Critical Importance of Tissue Plasminogen Activator Policy for Intraoperative Pulmonary Thromboembolism during Liver Transplantation (The 22<sup>nd</sup> International Congress of ILTS, Seoul, Korea, May 4-7, 2016. **Poster presentation**); (The 111<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 22-26, 2016. **Poster presentation**)
75. Tani M, Smith JD, **Sakai T** (corresponding). Global Overview of Anesthesiology Certification and Practice – A Survey Study. (The Association of University Anesthesiologists 64th Annual Meeting, Washington, DC, May 4-5, 2017. **Poster presentation**) (The 2017 Annual Meeting and International Science Symposium of the International Anesthesia Research Society, Washington, DC, May 6-9, 2017. **Poster presentation**).
76. Ungerman EA, Metro DG, **Sakai T**, Adams PS. Burnout in Junior Anesthesiology Trainees: Effect of a Mindfulness Intervention. (The 2018 Spring Annual Meeting of the Society of Education in Anesthesia. Louisville, KY, April 19 – 22. 2018. **Oral presentation**).
77. Adams D, Phillips D, Quinlan JJ, Artman J, **Sakai T**. Safety and Effectiveness of Sugammadex for Surgical Patients with End Stage Renal Disease. (The 113<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-16, 2018. **Poster presentation**)
78. D. R. Adams, L. E. Tollinche, C. B. Yeoh, J. Artman, M. Mehta, D. Phillips, G. W. Fischer, J. J. Quinlan, **T. Sakai** (corresponding). Short-Term Safety and Effectiveness of Sugammadex for Surgical Patients with End Stage Renal Disease: A Two-Center Retrospective Study. (The 114<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Orland, FL, October 19-23, 2019. **Oral presentation**)

79. Vogt K, Metro DG, **Sakai T.** Scholarly education program during the clinical base year promotes scholarly productivity during anesthesiology residency. (The 2020 Spring Annual Meeting of the Society of Education in Anesthesia. Philadelphia, PA, May 8-10, 2020 **Poster presentation - invited and scheduled, however canceled secondary to the COVID19 Pandemic**).
80. Carullo P, Metro DG, **Sakai T.** Innovation Immersion Experience (IIE): Exploring the Process of New Technology Development in the Perioperative Setting. (The 2020 Spring Annual Meeting of the Society of Education in Anesthesia. Philadelphia, PA, May 8-10, 2020 **Oral presentation - invited and scheduled, however canceled secondary to the COVID19 Pandemic**).
81. Smith N., Zerillo J., Kim S.J., Efuno G.E., Wang C., Pai S.-L., Chadha R., Kor T.M., Wetzel D.R., Hall M.A., Burton K.K., Fukazawa K., **Sakai T.**, Hill B., Spad M.-A., Wax D.B., Lin H.-M., Liu X., Odeh J., Torsher L., Kindscher J.D., Mandell M.S.15,, DeMaria Jr. S. Intraoperative cardiac arrest during adult liver transplantation: incidence and risk factor analysis from seven academic centers in the United States. International Liver Transplant Society Annual Congress 2020, Istanbul, Turkey, May 8, 2020. Concurrent Oral Abstract Session: A Potpourri of Liver Transplantation. (**invited and scheduled, however canceled secondary to the COVID19 Pandemic**)

## PROFESSIONAL ACTIVITIES

### TEACHING

#### National / International Roles:

1. **Course Director**, CMEinfo Anesthesiology Board Review Course, University of Pittsburgh School of Medicine, Department of Anesthesiology. Oakstone Publishing, LLC. Birmingham, AL (2014 – 2015).

#### Regional Roles:

1. **Course Director**, Pennsylvania Anesthesiology Resident Research Competition, Pittsburgh, PA, May 10, 2014.
2. **Course Director**, Pennsylvania Anesthesiology Resident Research Competition, Pittsburgh, PA, May 4, 2019.

#### Symposiums:

##### *National & International*

- 1 **Panelist, Sakai T.** "Scholarly Activity by Trainees in Anesthesiology: Importance, Facilitation, and Evaluation". 90 Minute Panel, the 108<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013.
- 2 **Panelist, Sakai T.** "Human Resource Management: Building up a system in an anesthesiology department to promote resident scholarly activity", The Japan Society for Clinical Anesthesia, The 33<sup>rd</sup> Annual Meeting, Kanazawa, Ishikawa, Japan. November 1-3, 2013.
- 3 **Panelist, Sakai T.** "Multimodal analgesia for living donors", ILTS-TTS Joint Symposium: Living Donation, The 2019 International Congress of the International Liver Transplantation Society, The Metropolitan Toronto Convention Centre, Toronto, Canada, May 17, 2019.
- 4 **Panelist, Sakai T.** "Anesthesia Care Team Model – Experience in UPMC", Perioperative Anesthetic Management Team Symposium, The 66<sup>th</sup> Annual Meeting of the Japanese Society of Anesthesiologists, Kobe, Japan, May 31, 2019.
- 5 **Panelist, Sakai T.** "How to Excel in Research, Clinical, and Education: Personal Experience in the US", The 24<sup>th</sup> Annual Meeting of the Japanese Society of Cardiovascular Anesthesiologists, Kyoto, Japan, September 21, 2019.

##### *Regional*

1. **Panelist, Sakai T.** "How to Turn Medical Education into Scholarship", UPSOM Academy of Master Educators Third Annual Med Ed Day, UPMC Conference Center, Pittsburgh, PA, September 21, 2018.

## Visiting Professorships:

1. **Visiting Professor**, National Cardiovascular Center, Osaka, Japan. "Cardiac Cell Transplantation", September 2, 1999.
2. **Visiting Professor**, Department of Thoracic Surgery, Nagoya University, Nagoya, Japan. "Cardiac Cell Transplantation", September 6, 1999.
3. **Visiting Professor**, "How can we promote scholarly activity by anesthesiology residents?" Anesthesiology Grand Round, West Virginia University School of Medicine, Morgantown, WV, March 2, 2011.
4. **Visiting Professor**, "How can we promote research activity by anesthesiology residents?" Anesthesiology Grand Round, Pennsylvania State University School of Medicine, Hershey, PA, October 6, 2011.
5. **Visiting Professor**, "Cardiac arrest and pulmonary thromboembolism during liver transplantation", Asahikawa Medical University, Asahikawa, Hokkaido, Japan, May 24, 2013.
6. **Visiting Professor**, "Residency research education system in Department of Anesthesiology, University of Pittsburgh School of Medicine", Kyoto Prefectural Medical College, Kyoto, Kyoto, Japan, May 27, 2013.
7. **Visiting Professor**, "Residency research education system in Department of Anesthesiology, University of Pittsburgh School of Medicine", Residency program, Tenri Hospital, Tenri, Nara, Japan, May 27, 2013.
8. **Visiting Professor**, "Cardiac arrest and pulmonary thromboembolism during liver transplantation", Aichi Medical College, Nagakute, Aichi, Japan, May 28, 2013.
9. **Visiting Professor**, "Abdominal Transplantation Anesthesia & Resident Scholarly Activity Lecture Series", University of Hawaii John A. Burns School of Medicine. Post graduate Medical Education Program at Okinawa Prefectural Chubu Hospital, Uruma, Okinawa, Japan, October 21-25, 2013.
10. **Visiting Professor**, "How can we promote research activity by anesthesiology residents?" University of Hawaii John A. Burns School of Medicine. Okinawa Southern Medical Center / Okinawa Children's Hospital, Uruma, Okinawa, Japan, October 22, 2013.
11. **Visiting Professor**, "Medical specialty training system in USA vs. in Japan: Emergency medicine", Nara Prefectural Hospital, Nara, Nara, Japan, October 28, 2013.
12. **Visiting Professor**, "Facilitation of Resident Scholarly Activity: University of Pittsburgh Medical Center Experience" Anesthesiology Grand Round: "Challenges in Liver Transplantation" Lecture for Trainees. University of Maryland School of Medicine, Baltimore, MD, April 2-3, 2014.
13. **Visiting Professor**, "Facilitation of Resident Scholarly Activity: University of Pittsburgh Medical Center Experience" Anesthesiology Grand Round: "Challenges in Liver Transplantation" Lecture for Trainees. Department of Anesthesiology, Yale University, New Haven, CT, November 4-5, 2014.
14. **Visiting Professor: Lecture Series**, "Anesthesiology Education System; Authorship Conflict; Point of Care Coagulation Monitoring System; Evidence Based Medicine; Central Venous Line Complications; Monitoring Complications in Liver Transplantation; Statistics Basics; Pulmonary Hypertension (MM Round); How to Write Case Reports", University of Hawaii John A. Burns School of Medicine. Post graduate Medical Education Program at Okinawa Prefectural Chubu Hospital, Uruma, Okinawa, Japan, July 13-17, 2015.
15. **Visiting Professor**, "Medical specialty training system in USA vs. in Japan: Emergency medicine", Toyama Prefectural Central Hospital, Toyama, Japan, July 18, 2015.
16. **Visiting Professor**, "Medical specialty training system in USA vs. in Japan: Anesthesiology", Anesthesiology Grand Round: Department of Anesthesiology and Resuscitatology, Okayama University, Okayama, Japan, July 21, 2015.
17. **Visiting Professor**, "Medical specialty training system in USA vs. in Japan: Anesthesiology", Department of Anesthesiology, Nara Prefectural Medical College, Nara, Japan, July 23, 2015.
18. **Visiting Professor**, "Facilitation of Resident Scholarly Activity: University of Pittsburgh Medical Center Experience", Aichi Medical College, Nagakute, Aichi, Japan, July 27, 2015.
19. **Visiting Professor**, "Facilitation of Resident Scholarly Activity: University of Pittsburgh Medical Center Experience", Tokyo Medical Dental College, Tokyo, Japan, July 29, 2015.
20. **Visiting Professor**, "Facilitation of Resident Scholarly Activity: University of Pittsburgh Medical Center Experience", Tsukuba University, Tsukuba, Ibaraki, Japan, July 30, 2015.
21. **Visiting Professor**, "Enhancing Scholarly Activities in Residency Programs", Rutgers - New Jersey Medical School, Newark, NJ, November 10, 2015.

22. **Visiting Professor**, “Medical Specialty Training Systems”, Kobe Central City Medical Center, Kobe, Hyogo, Japan, May 10, 2016.
23. **Visiting Professor**, “Monitoring and Complications in Liver Transplantation: UPMC Experience” Anesthesiology Grand Round, Department of Anesthesiology, St Luke’s Hospital, Tokyo, Japan, May 12, 2016.
24. **Visiting Professor**, “Enhancing Scholarly Activities in Residency Programs: UPMC Experience”, Icahn School of Medicine at Mount Sinai: Department of Anesthesiology, August 10, 2016.
25. **Visiting Professor**, “Medical specialty training system in USA”, Asahikawa Medical University, Asahikawa, Hokkaido, Japan, June 12, 2017.
26. **Visiting Professor**, “What is Perioperative Surgical Home?” Anesthesiology Grand Round, Department of Anesthesiology, St Luke’s Hospital, Tokyo, Japan, June 14, 2017.
27. **Visiting Professor**, “Monitoring and Complications in Liver Transplantation” Anesthesiology Grand Round, Department of Anesthesiology, National Center for Child Health and Development, Tokyo, Japan, June 15, 2017.
28. **Visiting Professor**, “Introduction of Health Care Observation in the US”, Toyama Prefectural Central Hospital, Toyama, Japan, November 6, 2017.
29. **Visiting Professor**, “Enhancing Scholarly Activities in Residency Programs: UPMC Experience”, Itabashi Chuo Hospital, Tokyo, Japan, November 9, 2017.
30. **Visiting Professor**, “Anesthesiology Education System in University of Pittsburgh Medical Center”, Ryukyu University, Okinawa, Japan, November 15, 2017.
31. **Visiting Professor: Lecture Series**, “Anesthesiology Education System in US; Liver Anesthesia Basics; Statistics; Pulmonary Thromboembolism during Liver Transplantation; Facilitation of Resident Scholarly Activity; Introduction of UPMC System; How to Prepare Your CV; Perioperative Surgical Home”, University of Hawaii John A. Burns School of Medicine. Postgraduate Medical Education Program at Okinawa Prefectural Chubu Hospital, Uruma, Okinawa, Japan, November 13-17, 2017.
32. **Visiting Professor**, “Medical Education System in USA”, Faculty of Medicine, Akita University, Akita, Japan, July 18, 2018.
33. **Visiting Professor**, “What is Perioperative Surgical Home?”, Itabashi Central Hospital, Tokyo, Japan, July 23, 2018.
34. **Visiting Professor**, “Facilitation of Resident Scholarly Activity – A 10-Year Experience at UPMC”, Department of Anesthesiology, Henry Ford Hospital, Detroit, MI, August 1, 2018.
35. **Visiting Professor**, “Facilitation of Resident Scholarly Activity – A 10-Year Experience at UPMC”, Department of Anesthesiology, Kansas University, Kansas City, KS, October 1, 2018.
36. **Visiting Professor**, “Anesthesiology Residency Training System in UPMC”, Nara Prefectural Hospital, Nara, Nara, Japan, November 12, 2018.
37. **Visiting Professor**, “Introduction of Health Care Observation in the US”, Nara Prefectural Medical Center, Nara, Japan, November 13, 2018.
38. **Visiting Professor**, “Anesthesiology Residency Training System in UPMC”, Takaoka Saiseikai Hospital, Takaoka, Toyama, Japan, November 14, 2018.
39. **Visiting Professor**, “Introduction of Health Care Observation in the US”, Takaoka Saiseikai Hospital, Takaoka, Toyama, Japan, September 25, 2019.
40. **Visiting Professor**, “Anesthesiology Residency Training System in UPMC”, Toyama Prefectural Central Hospital, Toyama, Japan, September 26, 2019.
41. **Visiting Professor: Lecture Series**, University of Hawaii John A. Burns School of Medicine. Postgraduate Medical Education Program at Okinawa Prefectural Chubu Hospital, Uruma, Okinawa, Japan, November 4-8, 2019.
42. **Visiting Professor: Lecture Series**, “Anesthesiology Residency Training System in the US”, Yaeyama Hospital, Ishigaki, Okinawa, Japan, November 8, 2019.
43. **Visiting Professor**, “Residency Training System in the US”, Gifu University Hospital, Gifu, Japan, November 11, 2019.
44. **Visiting Professor**, “Liver Transplantation Anesthesia”, Jikei University Hospital, Tokyo, Japan, November 15, 2019.
45. **Visiting Professor**, Department of Anesthesiology, Vanderbilt University, Nashville, TN, May 21-22, 2020 (Accepted invitation) (***invited and scheduled, however canceled secondary to the COVID19 Pandemic***)
  - a. **Grand Rounds**: “Application of viscoelastic testing in the perioperative period: liver transplant, trauma, and beyond”, May 22, 2020.

- b. **Resident Problem-Based Learning Discussion:** “Management of living donor liver transplantation”, May 21, 2020.
  - c. **Faculty Workshop:** “Improving an Environment of Inquiry: Facilitation of Residents Scholarly Activity”, May 21, 2020.
46. **Visiting Professor,** “Liver Transplantation Anesthesia”, Akita University Hospital, Akita, Japan, September 1, 2020. (*invited and scheduled, however canceled secondary to the COVID19 Pandemic*)
  47. **Visiting Professor,** “Liver Transplantation Anesthesia”, Toyama Prefectural Central Hospital, Toyama, Japan, September 2, 2020. (*invited and scheduled, however canceled secondary to the COVID19 Pandemic*)
  48. **Visiting Professor,** “Residency Training System in the US”, Takaoka Saiseikai Hospital, Takaoka, Toyama, Japan, September 3, 2020. (*invited and scheduled, however canceled secondary to the COVID19 Pandemic*)
  49. **Visiting Professor,** “Liver Transplantation Anesthesia”, Tokyo Women’s University Hospital, Tokyo, Japan, September 10, 2020. (*invited and scheduled, however canceled secondary to the COVID19 Pandemic*)

#### Invited Lectures:

##### *National & International*

1. **Invited Lecturer** (case report discussion), “Reperfusion Confusion 1”, The International Liver Transplantation Society / American Society of Anesthesiologists, “Perioperative Care in Liver Transplantation” Meeting, Orlando, FL, October 19, 2008.
2. **Invited Lecturer,** “Coagulation in Liver Transplantation”, The International Liver Transplantation Society / American Society of Anesthesiologists, “Perioperative Care in Liver Transplantation” Meeting, New Orleans, LA, October 18, 2009.
3. **Invited Lecturer,** “Medical specialty training system in USA vs. in Japan: Emergency medicine”, Nara Medical Association, Kashihara, Nara, Japan, October 28, 2013.
4. **Invited Lecturer,** “Enhancing Research in Residency Programs”, Research in Residency Meeting, The Association of American Medical Colleges (AAMC), Washington, DC, May 28, 2015.
5. **Invited Lecturer,** Featured Symposium: Perioperative Management Controversies; Expert Opinion Debate: “Can TEE Replace the PA Catheter (CON)”, The 21<sup>st</sup> Annual Meeting of the International Liver Transplantation Society, Chicago, IL, July 8-11, 2015.
6. **Invited Lecturer,** Featured Symposium: Coagulation – Current Understanding and Management “Thrombotic Complications – Intraop Focus”, The 22<sup>nd</sup> Annual Meeting of the International Liver Transplantation Society, Seoul, South Korea, May 4-7, 2016.
7. **Invited Lecturer,** “Introducing Residents to Liver Transplantation Anesthesia using Simulation Training”. The 60th Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
8. **Invited Lecturer,** “Pulmonary Thromboembolism during Liver Transplantation - What Transplant Anesthesiologists Should Know”. The 94th Annual Scientific Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
9. **Invited Lecturer,** “Multimodal analgesia for liver surgery/liver transplantation”, The International Liver Transplantation Society / American Society of Anesthesiologists, “Perioperative Care in Liver Transplantation” Meeting, San Francisco, CA, October 12, 2018.
10. **Invited Lecturer,** “What is Perioperative Surgical Home (PSH)?”. The 95th Annual Scientific Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 8-10, 2018.
11. **Invited Lecturer,** “Initiation of ERAS at an academic center - UPMC Experience”. The 95th Annual Scientific Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 8-10, 2018.
12. **Invited Lecturer,** “Live Liver Transplantation in the US”. The 95th Annual Scientific Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 8-10, 2018.
13. **Invited Lecturer,** “Veno-Venous Bypass – When should I be Using it”. The Second Annual Tristate Regional Liver Transplant Anesthesiology Conference, NYC, NY, February 2, 2019.
14. **Invited Lecturer,** “Liver Transplantation Anesthesiology: how to train anesthesiology residents in UPMC”, The 66<sup>th</sup> Annual Meeting of the Japanese Society of Anesthesiologists, Kobe, Japan, May 31, 2019.
15. **Invited Lecturer,** “Anesthesiology residency education system in the US”, The 24th Annual Meeting of the Japanese Society of Cardiovascular Anesthesiologists, Kyoto, Japan, September 20, 2019.

