

CURRICULUM VITAE

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NAME: Yanna Cao

PRESENT TITLE: Associate Professor of Surgery
The University of Texas Medical School at Houston

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UNDERGRADUATE EDUCATION:

*Bachelor of Medicine, 1983
Shandong University, School of Medicine
Jinan, Shandong, P.R. China

*Equivalent to M.D., and certified by Educational Commission for Foreign Medical Graduates of U.S. 1998

GRADUATE EDUCATION:

Master of Science, Microbiology and Immunology, 1988
Shandong Medical University,
Jinan, Shandong, P. R. China

Master of Science, Immunology, 1996
University of Manitoba
Winnipeg, Manitoba, Canada

ACADEMIC APPOINTMENTS:

Assistant Professor, 1983-1988
Department of Microbiology & Immunology
Shandong University, School of Medicine
Jinan, Shandong, P. R. China

Lecturer, 1988-1993
Department of Microbiology & Immunology
Shandong University, School of Medicine
Jinan, Shandong, P. R. China

Research Assistant, 1993-1995
Department of Immunology
University of Manitoba
Winnipeg, Manitoba, Canada

Research Associate, 1995-1998
Department of Internal Medicine/Immunology

University of Manitoba
Winnipeg, Manitoba, Canada

Technologist, 1998-1999
Blood-Borne Pathogens and Hepatitis, Bureau of Microbiology,
Federal Laboratories, Health Canada
Winnipeg, Manitoba, Canada

Senior Research Associate, 1999-2001
Instructor, 2001-2004
Assistant Professor, 2004-2007
Adjunct Assistant Professor, 2007-Present
Department of Surgery, Division of General Surgery
University of Texas Medical Branch at Galveston, TX

Assistant Professor, 2007-2015
Associate Professor, 2015-Present
Department of Surgery, Division of General Surgery
UTHealth McGovern Medical School

CURRENT TEACHING AND RESEARCH RESPONSIBILITIES:

Mentoring Medical School students, international students and postdoctoral fellows for research.

Research interests in signaling transduction in gastroenterological tracts including gut, liver and pancreas, and in endothelium during hemorrhagic shock/resuscitation.

PUBLICATIONS:

A. Abstracts (published)

1. **Cao Y**, Salo D and Mohapatra S. Induction of isotype-specific tolerance to grass allergens with a recombinant allergen peptide. *J Allergy and Clinical Immunology* 95(1):305, 1995.
2. Mohapatra S, **Cao Y**, Luo Z, Yang M and Panda S. Molecular changes following vaccination and immunotherapy with a multi-epitopic recombinant allergen. *J Allergy and Clinical Immunology* 97(1):231, 1996.
3. **Cao Y**, Xie C, Yu W, Townsend Jr CM, Thompson EA and Ko TC. Growth regulation of gut epithelial cells by TGF- β . *J Surg Res* 93:339-340, 2000.
4. Li F, **Cao Y**, Song D, Townsend Jr CM, and Ko TC. TGF- β /Smad signaling in colon cancer cells. *J Am Coll Surg* 195(S):S14, 2002.
5. Slogoff M, Li F, **Cao Y**, Guo Y-S, Hellmich MR, Townsend Jr CM, and Ko TC. Bombesin potentiates transforming growth factor- β (TGF- β)-mediated cell death in intestinal epithelial cells. *J Surg Res* 107:293, 2002.
6. **Cao Y**, Liu Y, Li F, Song D, Hellmich MR, Mileski WJ, Townsend Jr CM, and Ko TC. A novel mechanism of repression of TGF- β signaling in human colon cancers. *J Surg Res* 107:279, 2002.

7. **Cao Y**, Yu W, Xie C, Xue Y, Choy L, Townsend Jr CM, Thompson EA, and Ko TC. Critical role of Smad3 in TGF- β -mediated apoptosis and growth inhibition in epithelial cells. *Mol Biol Cell* 13(S):16a, 2002.
8. Liu Y, **Cao Y**, Sambandam K, Townsend Jr CM, and Ko TC. Identification of alternatively spliced forms of Evi-1 oncogene in human colorectal cancers. *Ann Surg Oncol* 10(suppl):S30-31, 2003.
9. Li F, **Cao Y**, Townsend Jr CM, Ko TC. p38 MAPK signaling pathway is involved in transforming growth factor- β (TGF- β)/Smad3-induced apoptosis. *Gastroenterology* 124:A-275, 2003.
10. **Cao Y**, Chen L, Liu Y, Townsend Jr CM, Thompson EA, and Ko TC. Identification of apoptotic genes mediating transforming growth factor-beta/Smad3-induced cell death in intestinal epithelial cells using genomic approach. *J Am Coll Surg* 197:S7, 2003.
11. **Cao Y**, Liu Y, Chen L, Thompson EA, Townsend Jr CM, and Ko TC. Inhibitor of differentiation (Id)-2 is a downstream target gene of transforming growth factor (TGF)- β in the regulation of apoptosis. *Gastroenterology* 126(S2):A-137, 2004.
12. **Cao Y**, Li F, Hellmich MR, Guo Y-S, Sheng H, Townsend Jr CM, and Ko TC. Transforming growth factor- β and bombesin synergistically activate cyclooxygenase-2. *Proc Am Assoc Cancer Res* 45:939, 2004.
13. **Cao Y**, Deng C, and Ko TC. TGF- β regulates multiple transcription factors through repression of Id2 for induction of apoptosis in gut epithelial cells. *Gastroenterology* 128(S2):A-603, 2005
14. Nguyen KA, **Cao Y**, and Ko TC. N-Terminal domain of Smad3 plays an important role in TGF- β -induced apoptosis of gut epithelial cells. *Gastroenterology* 128(S2):A-605, 2005.
15. **Cao Y**, Townsend Jr CM, and Ko TC. Transforming growth factor- β (TGF- β) induces vascular endothelial growth factor (VEGF) and plasminogen activator inhibitor-1 (PAI-1) gene expression through Smad3 transcription factor. *J Am Coll Surg* 199:S17-S18, 2005.
16. **Cao Y**, Deng C, Townsend Jr CM, Ko TC. TGF- β inhibits Akt-induced transformation in intestinal epithelial cells. *Surgery* 140(2):322, 2006.
17. **Cao Y**, Zhang W, Zhang G-H, Townsend Jr CM, Ko TC. Hypoxia inducing factor-1 α mediates TGF- β -induced apoptosis in intestinal epithelial cells. *Gastroenterology* 134(S1):A382, 2007.
18. Zhang W, **Cao Y**, Falzon M, Townsend, Jr. CM, Ko TC. PTHrP is a novel mediator of TGF β -induced apoptosis in human hepatocellular carcinoma cells. *J. Surg Res* 143:169, 2007.
19. Liu X, **Cao Y**, Zhao J, Hellmich HR, Guo Y-S, Sheng H, Townsend Jr CM, and Ko TC. The role of p38MAPK α in the cross-talk between TGF- β receptors and GRP-R. *J. Surg Res* 144(2):383-384, 2008.
20. **Cao Y**, Zhang W, Nguyen KA, Townsend Jr. CM, and Ko TC. Sodium butyrate enhances growth inhibitory effect of TGF- β on gut epithelial cells. *Gastroenterology* 136(S1):A-764, 2009.
21. **Cao Y**, Deng X, Liu X, Pati S, Kozar RA, Gonzalez EA, Holcomb JB, and Ko TC. Standard storage of fresh frozen plasma increases TGF-beta/Smad3 signaling. *Shock* 31(S1):56, 2009.
22. Deng X, **Cao Y**, Pati S, Kozar RA, Holcomb JB, Ko TC. Fresh frozen plasma activates kinase pathways in endothelial cells. *Shock* 31(S1):34, 2009.
23. Liu X, Deng X, Yang W, Stamp SP, Holcomb JB, Cox Jr. CS, **Cao Y**, and Ko TC. BMPs protect gastrointestinal cells against injury. *Shock* 31(S1):60, 2009.
24. Yang W, **Cao Y**, Duan CJ, Takahashi H, Saito H, Evers BM, Hellmich MR, and Ko TC. BMP2 signaling pathway is activated in cerulein-induced acute pancreatitis. *Pancreas* 38:1064, 2009.

