

CURRICULUM VITAE

BIOGRAPHICAL

Name: Tetsuro Sakai, MD, PhD,
MHA, FASA

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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
Konoe - cho, Yoshida
Sakyo - ku, Kyoto, Japan, 606-8507
Medicine (Cardiovascular Surgery)

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
SATA Division of Cardiovascular Surgery
The Toronto Hospital, University of Toronto
200 Elizabeth St.
Toronto, Ontario, Canada, M5G 2C4

Sept./96 – June/99 **Clinical Fellow** Tirone E. David, MD
Division of Cardiovascular Surgery Charles M. Peniston, MD
The Toronto Hospital

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

APPOINTMENTS AND POSITIONS

ACADEMIC:

May/95 – June/96	Department of Cardiovascular Surgery Tenri Hospital 200 Mishima, Nara, Japan, 632	Clinical Instructor
Nov./99 – June/01	Division of Cardiothoracic Surgery (Heart & Lung Transplantation) Department of Surgery University of Pittsburgh School of Medicine UPMC Presbyterian 200 Lothrop Street Pittsburgh, PA, 15213-2582	Visiting Instructor
July/01 – Present	The McGowan Institute for Regenerative Medicine, University of Pittsburgh School of Medicine 100 Technology Drive, Suite 200 Pittsburgh, PA 15219-3110	Member Faculty
July/05 – Oct./06	Department of Anesthesiology, University of Pittsburgh School of Medicine	Visiting Instructor

Nov./06 – May/07	A-1305 Scaife Hall 3550 Terrace St. Pittsburgh, PA 15261 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 Appointments:

July/06 – Present	Department of Anesthesiology University of Pittsburgh School of Medicine Pittsburgh, PA	Director of Resident Research
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

NON-ACADEMIC:

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

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 25th Annual Meeting,
Pittsburgh, PA, June 4-6, 2010.
9. **A Poster of Distinction** (Top 10%): Anesthesia/Critical Care Medicine 2010
The 16th Annual Meeting of the International Liver Transplantation Society,
Hong Kong, China, June 16-19, 2010.

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| 10. | The Best Curriculum Poster,
Society for Education in Anesthesia, the 26 th Annual Meeting,
San Antonio, Texas, June 3-5, 2011. | 2011 |
| 11. | Resident Teaching Award (Mentoring Resident Scholarly Activity)
Department of Anesthesiology, University of Pittsburgh Medical Center | 2011 |
| 12. | Chairman's Recognition for Teaching Contributions
Department of Anesthesiology, University of Pittsburgh Medical Center | 2011 |
| 13. | Nominee, the Teacher of the Year Award
Department of Anesthesiology, University of Pittsburgh Medical Center | 2012 |
| 14. | Elected Member, Association of University Anesthesiologists | 2013 – Present |
| 15. | Faculty Honoree,
The 39 th 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) | 2015 |
| 16. | Elected Member, Academy of Master Educators
The University of Pittsburgh School of Medicine | 2015 - 2020 |
| 17. | Faculty Honoree,
The 40 th 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) | 2016 |
| 18. | Faculty Honoree,
The 41 st 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) | 2017 |
| 19. | Faculty of American Society of Anesthesiologists (FASA) | 2018 |
| 20. | The Dr. Peter M. Winter Award for Excellence in Medical Student Teaching
(For outstanding contribution to medical student education;
voted by the medical students rotated at UPMC anesthesiology
during the academic year 2018) | 2018 |
| 21. | The Distinguished Educator in Anesthesiology Award
(For outstanding contribution to anesthesia education, awarded jointly by
American Society of Anesthesiology and Society for Education in Anesthesia) | 2019 |

PUBLICATIONS

Complete List of Published Work in My Bibliography:

[http://www.ncbi.nlm.nih.gov/pubmed/?term=\(\(%22Tenri%22%5BAll+Fields%5D+OR+%22toronto+hospital%22%5BAll+Fields%5D\)+OR+%22university+of+pittsburgh%22%5BAll+Fields%5D\)+AND+%22sakai+t%22%5BAll+Fields%5D+AND+%22anesthesiology%22%5BAll+Fields%5D+OR+%E2%80%9Csurgery%E2%80%9D%5BAll+Fields%5D\)](http://www.ncbi.nlm.nih.gov/pubmed/?term=((%22Tenri%22%5BAll+Fields%5D+OR+%22toronto+hospital%22%5BAll+Fields%5D)+OR+%22university+of+pittsburgh%22%5BAll+Fields%5D)+AND+%22sakai+t%22%5BAll+Fields%5D+AND+%22anesthesiology%22%5BAll+Fields%5D+OR+%E2%80%9Csurgery%E2%80%9D%5BAll+Fields%5D))

<https://scholar.google.com/citations?user=wgevfwgAAAAJ&hl=en&scioq=t+sakai+pittsburgh>

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 drug 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.
63. 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 Dec;22(4):376-382.
64. Adams DR, Tollinche LE, Yeoh CB, Artman J, Mehta M, Phillips D, Fischer GW, Quinlan JJ, **Sakai T** (corresponding). Short-term safety and effectiveness of sugammadex for surgical patients with end-stage renal disease: a two-centre retrospective study. *Anaesthesia*. 2020;75(3):348–352.
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Podcasts:

1. **Seminars in Cardiothoracic and Vascular Anesthesia March 2017 Podcast** <http://sagecardiology.sage-publications.libsypnpro.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. <https://www.anesthesiology.pitt.edu/research> (June 2020)
3. Update and Maintenance, “Basic Research”, Department of Anesthesiology and Perioperative Medicine, UPMC. <https://www.anesthesiology.pitt.edu/research/basic-research> (June 2020)

4. Update and Maintenance, "Clinical & Translational Research", Department of Anesthesiology and Perioperative Medicine, UPMC. <https://www.anesthesiology.pitt.edu/research/clinical-translational-research> (June 2020)
5. Developer, "Faculty Development", Department of Anesthesiology and Perioperative Medicine, UPMC. <https://www.anesthesiology.pitt.edu/faculty-development> (July 2020)
6. Developer, "Five-Minute Onboarding Manual Series for New Faculty", Department of Anesthesiology and Perioperative Medicine, UPMC. <https://www.anesthesiology.pitt.edu/faculty-development/five-minute-onboarding-manual-series-new-faculty> (July 2020)
7. Editor and Contributing Author, "RESEARCH TIPS: September 2021: Education Research - Foundations and Practical Advice": The Society for Education in Anesthesia. <https://www.seahq.org/page/research-tips> (September 2021)

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ABSTRACTS (not published in Scientific Journals since 1998)

1. **Sakai T.** Li RK. Weisel RD. Mickle DA. Kim EJ. Tomita S. Jia ZQ. Autologous cardiomyocyte transplantation improves cardiac function after myocardial injury. (The 35th Annual Meeting of The Society of Thoracic Surgeons, San Antonio, TX, January 25-27, 1999)
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10. **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. (The 12th Annual Meeting of the International Liver Transplantation Society, Milan, Italy, May 3-6, 2006. **Oral Presentation**)
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22. **Sakai T** (corresponding), Tanaka KA, Dai F, Hilmi IA, Planinsic RM. Potential risk factors for pulmonary embolism during adult liver transplantation. (The 15th Annual Meeting of the International Liver Transplantation Society, New York City, NY, July 8-11, 2009. **Oral Presentation**)
23. **Sakai T** (corresponding), Xu Y. Stem Cells Decreased Neuronal Cell Death after Hypoxic Stress in Primary Fetal Rat Neurons. (The 104th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 17-21, 2009); (The 57th Annual Meeting of the Association of University Anesthesiologists, Denver, CO, April 7-9, 2010)
24. **Sakai T** (corresponding), Metro DG, Patel R, Hirsch S, Xu Y. Can We Facilitate Anesthesiology Residents' Research Activity? (The 25th Annual Meeting of the Society for Education in Anesthesia, Pittsburgh, PA, June 4-6, 2010. **The Best Curriculum Poster**)
25. Matsusaki T, **Sakai T**, Morimatsu H, Mizobuchi S, Morita K. Anesthesiology Resident Education in Okayama University Hospital, Japan. (The 25th Annual Meeting of the Society for Education in Anesthesia, Pittsburgh, PA, June 4-6, 2010)
26. **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 16th Annual Meeting of the International Liver Transplantation Society, Hong Kong, China, June 16-19, 2010. **A Poster of Distinction**)
27. **Sakai T** (corresponding), Tanaka KA, Dai F, Hilmi IA, Planinsic RM. Risk Factors for Intraoperative Pulmonary Thromboembolism in Adult Liver Transplantation. (The 105th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010)
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29. Matsusaki T, **Sakai T** (corresponding), Boucek CD, Hilmi IA, Planinsic RM, Aggarwal S. Alternative Vascular Access in Patients Undergoing Small Bowel/multivisceral Transplantation. (The 105th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010)
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31. Lang RS, Esper S, Montoya M, **Sakai T**, Hilmi I, Planinsic R. Development of a New Anesthetic Protocol for Hand Transplantation. (The 58th Annual Meeting of the Association of University Anesthesiologists, Philadelphia, PA, May 12-14, 2011)
32. 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 58th 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)
33. 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 58th Annual Meeting of the Association of University Anesthesiologists, Philadelphia, PA, May 12-14, 2011); (The 26th Annual Meeting of the Society for Education in Anesthesia, San Antonio, TX, June 3-5, 2011); (The 106th Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)
34. **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)
35. 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 26th Annual Meeting of the Society for Education in Anesthesia, San Antonio, TX, June 3-5, 2011. **Oral presentation**); (The 106th Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)

