

CURRICULUM VITAE

Name Ho Kyoung, Hwang, M.D., Ph.D.

Position Associate Professor.
Division of Hepato-Bilio-Pancreas surgery
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Education

Medical School	Mar/1994 - Feb/2000	Yonsei University Wonju College of Medicine, Wonju, Korea, Bachelor of Medicine, M.D.
Postgraduate School	Sep/2008 – Aug/2014	The Graduate School, Yonsei University (Master course), Seoul, Korea
Postgraduate School	Mar/2015 – Aug/2018	The Graduate School, Yonsei University (Ph.D. course), Seoul, Korea

License

2000 Licensed to Practice Medicine in Korea. #70257
2005 Korean Board of Surgery # 5592

Training & Employment

Internship	Mar/2000-Feb/2001	Wonju Christian Hospital Yonsei University Wonju college of medicine
Residency	Mar/2001-Feb/2005	Department of Surgery, Severance Hospital Yonsei University college of medicine
Military Service : Chief of department of surgery	Mar/2005-April-2008	Department of Surgery Migrant Worker's Hospital
Fellowship	May/2008-Feb/2010	Division of HBP surgery Department of surgery, Gangnam Severance Hospital, Yonsei University college of medicine
Clinical assistant professor	Mar/2010-Feb/2014	Division of HBP surgery Department of surgery, Severance Hospital Yonsei University College of Medicine
Visiting scholar	Aug/2016-Aug/2017	Department of Surgery University of California San Diego, USA
Assistant Professor	Feb/2014-Feb/2019	Division of HBP surgery Department of surgery, Severance Hospital Yonsei University College of Medicine
Associate Professor	Mar/2019- 현재	Division of HBP surgery Department of surgery, Severance Hospital Yonsei University College of Medicine

Research Fund

1. 2010 신진교수연구비 (교내)

Title : 지방유래 간엽줄기 세포를 이용한 간세포 분화시 최적의 분화 조건

2. 2015 일반교수연구비 (교내)

Title : 췌장암의 예후 예측인자로서 종양침윤림프구의 발현과 Smad4, TGF- β 발현 사이의 연관성 분석

3. 2017 장기연수교수연구비 (교내)

Title : 좌측췌장암 환자에서 비장보존 췌미부절제술의 생존을 분석

4. 2018 이공학 개인기초연구지원사업 (교외, 교육부)

Title : 췌장암 미세환경에 침윤된 면역세포 프로파일링을 통한 췌장암 재발 예측 모델 개발 및 면역 치료 가능성 검증

Research field

Pancreatic cancer,
Tumor immunology / Immunotherapy
Minimally invasive pancreatic surgery,
Fluorescence guided surgery

Bibliography

- Original Articles

1. **Hwang HK**, Kang CM, Lee SH, Murakami T, Kiyuna T, Kim SH, Hoffman RM, Bouvet M. Fluorescence-guided Surgery with Splenic Preservation Prevents Tumor Recurrence in an Orthotopic Nude-mouse Model of Human Pancreatic Cancer. *Anticancer Res.* 2018 Feb;38(2):665-670.
2. **HK Hwang**, Murakami T, Kiyuna T, Kim SH, Lee SH, Kang CM, Hoffman RM, Bouvet M. Splenectomy is associated with an aggressive tumor growth pattern and altered host immunity in an orthotopic syngeneic murine pancreatic cancer model. *Oncotarget* 2017;8(51):88827-88834
3. Seo JW, **Hwang HK**, Lee M, Kim KW, Kang CM, Kim MJ, Chung YE. Normal Postoperative Computed Tomography Findings after a Variety of Pancreatic Surgeries. *Korean J Radiol.* 2017 Mar-Apr;18(2):299-308.
4. **Hwang HK**, Park J, Choi SH, Kang CM, Lee WJ. Predicting new-onset diabetes after minimally invasive subtotal distal pancreatectomy in benign and borderline malignant lesions of the pancreas. *Medicine (Baltimore).* 2017 Dec;96(51):e9404.
5. Chong JU, **Hwang HK**, Lee JH, Yun M, Kang CM, Lee WJ. Clinically determined type of 18F-fluoro-2-deoxyglucose uptake as an alternative prognostic marker in resectable pancreatic cancer. *PLoS One.* 2017 Feb 24;12(2):e0172606
6. Min EK, Chong JU, **Hwang HK**, Pae SJ, Kang CM, Lee WJ. Negative oncologic impact of poor postoperative pain control in left-sided pancreatic cancer. *World J Gastroenterol.* 2017 Jan 28;23(4):676-686.