25. Zhang H, Zhang G, Liu X, Ferraro N, Jackson J, Evers BM, **Cao Y**, Ko TC. Downregulation of PTHRP Signaling Pathway Contributes to Liver Regeneration. *J of Surg Res* 151:304, 2009.
26. Deng X, **Cao Y**, Liu Y, Rajaraman S, Perkins A, Hellmich MR, Townsend CM, Thompson EA, Ko TC. Evi-1 in colorectal cancer: Identification of a novel transcript and suppression of TGF- β signaling and function. *Proc Am Assoc Cancer Res. Abstract nr 3450*, 2009.
27. Doursout M, Liang Y, Deng X, **Cao Y**, Salsbury J, Ko TC, Conyers J, Holcomb JB. Plasma resuscitation suppresses reactive oxygen species production in hemorrhaged rats. *Shock* 33(S1):40, 2010.
28. Duan C, **Cao Y**, Deng X, Yang W, Kozar RA, Gonzalez EA, Holcomb JB, Ko TC. Plasma adiponectin levels decrease after hemorrhagic shock (HS). *Shock* 33(S1):49, 2010.
29. Deng X, **Cao Y**, Doursout MF, He G, Kozar RA, Holcomb JB and Ko TC. Standard Storage of Fresh Frozen Plasma (FFP) Reduces its Anti-apoptotic Effects during Hemorrhagic Shock (HS) Resuscitation. *Shock* 33(S1):49, 2010.
30. Straughan DM, Sun C, Deng X, **Cao Y**, Pati S, Dong J, Holcomb JB, Ko TC. Identification of the anti-apoptotic components in fresh frozen plasma. *J of Surg Res* 152:295, 2010.
31. Buendia FI, Deng X, **Cao Y**, Holcomb JB, Ko TC. Identification of FFP-induced tyrosine phosphorylation on bad protein. *J of Surg Res* 152:216, 2010.
32. Deng X, Doursout MF, **Cao Y**, Duan CJ, He G, Kozar RA, Holcomb JB and Ko TC. Fresh Frozen Plasma Induces Nitric Oxide Production Through AMPK-Akt-mediated eNOS Activation. *FASEB J* 24:598.11. 2010.
33. **Cao Y**, Tyler M, Yang W, Chao C, Hellmich MR, Ko TC. BMP2 Stimulates Inflammatory Responses in Pancreatic Acinar Cells. *Pancreas* 39(8):1312. 2010.
34. Tyler M, **Cao Y**, Yang W, Aronson JF, Popov V, Chao C, Hellmich MR, Ko, TC. BMP Regulates Autophagy in Acute Pancreatitis (AP). *Pancreas* 39(8):1353-4, 2010.
35. Deng X, Doursout MF, **Cao Y**, Kozar R, Holcomb JB, Ko TC. Resuscitation with Fresh Frozen Plasma Protects the Gut from Hemorrhagic Shock-Induced Injury. *Gastroenterology* 138(5):S-432-S-433, 2010.
36. Kim SO, Chao C, Ko TC, **Cao Y**, Hellmich MR. The MEK/ERK signalling axis regulates autophagy during the development of acute pancreatitis. *Gastroenterology* 138:S-281, 2010.
37. Duan CJ, Yang W, **Cao Y**, Hellmich MR, and Ko TC. Bone Morphogenetic Protein 2 Inhibits TGF- β Activation of Pancreatic Stellate Cells. *Gastroenterology* 138:S-282, 2010.
38. Yang W, **Cao Y**, Duan CJ, Aronson JF, Chao C, Hellmich MR, and Ko TC. Inhibition of BMP/SMAD1/5/8 Signaling Pathway Deteriorates Cerulein-Induced Acute Pancreatitis. *Gastroenterology* 138:S-281, 2010.
39. Deng X, **Cao Y**, Doursout MF, He G, Kozar RA, Wade CE, Holcomb JB, Ko TC. The Role of AMP-activated Protein Kinase (AMPK) in Mediating Fresh Frozen Plasma (FFP)'s Protective Effects in Endothelial Cells (ECs). *Shock* 35(S1):79, 2011.
40. Gao X, **Cao Y**, Rostellini C, Chao C, Hellmich MR, Ko TC. Human Pancreatic Stellate Cells as an in vitro Model for the Study of Bone Morphogenetic Proteins' Anti-fibrogenic Role in the Pancreas. *Pancreas* 40(8):1322, 2011.
41. **Cao Y**, Gao X, Yang W, Aronson JF, Varughese MG, Deng X, Duan CJ, Chao C, Greeley GH, Hellmich MR, and Ko TC. Induction of Gremlin, a Bone Morphogenetic Protein Antagonist, During the Development of Chronic Pancreatitis. *Gastroenterology* 140:S-549, 2011.
42. Hellmich MR, Kim SO, Ives KL, Jeseong P, Wang X, Djukom CD, **Cao Y**, Greeley GH, Ko TC, Chao C. Etoh-Induced Sensitization of CCK Signaling in Pancreatic Acinar Cells: Role of Raf Kinase Inhibitory Protein (RKIP). *Gastroenterology* 140:S-127, 2011.
43. Deng X, Huby MP, Baer L, He G, Sun W, **Cao Y**, Dong JF, Kozar RA, Wade CE, Holcomb IB, Ko TC. Adiponectin (adpn) is a key component in fresh frozen plasma (FFP) responsible for its endothelial protective effects after hemorrhagic shock (HS). *Shock* 37(S1):7, 2012.