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40. Matsusaki T, Hilmi, IA, Boucek, CD, Planinsic, RM, **Sakai, T** (corresponding). Complications due to Invasive Hemodynamic Monitors used during Adult Liver Transplantation. (The 106th Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011)
41. 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 27th Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107th Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
42. Emerick T, Metro DG, Patel RM, **Sakai T** (corresponding). Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? (The 59th Annual Meeting of the Association of University Anesthesiologists, Cleveland, OH, May 17-19, 2012); (The 27th Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107th Annual Meeting of the American Society of Anesthesiologists, Washington DC., October 13-17, 2012. **Oral Presentation**)
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44. **Sakai T** (corresponding), Metro DG, Emerick T, Patel RM, Xu Y. Resident Scholarly Activity: A Comparison Study Using a Rank-to-Match Population. (The 59th Annual Meeting of the Association of University Anesthesiologists, Cleveland, OH, May 17-19, 2012); (The 27th Annual Meeting of the Society for Education in Anesthesia, Milwaukee, WI, June 1-3, 2012); (The 107th Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
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46. 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 107th Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012)
47. 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 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013)
48. Hackett PJ, Guirguis M, Sakai N, **Sakai T** (corresponding). 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); (NYSSA 67th Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013)

49. 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 19th Annual International Congress of International Liver Transplantation Society, Sydney, Australia, June 12-15, 2013. **Oral presentation**)
50. Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T** (corresponding). Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. (The 60th Annual Meeting of the Association of University Anesthesiologists, Miami, FL, April 4-6, 2013); (The 28th Annual Meeting of the Society for Education in Anesthesia, Salt Lake City, UT, May 31 - June 2, 2013. **Best Poster, Research Section**); (The 108th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013)
51. 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**)
52. Lu SY, Abuelkasem E, Planinsic RM, Tanaka KA, **Sakai T** (corresponding). Comparison between Kaolin Thromboelastography and Rapid Thromboelastography in Liver Transplantation. (NYSSA 67th Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013)
53. 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 67th Annual PostGraduate Assembly in Anesthesiology, New York City, NY, December 13-17, 2013)
54. 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 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)
55. Abuelkasem E, Tanaka KA, Planinsic RM, **Sakai T** (corresponding). Comparison between Thromboelastography and Thromboelastometry in Liver Transplantation. (The 61th 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 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
56. 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 29th Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**)
57. 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 29th Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**); (The 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)
58. 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 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
59. Damian D, **Sakai T**, Tanaka KA. The Effect of Protamine and Hemodilution on the Thrombus Formation Under Flow Condition. (The 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
60. 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 68th 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**).

61. 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**).
62. **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**).
63. **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**).
64. 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**): (The 110th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 24-28, 2015. **Poster Discussion presentation**)
65. **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 110th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 24-28, 2015. **Poster presentation**)
66. 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**).
67. 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**).
68. 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 22nd International Congress of ILTS, Seoul, Korea, May 4-7, 2016. **Poster presentation**); (The 111th Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 22-26, 2016. **Poster presentation**)
69. 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**).
70. 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**).
71. Adams D, Phillips D, Quinlan JJ, Artman J, **Sakai T**. Safety and Effectiveness of Sugammadex for Surgical Patients with End Stage Renal Disease. (The 113th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-16, 2018. **Poster presentation**)
72. 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 114th Annual Meeting of the American Society of Anesthesiologists, Orland, FL, October 19-23, 2019. **Oral presentation**)
73. 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**).
74. 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**).

75. 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., 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*)
76. Vogt K, Citro, A, Metro DG, Adams P, **Sakai T** (corresponding). Participation In One-month Anesthesiology Professional Practice Rotation For Pgy1 Residents Is Associated With An Increase In Scholarly Productivity During Residency (The 115th Annual Meeting of the American Society of Anesthesiologists, Virtual, October 3-7, 2020. **Oral presentation**)
77. Vogt KM, Citro AT, Adams P, Metro DG, **Sakai T** (corresponding). Participation in a dedicated one-month Anesthesiology Professional Practice rotation as a PGY1 is associated with increased scholarly productivity during anesthesiology residency. (Association of University Anesthesiologists annual meeting, Abstract #3128. May 2020. Accepted, however meeting cancelled due to COVID19). (University of Pittsburgh School of Medicine and Health Sciences, Med Ed Day. Abstract #64. September 2020)
78. Crouch C, Aniskevich S, Damian D, De Marchi L, Kaufman M, Kumar S, Little M, McCluskey S, Pivalizza E, **Sakai T**, Sellers D, Sridhar S, Stoll W, Sullivan C, Hendrickse A. Peri-Operative Liver Transplant Anesthesia Practice Patterns in the United States. American Transplant Congress 2021 Virtual Meeting; June 9, 2021. **Virtual Poster presentation**
79. Hickey S, **Sakai T**. Development and in-vivo testing of a novel airway device using a 3D printer. (The 116th Annual Meeting of the American Society of Anesthesiologists. October 9-13, 2021 (Moderated Poster Presentation).
80. **Sakai T**. Mentor-Mentee Program for Faculty Development at a Large Academic Department: The First-Year Survey (The Association of University Anesthesiologists 2022 Annual Meeting, Virtual, March 18, 2022. **Concurrent Oral Abstract Session**) (The 2022 Annual Meeting and International Science Symposium of the International Anesthesia Research Society, Virtual, March 18-21, 2022. **Poster presentation**) (The 2022 Spring Annual Meeting of the Society of Education in Anesthesia. Pittsburgh, PA, April 8-10, 2022. **Poster presentation**).
81. Cerza DA, Battista C, Sharma G, **Sakai T**. Publication rate of abstracts presented at the Society for Education in Anesthesia Meetings in 2011 – 2019. (The 2022 Spring Annual Meeting of the Society of Education in Anesthesia. Pittsburgh, PA, April 8-10, 2022. **Top Three Oral presentation**).
82. Crouch C, Ko J, Hendrickse A, Kumar S, Little M, **Sakai T** (corresponding). Living Donor Liver Transplantation Anesthetic Management: Survey Results from the United States and the Republic of Korea. (The 2022 Annual Meeting and International Science Symposium of the International Anesthesia Research Society, Virtual, March 18-21, 2022; International Congress of ILTS, ELITA and LICAGE; Istanbul, TR/Virtual; May 4-7, 2022; American Transplant Congress 2022. Boston, MA; June 7, 2022 (**all Poster presentation**).