16. **Invited Lecturer**, "TBA". The 97th Annual Scientific Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 5-7, 2020.

### *Regional*

1. **Invited Lecturer**, McGowan Institute of Artificial Organs, Pittsburgh, PA. "Cell Transplantation and Tissue Engineering in Cardiac Disease", August 24, 2001.
2. **Invited Lecturer**, Thomas E. Starzl Transplantation Institute, Pittsburgh, PA. "Cell Transplantation and Tissue Engineering for Cardiac Regeneration", September 24, 2001.
3. **Invited Lecturer**, Division of Cardiothoracic Surgery, Department of Surgery, University of Pittsburgh, PA. "Cell Transplantation and Tissue Engineering for Cardiac Regeneration", January 30, 2002.
4. **Invited Lecturer**, Anesthetic and Perioperative Complications: Management & Treatment, (Sponsored by UPMC, Department of Anesthesiology). "Complications following Venovenous Bypass in Liver transplantation" Cancun, Mexico, February 15-18, 2007.
5. **Invited lecturer**, Highlight of Current Research in Anesthesiology, Applied Research Principles, Department of Anesthesiology Research Training Symposium, Peter M. Winter Institute for Simulation Education & Research, University of Pittsburgh, Pittsburgh, PA. "How stem cells protect remote regions of brain from ischemic damage", August 23, 2008.
6. **Invited Lecturer**, "Two Major Complications during Liver Transplantation: Pulmonary Thromboembolism and Catheter Related Complication", Mortality and Morbidity Rounds, Department of Anesthesiology, Veterans Administration Hospital, Pittsburgh, PA, April 28, 2010.
7. **Invited Lecturer**, "Pulmonary Thromboembolism in Liver Transplantation", The 7<sup>th</sup> annual UPMC Regional Anesthesia & Ultrasound Guided Techniques Conference: Update in Acute & Chronic Pain and Liver Transplantation Anesthesiology, Farmington, PA, April 9-10, 2011.
8. **Invited Lecturer**, "Coagulation Issue in Liver Transplantation", The 8<sup>th</sup> annual UPMC Regional Anesthesia & Ultrasound Guided Techniques Conference: Update in Acute & Chronic Pain and Liver Transplantation Anesthesiology, Farmington, PA, April 20-21, 2012.
9. **Invited Lecturer**, "Cardiovascular Issue in Liver Transplantation", The 8<sup>th</sup> annual UPMC Regional Anesthesia & Ultrasound Guided Techniques Conference: Update in Acute & Chronic Pain and Liver Transplantation Anesthesiology, Farmington, PA, April 20-21, 2012.
10. **Invited lecturer**, The 2nd Perioperative and Critical Care Monitoring Conference and Workshops, UPMC Herberman Conference Center, Pittsburgh, PA. September 6-7, 2014. "Thromboelastography versus thromboelastometry".
11. **Invited lecturer**, The 11th Annual UPMC Regional Anesthesia & Ultrasound Guided Techniques Conference: Update in Acute & Chronic Pain and Liver Transplantation Anesthesiology at Nemaquin Woodlands Resort, Farmington, Pennsylvania. April 18-19, 2015. "Thromboelastography versus thromboelastometry in Liver Transplantation"
12. **Invited Lecturer**, "UPMC Scholarly Activity Review", Annual Educational Retreat, Department of Anesthesiology, University of Pittsburgh, September 12, 2015.
13. **Invited lecturer**, The 3rd Annual UPMC Anesthesiology Symposium and the Society for the Advancement of Transplantation Anesthesiology Meeting, UPMC Herberman Conference Center, Pittsburgh, PA. September 26-27, 2015. "Paravertebral vs. epidural analgesia for liver resection"
14. **Invited lecturer**, "Authorship Conflict", the Engineering Graduate Student Organization (EGSO) Seminar, Pittsburgh, PA, January 9, 2018.
15. **Invited lecturer**, "Facilitation of Resident Scholarly Activity – Experience at UPMC Department of Anesthesiology", Med Ed Research Meeting, Pittsburgh, PA, January 18, 2019.

### **Problem-Based Learning Discussions:**

### *National & International*



1. **Author and Moderator**, 2009 ASA Problem-Based Learning Discussions, “Pulmonary Embolism during Liver Transplantation in a Patient with Fulminant Hepatic Failure” in the 104<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 17-21, 2009.
2. **Author**, 2010 ASA Problem-Based Learning Discussions, “Pulmonary Embolism during Liver Transplantation in a Patient with Fulminant Hepatic Failure” in the 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
3. **Author and Moderator**, 2011 ASA Problem-Based Learning Discussions, “A Clinical Trial Guide for Residents and Junior Faculty - from Concept to Publication” in the 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.
4. **Author and Moderator**, 2012 ASA Problem-Based Learning Discussions, “A Clinical Trial Guide for Residents and Junior Faculty - from Concept to Publication” in the 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
5. **Author and Moderator**, Problem-Based Learning Discussions, “Hemodynamic and Coagulation Derangements during Liver Transplantation in an Adult Patient with Acute Liver Failure”. The 60<sup>th</sup> Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.

### Workshops:

#### *National & International*

1. **Faculty Leader: Sakai T**, Hopf HW, Metro DG, Emerick TD. “How to Improve Resident Scholarly Activity in Your Department”, Society for Education in Anesthesia 27<sup>th</sup> Annual Meeting, Milwaukee, WI, June 1-3, 2012.
2. **Faculty Leader: Sakai T**, Hopf HW, Metro DG, Emerick TD. “How to Improve Resident Scholarly Activity in Your Department”, Society for Education in Anesthesia 28<sup>th</sup> Annual Meeting, Salt Lake City, UT, May 31 - June 2, 2013.
3. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, February 28, 2014.
4. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, January 15, 2015.
5. **Faculty Leader: Sakai T**. Patel, RM. “Enhancing Research in Residency Programs”, Single Institution Breakout session, Research in Residency Meeting, The Association of American Medical Colleges (AAMC), Washington, DC, May 28, 2015.
6. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, February 22, 2016.
7. **Faculty Leader: Deutsch N, Sakai T, Reddy S, Hastie M**. “Writing Abstracts 201: How to Make Your Education Research Abstract Stand Out from the Rest”, The 2016 Spring Annual Meeting of the Society of Education in Anesthesia. Baltimore, MD, June 3-4, 2016.
8. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, April 5, 2017.
9. **Faculty Leader: Deutsch N, Sakai T, Reddy S, Hastie M**. “Writing Abstracts 201: How to Make Your Education Research Abstract Stand Out from the Rest”, The 2017 Spring Annual Meeting of the Society of Education in Anesthesia. Jacksonville, FL, April 28, 2017.
10. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, April 5, 2018.
11. **Faculty Leader: Sakai T, Lim KG, Ku C, Deutsch N**. “Idea to Grant – Toward the Successful Application for Educational Grant”, The 2018 Spring Annual Meeting of the Society of Education in Anesthesia. Louisville, KY, April 21, 2018.

#### *Regional*

1. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, February 28, 2014.
2. **Faculty Leader: Sakai T**. “Authorship Conflict”, Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, January 15, 2015.

3. **Faculty Leader: Sakai T.** "Authorship Conflict", Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, February 22, 2016.
4. **Faculty Leader: Sakai T.** "Authorship Conflict", Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, April 5, 2017.
5. **Faculty Leader: Sakai T.** "Authorship Conflict", Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, April 5, 2018.
6. **Faculty Leader: Sakai T.** "Authorship Conflict", Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, March 6, 2019.

**Session Chair/Moderator:**

*National & International*

1. **Poster Session Judge/Moderator**, Society for Education in Anesthesia 27<sup>th</sup> Annual Meeting, Milwaukee, WI, June 1-3, 2012.
2. **Poster Session Judge/Moderator**, The 3<sup>rd</sup> Annual Multi-Departmental Trainees' Research Day, Pittsburgh, PA, June 27, 2012.
3. **Oral Original Abstract Presentation Judge**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013.
4. **Poster Session Judge/Moderator**, Society for Education in Anesthesia 28<sup>th</sup> Annual National Meeting, Salt Lake City, Utah, May 31 - June 2, 2013.
5. **Poster Session Judge/Moderator**, Society for Education in Anesthesia 29<sup>th</sup> Annual National Meeting, Boston, MA, May 30 - June 1, 2014.
6. **Poster Session Judge/Moderator**, Society for Education in Anesthesia 30<sup>th</sup> Annual National Meeting, Seattle, WA, May 24 – 26, 2015.
7. **Poster Original Abstract Presentation Judge**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 9, 2015.
8. **Poster Session Moderator**, The International Anesthesia Research Society, 2016 Annual Meeting, San Francisco, CA, May 21 – 24, 2016.
9. **Oral Presentation Session Co-Chair**, Society for Education in Anesthesia 31<sup>th</sup> Annual National Meeting, Baltimore, MD, June 3-5, 2016.
10. **Poster Session Moderator**, Society for Education in Anesthesia 31<sup>th</sup> Annual National Meeting, Baltimore, MD, June 3-5, 2016.
11. **Oral Presentation Session Co-Chair**, The 2017 Spring Annual Meeting of the Society of Education in Anesthesia. Jacksonville, FL, April 28, 2017.
12. **Poster Session Moderator**, The International Anesthesia Research Society, 2017 Annual Meeting, Washington DC. May 4-6, 2017.
13. **Oral Session Chair**, Transplant Anesthesia. The 60<sup>th</sup> Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
14. **Oral Session Chair**, Patient Blood Management. The 60<sup>th</sup> Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
15. **Oral Research Abstract Presentation Session Co-Chair**, The 2018 Spring Annual Meeting of the Society of Education in Anesthesia. Louisville, KY, April 21, 2018.
16. **Oral Research & Curriculum Abstract Presentation Session Judge**, The 2018 Spring Annual Meeting of the Society of Education in Anesthesia. Louisville, KY, April 21, 2018.
17. **Oral Research & Curriculum Abstract Presentation Session Co-Chair**, The 2019 Spring Annual Meeting of the Society of Education in Anesthesia. Denver, CO, April 26-28, 2019.

*Regional*

1. **Poster Session Judge/Moderator**, The 3<sup>rd</sup> Annual Multi-Departmental Trainees' Research Day, Pittsburgh, PA, June 27, 2012.

2. **Oral Original Abstract Presentation Judge**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013.
3. **Poster Original Abstract Presentation Judge**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 9, 2015.
4. **Poster Abstract Presentation Judge**, The 2019 GME Leadership Conference, University of Pittsburgh Medical Center, Pittsburgh, PA, February 22, 2019.

#### Lectures to the Medical Students:

1. **Faculty Facilitator**, the Integrated Case Studies and Medical Decision-Making Course (ICS Course) for MS-II (Class of 2012), University of Pittsburgh, (Case 1: March 1-3; Case 3: March 8-9; Case 6: March 18-19), March, 2010.

#### Lectures to the Residents:

1. **Lecturer**, Lecture series to residents at Tenri Hospital, Nara, Japan, "Diagnosis and Management in Cardiovascular Surgery" 20 residents (PGY1-2) attended, December 12, 1995.
2. **Lecturer**, Lecture series to residents at Tenri Hospital, Nara, Japan, "How to write case reports in English", 20 residents (PGY1-2) attended, March 15, 1996.
3. **Lecturer**, CA2 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities – Part 2 – Basic Research", (10 PGY3 resident attended), September 19, 2005.
4. **Lecturer**, CA2 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Grantsmanship– Part 2 – Basic Research", (6 PGY3 resident attended), September 18, 2006.
5. **Lecturer**, CA2 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Grantsmanship– Part 2 – Basic Research", (6 PGY3 resident attended), September 10, 2007.
6. **Instructor**, Anesthesia Residents Fiberoptic Bronchoscopy class at WISER (Peter M. Winter Institute for Simulation, Education, and Research), (4 PGY2 residents attended), March 4, 2008.
7. **Instructor**, Anesthesia Residents Fiberoptic Bronchoscopy class at WISER (Peter M. Winter Institute for Simulation, Education, and Research), (5 PGY2 residents attended), March 11, 2008.
8. **Lecturer**, CA2 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research", (7 PGY3 residents attended), September 9, 2008.
9. **Instructor**, Anesthesia Residents Fiberoptic Bronchoscopy class at WISER (Peter M. Winter Institute for Simulation, Education, and Research), (3 PGY2 residents attended), March 6, 2009.
10. **Instructor**, Anesthesia Residents Fiberoptic Bronchoscopy class at WISER (Peter M. Winter Institute for Simulation, Education, and Research), (4 PGY2 residents attended), March 10, 2009.
11. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", (13 PGY2 residents attended), July 21, 2009.
12. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research", (14 PGY3 residents attended), September 8, 2009.
13. **Author and Moderator**, Resident Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, November 5 and November 12, 2009. "Research PBLD (version 2009)" (56 residents attended).
14. **Lecturer**, PGY4 resident oral board lecture series, Department of Anesthesiology, University of Pittsburgh, "Liver Oral Board & What I Wish I Knew in 2007", May 19, 2010.
15. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 4, 2010.
16. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research" September 7, 2010
17. **Author and Moderator**, Resident Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, September 23 and September 30, 2010. "Research PBLD (version 2010)" (60 residents attended).
18. **Faculty Supervisor**, PGY4 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Key Word Session: hepato-renal issues" April 6, 2011.

19. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 4, 2011.
20. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh. "Introduction to Scholarly Activities: Research". June 20, 2011.
21. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research" September 6, 2011.
22. **Author and Moderator**, Resident Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, September 22 and September 29, 2011. Research PBLD "Return to the Basics: How to Study and Publish Case Reports and Retrospective Case Series" (version 2011)" (60 residents attended).
23. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 20, 2012.
24. **Lecturer**, PGY2 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", July 3, 2012.
25. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research", September 4, 2012.
26. **Author and Moderator**, Resident Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, September 6 and September 13, 2012. Research PBLD "How to Study and Publish a Case Report and a Retrospective Case Study" (version 2012)" (59 residents attended).
27. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 18, 2013.
28. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 2, 2013.
29. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research", September 3, 2013.
30. **Author and Moderator**, Research Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, September 19 and September 26, 2013.
31. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 17, 2014.
32. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 4, 2014.
33. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities: Research", September 2, 2014.
34. **Lecturer**, PGY4 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Evidence Based Medicine", September 10, 2014.
35. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", September 23, 2014.
36. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to scholarly activity and Pittsburgh Experience", September 23, 2014.
37. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", September 23, 2014.
38. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Shadowing of resident research rotation activity", September 24, 2014.
39. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Clinical research – 1: Introduction of UPMC researchers", September 25, 2014.
40. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Basic research laboratory tour", September 26, 2014.
41. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Shadowing of resident research rotation activity", October 1, 2014.
42. **Author and Moderator**, Research Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, September 25 and October 2, 2014.
43. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "What makes a good medically challenging case", October 7, 2014.

44. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "ASA meeting reflection", October 17, 2014.
45. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Alumni Panel Discussion: experience of UPMC Anesthesiology resident research rotation", October 17, 2014.
46. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Final sessions of APP rotation", October 17, 2014.
47. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 18, 2015.
48. **Lecturer**, PGY2 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", July 6, 2015.
49. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 4, 2015.
50. **Lecturer**, PGY4 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Evidence Based Medicine", September 16, 2015.
51. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", October 5, 2015.
52. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", October 12, 2015.
53. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", October 12, 2015.
54. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to scholarly activity and Pittsburgh Experience", October 20, 2015.
55. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Basic research laboratory tour", October 20, 2015.
56. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Final sessions of APP rotation", October 22, 2015.
57. **Author and Moderator**, Liver Transplantation Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, April 14 and April 21, 2016.
58. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 20, 2016.
59. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 5, 2016.
60. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Evidence Based Medicine", September 6, 2016.
61. **Lecturer**, PGY4 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Evidence Based Medicine", September 7, 2016.
62. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", October 3, 2016.
63. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to clinical research", October 3, 2016.
64. **Author and Moderator**, Research Problem-Based Learning Discussion, Department of Anesthesiology, University of Pittsburgh, October 6 & 13, 2016.
65. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", October 10, 2016.
66. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", October 10, 2016.
67. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Basic research laboratory tour", October 18, 2016.
68. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: Is it worthwhile to take additional degrees?", October 20, 2016.
69. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Final sessions of APP rotation", October 28, 2016.

70. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, November 1, 2016.
71. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, November 29, 2016.
72. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, January 4, 2017.
73. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, January 31, 2017.
74. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Statistics", March 6, 2017.
75. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities and APP rotation", June 21, 2017.
76. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 7, 2017.
77. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, August 8, 2017.
78. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Evidence Based Medicine", September 5, 2017.
79. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, September 6, 2017.
80. **Moderator**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, September 21, 2017.
81. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", October 16, 2017.
82. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to clinical research", October 16, 2017.
83. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: Is it worthwhile to take additional degrees? MPH vs. MBA vs. MHA vs. MSc", October 17, 2017.
84. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Basic research laboratory tour", October 18, 2017.
85. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", October 27, 2017.
86. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", October 27, 2017.
87. **Instructor**, PGY4 Liver rotation simulation, Department of Anesthesiology, University of Pittsburgh, December 5, 2017.
88. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities and APP rotation", June 21, 2018.
89. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Hepatic physiology and anesthesia", August 3, 2018.
90. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Evidence Based Medicine", September 4, 2018.
91. **Moderator**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, September 20, 2018.
92. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", September 24, 2018.
93. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to clinical research", September 24, 2018.
94. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Basic research laboratory tour", September 24, 2018.
95. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", September 25, 2018.

96. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", September 25, 2018.
97. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: Is it worthwhile to take additional degrees? MPH vs. MBA vs. MHA vs. MSc", October 3, 2018.
98. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, "Hepatic physiology and anesthesia", February 4, 2019.
99. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities and APP rotation", June 19, 2019.
100. **Lecturer**, PGY3 resident lecture series, Department of Anesthesiology, University of Pittsburgh, "Introduction to Evidence Based Medicine", September 3, 2019.
101. **Moderator**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, September 21, 2019.
102. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", September 30, 2019.
103. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to clinical research", September 30, 2019.
104. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", September 30, 2019.
105. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", September 30, 2019
106. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Academic pathway for anesthesiologists", October 4, 2019.
107. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: Is it worthwhile to take additional degrees? MPH vs. MBA vs. MHA vs. MSc", October 8, 2019.
108. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Final Presentation sessions", October 25, 2019.
109. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Rotation feedback session", October 25, 2019.
110. **Moderator**, Grand Round, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine, "Resident Research Presentations", April 16, 2020.
111. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, "Hepatic physiology and anesthesia", TBA.
112. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities and APP rotation", TBA.
113. **Moderator**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, TBA.
114. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", TBA.
115. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to clinical research", TBA.
116. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", TBA.
117. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", TBA
118. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Academic pathway for anesthesiologists", TBA.
119. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: Is it worthwhile to take additional degrees? MPH vs. MBA vs. MHA vs. MSc", TBA.
120. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Final Presentation sessions", TBA.

121. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, “APP Rotation feedback session”, TBA.

#### **Lectures to the Fellows:**

1. **Lecturer**, Cardiac anesthesiology Fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, September 6, 2012.
2. **Lecturer**, Pain fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, September 13, 2012.
3. **Lecturer**, Pain fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, September 11, 2013.
4. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 7, 2013.
5. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 14, 2013.
6. **Lecturer**, Pain fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, September 10, 2014.
7. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 6, 2014.
8. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 6, 2014.
9. **Lecturer**, Chronic Pain anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, September 2, 2015.
10. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, October 14, 2015.
11. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 5, 2015.
12. **Lecturer**, Chronic Pain anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, August 31, 2016.
13. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 5, 2016.
14. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, March 1, 2017.
15. **Lecturer**, Chronic Pain anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, August 31, 2017.
16. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 5, 2017.
17. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, March 1, 2018.
18. **Lecturer**, Chronic Pain anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, August 8, 2018.
19. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 5, 2018.
20. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, March 1, 2019.
21. **Lecturer**, Chronic Pain anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, August 8, 2019.
22. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, November 5, 2019.
23. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, TBA.
24. **Lecturer**, Chronic Pain anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, “Research Methodology/Statistical Analysis”, TBA.



25. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, "Research Methodology/Statistical Analysis", TBA.

#### **Lectures to the Faculty:**

1. **Lecturer**, Cardiac Surgery Teaching Rounds, Division of Cardiovascular Surgery, The Toronto Hospital, Toronto, Canada. "Low output syndrome after open heart surgery", 20 physicians attended [Staff Surgeons, Clinical fellows, Residents (PGY1-5)], October 15, 1997.
2. **Lecturer**, Cardiac Surgery Teaching Rounds, Division of Cardiovascular Surgery, The Toronto Hospital, Toronto, Canada. "Renal failure after open heart surgery", 20 physicians attended [Staff Surgeons, Clinical fellows, Residents (PGY1-5)], March 10, 1998.
3. **Lecturer**, Cardiology and Cardiovascular Surgery Combined Rounds, The Toronto Hospital, Toronto, ON, Canada. "Atrial Cell Transplantation", March 12, 1999.
4. **Lecturer**, Cardiology and Cardiovascular Surgery Combined Rounds, The Toronto Hospital, Toronto, ON, Canada. "Heart cell transplantation: a comparison of three cell types", June 4, 1999.
5. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Incidence and morbidity of peri-operative pulmonary aspiration", 30 physicians attended [Staff anesthesiologists, Residents (PGY1-4)], September 22, 2004.
6. **Lecturer**, Grand Rounds Presentation, Department of Anesthesiology, University of Pittsburgh, "Intravenous Injection of a Drag Reducing Polymer Extracted from Aloe Vera Prolonged Survival in a Rat Model of Acute Myocardial Ischemia", October 20, 2005.
7. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Postoperative Hypotension: An elderly woman developed profound hypotension in PACU after an uneventful same-day cystoscopic procedure", January 18, 2006.
8. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Fatal rhabdomyolysis post redo OLT - a case review", June 28, 2006.
9. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Sudden onset of hypotension & tachycardia during lumbar spine surgery", December 20, 2006.
10. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Airway edema and use of dexamethasone", January 10, 2007.
11. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Perioperative pulmonary aspiration: 2 cases with status post esophagectomy", August 29, 2007.
12. **Lecturer**, Grand Rounds, Department of Anesthesiology, University of Pittsburgh. "Incidence and outcome of cardiac arrest during adult orthotopic liver transplantation", October 4, 2007.
13. **Lecturer**, Weekly Laboratory Meeting (Xu Lab: Department of Anesthesiology and Department of Pharmacology, University of Pittsburgh. "How stem cells protect remote regions of brain from ischemic damage", March 3, 2008.
14. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Pulmonary embolism during liver transplantation", July 16, 2008.
15. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Perioperative Pulmonary Aspiration: Review of six cases in 2008 at PUH/MUH", April 15, 2009.
16. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Cardiac Arrest after Induction of General Anesthesia of a Patient Undergoing Lung Volume Reduction Surgery", June 17, 2009.
17. **Lecturer**, Weekly Laboratory Meeting (Xu Lab: Department of Anesthesiology and Department of Pharmacology, University of Pittsburgh. "Stem Cells Decreased Neuronal Cell Death after Hypoxic Stress in Primary Fetal Rat Neurons", August 17, 2009.
18. **Lecturer**, Grand Rounds, Department of Anesthesiology, University of Pittsburgh. "Pulmonary embolism during liver transplantation", January 28, 2010.
19. **Lecturer**, Resident Education Committee, Department of Anesthesiology, University of Pittsburgh. "Authorship Considerations: For a happy mentor-mentee relationship", March 9, 2010.
20. **Lecturer** (with Brian Bane, MD), Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Left Internal Jugular Venous Injury during Orthotopic Liver Transplantation", March 10, 2010.

21. **Lecturer** (with Kristin Schreiber, MD, PhD), Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Blood Transfusion in Cancer Patients for Curative Resection - Transfusion related immunomodulation and its association with cancer recurrence", May 19, 2010.
22. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Sudden onset of hypotension & tachycardia during lumbar spine surgery", August 11, 2010.
23. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "High Cardiac Risk Patients for Elective Non-Cardiac Surgeries: When is the Risk Too High?", February 16, 2011.
24. **Lecturer**, Grand Rounds, Department of Anesthesiology, University of Pittsburgh. "How can we promote research activity by anesthesiology residents?", April 26, 2012.
25. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Intraoperative Death of a 63 y.o. Man with HCC/ESLD who underwent Laparoscopic Radiofrequency Ablation", July 18, 2012.
26. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Severe pulmonary hypertension for non-cardiac surgeries", September 19, 2012.
27. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, "Reintubation at TICU Post Kidney- Pancreas Transplantation", July 13, 2016.
28. **Lecturer**, Mortality and Morbidity Rounds, Starzl Transplant Institute, University of Pittsburgh, "Intraoperative Death of a 52 y.o Male Undergoing Redo LTX: Portopulmonary hypertension + HOCM (post septal ablation) + PPM + MAC", September 12, 2017.
29. **Lecturer**, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh Medical Center, "Intraoperative Death of a 52 y.o Male Undergoing Redo LTX: Portopulmonary hypertension + HOCM (post septal ablation) + PPM + MAC", September 27, 2017.

#### **Lectures for Continuing Medical Education Activities:**

1. **Lecturer**, A comprehensive Review of Anesthesiology, CMEinfo.com review course lecture, (DVD Recording), Department of Anesthesiology, University of Pittsburgh. "Physics & Statistics", June 14, 2007.
2. **Lecturer**, A comprehensive Review of Anesthesiology, CMEinfo.com review course lecture, Department of Anesthesiology, University of Pittsburgh. Omni Hotel, Pittsburgh, PA. "Physics & Statistics", May 15, 2008.
3. **Lecturer**, A comprehensive Review of Anesthesiology, CMEinfo.com review course lecture, Department of Anesthesiology, University of Pittsburgh. Renaissance Pittsburgh Hotel, Pittsburgh, PA, "Physics & Statistics", April 24, 2009.
4. **Lecturer**, A comprehensive Review of Anesthesiology, CMEinfo.com review course lecture, Department of Anesthesiology, University of Pittsburgh. Pittsburgh, PA, "Physics & Statistics", April 15, 2010.
5. **Lecturer**, A comprehensive Review of Anesthesiology, CMEinfo.com review course lecture, Department of Anesthesiology, University of Pittsburgh. Pittsburgh, PA, "Physics & Statistics", March 10, 2011.
6. **Lecturer (Recording)**, A comprehensive Review of Anesthesiology, CMEinfo.com review course lecture, Department of Anesthesiology, University of Pittsburgh. Pittsburgh, PA, "Physics & Statistics", March 15, 2012.
7. **Lecturer (Recording)** "Physics, Monitoring, and Anesthesia Delivery Devices (Basic Topics in Anesthesiology)", Focused Board Review (BASIC and ADVANCED), CMEinfo.com, Oakstone Publishing, A.D.A.M. Education, Ebix, Inc. Atlanta, GA. June 7, 2015.

#### **Service on Ph.D. Committees:**

1. **Panelist**, University of Pittsburgh MSTP program's annual residency seminar (MD, PhD students at University of Pittsburgh), September 15, 2005.

#### **Supervision of Anesthesiology Residents (University of Pittsburgh School of Medicine) as the Director, Resident Research Rotation:**

Class 2008: Del Rio, Mauricio; Horton, Charles; Nicolau-Raducu, Ramona, Venkataramanapa, Vani  
 Class 2009: Campbell, Neal; Eklund, Jamey; Rao, Vidya; Wu, Xianren  
 Class 2010: El-Baghdadi, Mariam; Ibinson, James; Kolarczyk, Lavinia; Ley, Ted; Mathai, Koshy; Scouras, Nicole

Class 2011: Ball, Ryan; Blasiolo, Brian; Lang, Robert; Lin, Charles; Lischner, Mark; Phillips, Dennis  
 Class 2012: Barrett, Katie; Gierl, Brian; Hibbard, Kevin; Jayaraman, Arun; Knizner, Tara; Manrique, Ana Maria; Schreiber, Kristin; Silipo, Anthony  
 Class 2013: Henao, John; McHugh, Stephen; Peperzak, Katherin; Resti, Joseph; Shah, Pranav; Singh, Sukhdip  
 Class 2014: Berry, Scott; Damian, Daniela; DeChancie, Sean; Emerick, Trent; Harika, Ricky; Lonchena, Tiffany; Ross, Scott; Phillip Adams  
 Class 2015: DeVore, Julie; Hackett, Patrick; Li, Pulsar; Rajipal, Gaurav; So, Sokpoleak; Vogt, Keith; Konig, Gerhardt  
 Class 2016: Konig, Gerhardt; Bunting, Bryant; Clary, Andrew; D'Souza, Adam; Howson, Christopher; Nguyen, Ngoc; Schott, Nicholas; Wise, Eric; Yui, David  
 Class 2017: Cassavaugh MD PhD, Jessica; Cho MD, Youngeun; Cohen MD, Meghan; Cohen MD, Zachary; Garbee DO, Courtney; Hodge MD, Melanie; Hubbard MD, Richard; Knight MD, Joshua; Nelson MD MBA, David; Pool MD, Rachel; Sandusky MD, Daniel; Stollings MD, Lindsay; Abuelkasem MBBCh, Ezeldeen; Schnetz MD PhD, Michael  
 Class 2018: Abuelkasem MBBCh, Ezeldeen; Carpenter MD, Anna; Garbee DO, Courtney; DeAndrade MD, Diana; Dressler MD, Alex; Mandell MD, Daniel; Tran MD, Lieu; Ungerman MD, Elizabeth; Verdecchia MD, Nicole  
 Class 2019: Abraham, Jonah; Carullo, Phillip; Ibarra, Andrea; Lebovitz, Evan; Staub, Brandon  
 Class 2020: Adams, Douglas; Hahn, Lindsay; Lazar, Sofiane; McDermott, Sean; Smith, C. Tyler; Hickey, Sergio  
 Class 2021: Duque MD, Melissa Giraldo; Hickey MD, Sergio; Molzahn MD, Christian; Shah MD, Neal; Wang MD, David; Schnetz MD PhD, Michael; McNulty, Christopher, MD

### Supervision of International Observers:

#### YR-2015

1. **Toyama Prefectural Central Hospital**, Toyama, Japan: Masakazu Saeki, MD, Daiki Hashimuko, MD, Takeo Tanaka, MD, Yuji Takaso, MD, September 7 – 11, 2015
2. **Faculty of Medicine, Kobe University**, Hyogo, Japan: Takuya Okada, MD, September 7 – October 2, 2015
3. **Toyama Prefectural Central Hospital**, Toyama, Japan: Hiroko Yagi, MD, Shiori Miyamoto, MD, Aoki Tatsuya, MD, October 12 – 16, 2015

#### YR-2016

1. **Faculty of Medicine**, University of Tsukuba: Yasuhiro Nagano (MS3), May 30 - June 10, 2016
2. **Faculty of Medicine, Okayama University**, Okayama, Japan: Chihiro Ishikawa (MS3), June 13 - 24, 2016
3. **Faculty of Medicine, Kobe University**, Hyogo, Japan: Midori Yamawaki, MD, September 26 to October 7, 2016
4. **Toyama Prefectural Central Hospital**, Toyama, Japan: Tatsukuni Ooga, MD, Ayaka Nakai, MD, Tatsuya Miyakoshi, MD, Tadayuki Hirai, MD. Shinichiro Mizutomi, MD, October 10 - 14, 2016.
5. **Tokyo Medical Dental College**, Tokyo, Japan: Sayaka Kawamura, MD, November 14 - 25, 2016

#### YR-2017

1. **Faculty of Medicine, Nihon University**, Tokyo, Japan: Rina Ueki (MS3), February 13 - February 17, 2017
2. **Faculty of Medicine, Okayama University**, Okayama, Japan: Hiroshi Watanabe (MS4), February 27 - March 3, 2017
3. **Toyama Prefectural Central Hospital**, Toyama, Japan: Yusuke Shinjo, MD, Naoki Yamamoto, MD, Yuta Suzuki, MD, August 7 – 10, 2017.
4. **Toyama Prefectural Central Hospital**, Toyama, Japan: Shoko Tanaka, MD, Mami Shimizu, MD, Maiko Honda, MD, August 28 – 31, 2017.
5. **Toyama Prefectural Central Hospital**, Toyama, Japan: Shotaro Kawase, MD, Atsushi Muto, MD, October 2 – 5, 2017