44. Wang X, Chen H, Ives KL, **Cao Y**, Aronson JF, Ko TC, Chao C, Zhou J, Hellmich MR. Apigenin inhibits pancreatic stellate cell proliferation, stimulates apoptosis and inhibits fibrosis associated with chronic pancreatitis. *Pancreatology* 13(2):e84, 2013.
45. Gao X, **Cao Y**, Aronson JF, Chao C, Hellmich MR, and Ko TC. BMPR2 Deletion Increases Susceptibility To Chronic Pancreatitis. *Pancreatology* 13(2):e27, 2013.
46. Staloch D, Gao X, **Cao Y**, Aronson JF, Chao C, Hellmich MR, and Ko TC. Grem1 Deletion Reduces Susceptibility to Chronic Pancreatitis. *Gastroenterology* 144(5):S-477, 2013.
47. Gonzales M, Gao X, **Cao Y**, Xue H, Aronson JF, Pati S, Ko TC. The Protective Role of Human Mesenchymal Stem Cells in Acute Pancreatitis in Mice. *Gastroenterology* 144(5):S-478, 2013.
48. Bhatia V, **Cao Y**, Ko TC, Greeley G Jr, Falzon M. Regulation of gremlin and apelin levels by ethanol via a PTHrP-dependent pathway in pancreatic acinar cells. *Pancreas* 42(8):1340, 2013.
49. **Cao Y**, Rastellini C, Gao X, Han S, Bhatia V, Falzon M, Greeley G Jr 2 and Ko TC. Interaction of BMP, Apelin and PTHrP Pathways in Pancreatic Duct Ligation-Induced Chronic Pancreatitis. *Pancreas* 42(8):1341, 2013.
50. Liu K, **Cao Y**, Greeley G Jr and Ko TC. Gremlin is a Novel Mediator of Pancreatic Fibrosis in Chronic Pancreatitis. *Pancreas* 43(8):1384, 2014.
51. Zhao W, Gao X, Liu K, Ko TC, **Cao Y**. Characterization of Inducible BMPR2 Homozygous Knockout Mice. *Gastroenterology* 148(4): S-932, 2015.
52. Liu K, **Cao Y**, and Ko TC. Gremlin Mediates Pro-fibrogenic Activity of TGF- β in Chronic Pancreatitis. *Pancreas* 44(8):1392, 2015.
53. P. Yu, K. Liu, **Y. Cao**, and T.C. Ko. Opposing Effects of TGF- β and BMP2 on MicroRNA-200b in the Pancreas. *Pancreas* 45(10):1549, 2016.
54. K. Liu, **Y. Cao**, C. Rastellini, J.M. Bailey, C. Chao, and T.C. Ko. Pro-Fibrogenic Gremlin is a Novel Marker of Pancreatic Stellate Cells. *Pancreas* 45(10):1520, 2016.
55. Chunhui Liu, **Yanna Cao**, Tien C Ko, Run Wang. Alterations of MicroRNA Expression in a Cavernous Nerve Injury Rat Model. *The Journal of Urology* 197(4S):e611, 2017.
56. **Y. Cao**, B. Cheng, J. Li, J.M. Bailey, M. Younes, and T.C. Ko. Characterization of Collagen Producing Cells in Acute Pancreatitis via Lineage Tracing. *Pancreas* 46(10):1393, 2017.
57. T.F. Obafemi, K. Liu, B. Cheng, P. Yu, J. Li, M. Younes, T.C. Ko, **Y. Cao**. Comparable Responses in Male and Female Mice to Cerulein-Induced Chronic Pancreatic Injury and Recovery. *Pancreas* 46(10):1424, 2017.
58. J. Davis, K. Liu, P. Yu, M. Younes, T.C. Ko, and **Y. Cao**. A Novel Target for Chronic Pancreatitis Therapy: Blocking Gremlin1 in a Mouse Model. *Pancreas* 47(10):1382, 2018.

B. Refereed Original Articles in Journals

1. **Cao Y**, Li H, Ma D and Huang P. The preparation of biotinylated DNA probe for the detection of heat-stable toxin II in Enterotoxigenic E. coli. *Chinese Journal of Animal and Poultry Infectious Diseases* 44(1):45-48, 1989.
2. **Cao Y**, Sun W, Song J, Wang D, Zhang L and Cao Y-L. The preparation of HBV-DNA probe labeled with Digoxigenin. *Acta Academic Medicine Shandong* 31(4):279-282, 1993.
3. Wang D, Sun W, Zhang C, **Cao Y**, Cao Y-L, Song J and Zhang L. Detection and localization of Hepatitis B Virus DNA in Hepatocellular Carcinoma by in situ hybridization using Digoxigenin labeled probe. *Acta Academic Medicine Shandong* 31(4):282-286, 1993.
4. Sun W, Cao Y-L, Zhang L, Song J, Wang D, **Cao Y**. The application of digoxigenin labeled HBV DNA probe for detection of HBV DNA in clinical samples from patient with hepatocellular carcinoma. *Chinese Journal of Epidemiology* 14(S11):157-159, 1993.