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).
2. **Co-Course Director**, The MidState SATA (the Society for the Advancement for Transplant Anesthesia) Scientific Meeting, Zoom plate form, September 19, 2020.
3. **Co-Course Director**, The SATA New England Symposium (the Society for the Advancement for Transplant Anesthesia), Zoom plate form, March 20-21, 2021.
4. **Co-Course Director**, Tristate Regional Liver Transplant Anesthesiology Conference. Zoom plate form, April 24, 2021.
5. **Co-Course Director**, The DMV Liver Transplant Anesthesia Meeting, Zoom plate form, May 1, 2021.
6. **Co-Course Director**, The MidState SATA (the Society for the Advancement for Transplant Anesthesia) Scientific Meeting, Zoom plate form, September 25, 2021.

7. **Co-Course Director**, The South SATA Liver Transplant Anesthesia Meeting, Zoom platform, November 13, 2021.
8. **Co-Course Director**, The WestCoast SATA (the Society for the Advancement for Transplant Anesthesia) Scientific Meeting, Zoom platform, December 11, 2021.

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.

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 104th 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 105th 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 106th 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 107th 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 60th Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
6. **Author and Moderator**, Problem-Based Learning Discussions, "Live Donor Liver Transplantation: how do you manage the recipients and the donors in your institutions?". The Annual Scientific Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 5-7, 2020. (***Invited and scheduled, however delivered via Zoom due to the COVID19 Pandemic***)

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 27th 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 28th Annual Meeting, Salt Lake City, UT, May 31 - June 2, 2013.
3. **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.
4. **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.
5. **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.

6. **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.
7. **Faculty Expert Panel: Sakai T**, Kurup V, Mitchell J, Martinelli S. "Idea to Grant – Toward the Successful Application for Educational Grant", The 2021 Spring Annual Meeting of the Society of Education in Anesthesia. (Virtual platform), April 13, 2021.

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.
7. **Faculty Leader: Sakai T**. "Faculty Evaluation & Promotion", The Perioperative Leadership Academy, Department of Anesthesiology and Perioperative Medicine, UPMC, Pittsburgh, PA, December 15, 2020.
8. **Faculty Leader: Sakai T**. "Authorship Conflict", Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, January 14, 2021.
9. **Faculty Leader: Sakai T**. "Authorship Conflict", Annual CTSI Workshops on Responsible Conduct of Research, Pittsburgh, PA, January 13, 2022.

Medical Students:

Lectures:

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.

Residents:

Educational Course Developments:

1.	Title: Resident Research Rotation
	Role: Creator & Director
	Year of Implementation: 2008 – Present
	Program Description: Structured ACGME approved rotation course for senior anesthesiology residents in the Department to immerse themselves in scholarly activities

- 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; Geroge Karam, MD; Alejandra Hernandez, MD; Michelle Yannik, MD
- Class 2022: Samuel Attherton, MD (1 month), Brian Reon, MD, PhD (2), Zach Frabitore, MD (2), Semerjit Bain, MD (1)
- Class 2023: Burke MD, Harold (1 month), Noonan-Haase MD, Mackenzie (1), Pribonic MD, Paige (1), Brian Reon, MD, PhD (1), Richardson MD, Connor (1)

2. Title: Anesthesia Professional Practice Rotation

Role: Creator & Director

Year of Implementation: 2014 – Present

Program Description: One-month rotation course for all Clinical Base Year anesthesiology interns in the Department to become familiar with anesthesia practice and scholarly activity

Lectures:

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. **Faculty Supervisor**, 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. **Faculty Supervisor**, 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**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities and APP rotation", June 17, 2020.
112. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, "Hepatic physiology and anesthesia", July 30, 2020.

113. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", September 14, 2020.
114. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", September 14, 2020.
115. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", September 14, 2020.
116. **Faculty Supervisor**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, September 17, 2020.
117. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Scholarly activity as a resident", September 22, 2020.
118. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Research for residents: Q&A", September 22, 2020.
119. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: The value of additional degrees", September 22, 2020.
120. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Academic pathway for anesthesiologists", September 30, 2020.
121. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Final Presentation sessions", October 9, 2020.
122. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Rotation feedback session", October 9, 2020.
123. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 16, 2021.
124. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", September 27, 2021.
125. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", September 30, 2021.
126. **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, 2021.
127. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to AI and Anesthesia", September 30, 2021.
128. **Faculty Supervisor**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, September 30, 2021.
129. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Scholarly activity as a resident", October 1, 2021.
130. **Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Research for residents: Q&A", October 1, 2021
131. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: The value of additional degrees", October 5, 2021
132. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Academic pathway for anesthesiologists", October 20, 2021
133. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Final Presentation sessions", October 22, 2021.
134. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Rotation feedback session", October 22, 2021.
135. **Lecturer**, PGY1 Introductory Course, Department of Anesthesiology, University of Pittsburgh, "Introduction to Scholarly Activities", June 22, 2022.
136. **Lecturer**, PGY2 introductory resident lecture series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, "Hepatic physiology and anesthesia", July 29, 2022.
137. **Faculty Supervisor**, ASA rehearsal presentation, Department of Anesthesiology, University of Pittsburgh, September 29, 2022.
138. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction and overview of the new rotation APP", October 27, 2022.

139. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Authorship conflict", October 31, 2022.
140. **Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "How to write and publish a case report and case series", October 31, 2022.
141. **Panelist and Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Panel discussion: The value of additional degrees", November 8, 2022.
142. **Co-Lecturer**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "Introduction to AI and Anesthesia", November 10, 2022.
143. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Final Presentation sessions", November 17, 2022.
144. **Co-Moderator**, PGY1 Anesthesiology Professional Practice Rotation, Department of Anesthesiology, University of Pittsburgh, "APP Rotation feedback session", November 17, 2022.

Fellows:

Lectures:

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**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, "Research Methodology/Statistical Analysis", November 19, 2020.
24. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, "Research Methodology/Statistical Analysis", November 18, 2021.
25. **Lecturer**, OB anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, "Research Methodology/Statistics", October 19, 2022.
26. **Lecturer**, Cardiac anesthesiology fellow lecture series, Department of Anesthesiology, University of Pittsburgh, "Research Methodology/Statistics", January 3, 2023.

Faculty:

Educational Course Developments:

1.	Title: Faculty Mentor-Mentee Program
<p>Role: Creator & Director Year of Implementation: 2020 – Present Program Description: Department-wide mentorship program for the academic junior faculty member Website: https://www.academicprofessionaldevelopment.org/</p>	
2.	Title: Faculty Development Seminar Series
<p>Role: Creator & Director Year of Implementation: 2022 – Present Course Description: Seminar series (bi-weekly, July – June) to provide basics and opportunities for faculty members of the Department for scholarly development, academic promotion, and well-being. Website: https://www.anesthesiology.pitt.edu/faculty-development/faculty-development-seminar-series</p>	

Lectures:

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.
30. **Co-Lecturer**, "Faculty Evaluation", Lecture series for the Anesthesiology Perioperative Leadership Academy, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, December 15, 2020.
31. **Lecturer**, "Academic pathway and promotion", Faculty Development Seminar Series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, July 12, 2022.
32. **Lecturer**, "Professional CV", Faculty Development Seminar Series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, July 26, 2022.
33. **Lecturer**, "Mentorship - A key to academic success", Faculty Development Seminar Series, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh, August 9, 2022.

Foreign Medical Students, Trainees, and Faculty:

Educational Course Developments:

1.	Title: Anesthesiology Short-term Observation Program
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Role: Creator & Director

Year of Implementation: 2015 – Present

Program Description: Providing the opportunity to Japanese medical students, trainees, and faculty members to observe the anesthesia practice and the education system at the Department for one to two weeks

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

YR-2022

1. **Faculty of Medicine, International University of Health and Welfare**, Chiba, Japan: Akira Saito (MS4), June 20 – July 1, 2022.
2. **US Airforce Hospital, Misawa**, Aomori, Japan: Miyu Kinoshita, MD, August 15, 2022 – August 26, 2022.
3. **Faculty of Medicine, Ryukyu University**, Okinawa, Japan: Koya Tokuhara (MS4), September 26, 2022 – October 7, 2022.
4. **Toyama Prefectural Central Hospital**, Toyama, Japan: Three PGY-2 physicians, November 28, 2022 – December 2, 2022
5. **Toyama Prefectural Central Hospital**, Toyama, Japan: Three PGY-2 physicians, December 12, 2022 – December 16, 2022

YR-2023

1. **Toyama Prefectural Central Hospital**, Toyama, Japan: Three PGY-2 physicians, January 16, 2023 – January 20, 2023
2. **Toyama Prefectural Central Hospital**, Toyama, Japan: Three PGY-2 physicians, January 30, 2023 – February 3, 2023
3. **Faculty of Medicine, Okayama University**, Okayama, Japan: Usami (MS4), February 13, 2023 - February 24,

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.