7. **Hwang HK**, Kim HI, Kim SH, Choi J, Kang CM, Kim KS, Lee WJ. Prognostic impact of the tumor-infiltrating regulatory T-cell (Foxp3+)/activated cytotoxic T lymphocyte (granzyme B+) ratio on resected left-sided pancreatic cancer. *Oncol Lett.* 2016 Dec;12(6):4477-4484
8. Murakami T, Murata T, Kawaguchi K, Kiyuna T, Igarashi K, **Hwang HK**, Hiroshima Y, Hozumi C, Komatsu S, Kikuchi T, Lwin TM, Delong JC, Miyake K, Zhang Y, Tanaka K, Bouvet M, Endo I, Hoffman RM. Cervical Cancer Patient-Derived Orthotopic Xenograft (PDOX) Is Sensitive to Cisplatin and Resistant to Nab-paclitaxel. *Anticancer Res.* 2017 Jan;37(1):61-65.
9. Jang JY, Shin YC, Han Y, Park JS, Han HS, **Hwang HK**, Yoon DS, Kim JK, Yoon YS, Hwang DW, Kang CM, Lee WJ, Heo JS, Kang MJ, Chang YR, Chang J, Jung W, Kim SW. Effect of Polyglycolic Acid Mesh for Prevention of Pancreatic Fistula Following Distal Pancreatectomy: A Randomized Clinical Trial. *JAMA Surg.* 2017 Feb 1;152(2):150-155.
10. Yang SJ, **Hwang HK**, Kang CM, Lee WJ. Preoperative defining system for pancreatic head cancer considering surgical resection. *World J Gastroenterol.* 2016 Jul 14;22(26):6076-82.
11. Kim SH, **Hwang HK**, Lee WJ, Kang CM. Identification of an N staging system that predicts oncologic outcome in resected left-sided pancreatic cancer. *Medicine (Baltimore).* 2016 Jun;95(26):e4035.
12. Kim HJ, Lee WJ, Kang CM, **Hwang HK**, Bang SM, Song SY, Seong J. Risk Factors Associated with Loco-Regional Failure after Surgical Resection in Patients with Resectable Pancreatic Cancer. *PLoS One.* 2016 Jun 22;11(6):e0157196.
13. **Hwang HK**, Jung MJ, Lee SH, Kang CM, Lee WJ. Adverse oncologic effects of intraoperative transfusion during pancreatectomy for left-sided pancreatic cancer: the need for strict transfusion policy. *J Hepatobiliary Pancreat Sci.* 2016 Aug;23(8):497-507.
14. Kang CM, **Hwang HK**, Park J, Kim C, Cho SK, Yun M, Lee WJ. Maximum Standard Uptake Value as a Clinical Biomarker for Detecting Loss of SMAD4 Expression and Early Systemic Tumor Recurrence in Resected Left-Sided Pancreatic Cancer. *Medicine (Baltimore).* 2016 Apr;95(17):e3452.
15. Lee LS, **Hwang HK**, Kang CM, Lee WJ. Minimally Invasive Approach for Spleen-Preserving Distal Pancreatectomy: a Comparative Analysis of Postoperative Complication Between Splenic Vessel Conserving and Warshaw's Technique. *J Gastrointest Surg.* 2016 Aug;20(8):1464-70.
16. **Hwang HK**, Lee SH, Han DH, Choi SH, Kang CM, Lee WJ. Impact of Braun anastomosis on reducing delayed gastric emptying following pancreaticoduodenectomy: a prospective, randomized controlled trial. *J Hepatobiliary Pancreat Sci.* 2016 Jun;23(6):364-72.