5. Sun W, Zhang L, Cao Y-L, **Cao Y**. The correlation study of HBV DNA existing in serum and cancer tissue of patient with hepatocellular carcinoma. *Chinese Journal of Microbiology and Immunology-Clinical Microbiology* 13:28, 1993.
6. Sun W, Zhang L, Cao Y-L, Song J, **Cao Y**. The relationship research of HBV gene type with the prediction of hepatocarcinoma. *Acta Academic Medicine Shandong* 33(3):1-3, 1995.
7. **Cao Y**, Yang Y, Luo Z and Mohapatra S. Vaccination with a multi-epitopic recombinant allergen induces specific immune deviation via T cell anergy. *Immunology* 90:46-51, 1997. PMID: PMC1456710.
8. Yang M, **Cao Y** and Mohapatra S. CD8+ T cells inhibit immunoglobulin E synthesis in low responder SJL/J mice. *Immunology* 93:230-237, 1998. PMID: PMC1364183.
9. Conery AR, **Cao Y**, Thompson EA, Townsend Jr CM, Ko TC, and Luo K. Akt physically interacts with Smad3 to regulate the sensitivity to TGF β -induced apoptosis. *Nature Cell Biology* 6:366-372, 2004.
10. Li F*, **Cao Y***, Townsend Jr CM, and Ko TC. TGF- β signaling in colon cancer cells. (*both authors contributed equally). *World Journal of Surgery* 29:306-310, 2005.
11. Alliston T, Ko TC, **Cao Y**, Liang Y-Y, Feng X-H, Chang C, and Derynck R. Repression of bone morphogenetic protein and activin-inducible transcription by Evi-1. *Journal of Biological Chemistry* 280:24227-24237, 2005.
12. Nguyen KA*, **Cao Y***, Chen JR, Townsend Jr CM, and Ko TC. Dietary fiber enhances a tumor suppressor signaling pathway in the gut. (*both authors contributed equally). *Annals of Surgery* 243(5):619-627, 2006. PMID: PMC1570539.
13. **Cao Y**, Deng C, Townsend Jr CM, Ko TC. TGF-beta inhibits Akt-induced transformation in intestinal epithelial cells. *Surgery* 140:322-329, 2006.
14. **Cao Y**, Chen L, Zhang W, Liu Y, Papaconstantinou HT, Bush CR, Townsend Jr CM, Thompson EA, and Ko TC. Identification of apoptotic genes mediating transforming growth factor-beta/Smad3-induced cell death in intestinal epithelial cells using genomic approach. *Am J Physiol Gastrointest Liver Physiol* 292(1):G28-38, 2007.
15. **Cao Y**, Liu X, Zhang W, Deng X, Zhang H, Liu L, Chen L, Thompson EA, Townsend Jr. CM, Ko TC. TGF- β repression of Id2 induces apoptosis in gut epithelial cells. *Oncogene* 28:1089–1098, 2009. PMID: PMC2943843.
16. Liu X, Zhao J, Li F, Guo Y-S, Hellmich MR, Townsend Jr CM, **Cao Y***, Ko TC. Bombesin enhances TGF- β growth inhibitory effects through apoptosis induction in intestinal epithelial cells. (*co-corresponding author). *Regulatory Peptides* 158:26-31, 2009. PMID: PMC3894738.
17. Pati S, Matijevic M, Doursout M, Ko T, **Cao Y**, Deng X, Kozar R, Hartwell E, Conyers J, and Holcomb JB. The protective effects of fresh frozen plasma (FFP) on vascular endothelial permeability, coagulation, and resuscitation after hemorrhagic shock are time dependent and diminish between day 0 and day 5 after thaw. *J Trauma* 69 (S1):S55-63, 2010. PMID: PMC3126659.
18. Duan C, **Cao Y**, Deng X, Wang W, Yang W, Liu X, Chen Z, Pati S, Kozar RA, Gonzalez EA, Wade CE, Holcomb JB, and Ko TC. Increased TGF- β Contributes to Deterioration of Refrigerated Fresh Frozen Plasma's Effects in vitro on Endothelial Cells. *Shock* 36(1):54-59, 2011. PMID: PMC3763495.
19. **Cao Y**, Gao X, Zhang W, Zhang G, Nguyen AK, Liu X, Jimenez F, Cox CS Jr, Townsend CM Jr, Ko TC. Dietary fiber enhances TGF-beta signalling and growth inhibition in the gut. *Am J Physiol Gastrointest Liver Physiol* 301:G156–G164, 2011. PMID: PMC3129933.
20. **Cao Y**, Yang W, Tyler MA, Gao X, Duan CJ, Kim SO, Aronson AF, Popov P, Takahashi H, Saito H, Evers BM, Chao C, Hellmich MR, Ko TC. Noggin Attenuates Cerulein-Induced Acute Pancreatitis and the Impaired Autophagy. *Pancreas*. 42:301-307, 2012. PMID: PMC3894737.

21. Deng X, **Cao Y**, Liu Y, Li F, Sambandam K, Rajaraman S, Perkins AS, Fields AP, Hellmich MR, Townsend Jr CM, Thompson EA, and Ko TC. Overexpression of Evi-1 Oncoprotein Represses TGF- β Signaling in Colorectal Cancer. *Mol Carcinog* 52(4):255-264, 2013. PMID: PMC3922648.
22. **Cao Y**, Zhang W, Gao X, Zhang G, Falzon M, Townsend Jr. CM, Hellmich MR, Ko TC. PTHrP is a novel mediator for TGF- β -induced apoptosis. *Regulatory Peptides* 184:40-46, 2013. PMID: PMC3894735.
23. Gao X, **Cao Y**, Yang W, Duan CJ, Aronson JF, Rastellini C, Chao C, Hellmich MR, Ko TC. BMP2 Inhibits TGF- β -Induced Pancreatic Stellate Cell Activation and Extracellular Matrix Formation. *Am J Physiol Gastrointest Liver Physiol.* 304:G804–G813, 2013. PMID: PMC3652003.
24. Gao X, **Cao Y**, Staloch DA, Gonzales MA, Aronson JF, Chao C, Hellmich MR, Ko TC. Bone Morphogenetic Protein Signaling Protects against Cerulein-Induced Pancreatic Fibrosis. *PLoS ONE* 9(2):e89114. 2014 PMID: PMC3931685.
25. **Cao Y***, Dua A*, Matijevic N, Wang Y-W, Pati S, Wade CE, Ko TC, Holcomb JB. Never-Frozen Liquid Plasma Blocks Endothelial Permeability as Effectively as Thawed Fresh Frozen Plasma. (*both authors contributed equally) *J Trauma Acute Care Surg.* 77: 28-33, 2014.
26. **Cao Y***, #, Zhang H*, Zhang G, Liu X, Ferraro N, Jackson LN, Evers BM, Falzon M, Ko TC. PTHrP/PTHR1 and TGF- β Levels Are Inversely Associated in Liver Regeneration. (*both authors contributed equally; #corresponding author) *Gastroenterology and Hepatology.* 2:1-7, 2015.
27. Staloch D, Gao X, Liu K, Xu M, Feng X, Aronson JF, Falzon M, Greeley GH, Rastellini C, Chao C, Hellmich MR, **Cao Y***, Ko TC#. Gremlin is a Key Pro-fibrogenic Factor in Chronic Pancreatitis. (#corresponding author) *J Mol Med.* 93(10):1085-93, 2015.
28. Rastellini C, Han S, Bhatia V, **Cao Y**, Liu K, Gao X, Ko TC, Greeley GH Jr, Falzon M. (2015). Induction of Chronic Pancreatitis by Pancreatic Duct Ligation Activates BMP2, Apelin and PTHrP Expression in Mice. *Am J Physiol Gastrointest Liver Physiol.* 309:G554-565, 2015.
29. Bhatia V, **Cao Y**, Ko TC, Falzon M. PTHrP interacts with the TGF- β /BMP-2/Gremlin Signaling Pathway to Regulate Pro-inflammatory and Pro-fibrotic Mediators in Pancreatic Acinar and Stellate Cells. *Pancreas.* 45:659-670, 2016.
30. Deng X*, **Cao Y***, Huby MP, Duan C, Baer L, Peng Z, Kozar RA, Doursout MF, Holcomb JB, Wade CE, Ko TC. Adiponectin in Fresh Frozen Plasma Contributes to Restoration of Vascular Barrier Function after Hemorrhagic Shock. (*both authors contributed equally) *Shock.* 45:50-54, 2016.
31. Haocheng Lin, Nadeem Dhanani, Hubert Tseng, Glauco R. Souza, Grace Wang, **Yanna Cao**, Tien C. Ko, Hui Jiang and Run Wang. Nanoparticle Improved Stem Cell Therapy for Erectile Dysfunction in a Rat Model of Cavernous Nerve Injury. *The Journal of Urology.* 195:788-795, 2016.
32. Chen NY, Collum SD, Luo F, Weng T, Le TT, Hernandez AM, Philip K, Molina J, Garcia-Morales LJ, **Cao Y**, Ko TC, Amione-Guerra J, Al Jabbari O, Bunge RR, Youker KA, Bruckner BA, Hamid R, Davies J, Sinha N, Karmouty-Quintana H. Macrophage Bone Morphogenetic Protein Receptor 2 (BMPR2) depletion in Idiopathic Pulmonary Fibrosis (IPF) and Group III Pulmonary Hypertension. *Am J Physiol Lung Cell Mol Physiol.* 311(2):L238-L254, 2016.
33. Audrey M. Hendley, Yue J. Wang, Kishore Polireddy, Janivette Alsina, Ishrat Ahmed, Kelly J. Lafaro, Hao Zhang, Nilotpal Roy, Samuel G. Savidge, **Yanna Cao**, Matthias Hebrok, Anirban Maitra, Albert B. Reynolds, Michael Goggins, Mamoun Younes, Christine A. Iacobuzio-Donahue, Steven D. Leach and Jennifer M. Bailey. p120 Catenin suppresses