#### YR-2018

1. **Faculty of Medicine, Akita University**, Akita, Japan: Kana Shimoma (MS3) & Yuka Uetake (MS3), March 12 – March 23, 2018
2. **Faculty of Medicine, Kobe University**, Hyogo, Japan: Anna Yoshida (MS3), May 7 – 18, 2018
3. **Toyama Prefectural Central Hospital**, Toyama, Japan: Akane Yamaguchi, MD, Atsuko Tanaka, MD, Midori Nishie, MD, August 6 – 9, 2019
4. **Toyama Prefectural Central Hospital**, Toyama, Japan: Yuki Kitagawa, MD, Hirohiko Aikawa, MD, August 27 – 30, 2018
5. **Toyama Prefectural Central Hospital**, Toyama, Japan: Yuki Nemoto, MD, Syoutaro Nagaoka, MD, September 10 – 13, 2018
6. **Faculty of Medicine, Kobe University**, Hyogo, Japan: Michiyo Onishi, MD, December 17 – 21, 2018

#### YR-2019

1. **Toyama Prefectural Central Hospital**, Toyama, Japan: Haruka ARISAWA, MD, Daichi Yomogida, MD, January 21 – January 25, 2019
2. **Toyama Prefectural Central Hospital**, Toyama, Japan: Ryosuke Machi, MD, Yusuke Miya, MD, Hiroki Nomura, MD, February 4 – February 8, 2019
3. **Kansai Medical School**, Osaka, Japan: Satoshi Aihara, MD, February 7 - 13, 2019
4. **Faculty of Medicine, Akita University**, Akita, Japan: Young Ju Kim (MS3) & Ryosuke Yamada (MS3), March 4 – 15, 2019
5. **Faculty of Medicine, Okayama University**, Okayama, Japan: Manami Honda (MS3), April 15 – April 26, 2019
6. **Tenri Yorozu Hospital**, Nara, Japan: Yuki Aiyama, MD, July 15 – July 19, 2019
7. **Toyama Prefectural Central Hospital**, Toyama, Japan: Tomohiro Hori, MD, Shota Kodani, MD, Shota Tsurimoto, MD, September 30 – October 3, 2019
8. **Toyama Prefectural Central Hospital**, Toyama, Japan: Noritsugu Morita, MD, Tatsuhiro Araki, MD, Kosuke Satomura, MD, October 7 – 10, 2019
9. **Takaoka Saiseikai Hospital**, Toyama, Japan: Shu Mizuno, MD, Noriyasu Murata, MD, November 18 – November 22, 2019
10. **Toyama Prefectural Central Hospital**, Toyama, Japan: Hanae Taguchi, MD, Honami Teranishi, MD, December 2, 2019 – December 5, 2019
11. **Toyama Prefectural Central Hospital**, Toyama, Japan: Kyosuke Kawakami, MD, Naoto Nishida, MD, Takashi Yamamoto, MD, December 9 - 12, 2019
12. **Toyama Prefectural Central Hospital**, Toyama, Japan: Ko Kimoto, MD, Yo Sugimori, MD, Yuki Matsuoka, MD, December 16 –19, 2019

#### YR-2020

1. **Faculty of Medicine, Akita University**, Akita, Japan: Saki Kimura (MS3) & Takafumi Minato (MS3), March 2-13, 2020

#### Research Project Mentor of House Staff Physicians:

1. Mark Lischner, DO (Assistant Professor, Department of Anesthesiology, University of Pittsburgh Medical Center)
  - a. Schott NJ, Lischner M, Schott CK, McHugh S, Meng L, Orebaugh SL, **Sakai T** (corresponding). Developing an Anesthesiology Resident Curriculum for Focus-Assessed Transthoracic Echo Cardiac Examinations (The 29<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**)
  - b. Schott NJ, Lischner M, Schott CK, McHugh S, Meng L, Orebaugh SL, **Sakai T** (corresponding). Initial Evaluation of a New Teaching Curriculum of Focus-Assessed Transthoracic Echocardiographic

Examinations for Anesthesiology Residents (The 29<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**)

2. Charles Lin, MD (Assistant Professor, Department of Anesthesiology, University of Pittsburgh Medical Center)
  - a. Lin C (PI): Evaluation of stress response in anesthesiology practice May 2014.
  - b. Lin C, Metro DG, **Sakai T**. Stress Survey of Anesthesiology Residents. (The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015. **Oral presentation**).
3. Katherine Grace Lim, MD (Assistant Professor, Department of Anesthesiology, University of Pittsburgh Medical Center)
  - a. IRB PRO14050455 "Efficacy of an Epidural Anesthesia Workshop Curriculum for Milestone Achievement in Junior Anesthesiology Residents" (PI: Lim KG; Co-investigator: **Sakai T**) May 21, 2014.
  - b. Lim KG, Kroner R, Metro DG, **Sakai T**. Low-fidelity haptic simulation versus "mental imagery" training for epidural anesthesia technical achievement in novice anesthesiology residents: a randomized comparative study. (NYSSA 68<sup>th</sup> Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2014. **Poster presentation**) (The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015. **Oral presentation**).
  - c. Lim KG (PI), **Sakai T** (Mentor). Residents as Teachers: Effect of a Patient Education Strategy on Resident Self-Efficacy and Maternal Outcomes (The EDUCATE Study). The SEAd Grant (Society for Education in Anesthesia), 2016-2017.
4. Evan Lebovitz, MD (Instructor, Department of Anesthesiology, University of Pittsburgh Medical Center):
  - a. Lebovitz E, Nguyen VA, **Sakai T** (corresponding). Economic considerations in abdominal transplantation. Best Practice & Research Clinical Anaesthesiology (accepted for publication)

#### **Research Project Mentor of Post-Doctoral Fellows:**

1. Takashi Matsusaki, MD, PhD (Research Fellow, Department of Anesthesiology, University of Pittsburgh Medical Center; Assistant Professor, Department of Anesthesiology and Resuscitology, Okayama University, Okayama, Japan):
  - a. An abstract (poster) presentation: Matsusaki T, **Sakai T**, Boucek CD, Planinsic RM, Hilmi IA, Aggarwal S. Alternative Vascular Access in Patients Undergoing Small Bowel/Multivisceral Transplantation. Multi-Departmental Trainees' Research Day, Pittsburgh, PA, June 1, 2010.
  - b. An abstract (poster) presentation: Matsusaki T, **Sakai T**, Morimatsu H, Mizobuchi S, Morita K. Anesthesiology Resident Education in Okayama University Hospital, Japan. Society for Education in Anesthesia 25<sup>th</sup> Annual Meeting, Pittsburgh, PA, June 4-6, 2010.
  - c. An abstract (poster) presentation: Matsusaki T, **Sakai T**, Boucek CD, Hilmi IA, Planinsic RM, Aggarwal S. Alternative Vascular Access in Patients Undergoing Small Bowel/multivisceral Transplantation. The 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
  - d. A review paper: Matsusaki T, **Sakai T**. Introduction for Rapid Response System In: Fujitani S, ed. What is the rapid response system? LiSA (Life Support and Anesthesia). Medical Science International (Invited review: In Japanese) November 2010.
  - e. An abstract (oral) presentation: Matsusaki T, Hilmi, IA, Aggarwal, S, Boucek, CD, Planinsic, RM, Humar, A, **Sakai, T**. CARDIA ARREST DURING ADULT LIVER TRANSPLANTATION: INCIDENCDE, CAUSE, OUTCOME, AND RISK FACTORS. The 2011 Joint International Congress of ILTS, ELITA, & LICAGE, Valencia, Spain. June 22-25, 2011.
  - f. A review paper: Matsusaki T, **Sakai, T**. The Role of Certified Registered Nurse Anesthetists in the United States. Journal of Anesthesia. 25:734-40;2011.
  - g. An abstract (poster) presentation: Matsusaki T, Hilmi, IA, Aggarwal, S, Boucek, CD, Planinsic, RM, Humar, A, **Sakai, T**. CARDIA ARREST DURING ADULT LIVER TRANSPLANTATION: INCIDENCDE, CAUSE, OUTCOME, AND RISK FACTORS. The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.

- h. An abstract (poster) presentation: Matsusaki T, Hilmi, IA, Boucek, CD, Planinsic, RM, **Sakai, T**. Complications due to Invasive Hemodynamic Monitors used during Adult Liver Transplantation. The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.
  - i. A full manuscript publication: Matsusaki T, **Sakai T**, Boucek CD, Abu-Elmagd K, Martin LM, Amesur N, Thaete FL, Hilmi IA, Planinsic RM, Aggarwal S. Central Venous Thrombosis and Perioperative Vascular Access in Adult Intestinal Transplantation. *British Journal of Anaesthesia*. 108:776–83;2012.
  - j. A full manuscript publication: Schreiber KL, Matsusaki T, Bane BC, Bermudez CA, Hilmi IA, **Sakai T**. Accidental Insertion of a Percutaneous Veno-Venous Cannula into the Persistent Left Superior Vena Cava of a Patient Undergoing Liver Transplantation. *Canadian Journal of Anesthesia/Journal canadien d'anesthésie*. 58:646-9;2011.
  - k. A full manuscript publication: **Sakai T**, Matsusaki T, Abu-Elmagd K, Amesur N, Thaete FL, Zak MF, Aggarwal S. The role of ultrasonography in determining central venous patency in patients undergoing bowel transplantation. *Clinical Transplantation*. 26:E78–E83;2012.
  - l. A full manuscript publication: **Sakai T**, Matsusaki T, Dai, F, Tanaka, KA, Donaldson, JB, Hilmi, IA, Marsh, JW, Planinsic, RM, Humar, A. Pulmonary Thromboembolism during Adult Liver Transplantation: Incidence, Clinical Presentation, Outcome, and Risk Factors. *British Journal of Anaesthesia*. 108:469-77;2012.
  - m. An abstract (poster) presentation: Jayaraman AL, Matsusaki T, Chen Y-F, Fabio A, Planinsic RM, Humar A, **Sakai T**. Impact of graft type on the incidence of post reperfusion syndrome in liver transplantation (LT): A propensity score matched analysis between live donor LT versus deceased donor LT. The 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013.
  - n. An abstract (oral) presentation: Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Planinsic RM, **Sakai T**. Complications Related to Invasive Hemodynamic Monitoring during Adult Liver Transplantation. The 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013.
  - o. A full manuscript publication: Matsusaki T, Hilmi IA, Planinsic RM, Humar A, **Sakai T**. Cardiac Arrest during Adult Liver Transplantation: a Single Institution's Experience with 1,238 Deceased Donor Transplants. *Liver Transplantation*. 19:1262-71;2013.
  - p. Lu SY, Matsusaki T (equal first), Abuelkasem E, Sturdevant ML, Humar A, Hilmi IA, Planinsic RM, **Sakai T**. Complications Related to Invasive Hemodynamic Monitors during Adult Liver Transplantation. *Clinical Transplantation*. 27:823-8;2013.
2. Makiko Tani, MD, PhD (Research Fellow, Department of Anesthesiology, University of Pittsburgh Medical Center; Assistant Professor, Department of Anesthesiology and Resuscitology, Okayama University, Okayama, Japan):
    - a. Tani M, Smith JD, **Sakai T** (corresponding). Global Overview of Anesthesiology Certification and Practice - a Survey Study. (The Association of University Anesthesiologists 64th Annual Meeting, Washington, DC, May 4-5, 2017. **Poster presentation**) (The 2017 Annual Meeting and International Science Symposium of the International Anesthesia Research Society, Washington, DC, May 6-9, 2017. **Poster presentation**).
    - b. Tani M. Panelist. Educational System in Japan and United Status. The 2017 Annual Meeting of Japanese Society of Anesthesiologists. Kobe, Japan, June 8-10, 2017.
  3. Kazuma Yunoki, MD (Research Fellow, Department of Anesthesiology, University of Pittsburgh Medical Center; Assistant Professor, Department of Anesthesiology, Kobe Central City Hospital, Kobe, Hyogo, Japan)
    - a. Kazuma Y, **Sakai T**. Differences in Certification Maintenance Programs in Anesthesiology between Japan and the USA. Masui. (JAPANESE)
    - b. Kazuma Y, **Sakai T**. The Role of Simulation Training in Anesthesiology Resident Education. *J Anesth*. DOI: 10.1007/s00540-018-2483-y

#### Research Project Mentor of Fellows and Residents:

1. Vahid Grami, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008):

- a. A case report presentation: "Grami V, Subramaniam K, **Sakai T**. Successful laproscopic Roux-en-Y gastric bypass surgery on a patient with severe pulmonary hypertension and ischemic cardiomyopathy", Medically Challenging Cases: The 102<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007.
  - b. A case report presentation: "Grami V, Wolfel S, **Sakai T**, Kempen P. Preterm polyhydramniotic developing progressive abdominal distention, hypotension, metabolic acidosis, respiratory distress, presenting for fluid resuscitation and laparotomy", Medically Challenging Cases: The 102<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007.
4. V. Venkataramanappa, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008):
    - a. A case report presentation "Venkataramanappa V, **Sakai T**. Fatal Tracheal Tear by a Double Lumen Endotracheal Tube", Medically Challenging Cases: The 102<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007.
    - b. A case report presentation: "Tracheal Tear by a Double Lumen Endotracheal Tube", Western Pennsylvania Society of Anesthesiologists' Resident Research Competition, Pittsburgh, PA, May 2008.
    - c. A case report manuscript: Venkataramanappa V, Boujoukos AJ, **Sakai T**. A diagnostic challenge of the tracheal tear with a double lumen tracheal tube: a case developed with a massive air leak from the mouth during mechanical ventilation. Journal of Clinical Anesthesia. 23:66-70;2011.
  5. Evan T. Lukow, D.O. (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008):
    - a. A book chapter: Lukow ET, Anixter M, **Sakai T**. Dexmedetomidine can be a useful drug, but will it be universally applicable? In: Marcucci, C. ed. Avoiding Common Anesthesia Errors. Williams & Wilkins; 244-9:2007
  6. Matthew J. Krebs, M.D. (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008):
    - a. A case report manuscript: Krebs M, **Sakai T**. Retropharyngeal dissection during nasotracheal intubation: a rare complication and its management. Journal of Clinical Anesthesia. 20:218-21;2008.
  7. Thomas E. Borsari, MD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010):
    - a. A case report presentation: "Perioperative pulmonary aspiration of patients who have had esophagectomy with a gastric pull-up", Western Pennsylvania Society of Anesthesiologists' Resident Research Competition, May 15, 2008. (**First Place**)
    - b. A case report presentation: "Perioperative pulmonary aspiration of patients who have had esophagectomy with a gastric pull-up", The 103<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Orlando, FL, October 18-22, 2008.
    - c. A case report manuscript: Borsari TE, Hilmi IA, **Sakai T**. Perioperative pulmonary aspiration of patients who have had an esophagectomy with a gastric pull-up: the value of preoperative computed tomography of the neck. Journal of Clinical Anesthesia, 23:130-3;2011.
  8. Mariam M. El-Baghdadi, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010):
    - a. A case report presentation: "Fatal Pulmonary Embolism during Liver Transplantation in a Patient with Fulminant Hepatic Failure", Medically Challenging Cases: The 103<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Orlando, FL, October 18-22, 2008.
    - b. A case report presentation: "Fatal Pulmonary Embolism during Liver Transplantation in a Patient with Fulminant Hepatic Failure", Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 9, 2009.