17. Kang CM, Lee SH, **Hwang HK**, Yun M, Lee WJ. Preoperative Volume-Based PET Parameter, MTV2.5, as a Potential Surrogate Marker for Tumor Biology and Recurrence in Resected Pancreatic Cancer. *Medicine (Baltimore)*. 2016 Mar;95(9):e2595.
18. Lee SH, Kang CM, Kim H, **Hwang HK**, Song SY, Seong J, Kim MJ, Lee WJ. Pathological Complete Remission of Pancreatic Cancer Following Neoadjuvant Chemoradiation Therapy; Not the End of Battles. *Medicine (Baltimore)*. 2015 Dec;94(52):e2168.
19. Park JS, Lee DH, Jang JY, Han Y, Yoon DS, Kim JK, Han HS, Yoon Y, Hwang D, Kang CM, **Hwang HK**, Lee WJ, Heo J, Chang YR, Kang MJ, Shin YC, Chang J, Kim H, Jung W, Kim SW. Use of TachoSil® patches to prevent pancreatic leaks after distal pancreatectomy: a prospective, multicenter, randomized controlled study. *J Hepatobiliary Pancreat Sci*. 2016 Feb;23(2):110-7.
20. Yoo YJ, Yang SJ, **Hwang HK**, Kang CM, Kim H, Lee WJ. Overestimated Oncologic Significance of Lymph Node Metastasis in G1 Nonfunctioning Neuroendocrine Tumor in the Left Side of the Pancreas. *Medicine* 2015 Sep;94(36):e1404.
21. Lee JH, Kang CM, Bang SM, Choi JY, Seong JS, **Hwang HK**, Choi SH, Lee WJ. The Role of Neoadjuvant Chemoradiation Therapy in Patients With Borderline Resectable Pancreatic Cancer With Isolated Venous Vascular Involvement. *Medicine*. 2015 Aug;94(31):e1233
22. Lee SW, Min SO, Bak SY, **Hwang HK**, Kim KS. Efficient endodermal induction of human adipose stem cells using various concentrations of Activin A for hepatic differentiation. *Biochem Biophys Res Commun*. 2015 Sep 4;464(4):1178-84.
23. Ho IG, Kim JK, **Hwang HK**, Kim JY, Park JS, Yoon DS. Does international study group on pancreatic fistula (ISGPF) classification need modification after distal pancreatectomy? *Korean J Hepatobiliary Pancreat Surg*. 2014 Aug;18(3):90-3.
24. Kang CM, Lee SH, Chung MJ, **Hwang HK**, Lee WJ. Laparoscopic pancreatic reconstruction technique following laparoscopic pancreaticoduodenectomy. *J Hepatobiliary Pancreat Sci*. 2015 Mar;22(3):202-10.
25. Lee SH, Jung MJ, **Hwang HK**, Kang CM, Lee WJ. The first experiences of robotic single-site cholecystectomy in Asia: a potential way to expand minimally-invasive single-site surgery? *Yonsei Med J*. 2015 Jan;56(1):189-95.
26. Kang CM, Cho A, Kim H, Chung YE, **Hwang HK**, Choi SH, Lee WJ. Clinical correlations with (18)FDG PET scan patterns in solid pseudopapillary tumors of the pancreas: still a surgical enigma? *Pancreatology*. 2014 Nov-Dec;14(6):515-23.

27. Lee SH, Kang CM, **Hwang HK**, Choi SH, Lee WJ, Chi HS. Minimally invasive RAMPS in well-selected left-sided pancreatic cancer within Yonsei criteria: long-term (>median 3 years) oncologic outcomes. *Surg Endosc.* 2014 Oct;28(10):2848-55.
28. Kang CM, Choi SH, Kim SC, Lee WJ, Choi DW, Kim SW; Korean Pancreatic Surgery Club. Predicting recurrence of pancreatic solid pseudopapillary tumors after surgical resection: a multicenter analysis in Korea. *Ann Surg.* 2014 Aug;260(2):348-55.
29. **Hwang HK**, Choi SH, Kang CM, Lee WJ. Single-fulcrum laparoscopic cholecystectomy in uncomplicated gallbladder diseases: a retrospective comparative analysis with conventional laparoscopic cholecystectomy. *Yonsei Med J.* 2013 Nov;54(6):1471-7.
30. **Hwang HK**, Lee WJ, Kang CM. Surgery! Only when it causes troubles? *Surg Endosc.* 2013 Jul;27(7):2648-9.
31. **Hwang HK**, Kang CM, Chung YE, Kim KA, Choi SH, Lee WJ. Robot-assisted spleen-preserving distal pancreatectomy : a single surgeon's experiences and proposal of clinical application. *Surg Endosc* 2013 Mar;27(3):774-81.
32. Choi SH, Kim SH, Choi JJ, Kang CM, **Hwang HK**, Lee WJ. Clinical necessity of the immunohistochemical reassessment of para-aortic lymph nodes in resected pancreatic ductal adenocarcinoma. *Oncol Lett.* 2013 Nov;6(5):1189-1194.
33. Cho IR, Chung MJ, Bang S, Park SW, Chung JB, Song SY, Seong J, **Hwang HK**, Kang CM, Lee WJ, Park JY. Gemcitabine based neoadjuvant chemoradiotherapy therapy in patients with borderline resectable pancreatic cancer. *Pancreatology.* 2013 Sep-Oct;13(5):539-43.
34. Kang CM, **Hwang HK**, Choi SH, Lee WJ. Controversial issues of neoadjuvant treatment in borderline resectable pancreatic cancer. *Surg Oncol.* 2013 Jun;22(2):123-31.
35. Kim JK, Park JS, **Hwang HK**, Shin HW, Yoon DS. Drainage volume after pancreaticoduodenectomy is a warning sign of chyle leakage that inversely correlates with a diagnosis of pancreatic fistula. *World J Surg.* 2013 Apr;37(4):854-62.
36. Kang CM, **Hwang HK**, Kim H, Kim H, Chung YE, Park JS, Yoon DS, Lee WJ. Marginally calcified totally necrotic tumor of the pancreas: a subset of solid pseudopapillary tumor with near-total necrosis? *Pancreas.* 2013 Jan;42(1):184-6.
37. Jang JY, Chung YE, Kang CM, Choi SH, **Hwang HK**, Lee YJ. Two cases of portal annular pancreas. *Korean J Gastroenterol* 2012;60(1):52-5