basal epithelial cell extrusion in invasive pancreatic neoplasia. *Cancer Res.* 76(11):3351-63, 2016.

34. Liu C, **Cao Y**, Ko TC, Chen M, Zhou X, Wang R. The Changes of MicroRNA Expression in the Corpus Cavernosum of a Rat Model With Cavernous Nerve Injury. *J Sex Med.* 15(7):958-965, 2018.
35. Peter Yu, Ka Liu, Xuxia Gao, Harry Karmouty-Quintana, Jennifer M. Bailey, **Yanna Cao***, and Tien C. Ko*. Transforming Growth Factor- β and Bone Morphogenetic Protein 2 Regulation of MicroRNA-200 Family in Chronic Pancreatitis. *Pancreas* 47: 252–256, 2018 (*Corresponding authors).
36. Tolulope F Obafemi, Peter Yu, Jing Li, Joy M Davis, Ka Liu, Binglu Cheng, Xiurong Zhao, Qiang Shen, Mamoun Younes, Tien C Ko*, and **Yanna Cao*** (*Corresponding authors). Comparable Responses in Male and Female Mice to Cerulein-Induced Chronic Pancreatic Injury and Recovery. *J of the Pancreas* (in press). *JOP.* 2018 Sep;19(5):236-243. Epub 2018 Sep 28. *JOP.* 2018 September; 19(5): 236–243.
37. Yu Q, Yang B, Davis JM, Ghosn J, Deng X, Doursout MF, Dong JF, Wang R, Holcomb JB, Wade CE, Ko TC*, **Cao Y***. Identification of Fibrinogen as a Key Anti-Apoptotic Factor in Human Fresh Frozen Plasma for Protecting Endothelial Cells In Vitro. *Shock.* 2019 Jun 27. doi: 10.1097/SHK.0000000000001399. [Epub ahead of print] (*Corresponding authors).
38. Lopez E, Peng Z, Kozar RA, **Cao Y**, Ko TC, Wade CE, Cardenas JC. Antithrombin III Contributes to the Protective Effects of Fresh Frozen Plasma Following Hemorrhagic Shock by Preventing Syndecan-1 Shedding and Endothelial Barrier Disruption. *Shock.* 2019 Aug 5. doi: 10.1097/SHK.0000000000001432. [Epub ahead of print].

C. Reviews

1. **Cao Y** and Yu X. The technology of Digoxigenin labeling nucleic acid. *Guowai Yixue-Microbiology* 15(4):152-154, 1992.
2. Mohapatra S, **Cao Y**, Ni H and Salo D. In pursuit of the "holygrail": recombinant allergens and peptides as catalysts for the allergen-specific immunotherapy. *Allergy* 50(S25):37-44, 1995.
3. **Yanna Cao***, Madeline Drake, Joy Davis, Baibing Yang and Tien C Ko. Opposing Roles of BMP and TGF- β Signaling Pathways in Pancreatitis: Mechanisms and Therapeutic Implication. *Adv Res Gastroentero Hepatol* 2019, 13(5):ARGH.MS.ID.555871 (*Corresponding author).

D. Book Chapters

1. **Cao Y**. Reproductive Immunology. *Progress of New Subjects in Medicine.* Guangxi Teachers University Publication 182-197; 1990.
2. **Cao Y**. Pathogenic Bacteria. *Medical Microbiology.* Haikou Publication 206-278; 1992.
3. **Cao Y**. Medical Microbiology. The Inspiration from Progresses of Contemporary Medicine. Chinese Medical and Pharmaceutical Science and Technology Publication 139-155; 1994.

E. Other Professional Communications

Presentations:

At local meeting:

1. Sambandam K, **Cao Y**, Xie C and Ko TC. Evi-1 and colon cancer. Annual Poster Competition for Medical Student at University of Texas Medical Branch 2000 (First Place Award of poster presentation).