Mentorship/Supervision of Staff Physicians, Fellows and Residents:*Faculty Members (Internal):*

1. **Faculty Mentor** for Faculty Member (Assistant Professor), Evan Lebovitz, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
2. **Faculty Mentor** for Faculty Member (Assistant Professor), Trent Emerick, MD, MBA, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
3. **Faculty Mentor** for Faculty Member (Assistant Professor), Catalin Ezar, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
4. **Faculty Mentor** for Faculty Member (Assistant Professor), Daniela Damian, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
5. **Faculty Mentor** for Faculty Member (Assistant Professor), Mihaela Visoiu, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
6. **Faculty Mentor** for Faculty Member (Assistant Professor), Steve McHugh, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (January 1, 2020 – present)
7. **Faculty Mentor** for Faculty Member (Assistant Professor), Konstantinos Alfaras Melainis, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (August 1, 2020 – present)
8. **Faculty Mentor** for Faculty Member (Assistant Professor, UPMC), Mario Montoya, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (August 1, 2020 – present)
9. **Faculty Mentor** for Faculty Member (Assistant Professor, Director of Quality and Safety, UPMC), Dennis Phillips, DO, Department of Anesthesiology, University of Pittsburgh Medical Center (August 1, 2020 – August 2022 due to resignation of Dr. Philip from UPMC Faculty position)
10. **Faculty Mentor** for Faculty Member (Clinical Assistant Professor), Josh Knight, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (August 1, 2020 – present)
11. **Faculty Mentor** for Faculty Member (Assistant Professor), Benedict Alter, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (August 1, 2020 – present)

12. **Faculty Mentor** for Faculty Member (Assistant Professor), Gaurav Chauhan, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (May 1, 2021 – present)

Faculty Members (External):

1. **Faculty Mentor** (requested by Kenichi Tanaka, MD, MS, Chair of Department of Anesthesiology, University of Oklahoma) Edward S Kosik, DO, Associate Professor, John H. Saxon III, M.D. Professorship of Anesthesiology, Medical Director of Anesthesiology Simulation, Department of Anesthesiology, University of Oklahoma (March 2021 – December 2021 due to resignation of Dr. Kosik from the Faculty position))

Residents and Fellows:

1. **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)
3. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Left Internal Jugular Venous Injury during Orthotopic Liver Transplantation”, March 10, 2010.
4. **Faculty Mentor** for Kristin L. Schreiber, MD, PhD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012)
5. 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.
6. **Faculty Mentor** for Patrick Hackett, MD (PGY1 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015)
7. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Prolonged Muscle Paralysis During Neck Dissection”, January 18, 2012.
8. **Faculty Mentor** for Michael Boisen, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013)
9. The presentation, Mortality and Morbidity Rounds, Department of Anesthesiology, University of Pittsburgh, “Sudden Onset of Hypercarbia and Hyperthermia during Thyroidectomy”, January 18, 2012.
10. **Faculty Mentor** for Daniel, Cormican, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013)
11. Presentation, Subspecialty meeting, Department of Anesthesiology, University of Pittsburgh, “Blood Transfusion in Liver Transplantation”, October 24, 2012.
12. **Faculty Mentor** for anesthesiology resident, Xianren Wu, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2005 – June 30, 2009: Class 2009)
13. **Faculty Mentor** for anesthesiology resident, Brian Blasiolo, MD, PhD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2007 – June 30, 2011: Class 2011)
14. **Faculty Mentor** for anesthesiology resident, Daniel Cormican, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2010 – June 30, 2013: Class 2013)
15. **Faculty Mentor** for anesthesiology resident, Trent Emerick, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2011 – June 30, 2014: Class 2014)
16. **Faculty Mentor** for anesthesiology resident, Nicholas Schott, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2013 – June 30, 2016: Class 2016)
17. **Faculty Mentor** for anesthesiology resident, Lindsay Stollings, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2014 – June 30, 2017: Class 2017)
18. **Faculty Mentor** for anesthesiology resident, George Karam, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2018 – June 30, 2021: Class 2021)
19. **Faculty Mentor** for anesthesiology resident, Mariusz Ligocki, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2010 – June 30, 2024: Class 2024)
20. **Faculty Mentor** for anesthesiology resident, Song Kim, MD, Department of Anesthesiology, University of Pittsburgh Medical Center (July 1, 2022 – June 30, 2025: Class 2025)

Medical Students:

1. **Clinical instruction** for medical students, at Division of Cardiovascular Surgery, The Toronto Hospital, Toronto, Canada, Three 4th year medical students from Japan (Kyoto University) for 4 weeks; Two 2nd 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 67th 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 109th 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.

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)

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.

Research Project Mentor

Faculty Members:

1. Mark Lischner, DO (Assistant Professor, Department of Anesthesiology, University of Pittsburgh Medical Center): currently a practicing anesthesiologist
 - 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 29th 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 29th 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): currently an Assistant Professor at the Department
 - 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) : currently an Associate Professor and Chief of OB Anesthesia at the Department
 - 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 68th 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): currently an Assistant Professor at the Department
 - a. Lebovitz E, Nguyen VA, **Sakai T** (corresponding). Economic considerations in abdominal transplantation. Best Practice & Research Clinical Anaesthesiology (accepted for publication)
5. Dante Cerza, MD (Department of Anesthesiology, Nemours Children's Hospital-Delaware)
 - a. Cerza DA, Battista C, Sharma G, **Sakai T**. Publication rate of abstracts presented at the Society for Education in Anesthesia Meetings in 2011 – 2019. (The 2022 Spring Annual Meeting of the Society of Education in Anesthesia. Pittsburgh, PA, April 8-10, 2022. **Top Three Oral presentation**).

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): currently an Assistant Professor at Okayama University
 - 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 25th 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 105th 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 106th 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 106th 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): currently an Assistant Professor at Okayama University
 - 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); currently Associate Chief at Department of Anesthesiology, Kobe Central City Hospital
 - 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

Fellows and Residents:

1. Vahid Grami, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008):
 - 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 102th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007.
 - 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 102th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007.
2. V. Venkataramanappa, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008): currently a practicing anesthesiologist
 - A case report presentation "Venkataramanappa V, **Sakai T**. Fatal Tracheal Tear by a Double Lumen Endotracheal Tube", Medically Challenging Cases: The 102th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 13-17, 2007.
 - A case report presentation: "Tracheal Tear by a Double Lumen Endotracheal Tube", Western Pennsylvania Society of Anesthesiologists' Resident Research Competition, Pittsburgh, PA, May 2008.
 - 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.
3. Evan T. Lukow, D.O. (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008): currently a practicing anesthesiologist
 - 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
4. Matthew J. Krebs, M.D. (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2008): currently a practicing anesthesiologist
 - 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.
5. Thomas E. Borsari, MD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010): currently a practicing anesthesiologist
 - 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**)
 - A case report presentation: "Perioperative pulmonary aspiration of patients who have had esophagectomy with a gastric pull-up", The 103th Annual Meeting of the American Society of Anesthesiologists, Orlando, FL, October 18-22, 2008.
 - 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.
6. Mariam M. El-Baghdadi, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010): currently a practicing anesthesiologist
 - A case report presentation: "Fatal Pulmonary Embolism during Liver Transplantation in a Patient with Fulminant Hepatic Failure", Medically Challenging Cases: The 103th Annual Meeting of the American Society of Anesthesiologists, Orlando, FL, October 18-22, 2008.
 - 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.