38. Choi SH, **Hwang HK**, Kang CM, Lee WJ. Single-fulcrum laparoscopic cholecystectomy: a single-incision and multi-port technique. ANZ J Surg. 2012;82(7-8):529-34.
39. Kim SH, **Hwang HK**, Kang CM, Lee WJ. Pancreatoduodenectomy in patients with periampullary cancer after radical subtotal gastrectomy for gastric cancer. Am Surg. 2012;78(3):164-7.
40. Kang CM, Kim H, Cho Y, Kim YS, **Hwang HK**, Choi HJ, Lee WJ. In vitro adenosine triphosphate-based chemotherapy response assay (ATP-CRA) in solid pseudopapillary tumor of the pancreas. Pancreas. 2012;41(3):498-500.
41. Park JS, Chung HK, **Hwang HK**, Kim JK, Yoon DS. Postoperative nutritional effects of early enteral feeding compared with total parenteral nutrition in pancreaticoduodenectomy patients: a prospective, randomized study. J Korean Med Sci. 2012;27(3):261-7.
42. Choi SH, **Hwang HK**, Kang CM, Lee WJ. Transumbilical single port laparoscopic adrenalectomy: a technical report on right and left adrenalectomy using the glove port. Yonsei Med J. 2012;53(2):442-5.
43. Choi GH, Choi SH, Kim SH, **Hwang HK**, Kang CM, Choi JS, Lee WJ. Robotic liver resection: technique and results of 30 consecutive procedures. Surg Endosc. 2012;26(8):2247-58.
44. Choi SH, Kang CM, **Hwang HK**, Lee WJ, Chi HS. Robotic anterior RAMPS in well-selected left-sided pancreatic cancer. J Gastrointest Surg. 2012;16(4):868-9.
45. Choi SH, **Hwang HK**, Kang CM, Yoon CI, Lee WJ. Pylorus- and spleen-preserving total pancreaticoduodenectomy with resection of both whole splenic vessels: feasibility and laparoscopic application to intraductal papillary mucin-producing tumors of the pancreas. Surg Endosc. 2012;26(7):2072-7.
46. Choi SH, Choi JJ, Kang CM, **Hwang HK**, Lee WJ. A dog model of pancreaticojejunostomy without duct-to-mucosa anastomosis. JOP. 2012;13(1):30-5.
47. **Hwang HK**, Kim H, Kang CM, Lee WJ. Serous cyst adenoma of the pancreas: appraisal of active surgical strategy before it causes problems. Surg Endosc. 2012 Jun;26(6):1560-1565.
48. **Hwang HK**, Chung YE, Kim KA, Kang CM, Lee WJ. Revisiting vascular patency after spleen preserving laparoscopic distal pancreatectomy with conservation of splenic vessels. Surg Endosc. 2012 Jun;26:1765-1771.
49. **Hwang HK**, Park JS, Lim JK, Park CM, Cho SI, Yoon DS. Comparison of efficacy of enucleation and pancreaticoduodenectomy for small(<3cm) branch duct type IPMN located at the head of pancreas and the uncinate process. YMJ. 2012;53(1):106-110.