- c. A case report presentation: “Fatal Pulmonary Embolism during Liver Transplantation in a Patient with Fulminant Hepatic Failure”, Western Pennsylvania Society of Anesthesiologists’ Resident Research Competition, Pittsburgh, PA, May 21, 2009.\
  - d. A case report manuscript: El-Baghdadi M and **Sakai T.** Fatal Pulmonary Embolism During Liver Transplantation in a Patient with Fulminant Hepatic Failure: A Diagnostic Challenge of the “Flat Line” Thromboelastograms. *Journal of Cardiothoracic Vascular Anesthesia.* 24:641-3;2010.
9. Nicole E. Scouras, MD, MPH (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010):
- a. A case report presentation: “ANESTHETIC MANAGEMENT OF COMBINED DOUBLE LUNG-LIVER TRANSPLANTATION IN A PATIENT WITH END STAGE PORTO-PULMONARY HYPERTENSION”, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 9, 2009.
  - b. A case report presentation: “ANESTHETIC MANAGEMENT OF COMBINED DOUBLE LUNG-LIVER TRANSPLANTATION IN A PATIENT WITH END STAGE PORTO-PULMONARY HYPERTENSION”, Western Pennsylvania Society of Anesthesiologists’ Resident Research Competition, Pittsburgh, PA, May 21, 2009. (**First Place**)
  - c. An original manuscript: Scouras NE, Matsusaki T, Boucek CD, Wells C, Cooper EA, Planinsic RM, Sullivan EA, Bermudez CA, Toyoda Y, **Sakai T.** Portopulmonary hypertension as an indication for combined heart-lung-liver or lung-liver transplantation: literature review and case presentation. *Liver Transplantation.* 17:137-43;2011.
10. Benjamin Grable, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011):
- a. A case report presentation: “Isolated left sided pulmonary edema due to Alemtuzumab (Campath®) after kidney transplantation”, Medically Challenging Cases: The 104<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 17-21, 2009.
  - b. A case report manuscript: Grable B, **Sakai T.** Isolated left-sided pulmonary edema due to Alemtuzumab (Campath®) during kidney transplantation. *Transplant International.* 23:851-4;2010.
  - c. A case report presentation: “Isolated left sided pulmonary edema due to Alemtuzumab (Campath®) after kidney transplantation”, Western Pennsylvania Society of Anesthesiologists’ Resident Research Competition, Pittsburgh, PA, May 20, 2010. (**Second Place**)
11. Nicole E. Scouras, MD, MPH (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010)
- a. Department Seed Grant: “Use of Ultrasound and Needle Guide for Internal Jugular Central Venous Catheterization by Residents (PI: Scouras, Co-investigator: **Sakai T**)” 2010-2011.
  - b. An original research oral presentation: “Use of Ultrasound and Needle Guide for Internal Jugular Central Venous Catheterization by Residents”, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 8, 2010.
  - c. An original research poster presentation: “Use of Ultrasound and Needle Guide for Internal Jugular Central Venous Catheterization by Residents”, Western Pennsylvania Society of Anesthesiologists’ Resident Research Competition, Pittsburgh, PA, May 20, 2010.
  - d. An abstract (poster) presentation: Scouras, NE, Ball, RD, Orebaugh, S, Wilde, J, **Sakai, T.** Use of Ultrasound and Needle Guide for Internal Jugular Central Venous Catheterization by Residents. Multi-Departmental Trainees’ Research Day, Pittsburgh, PA, June 1, 2010.
  - e. An abstract (poster) presentation: Scouras NE, Ball RD, Orebaugh S, Wilde J, **Sakai T.** Use of a Needle Guide for Ultrasound Assisted Internal Jugular Venous Access: An Interim Analysis. The 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
  - f. A full manuscript publication: Ball RD, Scouras NE (equal first), Orebaugh S, Wilde J, **Sakai T.** A Randomized, Prospective, Observational Simulation Study Comparing Residents’ Needle-Guided vs. Free Hand Ultrasound Techniques for Central Venous Catheter Access. *British Journal of Anesthesia.* 108:72-9;2012.



12. Kristin L. Schreiber, MD, PhD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012):
  - a. A case report presentation: Schreiber K, Bane B, **Sakai T**. Accidental Insertion of a Percutaneous Venovenous Bypass Cannula into a Persistent Left Superior Vena Cava in a Patient Undergoing Liver Transplantation. Medically Challenging Cases in the 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
  - b. A case report manuscript: Schreiber KL, Matsusaki T, Bane BC, Bermudez CA, Hilmi IA, **Sakai T**. Accidental Insertion of a Percutaneous Venovenous Cannula into the Persistent Left Superior Vena Cava of a Patient Undergoing Liver Transplantation. Canadian Journal of Anesthesia/Journal canadien d'anesthésie. 58:646-9;2011.
  - c. A case report presentation: Schreiber KL, Matsusaki T, Bane BC, Bermudez CA, Hilmi IA, **Sakai T**. Accidental Insertion of a Percutaneous Venovenous Cannula into the Persistent Left Superior Vena Cava of a Patient Undergoing Liver Transplantation. Pennsylvania Anesthesiology Resident Research Competition, Hershey, PA, May 7, 2011.
  - d. Letter to the Editor: Schreiber, KL; Bane, BC; Matsusaki, T; Hilmi, IA; Bermudez, CA; **Sakai T**. Cannulation of a persistent left superior vena cava or a pericardiophrenic vein? (Reply) Canadian Journal of Anesthesia/Journal canadien d'anesthésie. 59:233;2012.
13. R. Scott Lang, MD, (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011):
  - a. Schreiber KL, Lang RS, Ben-Ari AY, Forte PJ, Chelly JE, Geller D, marsh JW, Tsung A, Planinsic RM, Hilmi IA, **Sakai T**. A PROSPECTIVE, RANDOMIZED, CONTROLLED CLINICAL TRIAL OF EPIDURAL VS. PARAVERTEBRAL NERVE BLOCK FOR POSTOPERATIVE ANALGESIA IN PATIENTS FOR OPEN LIVER RESECTION: INTERIM ANALYSIS. (study on going)
14. Arun Jayaraman, MD, PhD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012):
  - a. A case report presentation: Jayaraman A, **Sakai T**. Dexmedetomidine as an anesthetic adjunct in pheochromocytoma resection. Medically Challenging Cases in the 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
15. Ryan Ball, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011):
  - a. An abstract (poster) presentation: Scouras NE, Ball RD, Orebaugh S, Wilde J, **Sakai T**. Use of a Needle Guide for Ultrasound Assisted Internal Jugular Venous Access: An Interim Analysis. The 105<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
  - b. A full manuscript publication: Ball RD, Scouras NE, Orebaugh S, Wilde J, **Sakai T**. A Randomized, Prospective, Observational Simulation Study Comparing Residents' Needle-Guided vs. Free Hand Ultrasound Techniques for Central Venous Catheter Access. British Journal of Anaesthesia. 108:72-9;2012.
16. Arun Jayaraman, MD, PhD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012):
  - a. Book chapter: Jayaraman A, **Sakai T**. Kidney Transplantation. In: Fleisher L. and Roizen M. eds. Essence of Anesthesia Practice (3<sup>rd</sup> edition). Elsevier; 2010.
17. Trent Emerick, MD, (PGY1-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2014):
  - a. Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Scholarly Productivity by Residents. The 10<sup>th</sup> ANNUAL GME LEADERSHIP CONFERENCE, Pittsburgh, PA, February 25, 2011. **(Oral Presentation)**
  - b. Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Scholarly Productivity by Residents. Pennsylvania Anesthesiology Resident Research Competition, Hershey, PA, May 7, 2011.

- c. Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Scholarly Productivity by Residents. Association of University Anesthesiologists 58th Annual Meeting, Philadelphia, PA, May 12-14, 2011.
  - d. Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Resident Scholarly Productivity. Society for Education in Anesthesia 26<sup>th</sup> Annual Meeting, San Antonio, TX, June 3-5, 2011.
  - e. Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Resident Scholarly Productivity. The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.
  - f. Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. PRACTICE MANAGEMENT 2012, Orlando, FL, January 27-29, 2012. **(Second Place Award among all presentations)**
  - g. Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. The 11<sup>th</sup> ANNUAL GME LEADERSHIP CONFERENCE, Pittsburgh, PA, February 24, 2012.
  - h. Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 17, 2012. **(Oral Presentation)**
  - i. Emerick T, Metro DG, Patel RM, **Sakai T**. Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 17, 2012. **(Third Place Award in Original Research Poster)**
  - j. Emerick T, Metro DG, Patel RM, **Sakai T**. Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? Association of University Anesthesiologists 59th Annual Meeting, Cleveland, OH, May 17-19, 2012.
  - k. Emerick T, Metro DG, Patel RM, **Sakai T**. Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? Western Pennsylvania Society of Anesthesiologists' Resident Research Competition, Pittsburgh, May 17, 2012. **(First Place in Original Research)**
  - l. Emerick T, Metro DG, Patel RM, **Sakai T**. Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? Society for Education in Anesthesia 27<sup>th</sup> Annual Meeting, Milwaukee, WI, June 1-3, 2012.
  - m. Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. Society for Education in Anesthesia 27<sup>th</sup> Annual Meeting, Milwaukee, WI, June 1-3, 2012.
  - n. Emerick T, Metro DG, Patel RM, **Sakai T**. Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Washington DC., October 13-17, 2012. **(Oral Presentation)**
  - o. Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
  - p. Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool to Evaluate Resident Scholarly Productivity. British Journal of Anaesthesia. 111:468-76;2013.
  - q. Emerick T, **Sakai T**, Patel RM. "System based project for anesthesiology residents: a 10-year single center experience" University of Pittsburgh School of Medicine #IRB [PRO13070600](#) (exempt) (PI: Emerick; Co-Investigator: **Sakai**) November 14, 2013.
18. Mark E. Backeris, DO, MBA (PGY2-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013):
- a. Backeris ME, Matsusaki T, Metro DG, Patel RM, **Sakai T**. Impact of Incentive System on Faculty Teaching in Operative Room (OR) Evaluated by Anesthesiology Residents. Pennsylvania Anesthesiology Resident Research Competition, Hershey, PA, May 7, 2011. **(Oral presentation)**
  - b. Backeris ME, Matsusaki T, Metro DG, Patel RM, **Sakai T**. Impact of Incentive System on Faculty Teaching in Operative Room (OR) Evaluated by Anesthesiology Residents. Society for Education in Anesthesia 26<sup>th</sup> Annual Meeting, San Antonio, TX, June 3-5, 2011. **(Oral presentation)**

- c. Backeris ME, Matsusaki T, Metro DG, Patel RM, **Sakai T**. Impact of Incentive System on Faculty Teaching in Operative Room (OR) Evaluated by Anesthesiology Residents. The 106<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.
  - d. Backeris ME, Patel RM, Metro DG, **Sakai T**. Impact of a Productivity-Based Compensation System on Faculty Clinical Teaching Scores, as Evaluated by Anesthesiology Residents. *Journal of Clinical Anesthesia*. 25:209-13;2013.
19. Pranav R. Shah, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013):
- a. Book chapter: Shah PR, **Sakai T**. Perioperative Pulmonary Aspiration. In: Doebrich PE. ed. *Intubation: Preparation, Procedures and Complications* (1<sup>st</sup> edition), Nova Science Publishers, Inc., 2011.
20. Arun Jayaraman, MD, PhD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012):
- a. Book Chapter: Jayaraman A, **Sakai T**. Acute Intraoperative Pulmonary Embolism. In: Wright NJ. and Smith A., eds. *Pulmonary Embolism: Causes, Symptoms, and Treatment* (1<sup>st</sup> edition), Nova Science Publishers, Inc., 2012.
21. Joseph Resti, MD (PGY3-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013):
- a. Resti J, Williams JP, **Sakai T**. Creation of a Web-Based Education Module Using the Knowledge Gaps Report from ABA/ASA Joint Council of Anesthesiology. Society for Education in Anesthesia 27<sup>th</sup> Annual Meeting, Milwaukee, WI, June 1-3, 2012.
  - b. Resti J, Williams JP, **Sakai T**. Creation of a Web-Based Education Module Using the Knowledge Gaps Report from ABA/ASA Joint Council of Anesthesiology. The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
  - c. An online in training examination (ITE) study module: Resti J, **Sakai T**. <https://cme.hs.pitt.edu/ISER/servlet/IteachControllerServlet?actiontotake=displaymainpage&site=akgr>
22. Patrick Hackett, MD (PGY1 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015)
- a. Hackett PJ, **Sakai T** Pseudocholinesterase Deficiency: a Case Report and Literature Review, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 17, 2012.
  - b. Hackett PJ, **Sakai T**. Pseudocholinesterase Deficiency: a Case Report and Literature Review. *Open Journal of Anesthesiology*. 2:188-94;2012.
23. Kristin L. Schreiber, MD, PhD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012):
- a. Schreiber KL, **Sakai T**. Perioperative Analgesia for Patients Undergoing Open Liver Resection: Epidural or Paravertebral? *Journal of Pain Relief* 1:e112;2012.
  - b. Schreiber KL, Chelly JE, Abuelkasem E, Lang RS, Geller D, Marsh JW, Tsung A, **Sakai T**. Bilateral Paravertebral Block versus Epidural Block for Postoperative Analgesia in Open Liver Resection: A Prospective Randomized Clinical Trial. (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
  - c. Schreiber KL, Chelly JE, Lang RS, Abuelkasem E, Geller DA, Tsung A, Marsh JW, **Sakai T** (corresponding). Bilateral Paravertebral Block Versus Epidural Block for Postoperative Analgesia in Open Liver Resection: A Prospective Randomized Clinical Trial. *Pain Medicine and Regional Anesthesia* (In press)
24. Arun Jayaraman, MD, PhD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012):
- a. Jayaraman AL, Matsusaki T, Chen Y-F, Fabio A, **Sakai T**. Comparing the Incidence of Post-reperfusion Syndrome in Orthotopic Liver Transplantation Using Live Donor Versus Deceased Donor Grafts: A

- Propensity Score Matched Analysis. The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
- b. Jayaraman AL, Matsusaki T, Chen Y-F, Fabio A, Planinsic RM, Humar A, **Sakai T**. Impact of graft type on the incidence of post reperfusion syndrome in liver transplantation (LT): A propensity score matched analysis between live donor LT versus deceased donor LT. The 19<sup>th</sup> Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013.
25. Patrick Hackett, MD (PGY2-3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015)
- a. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Fate of the Abstracts Presented at the International Liver Transplantation Society Meetings (2004 – 2008). The 19<sup>th</sup> Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013.
  - b. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Abstract to Publication Rate in an International Society: Anesthesiology and Critical Care Medicine versus Other Specialties. Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013.
  - c. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Abstract to Publication Rate in an International Society: Anesthesiology and Critical Care Medicine versus Other Specialties. 2013 Multi-Departmental Trainees' Research Day, Pittsburgh, PA, May 16, 2013.
  - d. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Abstract to Publication Rate in an International Society: Anesthesiology and Critical Care Medicine versus Other Specialties. NYSSA 67th Annual PostGraduate Assembly in Anesthesiology, New York, NY, December 13-17, 2013.
  - e. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Fate of Abstracts Presented at the 2004-2008 International Liver Transplantation Society Meetings. Liver Transplantation. 20:355-60;2014.
26. Nicholas J. Schott, MD (PGY1-2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2017)
- a. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T**. Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. Anesthesia and Analgesia 117:1211-6;2013.
  - b. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T**. Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013.
  - c. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T**. Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. 2013 Multi-Departmental Trainees' Research Day, Pittsburgh, PA, May 16, 2013.
  - d. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T**. Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. Society for Education in Anesthesia 28<sup>th</sup> Annual Meeting, Salt Lake City, UT, May 31 - June 2, 2013. (**Best Poster, Research Section**)
  - e. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T**. Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. The 108<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013.
  - f. Schott NJ, **Sakai T**. "Teaching Peri-operative Ultrasound to Anesthesiology Residents", University of Pittsburgh School of Medicine #IRB [PRO13060508](#) (expedited) (PI: Schott; Faculty mentor: **Sakai**) November 14, 2013.
  - g. Schott NJ, Lischner M, Schott CK, McHugh S, Meng L, Orebaugh SL, **Sakai T** (corresponding). Developing an Anesthesiology Resident Curriculum for Focus-Assessed Transthoracic Echo Cardiac Examinations (The 29<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**)
  - h. Schott NJ, Lischner M, Schott CK, McHugh S, Meng L, Orebaugh SL, **Sakai T** (corresponding). Initial Evaluation of a New Teaching Curriculum of Focus-Assessed Transthoracic Echocardiographic Examinations for Anesthesiology Residents (The 29<sup>th</sup> Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**); (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)

27. Eric Ponte, MD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015)
- Ponte E, Sciorba FC, Crespo MM, **Sakai T**. Lung Volume Reduction Coil (LVRC) Treatment: the first clinical case in the United States. Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013. (**Oral Presentation**)
  - Ponte E, Sciorba FC, Crespo MM, **Sakai T**. Lung Volume Reduction Coil (LVRC) Treatment: the first clinical case in the United States. 2013 Multi-Departmental Trainees' Research Day, Pittsburgh, PA, May 16, 2013.
  - Ponte E, Sciorba FC, Crespo MM, **Sakai T**. Lung Volume Reduction Coil (LVRC) Treatment: the first clinical case in the United States. The 108<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013.
28. Daniela Damian, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015)
- Esquenazi J, Damian D, Johnson J, Duvvuri U, **Sakai T**. Incidence, Outcome, and Risk Factors for Postoperative Pulmonary Complications in Patients who Underwent Head and Neck Cancer Surgeries with Free Flap Reconstructions. 2013 Multi-Departmental Trainees' Research Day, Pittsburgh, PA, May 16, 2013.
  - Damian D, Esquenazi J, Johnson J, Duvvuri U, **Sakai T**. Incidence, Outcome, and Risk Factors for Postoperative Pulmonary Complications in Head and Neck Cancer Surgery Patients with Free Flap Reconstructions. NYSSA 67th Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013.
  - Damian D, Esquenazi J, Duvvuri U, Johnson JT, **Sakai T** (corresponding). Incidence, outcome, and risk factors for postoperative pulmonary complications in head and neck cancer surgery patients with free flap reconstructions. *Journal of Clinical Anesthesia*, 28:12-8; 2016.
29. Trent Emerick, MD, (PGY3-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2014):
- Workshop Moderator: **Sakai T**, Hopf HW, Metro DG, Emerick TD. "How to Improve Resident Scholarly Activity in Your Department" (Society for Education in Anesthesia 27<sup>th</sup> Annual Meeting, Milwaukee, WI, June 1-3, 2012)
  - Workshop Moderator: **Sakai T**, Hopf HW, Beaman ST, Emerick TD. "How to Improve Resident Scholarly Activity in Your Department" (Society for Education in Anesthesia 28<sup>th</sup> Annual Meeting, Salt Lake City, UT, May 31 - June 2, 2013)
30. Ezeldeen Abuelkasem, MD, MSc, (Clinical Fellow, Department of Anesthesiology, University of Pittsburgh Medical Center: 2012-2014 – Resident, Department of Anesthesiology, University of Pittsburgh Medical Center: 2014-present):
- Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Hilmi IA, Planinsic RM, **Sakai T**. Complications Related to Invasive Hemodynamic Monitors during Adult Liver Transplantation. *Clinical Transplantation*. 27:823-8;2013.
  - Abuelkasem E, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). Comparison between Thrombelastography and Thromboelastometry in Liver Transplantation. (The 61<sup>th</sup> Annual Meeting of the Association of University Anesthesiologists, Stanford, California. April 24-26, 2014. **Poster presentation**) (The 2014 Joint International Congress of ILTS, ELITA & LICAGE, London, United Kingdom, June 4-7, 2014. **Poster presentation**); (The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
  - Abuelkasem E, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). FIBTEM is More Sensitive than EXTEM and Kaolin-TEG in Detecting Fibrinolysis: Part II of a Prospective Comparative Study Between ROTEM® vs. TEG® in Liver Transplantation (The 2015 International Congress of ILTS, Chicago, IL, July 8-11, 2015. **Oral presentation**)
  - Abuelkasem E, Mazzeffi MA, Lu SY, Planinsic RM, **Sakai T**, Tanaka KA. Ex vivo evaluation of four different viscoelastic assays for detecting moderate to severe coagulopathy during liver transplantation. *Liver Transplantation*. 22:468-75;2016.