- 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.\
 - 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.
7. Nicole E. Scouras, MD, MPH (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010): currently a practicing anesthesiologist
- 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.
 - 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)**
 - 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.
8. Benjamin Grable, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011): currently a practicing anesthesiologist
- A case report presentation: “Isolated left sided pulmonary edema due to Alemtuzumab (Campath®) after kidney transplantation”, Medically Challenging Cases: The 104th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 17-21, 2009.
 - 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.
 - 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)**
9. Nicole E. Scouras, MD, MPH (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2010): currently a practicing anesthesiologist
- 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.
 - 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.
 - 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.
 - 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.
 - 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 105th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
 - 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.

10. Kristin L. Schreiber, MD, PhD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012): currently, Associate Professor of Anesthesiology, Harvard Medical School
 - 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 105th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
 - 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.
 - 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.
 - 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.
11. R. Scott Lang, MD, (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011): currently a practicing anesthesiologist
 - 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)
12. Arun Jayaraman, MD, PhD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012): currently a practicing anesthesiologist
 - A case report presentation: Jayaraman A, **Sakai T**. Dexmedetomidine as an anesthetic adjunct in pheochromocytoma resection. Medically Challenging Cases in the 105th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
13. Ryan Ball, MD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2011): currently Assistant Professor of the Department
 - 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 105th Annual Meeting of the American Society of Anesthesiologists, San Diego, CA, October 16-20, 2010.
 - 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.
14. Arun Jayaraman, MD, PhD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012): currently a practicing anesthesiologist
 - Book chapter: Jayaraman A, **Sakai T**. Kidney Transplantation. In: Fleisher L. and Roizen M. eds. Essence of Anesthesia Practice (3rd edition). Elsevier; 2010.
15. Trent Emerick, MD, (PGY1-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2014): currently Assistant Professor of the Department
 - Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Scholarly Productivity by Residents. The 10th ANNUAL GME LEADERSHIP CONFERENCE, Pittsburgh, PA, February 25, 2011. **(Oral Presentation)**
 - 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.

- 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.
 - 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 26th Annual Meeting, San Antonio, TX, June 3-5, 2011.
 - Emerick T, Metro DG, Patel RM, **Sakai T**. Scholarly Activity Points: A New Tool for Evaluation of Resident Scholarly Productivity. The 106th Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.
 - 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)**
 - Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. The 11th ANNUAL GME LEADERSHIP CONFERENCE, Pittsburgh, PA, February 24, 2012.
 - 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)**
 - 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)**
 - 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.
 - 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)**
 - 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 27th Annual Meeting, Milwaukee, WI, June 1-3, 2012.
 - 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 27th Annual Meeting, Milwaukee, WI, June 1-3, 2012.
 - Emerick T, Metro DG, Patel RM, **Sakai T**. Can Scholarly Activity Points during Residency Predict the Research Productivity of an Anesthesiologist? The 107th Annual Meeting of the American Society of Anesthesiologists, Washington DC., October 13-17, 2012. **(Oral Presentation)**
 - Emerick T, Metro DM, **Sakai, T**. From Idea to Innovation: Hurdles and Milestones in Developing a Scholarly Activity Points Website. The 107th Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
 - 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.
 - 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.
16. Mark E. Backeris, DO, MBA (PGY2-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013): currently a practicing anesthesiologist
- 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)**

- 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 26th Annual Meeting, San Antonio, TX, June 3-5, 2011. (**Oral presentation**)
 - 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 106th Annual Meeting of the American Society of Anesthesiologists, Chicago, IL, October 15-19, 2011.
 - 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.
17. Pranav R. Shah, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013): currently a practicing anesthesiologist
 - Book chapter: Shah PR, **Sakai T**. Perioperative Pulmonary Aspiration. In: Doebrich PE. ed. Intubation: Preparation, Procedures and Complications (1st edition), Nova Science Publishers, Inc., 2011.
 18. Arun Jayaraman, MD, PhD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012): currently a practicing anesthesiologist
 - Book Chapter: Jayaraman A, **Sakai T**. Acute Intraoperative Pulmonary Embolism. In: Wright NJ. and Smith A., eds. Pulmonary Embolism: Causes, Symptoms, and Treatment (1st edition), Nova Science Publishers, Inc., 2012.
 19. Joseph Resti, MD (PGY3-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2013): currently Assistant Professor and Director of Pediatric Anesthesiology, Upstate Golisano Children's Hospital
 - 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 27th Annual Meeting, Milwaukee, WI, June 1-3, 2012.
 - 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 107th Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
 - An online in training examination (ITE) study module: Resti J, **Sakai T**. <https://cme.hs.pitt.edu/ISER/servlet/IteachControllerServlet?actiontotake=displaymainpage&site=akgr>
 20. Patrick Hackett, MD (PGY1 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015): currently a practicing anesthesiologist
 - Hackett PJ, **Sakai T** Pseudocholinesterase Deficiency: a Case Report and Literature Review, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 17, 2012.
 - Hackett PJ, **Sakai T**. Pseudocholinesterase Deficiency: a Case Report and Literature Review. Open Journal of Anesthesiology. 2:188-94;2012.
 21. Kristin L. Schreiber, MD, PhD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012): currently, Associate Professor of Anesthesiology, Harvard Medical School
 - Schreiber KL, **Sakai T**. Perioperative Analgesia for Patients Undergoing Open Liver Resection: Epidural or Paravertebral? Journal of Pain Relief 1:e112;2012.
 - 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 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Oral presentation**)
 - 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)

22. Arun Jayaraman, MD, PhD (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2012): currently a practicing anesthesiologist
- 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 107th Annual Meeting of the American Society of Anesthesiologists, DC, October 13-17, 2012.
 - 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.
23. Patrick Hackett, MD (PGY2-3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015): currently a practicing anesthesiologist
- 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.
 - 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.
 - 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.
 - 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.
 - 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.
24. Nicholas J. Schott, MD (PGY1-2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2017): currently Assistant Professor of the Department
- 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.
 - 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.
 - 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.
 - 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 28th Annual Meeting, Salt Lake City, UT, May 31 - June 2, 2013. (**Best Poster, Research Section**)
 - Schott NJ, Emerick TD, Metro DG, Patel RM, **Sakai T**. Cost of Resident Scholarly Activity and its Effect on Resident Clinical Experience. The 108th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013.
 - 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.
 - 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 29th Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**)

- 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 29th Annual Meeting of the Society for Education in Anesthesia, Boston, MA, May 30 - June 1, 2014. **Poster presentation**); (The 109th Annual Meeting of the American Society of Anesthesiologists, New Orleans, LA, October 11-15, 2014. **Poster presentation**)
25. Eric Ponte, MD (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015): currently a practicing anesthesiologist
- Ponte E, Sciarba 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, Sciarba 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, Sciarba FC, Crespo MM, **Sakai T**. Lung Volume Reduction Coil (LVRC) Treatment: the first clinical case in the United States. The 108th Annual Meeting of the American Society of Anesthesiologists, San Francisco, CA, October 12-16, 2013.
26. Daniela Damian, MD (PGY3 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2015): currently, Assistant Professor of the Department
- 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.
27. Trent Emerick, MD, (PGY3-4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2014): currently, Assistant Professor of the Department
- Workshop Moderator: **Sakai T**, Hopf HW, Metro DG, Emerick TD. "How to Improve Resident Scholarly Activity in Your Department" (Society for Education in Anesthesia 27th 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 28th Annual Meeting, Salt Lake City, UT, May 31 - June 2, 2013)
28. 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): currently, Assistant Professor of the Department
- 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 61th 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 109th 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.
 - 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.
29. Eugene Raggi, MD. (CBY intern, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2018): currently a practicing anesthesiologist
- 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).
30. Daniel Mandell, MD. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2018): currently, Clinical Assistant Professor of the Department
- 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.
31. Bryce Bernard, MD. (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2017): currently, Clinical Assistant Professor of the Department
- 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).
32. Douglas Adams, MD. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2020): currently, an Adult Cardiac Anesthesia Fellow at Cleveland Clinic
- 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 114th 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).
33. Vin Ann Nguyen, MD. (PGY2 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2022): currently, a resident at the Department