50. Choi SH, Seo MA, **Hwang HK**, Kang CM, Lee WJ. Is it worthwhile to preserve adult spleen in laparoscopic distal pancreatectomy? Perioperative and patient-reported outcome analysis. *Surg Endosc.* 2012;26(1):3149-56.
51. Choi SH, Kang CM, **Hwang HK**, Lee WJ. Single fulcrum laparoscopic cholecystectomy: A variant single incision and multiport technique. *J Laparoendosc Adv Surg Tech Part B Videoscopy.* 2012;22
52. **Hwang HK**, Chung YE, Kim HK, Park JY, Choi HJ, Kang CM, Lee WJ. Serous cystic neoplasm: Do we have to wait to till it causes trouble?. *Korean J Hepatobiliary Pancreat Surg* 2011;15(2):134-138.
53. **Hwang HK**, Park JS, Park CI, Kim JK, Toon DS. The impact of body mass index on pancreatic fistula after pancreaticoduodenectomy in asian patients on the basis of Asia-Pacific perspective of body mass index. *JOP.* 2011;12(6):586-92.
54. Choi SH, Kang CM, **Hwang HK**, Lee WJ. Reappraisal of anterior approach to laparoscopic splenectomy: technical feasibility and its clinical application. *Surg Laparosc Endosc Percutan Tech.* 2011;21(5):353-7.
55. Choi SH, **Hwang HK**, Kang CM, Lee WJ. Potential use of left renal vein graft in pancreaticoduodenectomy combined with long segmental resection of the superior mesenteric-splenic-portal vein confluence. *JOP.* 2011;12(3):234-40.
56. Choi SH, **Hwang HK**, Kang CM, Lee WJ. Total pancreaticoduodenectomy and segmental resection of superior mesenteric vein-portal vein confluence with autologous splenic vein graft in mucinous cystadenocarcinoma of the pancreas. *JOP.* 2010 Nov 9;11(6):638-41.
57. Nam SJ, **Hwang HK**, Kim H, Yu JS, Yoon DS, Chung JJ, Kim JH, Kim KW. Lymphoepithelial cysts in the pancreas: MRI of two cases with emphasis of diffusion-weighted imaging characteristics. *J Magn Reson Imaging.* 2010 Sep;32(3):692-6
58. Kang CM, Choi SH, **Hwang HK**, Lee WJ, Chi HS. Minimally invasive (laparoscopic and robot-assisted) approach for solid pseudopapillary tumor of the distal pancreas: a single-center experience. *J Hepatobiliary Pancreat Sci.* 2010 Jul 31.
59. Kang CM, Choi SH, **Hwang HK**, Kim DH, Yoon CI, Lee WJ. Laparoscopic distal pancreatectomy with division of the pancreatic neck for benign and borderline malignant tumor in the proximal body of the pancreas. *J Laparoendosc Adv Surg Tech A.* 2010 Sep;20(7):581-6.
60. Park JS, **Hwang HK**, Kim JK, Cho SI, Yoon DS, Lee WJ, Chi HS. Clinical validation and risk factors for delayed gastric emptying based on the International Study Group of Pancreatic Surgery (ISGPS) Classification. *Surgery.* 2009 Nov;146(5):882-7.
61. Kim JK, **Hwang HK**, Park JS, Cho SI, Yoon DS, Chi HS. Left hemihepatectomy and caudate lobectomy

and complete extrahepatic bile duct resection using transduodenal approach for hilar cholangiocarcinoma arising from biliary papillomatosis. J Surg Oncol. 2008 Aug 1;98(2):139-42.

62. Park JS, Jung WH, Kim JK, **Hwang HK**, Cho SI, Yoon DS, Chi HS, Kim BR. Estrogen receptor alpha, estrogen receptor beta, and progesterone receptor as possible prognostic factor in radically resected gallbladder carcinoma. J Surg Res. 2009 Mar;152(1):104-10. Epub 2008 Feb 29.

63. **Hwang HK**, Hyung WJ, Choi SH, Noh SH. The Minimal Range of a Lymphadenectomy in Gastric Cancer according to an Analysis of Sentinel Lymph Node and Solitary Lymph Node Metastasis. J Korean Gastric Cancer Assoc 2004;4:272-276)