- e. Abuelkasem E, Lu SY, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). Comparison between Thrombelastography and Thromboelastometry in Hyperfibrinolysis Detection during Adult Liver Transplantation. *British Journal of Anaesthesia*,116:507-12;2016.
31. Eugene Raggi, MD. (CBY intern, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2018):
- Raggi, E. **Sakai T** (corresponding). Update on Finger-Application Type Non-Invasive Continuous Hemodynamic Monitors (CNAP® and ccNexfin®): Physical Principles, Validation, and Clinical Use. *Semin Cardiothorac Vasc Anesth*. 2017 (in press).
32. Daniel Mandell, MD. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2018):
- Critical Importance of Tissue Plasminogen Activator Policy for Intraoperative Pulmonary Thromboembolism during Liver Transplantation (The 2016 International Congress of ILTS, May 4-7, 2016 Seoul, South Korea, Poster Presentation) (Pennsylvania Anesthesiology Resident Research Competition, Hershey, PA, May 14, 2016).
  - Mandell D, Planinsic RM, Melean F, Hughes C, Tevar AD, Humar A, Cassidy BJ, Simmons R, De Wolf A, **Sakai T** (corresponding). Critical Importance of Tissue Plasminogen Activator Policy for Treating Intraoperative Pulmonary Thromboembolism during Liver Transplantation. *Semin Cardiothorac Vasc Anesth*. 2018 *Semin Cardiothorac Vasc Anesth*. 2018 Feb 1:1089253218760221.
33. Bryce Bernard, MD. (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2017):
- Bernard B. Hypertrophic Cardiomyopathy in the Liver Transplant Patient. Subspecialty meeting presentation, Department of Anesthesiology, University of Pittsburgh Medical Center, Pittsburgh, PA (January 25, 2017).
34. Douglas Adams, MD. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2020):
- Adams D & **Sakai T**, “Sugammadex: One Year Review at UPMC PUH/MUH”, Morning Round Presentation, Department of Anesthesiology, UPMC Presbyterian, Pittsburgh, April 11, 2018.
  - Adams D, Phillips D, Quinlan JJ, Artman J, **Sakai T**. Safety and Effectiveness of Sugammadex on Surgical Patients with Renal Dysfunction (Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 19, 2018).
  - D. R. Adams, L. E. Tollinche, C. B. Yeoh, J. Artman, M. Mehta, D. Phillips, G. W. Fischer, J. J. Quinlan, **T. Sakai** (corresponding). Short-Term Safety and Effectiveness of Sugammadex for Surgical Patients with End Stage Renal Disease: A Two-Center Retrospective Study. (The 114<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, Orland, FL, October 19-23, 2019. **Oral presentation**)
  - D. R. Adams, L. E. Tollinche, C. B. Yeoh, J. Artman, M. Mehta, D. Phillips, G. W. Fischer, J. J. Quinlan, **T. Sakai** (corresponding). Short-Term Safety and Effectiveness of Sugammadex for Surgical Patients with End Stage Renal Disease: A Two-Center Retrospective Study. *Anaesthesia* (2020)
  - Adams D & **Sakai T**, “Sugammadex on the patients with end-stage renal disease”, Department Scientific Seed Grant Award (\$8000: 2020 – 2021).
35. Vin Ann Nguyen, MD. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2022):
- Lebovitz E, Nguyen VA, **Sakai T** (corresponding). Economic considerations in abdominal transplantation. *Best Practice & Research Clinical Anaesthesiology* (accepted for publication)

#### **Mentorship/Supervision of Staff Physicians, Fellows and Residents:**

- Faculty supervisor**, Resident Journal Club (Thomas Borsari, MD, Angela Wooditch, MD, and Evan Lukow, DO), Department of Anesthesiology, University of Pittsburgh Medical Center, September 6, 2007.

2. **Faculty Mentor** for Brian Bane, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010)
  - a. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Left Internal Jugular Venous Injury during Orthotopic Liver Transplantation”, March 10, 2010.
3. **Faculty Mentor** for Kristin L. Schreiber, MD, PhD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012)
  - a. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Blood Transfusion in Cancer Patients for Curative Resection - Transfusion related immunomodulation and its association with cancer recurrence”, May 19, 2010.
4. **Faculty Mentor** for Patrick Hackett, MD (PGY1 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015)
  - a. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Prolonged Muscle Paralysis During Neck Dissection”, January 18, 2012.
5. **Faculty Mentor** for Michael Boisen, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013)
  - a. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Sudden Onset of Hypercarbia and Hyperthermia during Thyroidectomy”, January 18, 2012.
6. **Faculty Mentor** for Daniel, Cormican, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013)
  - a. Presentation, Subspecialty meeting, Department of Anesthesiology, University of Pittsburgh, “Blood Transfusion in Liver Transplantation”, October 24, 2012.
7. **Faculty Mentor** for anesthesiology resident, Xianren Wu, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2005 – June 30, 2009: Class 2009)
8. **Faculty Mentor** for anesthesiology resident, Brian Blasiole, MD, PhD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2007 – June 30, 2011: Class 2011)
9. **Faculty Mentor** for anesthesiology resident, Daniel Cormican, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2010 – June 30, 2013: Class 2013)
10. **Faculty Mentor** for anesthesiology resident, Trent Emerick, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2011 – June 30, 2014: Class 2014)
11. **Faculty Mentor** for anesthesiology resident, Nicholas Schott, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2013 – June 30, 2016: Class 2016)
12. **Faculty Mentor** for anesthesiology resident, Lindsay Stollings, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2014 – June 30, 2017: Class 2017)
13. **Faculty Mentor** for anesthesiology resident, George Karam, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2018 – June 30, 2021: Class 2021)
14. **Faculty Mentor** for Faculty Member (Assistant Professor), Evan Lebovitz, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
15. **Faculty Mentor** for Faculty Member (Assistant Professor), Trent Emerick, MD, MBA, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
16. **Faculty Mentor** for Faculty Member (Assistant Professor), Catalin Ezar, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
17. **Faculty Mentor** for Faculty Member (Assistant Professor), Daniela Damian, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
18. **Faculty Mentor** for Faculty Member (Assistant Professor), Mihaela Visoiu, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
19. **Faculty Mentor** for Faculty Member (Assistant Professor), Steve McHugh, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)

#### **Mentorship / Supervision of Medical Students:**

1. **Clinical instruction** for medical students, at Division of Cardiovascular Surgery, The Toronto Hospital, Toronto, Canada, Three 4<sup>th</sup> year medical students from Japan (Kyoto University) for 4 weeks; Two 2<sup>nd</sup> year medical students from Japan (Kyoto University) for 3 weeks (July – September, 1998)

2. **Faculty Mentor** for Jacob Esquenazi (MS-III–IV, University of Pittsburgh Medical School):
  - a. MS-IV senior project (Faculty Mentor): A Retrospective Chart Review to Assess Incidence, Outcome, and Risk Factors for Post-Operative Pulmonary Complications in the Patients who Underwent Laryngectomy.
  - b. Esquenazi J, Damian D, Johnson J, Duvvuri U, **Sakai, T**. Incidence, Outcome, and Risk Factors for Postoperative Pulmonary Complications in Patients who Underwent Head and Neck Cancer Surgeries with Free Flap Reconstructions. 2013 Multi-Departmental Trainees' Research Day, Pittsburgh, PA, May 16, 2013.
  - c. Damian D, Esquenazi J, Johnson J, Duvvuri U, **Sakai T**. Incidence, Outcome, and Risk Factors for Postoperative Pulmonary Complications in Head and Neck Cancer Surgery Patients with Free Flap Reconstructions NYSSA 67th Annual PostGraduate Assembly in Anesthesiology, New York, NY, December 13-17, 2013.
  - d. Damian D, Esquenazi J, Duvvuri U, Johnson JT, **Sakai T** (corresponding). Incidence, outcome, and risk factors for postoperative pulmonary complications in head and neck cancer surgery patients with free flap reconstructions. *Journal of Clinical Anesthesia*, 28:12-8; 2016.
3. **Faculty Mentor** for Shu (Dennis) Lu (MS-II-IV, University of Pittsburgh Medical School):
  - a. Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Planinsic RM, **Sakai T**. Complications Related to Invasive Hemodynamic Monitoring during Adult Liver Transplantation. 2013 Multi-Departmental Trainees' Research Day, Pittsburgh, PA, May 16, 2013.
  - b. Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Planinsic RM, **Sakai T**. Complications Related to Invasive Hemodynamic Monitoring during Adult Liver Transplantation. The 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013. (**Oral presentation**)
  - c. Lu SY, Matsusaki T, Abuelkasem E, Sturdevant ML, Humar A, Hilmi IA, Planinsic RM, **Sakai T** Complications Related to Invasive Hemodynamic Monitors during Adult Liver Transplantation. *Clinical Transplantation*. 27:823-8;2013.
  - d. Lu SY, Abuelkasem E, Planinsic RM, Tanaka KA, **Sakai T**. Comparison between Kaolin Thromboelastography and Rapid Thromboelastography in Liver Transplantation. NYSSA 67<sup>th</sup> Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013.\
  - e. Lu SY, Tanaka KA, Abuelkasem E, Planinsic RM, **Sakai T** (corresponding). Applicability of Rapid Thrombelastography and Functional Fibrinogen Assay in Adult Liver Transplantation. (The 2014 Joint International Congress of ILTS, ELITA & LICAGE, London, United Kingdom, June 4-7, 2014. **Oral presentation**); The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)
  - f. Lu SY, Tanaka KA, Abuelkasem E, Planinsic RM, **Sakai T** (corresponding). Clinical Applicability of Rapid Thrombelastography and Functional Fibrinogen Thrombelastography in Adult Liver Transplantation. *Liver Transplantation*. 20:1097-105;2014.
4. **Faculty Mentor** for Annie Liu (MSTP-III, University of Pittsburgh School of Medicine) for the Longitudinal Clerkship Course: January 5, 2015 – May 24, 2015.
5. **Faculty Mentor** for Shannen Poon (MS-II, The University of Hong Kong, Li Ka Shing Faculty of Medicine) for the oversea attachment program in University of Pittsburgh Medical Center, May 4, 2015 – May 14, 2015.

#### **Mentorship / Supervision of Pre- and Post-Doctoral (PhD) Students:**

1. **Supervisor and co-investigator** for Payne TR (Doctoral Student, Dr. J. Huard's lab, University of Pittsburgh) on his presentation: Payne TR, **Sakai T**, Ling Y, Oshima H, Murdoch RC, Cummins JH, Jankowski RJ, Qu- Petersen Z, Li Y, Huard J. Ex Vivo Gene Delivery of Dystrophin in the Heart Using Muscle Derived Stem Cells. (Presented for American Heart Association, Fellow's Research Day Meeting, Pittsburgh, PA, February 22, 2002)
2. **Supervisor and co-investigator** for Murdock RC (Pre-doctoral Student, Dr. J. Huard's lab, University of Pittsburgh) on his presentation: Murdock RC, **Sakai T**, Payne T, Ling Y, Huard J. In Vivo Myotubule Alignment of Injected Cells with Native Myotubules in Mouse Myocardium. (Presented as poster, for American Heart Association, Fellow's Research Day Meeting, Pittsburgh, PA, February 22, 2002)
3. **Supervisor and co-investigator** for Payne TR (Doctoral Student, Dr. J. Huard's lab, University of Pittsburgh) on his presentation: Payne TR, **Sakai T**, Oshima H, Ling Y, Qu- Petersen Z, Cummins JH, Huard J. A novel muscle



derived stem cell delivers dystrophin into a dystrophin-deficient murine heart. (Presented for Cardiac Biointerventions Conference, San Francisco, CA, October 4-5, 2002)

4. **Supervisor and co-investigator** for Oshima H. (Doctoral fellow, Dr. J. Huard's lab, University of Pittsburgh) on his presentation: Oshima H, **Sakai T**, Ling Y, Payne TR, Qu- Petersen Z, Huard J. Long-term survival of novel muscle derived stem cells after transplantation into myocardium. (Presented for Cardiac Biointerventions Conference, San Francisco, CA, October 4-5, 2002)
5. **Supervisor and co-investigator** for Fujimoto KL (Doctoral fellow, Dr. WR Wagner's lab, University of Pittsburgh) on his presentation: Fujimoto KL, Guan J, Oshima H, **Sakai T**, Wagner WR. Reconstruction of the Right Ventricular Outflow Tract with a Biodegradable, Elastic Patch. (Poster presentation at Biomedical Engineering Society Annual Fall Meeting, Pittsburgh, PA, October 1-4, 2003)

#### **Mentorship / Supervision of Pre-Medical Students:**

1. **Summer Student Research Mentor** for Nozomi Sakai (Grade 10) for her summer high school student research fellowship (UPMC Montefiore Hospital and Dr. Yan Xu's laboratory in BST3, University of Pittsburgh. June 10-27, 2008).
2. **Faculty Mentor** for Marina Guirguis (Undergraduate student, West Virginia University):
  - a. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Fate of the Abstracts Presented at the International Liver Transplantation Society Meetings (2004 – 2008). The 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013.
  - b. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Fate of Abstracts Presented at the 2004-2008 International Liver Transplantation Society Meetings. Liver Transplantation. 20:355-60;2014.
1. **Faculty Mentor** for Nozomi Sakai (Undergraduate student, University of California, Berkeley)
  - a. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Fate of the Abstracts Presented at the International Liver Transplantation Society Meetings (2004 – 2008). The 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013.
  - b. Hackett PJ, Guirguis M, Sakai N, **Sakai T**. Fate of Abstracts Presented at the 2004-2008 International Liver Transplantation Society Meetings. Liver Transplantation. 20:355-60;2014.