2. Schuler HJ, **Cao Y** and Ko TC. The role of caspase-3 in TGF- β mediated apoptosis in gut epithelial cells. Summer undergraduate research program at University of Texas Medical Branch 2001 (Poster presentation).
3. Slogoff M, Li F, **Cao Y**, Guo Y-S, Hellmich MR, Townsend Jr CM, and Ko TC. Bombesin potentiates transforming growth factor- β (TGF- β)-mediated cell death in intestinal epithelial cells. 6th Life Science Symposium University of Texas Medical Branch 2002 (Poster presentation).
4. **Cao Y**, Li F, Song D, Townsend Jr CM, and Ko TC. TGF- β /Smad signaling in colon cancer cell MC-26. 6th Life Science Symposium, Chinese Student Association, University of Texas Medical Branch 2002 (Poster presentation).
5. Liu R, **Cao Y**, Ko TC. The effects of Transforming Growth Factor (TGF)- β 1 on the proliferation of human colon cancer cells. Summer high school research program at University of Texas Medical Branch 2003 (Poster presentation).
6. Hernandez CE, **Cao Y**, Ko TC. The role of Akt in TGF- β mediated apoptosis in rat intestinal epithelial cells. Summer undergraduate research program at University of Texas Medical Branch 2003 (Poster presentation).
7. **Cao Y**, Deng C, and Ko TC. Identification of transcription factors regulated by TGF- β through the repression of Id2 using a proteomic approach. Gulf Coast GI Research Forum 2005 (Poster presentation).
8. Chen J, Nguyen K, **Cao Y**, and Ko TC. Sodium butyrate enhances transforming growth factor- β (TGF- β) signaling in gut epithelial cells through induction of Smad3. Summer undergraduate research program at University of Texas Medical Branch 2005 (Poster presentation).
9. Zhang W, **Cao Y**, Falzon M, and Ko TC. PTHrP is an essential mediator of TGF- β -induced apoptosis in human liver cells. Sealy Center for Cancer Cell Biology 2006 (Poster presentation).
10. Zhang G-H, **Cao Y**, Zhang W, and Ko TC. Dietary fiber enhances TGF- β signalling pathway in the mouse gut. Annual Life Science Symposium UTMB 2007 (Poster presentation).
11. Zhang W, **Cao Y**, Falzon M, Townsend Jr CM, and Ko TC. Smad3 mediates TGF- β -induced PTHrP expression in human hepatocellular carcinoma cells. Annual Life Science Symposium UTMB 2007 (Poster presentation).
12. Liu X, **Cao Y**, Zhao J, Li F, Hellmich MR, Guo YS, Sheng H, Townsend Jr CM, and Ko TC. The role of p38mapk in the cross-talk between TGF- β receptors and GRP-R. Annual Life Science Symposium UTMB 2007 (Poster presentation).
13. **Cao Y**, Zhang W, Liu X, Zhang G-H, Townsend Jr CM and Ko TC. A novel mediator of TGF- β -induced apoptosis. Annual Life Science Symposium UTMB 2007 (Poster presentation).
14. **Cao Y** and Ko TC. TGF- β in gastrointestinal tract. UTHSC-Houston, Datablitz Session at the Research Retreat 2008.
15. Stamp SP, Liu X, **Cao Y**, Ko TC. The Mechanisms Underlying The Protective Effects of BMP-7 Against Gastrointestinal Ischemia-Reperfusion Injury. UTHSC-Houston Summer Research Program 2008 (Poster presentation).
16. Ferraro N, Zhang H, Ko TC, **Cao Y**. The Role of TGF- β and PTHrP in Hepatic Regeneration. UTHSC-Houston Summer Research Program 2008 (Poster presentation).
17. Brosseit M, Deng X, **Cao Y**, Ko TC. Identification of miRNAs Mediating TGF- β Induced Apoptosis in Intestinal Epithelial Cells. UTHSC-Houston Summer Research Program 2008 (Poster presentation).
18. Buendia F, Deng X, **Cao Y**, Holcomb JF, Ko TC. Identification of FFP-induced Tyrosine Phosphorylation on BAD Protein. UTHSC-Houston Summer Research Program 2009 (Poster presentation).

19. Tyler M, **Cao Y**, Yang W, Aronson JF, Popov V, Chao C, Hellmich MR, and Ko TC. BMP Regulates Autophagy in Acute Pancreatitis (AP). UTHSC-Houston Summer Research Program 2010 (Poster presentation).
20. Varughese M, Ko TC, **Cao Y**. TGF- β Inhibits BMP Signaling in Pancreatic Stellate Cells to Promote Pancreatic Fibrosis. UTHSC-Houston Summer Research Program 2010 (Poster presentation).
21. Khalid MA, Gao X, **Cao Y**, and Ko TC. Immortalized Human Pancreatic Stellate Cells as an in vitro Model for the Study of Bone Morphogenetic Proteins' Anti-fibrogenic Role in the Pancreas. UTHSC-Houston Summer Research Program 2011 (Poster presentation).
22. Gonzales M, **Cao Y**, Gao X, Aronson JF, Ko TC. The Protective Role of Human Mesenchymal Stem Cells in Acute Pancreatitis. UTHSC-Houston Summer Research Program 2012 (Poster presentation).
23. Staloch D, **Cao Y**, Gao X, Aronson JF and Ko TC. Grem1 Deletion Reduces Susceptibility to Chronic Pancreatitis. UTHSC-Houston Summer Research Program 2012 (Poster presentation).
24. Ghosn J, **Cao Y**, Ko TC. Plasma Resuscitation Protects Endothelial Cells From Apoptosis. UTHSC-Houston Summer Research Program 2014 (Poster presentation).
25. Staloch D, Gao X, Liu K, Xu M, Feng X, Aronson JF, Greeley GH, Rastellini C, Chao C, Hellmich MR, **Cao Y** and Ko TC. Gremlin is a Key Pro-fibrogenic Factor in Chronic Pancreatitis. UTHSC Scholarly Concentration Program 2015 (Poster presentation).
26. Lina Ha, **Yanna Cao**, Ka Liu, Tien C. Ko. Role of Gremlin on Insulin Secretion: A Link between Chronic Pancreatitis and Diabetes. UTHealth McGovern MS, Summer Research Program 2015 (Poster presentation).
27. P. Yu, K. Liu, **Y. Cao**, and T.C. Ko. Opposing Effects of TGF- β and BMP2 on MicroRNA-200b and Pancreatic Fibrosis. UTHealth McGovern MS, Summer Research Program 2016 (Poster presentation, The Third Place Winner of Webber Prize Competition).
28. T.F. Obafemi, K. Liu, B. Cheng, P. Yu, J. Li, M. Younes, T.C. Ko, **Y. Cao**. Comparable Responses in Male and Female Mice to Cerulein-Induced Pancreatic Injury and Recovery. UTHealth McGovern MS, Summer Research Program 2017 (Poster presentation, The Second Place Winner of Webber Prize Competition).
29. J. Davis, B. Cheng, Q. Yu, M. Younes, X. Zhao, Q. Shen, J. Bailey, T.C. Ko, **Y. Cao**. A Novel Link between Chronic Inflammation and Pancreatic Cancer. UTHealth McGovern MS, Summer Research Program 2018 (Poster presentation, The First Place Winner of Webber Prize Competition).

At regional meeting:

1. **Cao Y**, Liu Y, Li F, Song D, Hellmich MR, Mileski WJ, Townsend Jr CM, and Ko TC. New insight into carcinogenesis using molecular techniques. Texas Surgical Society 2002 (Oral presentation).
2. Nguyen K, **Cao Y**, Townsend Jr CM, and Ko TC. Dietary fiber enhances a tumor suppressor signaling in gut. Southern Surgical Association 2005 (Oral presentation).
3. Liu X, Deng X, Stamp SP, Cox Jr CS, **Cao Y**, Ko TC. BMPs protect gut epithelial cells against oxidative injury. Gulf Coast GI Research Forum 2009 (Poster presentation).
4. Deng X, **Cao Y**, Liu Y, Li F, Rajaraman S, Perkins AS, Hellmich MR, Townsend Jr CM, Thompson EA and Ko TC. Evi-1 in Colorectal Cancer: Identification of a Novel Transcript and Suppression of TGF- β Signaling and Function. Gulf Coast GI Research Forum 2009 (Poster presentation).
5. **Cao Y**, Zhang W, Nguyen KA, Townsend Jr CM and Ko TC. Sodium butyrate enhances growth inhibitory effect of TGF- β on gut epithelial cells. Gulf Coast GI Research Forum 2009 (Poster presentation).