- Lebovitz E, Nguyen VA, **Sakai T** (corresponding). Economic considerations in abdominal transplantation. Best Practice & Research Clinical Anaesthesiology (accepted for publication)
34. Sergio Hickey, MD. (PGY4 resident, Department of Anesthesiology, University of Pittsburgh Medical Center: Class 2021): currently, a Chronic Pain Medicine Fellow at the Department
- Department Seed Grant (Mentoring faculty): “Novel Airway Device (High Flow Laryngoscopic Oxygenator)” for the period from February 1, 2021 – January 31, 2022.
 - Hickey S, **Sakai T**. Development and in-vivo testing of a novel airway device using a 3D printer. (The 116th Annual Meeting of the American Society of Anesthesiologists. 2021 (Submitted).
 - Hickey S, **Sakai T**. Development and in-vivo testing of a novel airway device using a 3D printer. (The Pennsylvania State Resident Research Conference, May 22, 2021 (oral presentation – The second place in research section)

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 10th 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 26th 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 17th 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 107th 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 19th 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 28th 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 109th 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 109th 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)
22. **The Second Place Oral Research Abstract Presentation** 2021
Pennsylvania Anesthesiology Resident Research Competition
Sergio Hicky, MD (PGY4 resident, Department of Anesthesiology,
University of Pittsburgh Medical Center: Class 2021)

RESEARCH

Grant Number (Funded)	Grant Title	Role and % Effort	Years Source/ Inclusive	\$ Amount
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Current Grant Support:

Haemonetics Corporation	An observational trial to assess the diagnostic performance of the TEG® 6s Haemostasis Analyzer with the Heparin Neutralization Cartridge	Site PI (3 hours per subject, 30 cases)	1	Haemonetics Corporation \$131,131.00
TOYAMA 2022 -2023	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$12,000

Completed Grant Support:

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	Co-PI (20%) Kormos RL(PI)	1	Fujisawa Inc./\$ 40,000

at a single institution”

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 patch using omentum”	PI (20%)	1	American Medical Association Foundation/\$ 2,500
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
TOYAMA 2019–2020	UPMC Anesthesiology Scholarly Development	PI	1	Toyama Prefectural Central Hospital Educational Donation / \$19,000
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
Seed Grant (2021-2022)	Novel Airway Device (High Flow Laryngoscopic Oxygenator)	Mentor/Co-PI Hickey, S (PI)	1	Department of Anesthesiology, University of Pittsburgh Medical Center/\$ 8,000

Grant Pending: None

Approved Studies:

On-Going:

1. UPMC Thomas E. Starzl Transplant Research Registry, IRB #: 0307037 (PI: Humar, A; Co-investigator: **Sakai T**)

Completed:

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. "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.
3. "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.
4. "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.
5. "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.

6. "Assessment of Research Initiatives for Anesthesiology Residents"
University of Pittsburgh School of Medicine #IRB PRO10120290 (Exempt) (PI: **Sakai**) December 23, 2010.
7. "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.
8. "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.
9. "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.
10. "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.
11. "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.
12. "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.
13. "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.
14. "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.
15. "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.
16. "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 Editorships:

- "Annual Review: Japan – North America Medical Exchange" 2000
Japan-North America Medical Exchange Foundation
- World Journal of Transplantation 2011 – 2021
- Open Journal of Anesthesiology 2011 – 2021
- The Korean Journal of Anesthesiology 2013 – 2021
- Seminars in Cardiothoracic and Vascular Anesthesia 2016 – 2017
- Seminars in Cardiothoracic and Vascular Anesthesia (Associate Editor) 2017 – Present
- BioMed Central Anesthesiology (Associate Editor) 2019 – Present
- Clinical Transplantation (Associate Editor) 2020 – Present
- Journal of Clinical Anesthesia (Editorial Board Member) 2021 – Present

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 (IF 1.695) (February 2020)
174. BioMed Central Anesthesiology (IF 1.695) (February 2020)
175. Transplantation (IF 4.593) (February 2020)
176. Journal of Clinical Monitoring and Computing (IF 2.179) (April 2020)
177. Transplantation Direct (IF N/A) (April 2020) (R1_May 2020)
178. Minerva Anesthesiologica (IF 2.498) (May 2020)
179. Korean Journal of Anesthesiology (IF 1.25) (May 2020)
180. Journal of Education in Perioperative Medicine (IF N/A) (June 2020)
181. Journal of Clinical Medicine (IF 3.303) (July 2020)
182. Seminars in Cardiothoracic and Vascular Anesthesia (IF N/A) (July 2020; R1 August 2020; R2 August 2020)
183. Transplant International (IF 3.526) (July 2020)
184. BioMed Central Anesthesiology (IF 1.695) (August 2020)
185. Journal of Clinical Anesthesia (IF 3.542) (August 2020)
186. BioMed Central Anesthesiology (IF 1.695) (August 2020)
187. BioMed Central Anesthesiology (IF 1.695) (August 2020)
188. Journal of Clinical Medicine (IF 3.303) (August 2020)
189. Transplantation (IF 4.593) (September 2020) (R1; November 2020)
190. Journal of Anesthesia (IF 1.462) (September 2020)
191. BioMed Central Anesthesiology (IF 1.695) (September 2020)
192. Healthcare (IF 1.916) (September 2020)
193. BioMed Central Anesthesiology (IF 1.695) (October 2020)
194. BioMed Central Anesthesiology (IF 1.695) (October 2020)
195. Transplantation (IF 4.593) (December 2020)
196. Journal of Clinical Anesthesia (IF 6.039) (January 2021)
197. International Journal of Medical Sciences (IF 2.523) (January 2021) (R1: April 2021)
198. Liver Transplantation (IF 4.570) (February 2021)
199. Minerva Anesthesiologica (IF 2.498) (March 2021)
200. BioMed Central Anesthesiology (IF 1.695) (April 2021)
201. Vox Sanguinis (IF 2.26) (April 2021) (R1: June 2021)
202. Journal of Anesthesia (IF 1.462) (April 2021) (R1: October 2021) (R2: December 2021)
203. Journal of Clinical Anesthesia (IF 9.452) (May 2021) (R1: June 2021)
204. Clinical Transplantation (IF 1.665) (June 2021)
205. Minerva Anesthesiologica (IF 2.498) (June 2021) (R1: August 2021)
206. Journal of Clinical Anesthesia (IF 9.452) (June 2021)
207. Journal of Clinical Anesthesia (IF 9.452) (July 2021) (R1: October 2021)
208. BMJ Open (IF 2.692) (August 2021)
209. Journal of Clinical Anesthesia (IF 9.452) (October 2021)
210. Journal of Pediatric Intensive Care (IF 2.854) (October 2021) (R1: January 2022) (R2: February 2022)
211. Psychiatry and Clinical Neurosciences (IF 5.188) (October 2021) (R1: February 2022) (R2: February 2022)
212. Journal of Clinical Anesthesia (IF 9.452) (November 2021)
213. Minerva Anesthesiologica (IF 2.498) (November 2021) (R1: February 2022)

214. Liver Transplantation (IF 4.570)	(November 2021)
215. Review in Cardiovascular Medicine (IF 2.93)	(November 2021) (R1: December 2021)
216. Journal of Clinical Anesthesia (IF 9.452)	(December 2021) (R1: January 2022)
217. Liver Transplantation (IF 4.570)	(January 2022) (R1: February 2022) (R2: April 2022)
218. Seminars in Cardiothoracic and Vascular Anesthesia (IF N/A)	(January 2022)
219. Journal of Clinical Anesthesia (IF 9.452)	(January 2022)
220. Transplantation (IF 4.593)	(January 2022)
221. Journal of Clinical Anesthesia (IF 9.452)	(January 2022) (R1: February 2022) (R2: March 2022)
222. Journal of Clinical Anesthesia (IF 9.452)	(January 2022) (R1: March 2022)
223. Journal of Clinical Anesthesia (IF 9.452)	(January 2022)
224. The Joint Commission Journal on Quality and Patient Safety (IF 1.691)	(February 2022)
225. Journal of Anesthesia (IF 2.078)	(February 2022)
226. Journal of Clinical Monitoring and Computing (IF 1.93)	(February 2022)
227. Journal of Clinical Anesthesia (IF 9.452)	(February 2022)
228. BMJ Open (IF 2.692)	(March 2022)
229. Transplantation Direct (IF NA)	(April 2022) (R1: September 2022)
230. Journal of Clinical Anesthesia (IF 9.452)	(April 2022)
231. Journal of Clinical Anesthesia (IF 9.452)	(April 2022)
232. Journal of Clinical Anesthesia (IF 9.452)	(June 2022)
233. Seminars in Thrombosis and Hemostasis (IF 4.18)	(July 2022)
234. Perioperative Care and Operating Room Management (IF 0.64)	(August 2022)
235. JA Clinical Reports (IF 0.121)	(August 2022)
236. Journal of Clinical Anesthesia (IF 9.452)	(October 2022)
237. Journal of Clinical Anesthesia (IF 9.452)	(October 2022)
238. Transplantation Direct (IF NA)	(October 2022) (R1: October 2022)