#### **Honors as Scholarly Activity Mentor:**

1. **First Place:** Case Report 2008  
Western Pennsylvania Society of Anesthesiologists' Resident Research Competition  
Thomas E. Borsari, MD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010)
2. **First Place:** Case Report 2009  
Western Pennsylvania Society of Anesthesiologists' Resident Research Competition  
Nicole E. Scouras, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010)
3. **Second Place:** Case Report 2010  
Western Pennsylvania Society of Anesthesiologists' Resident Research Competition  
Benjamin Grable, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011)
4. **Oral Abstract Presentation** 2011  
The 10<sup>th</sup> ANNUAL GME LEADERSHIP CONFERENCE,  
Pittsburgh, PA.  
Trent D. Emerick, MD (PGY1 Resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2014)
5. **Oral Abstract Presentation** 2011  
Pennsylvania Anesthesiology Resident Research Competition  
Mark E. Backeris, DO, MBA. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013)
6. **Second Place:** Original Research 2011

- Western Pennsylvania Society of Anesthesiologists' Resident Research Competition  
Trent D. Emerick, MD (PGY1 Resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
7. **First Place:** Case Report 2011
- Western Pennsylvania Society of Anesthesiologists' Resident Research Competition  
Kristin L. Schreiber, MD, PhD (PGY3 Resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2012)
8. **Oral Abstract Presentation** 2011
- Society for Education in Anesthesia 26<sup>th</sup> Annual Meeting,  
San Antonio, TX, June 3-5, 2011.  
Mark E. Backeris, DO, MBA. (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2013):
9. **Oral Abstract Presentation:** Anesthesia/Critical Care Medicine 2011
- The 17<sup>th</sup> Annual Meeting The International Liver Transplantation Society,  
2011 Joint International Congress of ILTS, ELITA & LICAGE, Valencia, Spain. June 22-25, 2011.  
Takashi Matsusaki, MD, PhD (Research Fellow, Department of Anesthesiology,  
University of Pittsburgh Medical Center)
10. **Second Place:** Overall Posters 2012
- PRACTICE MANAGEMENT 2012, Orlando, FL, January 27-29, 2012.  
Trent D. Emerick, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
11. **Third Place:** Original Posters 2012
- Pennsylvania Anesthesiology Resident Research Competition  
Trent D. Emerick, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
12. **Third Place:** Original Posters 2012
- Pennsylvania Anesthesiology Resident Research Competition  
Trent D. Emerick, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
13. **Oral Abstract Presentation:** Original Research 2012
- Pennsylvania Anesthesiology Resident Research Competition  
Trent D. Emerick, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
14. **First Place:** Original Research 2012
- Western Pennsylvania Society of Anesthesiologists' Resident Research Competition  
Trent D. Emerick, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
15. **Oral Abstract Presentation** 2012
- The 107<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists,  
DC, October 13-17, 2012.  
Trent D. Emerick, MD (PGY3 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2014)
16. **Oral Abstract Presentation** 2013
- The 19<sup>th</sup> Annual International Congress of International Liver Transplantation Society,  
Sydney, Australia, June 12-15, 2013.  
Shu Yang Lu, BS (MS2, University of Pittsburgh School of Medicine)  
& Takashi Matsusaki, MD, PhD (Research fellow, Department of Anesthesiology,  
University of Pittsburgh School of Medicine)
17. **Oral Abstract Presentation:** Case Report 2013
- Pennsylvania Anesthesiology Resident Research Competition  
Eric Ponte, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2015)
18. **Best Poster Abstract:** Research 2013

- Society for Education in Anesthesia 28<sup>th</sup> Annual Meeting,  
Salt Lake City, UT, May 31 - June 2, 2013.  
Nicholas J. Schott, MD (PGY1 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2016)
19. **Young Investigator Award & Oral Abstract Presentation** 2014  
The 2014 Joint International Congress of ILTS, ELITA & LICAGE,  
London, United Kingdom, June 4-7, 2014.  
Shu Yang Lu, BS (MS3, University of Pittsburgh School of Medicine)
20. **Oral Abstract Presentation** 2014  
The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists,  
New Orleans, LA, October 11-15, 2014.  
Ezeldeen Abuelkasem, MD, MSc (Clinical fellow, Division of Hepatic Transplant Anesthesia,  
Department of Anesthesiology, University of Pittsburgh Medical Center)
21. **Oral Abstract Presentation** 2014  
The 109<sup>th</sup> Annual Meeting of the American Society of Anesthesiologists,  
New Orleans, LA, October 11-15, 2014.  
Kristin L. Schreiber, MD, PhD (Alumni Resident Class 2012,  
Department of Anesthesiology, University of Pittsburgh Medical Center)
22. **Oral Abstract Presentation** 2015  
The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and  
the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015.  
Charles Lin, MD. (Assistant Professor,  
Department of Anesthesiology, University of Pittsburgh Medical Center)
23. **Oral Abstract Presentation** 2015  
The 2015 Spring Annual Meeting of the Society of Education in Anesthesia and  
the Association of Surgical Educators. Seattle, WA, April 24 - 26, 2015.  
K. Grace Lim, MD. (Assistant Professor,  
Department of Anesthesiology, University of Pittsburgh Medical Center)
24. **Oral Abstract Presentation** 2015  
The 2015 International Congress of ILTS,  
Chicago, IL, July 8-11, 2015.  
Ezeldeen Abuelkasem, MD, MSc (PGY1 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2018)
25. **Best Poster Abstract:** Original Research 2016  
Pennsylvania Anesthesiology Resident Research Competition  
Daniel Mandell, MD (PGY2 resident, Department of Anesthesiology,  
University of Pittsburgh Medical Center: Class 2018)

## RESEARCH

Grant Number (Funded)	Grant Title	Role and % Effort	Years Source/ Inclusive	\$ Amount
<b>Current Grant Support:</b>				
Seed Grant (2020-2021)	Sugammadex on the patients with end-stage renal disease	Mentor/Co-PI Adams, D (PI)	1	Department of Anesthesiology, University of Pittsburgh Medical Center/\$ 8,000
TOYAMA 2019–2020	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$19,000
<b>Completed Grant Support:</b>				
XG 98-063 (1998-2000)	“Creation of Viable Graft material through Tissue Engineering for Congenital Heart Disease”	Co-Investigator (50%) Li R-K (PI)	2	Hospital for Sick Children Grant (Toronto, Canada)/ \$260,000(CAN)
Research Support (2001-2002)	“Ten-year experience using tacrolimus (FK) as a primary immunosuppression for adult cardiac transplantation at a single institution”	Co-PI (20%) Kormos RL(PI)	1	Fujisawa Inc./\$ 40,000
Technology Development Fund Cycle VII Support (2001-2002)	“Cell therapy for congestive heart failure using skeletal muscle-derived stem cells”	Co-Investigator (20%) Griffith BP/ Wagner WR (PIs)	1	Pittsburgh Tissue Engineering Initiative Inc./\$ 50,000
#0120542U (2001-2003)	“Cell therapy for congestive heart failure using skeletal muscle-derived stem cells”	PI	2*	Post-Doctoral Fellowship Award, American Heart Association- Pennsylvania and Delaware/ \$ 60,000
*(Awarded but declined due to internship / anesthesiology residency training)				
Technology Development Fund Cycle VIII Support (2002-2003)	“Cell therapy for sternal wound healing after cardiac surgery”	Co-PI (20%) Kormos RL (PI)	1	Pittsburgh Tissue Engineering Initiative Inc./\$ 50,000
Technology Development Fund Cycle VIII Support (2002-2003)	“The use of muscle-derived stem cells in cardiovascular medicine”	Co-Investigator (5%) Huard, J (PI)	1	Pittsburgh Tissue Engineering Initiative Inc./\$ 50,000
Seed Grant (2003-2004)	“Creation of vascularized tissue engineered cardiac	PI (20%)	1	American Medical Association Foundation/\$ 2,500

patch using omentum”

Seed Grant (2007-2008)	“How stem cells protect remote regions of brain from ischemic damage”.	PI (50%)	1	Department of Anesthesiology, University of Pittsburgh Medical Center/\$ 8,000
Seed Grant (2010-2011)	“Role of tissue inhibitor of metalloproteinase – 1 and -2 in stem cell mediated neuronal protection in vitro”	PI (50%)	1	Department of Anesthesiology, University of Pittsburgh Medical Center/\$ 8,000
Starter Grant (2010-2013)	“Role of tissue inhibitor of metalloproteinase in stem cell mediated neuronal protection in vitro”	PI (50%)	2	Society of Cardiovascular Anesthesiologists/\$50,000 (total) (No-cost extension to 2013)
TOYAMA 2014–2015	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$6,000
TOYAMA 2016–2017	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$10,500
TOYAMA 2015–2016	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$12,000
Seed Grant (2016-2017)	Temporary Occlusion of the Esophagus in Patients Requiring Emergent Intubation	Mentor and Co-Investigator Carullo, P (PI)	1	Department of Anesthesiology, University of Pittsburgh Medical Center/\$ 8,000
SEAd Grant 2016–2017	Residents as Teachers: Effect of a Patient Education Strategy on Resident Self-Efficacy and Maternal Outcomes (The EDUCATE Study).	Mentor and Co-Investigator Lim KG (PI)	1	Society of Education in Anesthesia / \$10,000
TOYAMA 2017–2018	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$15,000
TOYAMA 2018–2019	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$16,000

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**Grant Pending: None**

**Approved Studies:**

On-Going:

1. “Evaluation of the clinical usage of Sugammadex at the UPMC sites” UPMC QI Project ID: 976 (PI: **Sakai T**); Initial approval: February 21, 2017. IRB approval (September 24, 2018)
2. UPMC Thomas E. Starzl Transplant Research Registry, IRB #: 0307037 (PI: Humar, A; Co-investigator: **Sakai T**)

## Completed:

1. "A Retrospective Chart Review to Assess the Safety and Efficacy of Perioperative Treprostinil Sodium in Patients with End Stage Liver Disease Receiving an Orthotopic Liver Transplant."  
University of Pittsburgh School of Medicine #IRB PRO08040051 (Exempt) (PI: **Sakai**) June 3, 2008.
2. "Use of Ultrasound and Needle Guide for Internal Jugular Central Venous Catheterization by Residents."  
University of Pittsburgh School of Medicine #IRB PRO09090005 (Exempt) (PI: Scouras, Co-Investigator: **Sakai**) October 5, 2009.
3. "Predictors of Acute Kidney Injury and Acute Renal Failure after Orthotopic Liver Transplantation"  
University of Pittsburgh School of Medicine #IRB PRO10050135 (Exempt) (PI: Hilmi, Co-Investigator: **Sakai**) May 21, 2010.
4. "Research Training for Residents as Lead Investigators in a Simulated Prospective Randomized Clinical Trial: Use of PBLD Format"  
University of Pittsburgh School of Medicine #IRB PRO10120051 (Exempt) (PI: **Sakai**) December 6, 2010.
5. "Assessment of Research Initiatives for Anesthesiology Residents"  
University of Pittsburgh School of Medicine #IRB PRO10120290 (Exempt) (PI: **Sakai**) December 23, 2010.
6. "A Retrospective Chart Review to Assess Incidence, Outcome, and Risk Factors for Postoperative Pulmonary Complications in the Patients who Underwent Laryngectomy "  
University of Pittsburgh School of Medicine #IRB [PRO11070497](#) (Expedited) (PI: **Sakai**) Initial approval: August 21, 2011.
7. "Assessment of Research Initiatives for Anesthesiology Residents - Comparison Using the Rank to Match Population as the Control Group"  
University of Pittsburgh School of Medicine #IRB [PRO11120060](#) (Exempt) (PI: **Sakai**) December 06, 2011.
8. "Prospective Randomized Comparative Study Between Epidural and Bilateral Paravertebral Blocks for Perioperative Pain Management in Patients Undergoing Open Liver Resection."  
University of Pittsburgh School of Medicine #IRB PRO09070393 (Full Board) (PI: **Sakai**) Initial approval: August 5, 2010.
9. "Prospective Observational Study Comparing ROTEM and TEG for Coagulation Parameters in Patients Undergoing Liver Transplantation"  
University of Pittsburgh School of Medicine #IRB [PRO12120173](#) (Full Board) (PI: **Sakai**) Initial approval: April 23, 2013.
10. "System based project for anesthesiology residents: a 10-year single center experience"  
University of Pittsburgh School of Medicine #IRB [PRO13070600](#) (Exempt) (PI: Emerick; Faculty sponsor and Co-Investigator: **Sakai**) Initial approval: November 14, 2013.
11. "Teaching Peri-operative Ultrasound to Anesthesiology Residents "  
University of Pittsburgh School of Medicine #IRB [PRO13060508](#) (Expedited) (PI: Schott; Faculty mentor: **Sakai**) Initial approval: November 14, 2013.
12. "Post-Operative Use of FATE by PACU Anesthesiology Residents"  
University of Pittsburgh School of Medicine #IRB [PRO13080516](#) (Exempt) (PI: Schott; Faculty sponsor and Co-Investigator: **Sakai**) Initial approval: May 21, 2014.
13. "Efficacy of an Epidural Anesthesia Workshop Curriculum for Milestone Achievement in Junior Anesthesiology Residents" University of Pittsburgh School of Medicine #IRB PRO14050455 (Exempt) (PI: Lim KG; Co-investigator: **Sakai T**) Initial approval: May 21, 2014.
14. "Anesthesiology Professional Practice Rotation for Clinical Base Year Interns: Impact on Scholarly Participation"  
University of Pittsburgh School of Medicine #IRB PRO[PRO15030293](#) (Exempt) (PI: **Sakai T**) Initial approval: March 26, 2015.
15. "Safety and Effectiveness of Sugammadex in Surgical Patients with End Stage Renal Disease" IRB#: PRO18080387 (PI: **Sakai T**); Initial approval: September 26, 2018.

## **Other Research Related Activities:**

### Journal Reviewing:

1. The Annals of Thoracic Surgery (March 2003)
2. Liver Transplantation (July 2007)
3. Liver Transplantation (November 2007)
4. Liver Transplantation (February 2008)
5. Liver Transplantation (March 2008)
6. Liver Transplantation (April 2008)
7. Liver Transplantation (May 2008)
8. Liver Transplantation (August 2008)
9. Liver Transplantation (February 2009)
10. Liver Transplantation (June 2009)
11. Regenerative Medicine (September 2009)
12. Regenerative Medicine (December 2009)
13. Journal of Anesthesia (November 2010)
14. Journal of Anesthesia (January 2011)
15. Annals of Transplantation (February 2011)
16. Journal of Anesthesia (March 2011)
17. Transplant International (April 2011)
18. American Journal of Transplantation (April 2011)
19. Transplant International (May 2011)
20. Transplant International (July 2011)
21. Journal of Anesthesia (August 2011)
22. ALCOHOLISM-CLINICAL AND EXPERIMENTAL RESEARCH (September 2011)
23. Journal of Anesthesia (October 2011)
24. Open Journal of Anesthesiology (October 2011)
25. Open Journal of Organ Transplantation Surgery (November 2011)
26. American Journal of Transplantation (November 2011)
27. Open Journal of Anesthesiology (December 2011)
28. Annals of Transplantation (February 2012)
29. Yonsei Medical Journal (February 2012; R1 review in April 2012)
30. Journal of Anesthesia (April 2012)
31. Hepatobiliary & Pancreatic Diseases International (April 2012; R1 review in May 2012)
32. Transplant International (April 2012)
33. Journal of Anesthesia (April 2012)
34. Antioxidants & Redox Signaling (June 2012)
35. Anesthesiology Research and Practice (June 2012)
36. American Journal of Transplantation (August 2012)
37. Transfusion (September 2012)
38. Annals of Transplantation (November 2012)
39. Minerva Anesthesiologica (December 2012; R1 review in March 2013)
40. Clinical Transplantation (April 2013)
41. Transfusion (April 2013)
42. Korean Journal of Anesthesiology (May 2013)
43. Anesthesiology (May 2013; R1 review in September 2013)
44. Korean Journal of Anesthesiology (July 2013)
45. Transfusion (September 2013)
46. Journal of Anesthesia (October 2013)
47. Minerva Anesthesiologica (November 2013)
48. Minerva Anesthesiologica (December 2013)
49. BioMed Central Medical Education (January 2014; R1 in May 2014; R2 in August 2014)
50. Minerva Anesthesiologica (February 2014)
51. Journal of Anesthesia (February 2014)
52. Minerva Anesthesiologica (May 2014; R1 review in July 2014; R2 in October 2014)
53. JAMA (June 2014)

54. Transplant International (August 2014)
55. Liver Transplantation (October 2014)
56. BioMed Central Surgery (December 2014)
57. Journal of Anesthesia (January 2015; R1 review in September 2015)
58. Transfusion (February 2015)
59. Minerva Anesthesiologica (March 2015)
60. Journal of Anesthesia (May 2015)
61. Transfusion (May 2015)
62. Clinical Transplantation (May 2015; R1 review in October 2015)
63. Korean Journal of Anesthesiology (June 2015)
64. Transplantation (September 2015; R1 review in January 2016)
65. Clinical Experimental Hypertension (October 2015)
66. Minerva Anesthesiologica (October 2015)
67. Minerva Anesthesiologica (November 2015)
68. Minerva Anesthesiologica (December 2015)
69. Acta Anaesthesiologica Scandinavica (December 2015; R1 review in January 2016)
70. Journal of Critical Care (April 2016)
71. Transplantation (May 2016)
72. Thrombosis and Hemostasis (May 2016)
73. Korean Journal of Anesthesiology (June 2016)
74. British Journal of Anaesthesia (July 2016; R1 in December 2016; R2 in Feb. 2017)
75. Liver Transplantation (October 2016)
76. Minerva Anesthesiologica (October 2016)
77. Seminars in Cardiothoracic and Vascular Anesthesia (December 2016; R1 review in February 2017)
78. Seminars in Cardiothoracic and Vascular Anesthesia (December 2016)
79. Minerva Anesthesiologica (December 2016)
80. Journal of Anesthesia (December 2016)
81. Transfusion (December 2016)
82. BioMed Central Anesthesiology (January 2017)
83. Journal of Clinical Anesthesia (January 2017)
84. PROS ONE (January 2017)
85. Journal of Education in Perioperative Medicine (January 2017)
86. PROS ONE (January 2017)
87. Journal of Clinical Anesthesia (January 2017)
88. Journal of Anesthesia (January 2017)
89. American Journal of Transplantation (January 2017)
90. Journal of Clinical Anesthesia (February 2017)
91. Transplantation (February 2017)
92. Liver Transplantation (March 2017)
93. PROS ONE (March 2017; R1 review in April 2017)
94. Minerva Anesthesiologica (March 2017)
95. Transplantation (April 2017)
96. Minerva Anesthesiologica (April 2017)
97. Transplantation (May 2017)
98. Seminars in Cardiothoracic and Vascular Anesthesia (May 2017)
99. Seminars in Cardiothoracic and Vascular Anesthesia (May 2017)
100. Transplantation (June 2017) (R1 review in September 2017)
101. Journal of Clinical Anesthesia (June 2017)
102. Clinical Transplantation (June 2017) (R1 review in July 2017)
103. Journal of Clinical Anesthesia (July 2017)
104. Journal of Clinical Anesthesia (July 2017)
105. Journal of Anesthesia (July 2017) (R1 review in November 2017)
106. Seminars in Cardiothoracic and Vascular Anesthesia (July 2017) (R1 review in August 2017)