6. Liu X, Deng X, Stamp SP, Cox Jr CS, **Cao Y**, Ko TC. BMPs protect gut epithelial cells against oxidative injury. Gulf Coast GI Research Forum 2009 (Poster presentation).
7. Deng X, **Cao Y**, Liu Y, Li F, Rajaraman S, Perkins AS, Hellmich MR, Townsend Jr CM, Thompson EA and Ko TC. Evi-1 in Colorectal Cancer: Identification of a Novel Transcript and Suppression of TGF- β Signaling and Function. Gulf Coast GI Research Forum 2009 (Poster presentation).
8. **Cao Y**, Zhang W, Nguyen KA, Townsend Jr CM and Ko TC. Sodium butyrate enhances growth inhibitory effect of TGF- β on gut epithelial cells. Gulf Coast GI Research Forum 2009 (Poster presentation).
9. **Cao Y**, Yang W, Duan C, Hellmich MR, and Ko TC. Anti-fibrogenic Effects of Bone Morphogenetic Protein 2 in Pancreas. Gulf Coast GI Research Forum 2011 (Poster presentation).
10. **Cao Y**, Tyler M, Yang W, Aronson J, Popov P, Chao C, Hellmich MR, and Ko TC. Dysregulation of Autophagy in Acute Pancreatitis. Gulf Coast GI Research Forum 2011 (Poster presentation).
11. Gonzales M, Gao X, **Cao Y**, Xue H, Aronson JF, Pati S, Ko TC. Human Mesenchymal Stem Cells Attenuate Pancreatic Acinar Injury in Acute Pancreatitis in Mice. Gulf Coast GI Research Forum 2012 (Poster presentation).
12. **Cao Y**, Dua A*, Matijevic N, Wang Y-W, Pati S, Wade CE, Ko TC, Holcomb JB. Never-Frozen Liquid Plasma Blocks Endothelial Permeability as Effectively as Thawed Fresh Frozen Plasma. Condon-Donagan Lecture 2013 Milwaukee WI (Oral presentation, *First place for resident research competition).
13. Bhatia V, **Cao Y**, Ko TC, Greeley G Jr, Falzon M. Regulation of gremlin and apelin levels by ethanol via a PTHrP-dependent pathway in pancreatic acinar cells. 5th Annual Frontiers in Digestive Diseases, The Texas Medical Center Digestive Diseases Center 2014 (Poster presentation).
14. **Cao Y**, Rastellini C, Gao X, Han S, Bhatia V, Falzon M, Greeley G Jr 2 and Ko TC. Interaction of BMP, Apelin and PTHrP Pathways in Pancreatic Duct Ligation-Induced Chronic Pancreatitis. 5th Annual Frontiers in Digestive Diseases, The Texas Medical Center Digestive Diseases Center 2014 (Poster presentation).
15. **Cao Y**, Dua A*, Matijevic N, Wang Y-W, Pati S, Wade CE, Ko TC, Holcomb JB. Never-Frozen Liquid Plasma Blocks Endothelial Permeability as Effectively as Thawed Fresh Frozen Plasma. Condon-Donagan Lecture 2013 Milwaukee WI (Oral presentation, *First place for resident research competition).
16. Bhatia V, **Cao Y**, Ko TC, Greeley G Jr, Falzon M. Regulation of gremlin and apelin levels by ethanol via a PTHrP-dependent pathway in pancreatic acinar cells. 5th Annual Frontiers in Digestive Diseases, The Texas Medical Center Digestive Diseases Center 2014 (Poster presentation).
17. **Cao Y**, Rastellini C, Gao X, Han S, Bhatia V, Falzon M, Greeley G Jr 2 and Ko TC. Interaction of BMP, Apelin and PTHrP Pathways in Pancreatic Duct Ligation-Induced Chronic Pancreatitis. 5th Annual Frontiers in Digestive Diseases, The Texas Medical Center Digestive Diseases Center 2014 (Poster presentation).
18. Ka Liu, **Yanna Cao**, Tien C. Ko. Gremlin Acts Downstream of TGF- β /Smad3 Signaling to Induce Pancreatic Fibrosis. TMC DDC, 7th Annual Frontiers in Digestive Disease Symposium 2016 (Poster presentation).
19. P. Yu, K. Liu, **Y. Cao**, and T.C. Ko. Role of MicroRNA-200 Family Members in Chronic Pancreatitis. TMC DDC, 8th Annual Frontiers in Digestive Disease Symposium 2017 (Poster presentation).
20. K. Liu, **Y. Cao**, C. Rastellini, J.M. Bailey, C. Chao, and T.C. Ko. Identification of A Novel Marker for Pancreatic Stellate Cells. TMC DDC, 8th Annual Frontiers in Digestive Disease Symposium 2017 (Poster presentation).

21. T.F. Obafemi, K. Liu, B. Cheng, P. Yu, J. Li, M. Younes, T.C. Ko, **Y. Cao**. Study of Sex-Dependent Responses to Experimentally Induced Chronic Pancreatic Injury and Recovery in Mouse Model. TMC DDC, 9th Annual Frontiers in Digestive Disease Symposium 2018 (Poster presentation).
22. J. Li, **Y. Cao**, B. Cheng, J.M. Bailey, M. Younes, and T.C. Ko. Study of Pancreatic Fibroblasts in Experimentally Induced Acute Pancreatitis via Lineage Tracing. TMC DDC, 9th Annual Frontiers in Digestive Disease Symposium 2018 (Poster presentation).
23. J. Davis, K. Liu, P. Yu, Q. Yu, M. Younes, T.C. Ko, and **Y. Cao**. Exploring therapeutic potential by targeting Gremlin1 in Cerulein-induced mouse chronic pancreatitis. TMC DDC, 10th Annual Frontiers in Digestive Disease Symposium, Houston, TX 2019 (Poster presentation).
24. **Yanna Cao**, Qiang Yu, Baibing Yang, Joy M. Davis, Jean Ghosn, Xiyun Deng, Marie-Francoise Doursout, Jing-fei Dong, Run Wang, John B. Holcomb, Charles E. Wade, Tien C. Ko. Anti-Apoptotic Factors in Human Fresh Frozen Plasma for Protecting Endothelial Cells in Hemorrhagic Shock. Gulf Coast Vascular Research Consortium, Houston, TX 2019 (Poster presentation).