Extramural Grant Reviewing:

1. Greenhouse Fund , 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. CMRF (Competitive Medical Research Fund), University of Pittsburgh School of Medicine,	2010
3. The SEAd Grant (Society for Education in Anesthesia),	2016 - Present
4. National Institute of Academic Anaesthesia e-Grants (NIAA e-grants, London, UK),	2017

National Guideline Reviewing:

1. Member and Representative for Anesthesiology , External Evaluation Committee, "National Practice Guideline for Perioperative Cardiovascular Assessment and Management for Patients Undergoing Non-Cardiac Surgery 非心臓手術における合併心疾患の評価と管理に関するガイドライン. Japanese Association of Cardiology (日本循環器学会, 2021	
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Meeting Abstract Reviewing:

National:

1. Abstract reviewer , Society for Education in Anesthesia (SEA)	2012 - Present
2. Abstract reviewer , The International Anesthesia Research Society (IARS)	2016 – Present
3. Abstract reviewer , The Association of University Anesthesiologists (AUA)	2017 – Present
4. Session Proposal reviewer , The International Anesthesia Research Society (IARS), The Association of University Anesthesiologists (AUA), and Society of Critical Care and Anesthesia (SOCCA)	2021 – Present
5. Abstract reviewer , The Association for the Advancement of Blood & Biotherapies (AABB)	2022

Regional/Local:

1. **Abstract reviewer**, Pennsylvania Anesthesiology Resident Research Competition 2009 - 2021
 2. **Abstract reviewer**, Med Ed Day, University of Pittsburgh School of Medicine 2018 - 2021
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INVITED SEMINARS AND LECTURESHIPS

Symposiums:

National & International

- 1 **Panelist, Sakai T.** "Scholarly Activity by Trainees in Anesthesiology: Importance, Facilitation, and Evaluation". 90 Minute Panel, the 108th 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 33rd 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 66th 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 24th Annual Meeting of the Japanese Society of Cardiovascular Anesthesiologists, Kyoto, Japan, September 21, 2019.

Regional

3. **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**, “Residency Training System in the US”, Akita University Hospital, Akita, Japan, September 1, 2020. (*Invited and scheduled, however delivered via Zoom due to the COVID19 Pandemic*)
 47. **Visiting Professor**, “Residency Training System in the US”, Toyama Prefectural Central Hospital, Toyama, Japan, September 2, 2020. (*Invited and scheduled, however delivered via Zoom due 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 delivered via Zoom due to the COVID19 Pandemic*)
 49. **Visiting Professor**, “Residency Training System in the US” and “Liver Transplantation Anesthesia”, Tokyo Women’s University Hospital, Tokyo, Japan, September 10, 2020. (*Invited and scheduled, however delivered via Zoom due to the COVID19 Pandemic*)
 50. **Visiting Professor**, “Introduction of Artificial Intelligence and Application to Medical Field”, Takaoka Saiseikai Hospital, Takaoka, Toyama, Japan, September 6, 2021. (*Invited and scheduled, however delivered via Zoom due to the COVID19 Pandemic*)
 51. **Visiting Professor**, “Introduction of Artificial Intelligence and Application to Medical Field”, Toyama Prefectural Central Hospital, Toyama, Japan, September 7, 2021. (*Invited and scheduled, however delivered via Zoom due to the COVID19 Pandemic*)
 52. **Visiting Professor**, “Introduction of Artificial Intelligence and Application to Medical Field”, Akita University, Akita, Japan, November 29, 2021. (*Virtual*)

53. **Visiting Professor**, “What internists should know at the care of perioperative patients – Anesthetic perspective”, Toyama Prefectural Central Hospital, Toyama, Japan, September 5, 2022.
54. **Visiting Professor**, “What internists should know at the care of perioperative patients – Anesthetic perspective”, Takaoka Saiseikai Hospital, Takaoka, Toyama, Japan, September 6, 2022.
55. **Visiting Professor**, “Cardiac Arrest during Liver Transplantation”, Department of Transplant Surgery and Department of Anesthesiology, University of Cincinnati, November 22, 2022. (*Virtual*)

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 21st 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 22nd 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 66th 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**, “Anesthesiology residency education system in the US”, The 24th Annual Meeting of the Japanese Society of Cardiovascular Anesthesiologists, Kyoto, Japan, September 20, 2019.
17. **Invited Lecturer**, “Anesthesia in liver transplantation and management of intra operative problems - Part 1 - Intraoperative cardiac arrest during liver transplantation - the prevalence of pulmonary thromboembolism and its management”, Learning General Surgery, India, October 10, 2020. (*Zoom Lecture: the YouTube channel of the Facebook group of surgeons which goes by the name 'Learning General Surgery' This channel will host all the*

videos that are originally posted in LGS and also those specially shot for LGS – 6.06K subscribers in September 2020)

18. **Invited Lecturer**, “Cardiac arrest during liver transplantation”, Tristate Regional Liver Transplant Anesthesiology Conference. Zoom plate form, April 24, 2021.
19. **Keynote Speaker**, “TBD”, Tristate Regional Liver Transplant Anesthesiology Conference. March 25, 2023.
20. **Invited Lecturer**, “Introduction of Artificial Intelligence and Application to Medical Field”, The 69th Annual Meeting of the Japanese Society of Anesthesiologists, Kobe, Japan, June 1, 2023.

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 7th 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 8th 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 8th 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.

SERVICE

International:

1. **Member**, Scientific Committee (Kidney Dysfunction in the critically ill liver patient), The Liver Intensive Care Group of Europe (LICAGE) 2014 – 2021
2. **Educational Consultant** for Toyama Central Prefectural Hospital UPMC Observer Program 2014 – Present
3. **Educational Consultant** for Toyama Prefecture UPMC Observer Program 2017 – Present
4. **Board Member**, The Society for the Advancement of Transplant Anesthesia (SATA): 2016 – present
5. **Secretary**, The Society for the Advancement of Transplant Anesthesia (SATA): 2017 – 2019
6. **President-Elect**, The Society for the Advancement of Transplant Anesthesia (SATA): 2019 – 2021
7. **President**, The Society for the Advancement of Transplant Anesthesia (SATA): 2021 – 2023
8. **Member**, Steering Committee, The Live Donor Liver Transplantation Special Interest Groups, The International Liver Transplant Society (ILTS) 2022 – 2025
9. **Member**, Session Proposal Review Committee for the IARS 2023 Annual Meeting (IARS) 2022

National:

1. **Member**, Research Committee, Society for Education in Anesthesia 2012 – Present
2. **Chair-Designee**, Research Committee, Society for Education in Anesthesia 2015 – 2020
3. **Chair**, Research Committee, Society for Education in Anesthesia 2020 – Present
4. **Board Member (Inaugural)**, Leadership Advisory Board (LAB), Association of University Anesthesiologists 2020 – Present
5. **Meeting Chair**, Annual Spring Meeting of the Society for Education in Anesthesia 2022

Session Chair/Moderator:

National & International

1. **Judge/Moderator, Poster Session**, Society for Education in Anesthesia 27th Annual Meeting, Milwaukee, WI, June 1-3, 2012.
2. **Judge/Moderator, Poster Session**, The 3rd Annual Multi-Departmental Trainees' Research Day, Pittsburgh, PA, June 27, 2012.
3. **Judge, Oral Original Abstract Presentation**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 11, 2013.
4. **Judge/Moderator, Poster Session**, Society for Education in Anesthesia 28th Annual National Meeting, Salt Lake City, Utah, May 31 - June 2, 2013.
5. **Judge/Moderator, Poster Session**, Society for Education in Anesthesia 29th Annual National Meeting, Boston, MA, May 30 - June 1, 2014.
6. **Judge/Moderator, Poster Session**, Society for Education in Anesthesia 30th Annual National Meeting, Seattle, WA, May 24 – 26, 2015.
7. **Judge, Poster Original Abstract Presentation**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 9, 2015.
8. **Moderator, Poster Session**, The International Anesthesia Research Society, 2016 Annual Meeting, San Francisco, CA, May 21 – 24, 2016.
9. **Co-Chair, Oral Presentation Sessions**, Society for Education in Anesthesia 31th Annual National Meeting, Baltimore, MD, June 3-5, 2016.
10. **Moderator, Poster Session**, Society for Education in Anesthesia 31th Annual National Meeting, Baltimore, MD, June 3-5, 2016.
11. **Co-Chair, Oral Presentation Session**, The 2017 Spring Annual Meeting of the Society of Education in Anesthesia. Jacksonville, FL, April 28, 2017.
12. **Moderator, Poster Session**, The International Anesthesia Research Society, 2017 Annual Meeting, Washington DC. May 4-6, 2017.

13. **Chair, Oral Session**, Transplant Anesthesia. The 60th Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
14. **Chair, Oral Session**, Patient Blood Management. The 60th Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, November 2-4, 2017.
15. **Co-Chair, Oral Research Abstract Presentation Sessions**, The 2018 Spring Annual Meeting of the Society of Education in Anesthesia. Louisville, KY, April 21, 2018.
16. **Judge, Oral Research & Curriculum Abstract Presentation Sessions**, The 2018 Spring Annual Meeting of the Society of Education in Anesthesia. Louisville, KY, April 21, 2018.
17. **Co-Chair, Oral Research & Curriculum Abstract Presentation Sessions**, The 2019 Spring Annual Meeting of the Society of Education in Anesthesia. Denver, CO, April 26-28, 2019.
18. **Co-Chair, Abstract Teaser Session, Oral Research & Curriculum Abstract Presentation Sessions**, The 2021 Spring Annual Meeting of the Society of Education in Anesthesia. Virtual, April 16-17, 2021.
19. **Moderator, Oral Session**, Updates & Issus 3. 2021 Annual Meeting of The Korean Society of Anesthesiologists, Seoul, South Korea, (Virtual), November 4, 2021.
20. **Moderator**, at AACA 2022 in conjunction with the 99th Annual Meeting of The Korean Society of Anesthesiologists (KSA) and the 74th Annual Meeting for The Korean Pain Society (KPS), Seoul, South Korea, (Virtual), November 10, 2022.

Regional

1. **Poster Session Judge/Moderator**, The 3rd 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.
5. **Oral Original Abstract Presentation Moderator/Judge**, Pennsylvania Anesthesiology Resident Research Competition, Philadelphia, PA, May 22, 2021 (Virtual)

University and Medical School:

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| 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 – 2019 |
| 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 |
| 6. | Reviewer, the UPSoM Curriculum Reform round 2 idea | 2021 |

Department of Anesthesiology:

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| 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
17	Member , The Committee for Anesthesiology Strategy, Innovation and Transformation (CASIT), Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine	2020 – Present
18	Member , Clinical and Translational Research Committee (CTRC), Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine	2020 – Present
19	Member , Equity Diversity and Inclusion (EDI) Committee, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine	2021 – Present
20	Subcommittee Chair , Retention and Advancement, Equity Diversity and Inclusion (EDI) Committee, Department of Anesthesiology and Perioperative Medicine, University of Pittsburgh School of Medicine	2022 – 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. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine (all sessions as Associate PD) 2016-2020
39. **Ad Hoc Interviewer – Department Chairperson Selection**, Department of Anesthesiology, University of Pittsburgh School of Medicine 2018
40. **Anesthesia faculty candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine July 22, 2020
41. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 19, 2020
42. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine December 10, 2020
43. **Invited Examiner**, Faculty mock oral examination (Michael Syper, OD) July 9, 2021
44. **Invited Examiner**, Fellow mock oral examination (Douglas Adams, MD) August 5, 2021
45. **Invited Examiner**, Fellow mock oral examination (Michael Gemma, MD) September 3, 2021
46. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine Jan 20, 2022
47. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine Jan 27, 2022
48. **Invited Examiner**, Fellow mock oral examination (Samuel Goldstein, MD) May 10, 2022
49. **Invited Examiner**, Fellow mock oral examination (Juan Lango, MD) May 10, 2022
50. **Invited Examiner**, Fellow mock oral examination (Aisha Ulah, MD) May 16, 2022
51. **Resident candidate interviewer**, Department of Anesthesiology, University of Pittsburgh School of Medicine November 3, 2022

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, Vanderbilt University	February 2018
8.	Promotion to Associate Professor of Department of Anesthesiology, University of Michigan	July 2018
9.	Promotion to Professor of Department of Anesthesiology, Icahn School of Medicine, 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, University of Illinois, Chicago IL	April 2019
12.	Promotion to Associate Professor of Department of Anesthesiology, Icahn School of Medicine, Mt. Sinai, NY	April 2019
13.	Promotion to Associate Professor of Department of Anesthesiology, University of Miami Miller School of Medicine	May 2019
14.	Promotion to Associate Professor of Department of Anesthesiology, Icahn School of Medicine, Mt. Sinai, NY	August 2019
15.	Promotion to Professor of Department of Anesthesiology, 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, University of Colorado School of Medicine	May 2020
18.	Confidential advisership requested for Promotion to Professor of Anaesthesia Harvard Medical School	January 2021
19.	Promotion to Professor of Anesthesiology, Department of Anesthesiology, University of Washington School of Medicine	April 2021
20.	Promotion to Associate Professor of Anesthesiology, Department of Anesthesiology, University of Virginia School of Medicine	June 2021
21.	Promotion to Professor of Anesthesiology, Department of Anesthesiology, Case Western Reserve University School of Medicine	July 2021
22.	A member of <i>ad hoc</i> committee for Promotion to Professor of Anaesthesia Harvard Medical School	September 2021
23.	Promotion to Associate Professor of Anesthesiology, Department of Anesthesiology, University of Maryland School of Medicine	September 2021
24.	Promotion to Associate Professor of Anesthesiology, Department of Anesthesiology, Sidney Kimmel Medical College at Thomas Jefferson University	September 2021
25.	Promotion to Associate Professor of Anesthesiology, Department of Anesthesiology, Emory University	September 2021
26.	Promotion to Associate Professor of Anesthesiology, Department of Anesthesiology, Yale University	November 2021
27.	Promotion to Professor of Department of Anesthesiology, Icahn School of Medicine, Mt. Sinai, NY	February 2022
28.	Promotion to Professor of Department of Anesthesiology, Albert Einstein College of Medicine, NY	February 2022
29.	Promotion to Professor of Department of Anesthesiology, University of Colorado Denver School of Medicine	February 2022
30.	Appointment to The George H. Taber Chair in General Internal Medicine, Department of Medicine at the University of Pittsburgh School of Medicine	April 2022
31.	Promotion to Professor of Anesthesiology, Department of Anesthesiology, Case Western Reserve University School of Medicine	June 2022

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| 32. | Promotion to Associate Professor of Anesthesiology, Department of Anesthesiology,
Case Western Reserve University School of Medicine | July 2022 |
| 33. | Promotion to Clinical Associate Professor in the Department of Anesthesiology
Tufts University School of Medicine | July 2022 |
| 34. | Promotion to Clinical Associate Professor in the Department of Anesthesiology
Weill Cornell Medical College | August 2022 |
| 35. | Promotion to Associate Professor in the Department of Anesthesiology
Thomas Jefferson University | September 2022 |
| 36. | Promotion to Clinical Professor in the Department of Anesthesiology
The University of Iowa Carver College of Medicine | October 2022 |
| 37. | Promotion to Associate Professor in the Department of Anesthesiology
Medical University of South Carolina | October 2022 |

Community Activities:

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