107. Seminars in Cardiothoracic and Vascular Anesthesia (July 2017) (R1 review in August 2017)
108. Seminars in Cardiothoracic and Vascular Anesthesia (July 2017) (R1 review in August 2017)
109. Seminars in Cardiothoracic and Vascular Anesthesia (July 2017) (R1 review in August 2017)
110. Seminars in Cardiothoracic and Vascular Anesthesia (July 2017) (R1 review in August 2017)
111. Seminars in Cardiothoracic and Vascular Anesthesia (July 2017) (R1 review in August 2017)
112. Seminars in Cardiothoracic and Vascular Anesthesia (August 2017) (R1 review in September 2017)
113. Seminars in Cardiothoracic and Vascular Anesthesia (August 2017) (R1 review in September 2017)
114. Journal of Education in Perioperative Medicine (August 2017) (R1 review in September 2017)
115. Medical Education (August 2017)
116. Journal of Clinical Anesthesia (September 2017)
117. Korean Journal of Anesthesiology (September 2017)
118. Journal of Clinical Anesthesia (September 2017)
119. Transfusion (September 2017)
120. Minerva Anesthesiologica (September 2017)
121. Transplantation (September 2017)
122. Hepatobiliary & Pancreatic Diseases International (September 2017)
123. Transfusion (October 2017)
124. Minerva Anesthesiologica (November 2017)
125. Journal of Education in Perioperative Medicine (December 2017)
126. Transplantation Direct (December 2017)
127. Minerva Anesthesiologica (January 2018)
128. American Journal of Transplantation (January 2018)
129. Thrombosis and Hemostasis (January 2018)
130. Minerva Anesthesiologica (January 2018) (R1 review in May 2018)
131. Journal of Anesthesia (February 2018) (R1 review in March 2018)
132. Journal of Education in Perioperative Medicine (February 2018)
133. Transplant International (March 2018) (R1 review in May 2018)
134. BioMed Central Anesthesiology (April 2018)
135. Minerva Anesthesiologica (April 2018) (R1 review in July 2018)
136. Journal of Clinical Anesthesia (April 2018)
137. BioMed Central Anesthesiology (April 2018)
138. Korean Journal of Anesthesiology (May 2018) (R1 review in July 2018)
139. PROS ONE (May 2018)
140. Transfusion (June 2018)
141. Journal of Clinical Anesthesia (June 2018)
142. BioMed Central Pulmonary Medicine (July 2018) (R1 review in September 2018)
143. Journal of Clinical Anesthesia (July 2018)
144. Journal of Education in Perioperative Medicine (August 2018)
145. Thrombosis Research (August 2018)
146. Journal of Anesthesia (September 2018)
147. BioMed Central Anesthesiology (September 2018)
148. Journal of Clinical Anesthesia (September 2018)
149. Minerva Anesthesiologica (October 2018)
150. BioMed Central Anesthesiology (October 2018) (R1 review in January 2019)
151. Journal of Education in Perioperative Medicine (October 2018)
152. Transplantation (November 2018)
153. Journal of Anesthesia (November 2018)
154. International Journal of Cerebrovascular Disease and Stroke (December 2018)
155. Journal of Education in Perioperative Medicine (December 2018)
156. PROS ONE (December 2018) (R1 review in February 2019)
157. Transplantation Direct (January 2019)
158. BioMed Central Anesthesiology (January 2019)
159. Journal of Clinical Anesthesia (January 2019)

160. Minerva Anesthesiologica	(January 2019)
161. Transplantation	(February 2019)
162. BioMed Central Anesthesiology	(February 2019) (R1 review in March 2019)
163. BMJ Quality & Safety	(April 2019)
164. Journal of Education in Perioperative Medicine	(April 2019)
165. Minerva Anesthesiologica	(April 2019) (R1 review in June 2019)
166. Journal of Anesthesia	(May 2019)
167. Journal of Education in Perioperative Medicine	(June 2019)
168. Journal of Clinical Anesthesia	(June 2019)
169. Journal of Education in Perioperative Medicine	(June 2019)
170. Journal of Anesthesia	(July 2019)
171. BioMed Central Anesthesiology	(July 2019)
172. Journal of Clinical Anesthesia	(September 2019)
173. BioMed Central Anesthesiology	(February 2020)
174. BioMed Central Anesthesiology	(February 2020)
175. Transplantation	(February 2020)
176. Journal of Clinical Monitoring and Computing	(April 2020)
177. Transplantation Direct	(April 2020) (R1_May 2020)
178. Minerva Anesthesiologica	(May 2020)
179. Korean Journal of Anesthesiology	(May 2020)
180. Journal of Education in Perioperative Medicine	(June 2020)
181. Journal of Clinical Medicine (IF 3.303)	(July 2020)
182. Seminars in Cardiothoracic and Vascular Anesthesia	(July 2020)

Extramural Grant Reviewing:

1. <b>Greenhouse Fund</b> , BioAdvance Inc. Biotechnology Greenhouse of Southeastern Pennsylvania; The company is part of a \$2 billion life science initiative funded by the Commonwealth of Pennsylvania from its tobacco settlement award)	2003
2. <b>CMRF</b> (Competitive Medical Research Fund), University of Pittsburgh School of Medicine,	2010
3. <b>The SEAd Grant</b> (Society for Education in Anesthesia),	2016 - Present
4. <b>National Institute of Academic Anaesthesia e-Grants</b> (NIAA e-grants, London, UK),	2017

Meeting Abstract Reviewing:

1. <b>Abstract reviewer</b> , Pennsylvania Anesthesiology Resident Research Competition	2009 - Present
2. <b>Abstract reviewer</b> , Society for Education in Anesthesia (SEA)	2012 - Present
3. <b>Abstract reviewer</b> , The International Anesthesia Research Society (IARS)	2016 – Present
4. <b>Abstract reviewer</b> , The Association of University Anesthesiologists (AUA)	2017 – Present

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**ADMINISTRATIVE / SERVICE**

**International:**

1. <b>Member</b> , Scientific Committee (Kidney Dysfunction in the critically ill liver patient), The Liver Intensive Care Group of Europe (LICAGE)	2014 – Present
2. <b>Educational Consultant</b> for Toyama Central Prefectural Hospital UPMC Observer Program	2014 – Present
3. <b>Educational Consultant</b> for Toyama Prefecture UPMC Observer Program	2017 – Present
4. <b>Board Member</b> , The Society for the Advancement of Transplant Anesthesia (SATA):	2016 – present
5. <b>Secretary</b> , The Society for the Advancement of Transplant Anesthesia (SATA):	2017 – 2019
6. <b>President-Elect</b> , The Society for the Advancement of Transplant Anesthesia (SATA):	2019 – present

**National:**

1. **Member**, Research Committee, Society for Education in Anesthesia 2012 – Present
2. **Chair-Designee**, Research Committee, Society for Education in Anesthesia 2015 – Present
3. **Organizing Chair**, Annual Spring Meeting of the Society for Education in Anesthesia 2022

#### University and Medical School:

1. **Member, The CAPS** (CSML Alumni Peer Support) Subcommittee, University of Pittsburgh School of Medicine 2011 – 2013
2. **Member, Patient Blood Management Committee**, University of Pittsburgh School of Medicine 2014 – Present
3. **Faculty Advisor, FAST Program** (MS-1 orientation program), University of Pittsburgh School of Medicine Office of Student Affairs 2015 – 2016
4. **Faculty Advisor, FAST Program** (MS-1 orientation program), University of Pittsburgh School of Medicine Office of Student Affairs 2016 – 2017
5. **Member, the Non-Tenured Faculty Promotions and Appointments (NTFPA) Committee**, University of Pittsburgh School of Medicine, Office of Faculty Affairs (fulfilled the three-year term) 2016 – 2019

#### Department of Anesthesiology:

- 1 **Rotation Director (inaugural)**, Resident Research Rotation, Department of Anesthesiology, University of Pittsburgh School of Medicine 2006 – Present
- 2 **Member**, Resident Education Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2006 – Present
- 3 **Member**, Quality Improvement (QI) Committee, Department of Anesthesiology, University of Pittsburgh Medical Center 2006 – 2012
- 4 **Member**, the UPMC Department of Anesthesiology Risk Management Review Committee 2009 – 2013
- 5 **Chair (inaugural)**, Resident Abstract Review Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2011 – Present
- 6 **Faculty Representative** on the Presbyterian Professional Practice Council, Department of Anesthesiology, University of Pittsburgh School of Medicine 2012 – 2013
- 7 **Member**, Resident Curriculum Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2012 – Present
- 8 **Member**, T32 Executive Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2012 – Present
- 9 **Member**, Resident Evaluation Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2013 – Present
- 10 **Chair (inaugural)**, Resident Manuscript Review Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2013 – Present
- 11 **Faculty Chair (inaugural)**, Resident Poster Review Committee, Department of Anesthesiology, University of Pittsburgh School of Medicine 2013 – Present
- 12 **Rotation Director (inaugural)**, CBY Anesthesiology Professional Practice, Department of Anesthesiology, University of Pittsburgh School of Medicine 2014 – Present
- 13 **Member, Executive Steering Committee**, Department of Anesthesiology, University of Pittsburgh School of Medicine 2015 – 2016
- 14 **Editor-in-Chief (inaugural), Pittsburgh Journal of Anesthesiology**, Department of Anesthesiology, University of Pittsburgh School of Medicine 2015 – 2019
- 15 **Chair-Designee (inaugural), Department Educational Grant Committee**, Department of Anesthesiology, University of Pittsburgh School of Medicine 2017 – Present
- 16 **Chair (inaugural)**, Resident Didactic Remediation, Department of Anesthesiology, University of Pittsburgh School of Medicine 2019 – Present

## Other Activities:

1. **Examiner**, Fall PGY3 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine November 21, 2005
2. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 28, 2007
3. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 12, 2008
4. **Examiner**, PGY2 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine January 13, 2009 & January 27, 2009
5. **Examiner**, PGY4 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine April 6, 2009
6. **Examiner**, PGY4 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine October 26, 2009
7. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 3, 2009
8. **Examiner**, PGY4 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine November 3, 2009
9. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 10, 2009
10. **Examiner**, PGY2 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine January 13, 2010
11. **Invited Examiner**, Faculty mock oral examination (Xianren Wu, MD) March 5, 2010
12. **Invited Examiner**, Faculty mock oral examination (Babak Mahyar, MD) April 7, 2010
13. **Examiner**, PGY4 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine April 26, 2010
14. **Pain fellowship candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine July 15, 2010
15. **Liver Transplantation Anesthesia fellowship candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine September 15, 2010
16. **Examiner**, PGY4 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine November 8 and 10, 2010
17. **Examiner**, PGY2 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine January 11, 2011
18. **Invited Examiner**, Fellow mock oral examination (Lavinia M. Kolarczyk, MD) April 8, 2011
19. **Examiner**, PGY4 mock oral examination, Department of Anesthesiology, University of Pittsburgh School of Medicine April 11, 2011
20. **NIH T32 Fellowship candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine May 9, 2011
21. **Dinner Table Host**, the 2011 UPPDA Postdoctoral Data & Dine Symposium presented by Office of Academic Career Development, The William Pitt Student Union Building, Pittsburgh, PA. June 9, 2011
22. **T32 Training Grant Faculty Meeting**, NIH/NIGMS site visit for T32 competitive renewal (PI: Xu Y.), Department of Anesthesiology, University of Pittsburgh School of Medicine, Pittsburgh, PA June 29, 2011
23. **Planning meeting**, The CAPS (CSML Alumni Peer Support) Subcommittee, University of Pittsburgh School of Medicine August 12, 2011
24. **FAER Buddy Program** at the SEA 2011 Fall Annual Meeting, the SEA 2011 Fall Annual Meeting, Chicago, IL October 14, 2011
25. **Faculty meeting with the ACGME program reviewer**: ACGME site visit to evaluate residency program at Department of Anesthesiology, University of Pittsburgh School of Medicine. November 8, 2011

26. **Liver Transplantation Anesthesia faculty candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 10, 2011
27. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine December 21, 2011
28. **Invited Examiner**, Fellow mock oral examination (Sarah Lasalle, MD) February 22, 2012
29. **Invited Examiner**, Fellow mock oral examination (Gabriel Jacob, MD) March 20, 2012
30. **Invited Examiner**, Fellow mock oral examination (Wadid Zaky, MD) July 25, 2012
31. **FAER Buddy Program** at the SEA 2012 Fall Annual Meeting, the SEA 2012 Fall Annual Meeting, DC. October 12, 2012
32. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 9, 2012
33. **Organizer, Pre-PARRC Mock Oral Presentation Session** (Drs. Daniel Ford, Eric Ponte, and Keith Vogt), Department of Anesthesiology, University of Pittsburgh School of Medicine May 9, 2013
34. **Liver Transplantation Anesthesia fellow candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine July 18, 2013
35. **Invited Examiner**, Fellow mock oral examination (Daniel Cormican MD) February 27, 2014
36. **Invited Examiner**, Fellow mock oral examination (Ali Abdullah, MD) March 7, 2014
37. **Invited Examiner**, Fellow mock oral examination (Sharanya Nama, MD) May 14, 2015
38. **Ad Hoc Interviewer – Department Chairperson Selection**, Department of Anesthesiology, University of Pittsburgh School of Medicine 2018
39. **Anesthesia faculty candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine July 22, 2020

#### Consultations / Coaching:

1. **Consultant**, Point-of-care coagulation device evaluation and selection, Department of Anesthesiology, University of Pittsburgh School of Medicine 2013 – 2014
2. **Coaching**, Educational intervention and assistance for the residents with lower AKT1 score (Project Phoenix), Department of Anesthesiology, University of Pittsburgh School of Medicine 2013 – Present
3. **Invited Consultant** for Mr. Jack Berkebile (Vice President, International Business Development, International and Commercial Service Division, UPMC) at UPMC visit of Senior Vice Minister of Japan Cabinet Office (Mr. Yasutoshi Nishimura), Shadyside Hospital, Pittsburgh May 3, 2014
4. **Invited Consultant** for Akihiro Matsukawa, MD, PhD (Associate Dean, Okayama University School of Medicine, Professor and Chair, Department of Pathology and Experimental Medicine, Okayama University School of Medicine) for UPMC visit at UPMC Montefiore Hospital, Pittsburgh. May 8, 2014

#### Requested External/Internal Evaluator for Faculty Promotion:

1. Promotion to Associate Professor of Department of Anesthesiology, The University of Miami School of Medicine July 2011
2. Promotion to Associate Professor of Department of Anesthesiology, Pennsylvania State University College of Medicine December 2011
3. Application for membership to Association of University Anesthesiologists March 2014
4. Application for membership to Association of University Anesthesiologists January 2015
5. Promotion to Associate Professor of Department of Surgery, University of Pittsburgh School of Medicine June 2015
6. Promotion to Associate Professor of Department of Anesthesiology, The George Washington University School of Medicine January 2017
7. Promotion to Associate Professor of Department of Anesthesiology,

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|     | Vanderbilt University  | February 2018 |
| 8.  | Promotion to Associate Professor of Department of Anesthesiology,<br>University of Michigan                              | July 2018     |
| 9.  | Promotion to Professor of Department of Anesthesiology, Icahn School of Medicine,<br>Mt. Sinai, NY                       | January 2019  |
| 10. | Promotion to Professor of Department of Anesthesiology, Yale University  | January 2019  |
| 11. | Promotion to Associate Professor of Department of Anesthesiology,<br>University of Illinois, Chicago IL                  | April 2019    |
| 12. | Promotion to Associate Professor of Department of Anesthesiology,<br>Icahn School of Medicine, Mt. Sinai, NY             | April 2019    |
| 13. | Promotion to Associate Professor of Department of Anesthesiology,<br>University of Miami Miller School of Medicine       | May 2019      |
| 14. | Promotion to Associate Professor of Department of Anesthesiology,<br>Icahn School of Medicine, Mt. Sinai, NY             | August 2019   |
| 15. | Promotion to Professor of Department of Anesthesiology,<br>Pennsylvania State University College of Medicine             | August 2019   |
| 16. | Promotion to Associate Professor of Anaesthesia at Harvard Medical School  | February 2020 |
| 17. | Promotion to Professor of Anesthesiology, Department of Anesthesiology,<br>the University of Colorado School of Medicine | May 2020      |

**Community Activities:**

1. Mentorship and consultation for Japanese physicians to study in the United States