At national meeting:

1. **Cao Y**, Salo D and Mohapatra S. Induction of isotype-specific tolerance to grass allergens with a recombinant allergen peptide. 51st Annual Meeting of American Academy of Allergy, Asthma and Immunology 1995 San Francisco CA (Poster presentation).
2. Mohapatra S, **Cao Y**, Luo Z, Yang M and Panda S. Molecular changes following vaccination and immunotherapy with a multi-epitopic recombinant allergen. 52nd Annual Meeting of American Academy of Allergy, Asthma and Immunology 1996 New Orleans LA (Poster presentation).
3. **Cao Y**, Xie W, Yu W, Townsend Jr CM, Thompson EA and Ko TC. Growth regulation of gut epithelial cells by TGF- β . 34th Annual Meeting of The Association for Academic Surgery 2000 Tampa FL (Oral presentation).
4. Li F, **Cao Y**, Song D, Townsend Jr CM, and Ko TC. TGF- β /Smad signaling in colon cancer cells. Surgical Forum at the 88th American College of Surgeons Clinical Congress 2002 San Francisco CA (Oral presentation).
5. Slogoff M, Li F, **Cao Y**, Guo Y-S, Hellmich MR, Townsend Jr CM, and Ko TC. Bombesin potentiates transforming growth factor- β (TGF- β)-mediated cell death in intestinal epithelial cells. 36th Annual Meeting of The Association for Academic Surgery 2002 Boston MA (Oral presentation).
6. **Cao Y**, Liu Y, Li F, Song D, Hellmich MR, Mileski WJ, Townsend Jr CM, and Ko TC. A novel mechanism of repression of TGF- β signaling in human colon cancers. 36th Annual Meeting of The Association for Academic Surgery 2002 Boston MA (Oral presentation).
7. **Cao Y**, Yu W, Xie C, Xue Y, Choy L, Townsend Jr CM, Thompson EA, and Ko TC. Critical role of Smad3 in TGF- β -mediated apoptosis and growth inhibition in epithelial cells. 42nd American Society of Cell Biology Annual Meeting 2002 San Francisco CA (Poster presentation).
8. Liu Y, **Cao Y**, Sambandam K, Townsend Jr CM, and Ko TC. Identification of alternatively spliced forms of Evi-1 oncogene in human colorectal cancers. Society of Surgical Oncology 2003 Annual Meeting Los Angeles CA (Oral presentation).
9. Li F, **Cao Y**, Townsend Jr CM, Ko TC. p38 MAPK signaling pathway is involved in transforming growth factor- β (TGF- β)/Smad3-induced apoptosis. Digestive Disease Week 2003 Orlando FL (Poster presentation).
10. **Cao Y**, Chen L, Liu Y, Townsend Jr CM, Thompson EA, and Ko TC. Identification of apoptotic genes mediating transforming growth factor-beta/Smad3-induced cell death in

- intestinal epithelial cells using genomic approach. Surgical Forum at the 89th American College of Surgeons Clinical Congress 2003 Chicago IL (Oral presentation).
11. **Cao Y**, Liu Y, Lu C, Thompson EA, Townsend Jr CM, and Ko TC. Inhibitor of differentiation (Id)-2 is a downstream target gene of transforming growth factor (TGF)- β -induced apoptosis in intestinal epithelial cells. Digestive Disease Week – American Gastroenterology Association 2004 New Orleans LA (Poster presentation).
 12. **Cao Y**, Li F, Sheng H, Guo Y-S, Hellmich M, Townsend Jr CM, and Ko TC. TGF- β and bombesin activate COX-2. Annual Meeting of the 95th American Association for Cancer Research 2004 Orlando FL (Poster presentation).
 13. **Cao Y**, Deng C, and Ko TC. TGF- β regulates multiple transcription factors through repression of Id2 for induction of apoptosis in gut epithelial cells. Digestive Disease Week – American Gastroenterology Association 2005 San Francisco CA (Distinction award for poster presentation).
 14. Nguyen K, **Cao Y**, and Ko TC. N-terminal domain of Smad3 plays an important role in TGF- β -induced apoptosis of gut epithelial cells. Digestive Disease Week – American Gastroenterology Association 2005 San Francisco CA (Poster presentation).
 15. **Cao Y**, Townsend Jr CM, and Ko TC. Transforming growth factor- β (TGF- β) induces vascular endothelial growth factor (VEGF) and plasminogen activator inhibitor-1 (PAI-1) gene expression through Smad3 transcription factor. Surgical Forum at the 91st American College of Surgeons Clinical Congress 2005 San Francisco CA (Oral presentation).
 16. **Cao Y**, Deng C, Townsend Jr CM, Ko TC. TGF- β inhibits Akt-induced transformation in intestinal epithelial cells. American College of Surgeons Clinical Congress 2006 Chicago IL (Oral presentation).
 17. **Cao Y**, Zhang W, Zhang G-H, Townsend Jr CM, Ko TC. Hypoxia inducing factor-1 α mediates TGF- β -induced apoptosis in intestinal epithelial cells. Digestive Disease Week– American Gastroenterology Association 2007 Washington DC (Poster presentation).
 18. Zhang W, **Cao Y**, Falzon M, Townsend, Jr. CM, Ko TC. PTHrP is a novel mediator of TGF β -induced apoptosis in human hepatocellular carcinoma cells. American College of Surgeons Clinical Congress 2007 New Orleans IL (Oral presentation).
 19. Liu X, **Cao Y**, Zhao J, Hellmich MR, Guo Y-S, Sheng H, Townsend Jr CM, and Ko TC. The role of p38MAPK α in the cross-talk between TGF- β receptors and GRP-R. American College of Surgeons Clinical Congress 2008 San Francisco CA (Oral presentation).
 20. **Cao Y**, Zhang W, Nguyen KA, Townsend Jr CM, Ko TC. Sodium butyrate enhances growth inhibitory effect of TGF-beta on gut epithelial cells. Digestive Disease Week-American Gastroenterology Association 2009 Chicago IL (Poster presentation).
 21. **Cao Y**, Deng X, Liu X, Pati S, Kozar RA, Gonzalez EA, Holcomb JB, and Ko TC. Standard storage of fresh frozen plasma increases TGF- β /smad3 signaling. Annual Conference on Shock 2009 San Antonio TX (Poster presentation).
 22. Deng X, **Cao Y**, Pati S, Kozar RA, Holcomb JB, Ko TC. Fresh frozen plasma activates kinase pathways in endothelial cells. Annual Conference on Shock 2009 San Antonio TX (Poster presentation).
 23. Liu X, Deng X, Yang W, Stamp SP, Holcomb JB, Cox Jr CS, **Cao Y**, and Ko TC. BMPs protect gastrointestinal cells against injuries. Annual Conference on Shock 2009 San Antonio TX (Poster presentation).
 24. Yang W, **Cao Y**, Duan C, Takahashi H, Saito H, Evers BM, Hellmich MR, Ko TC. BMP2 Signaling Pathway is Activated in Cerulein-Induced Acute Pancreatitis. American Pancreas Association 40th Annual Meeting 2009 Honolulu HI (Poster presentation).
 25. Zhang H, Zhang G, Liu X, Ferraro N, Jackson L, Evers BM, **Cao Y**, Ko T. Downregulation of PTHrP signaling pathway contributes to liver regeneration. American College of Surgeons Clinical Congress 2009 Chicago IL (Oral presentation).

26. Deng X, **Cao Y**, Liu Y, Rajaraman S, Perkins A, Hellmich MR, Townsend CM, Thompson EA, Ko TC. Evi-1 in colorectal cancer: Identification of a novel transcript and suppression of TGF- β signaling and function. American Association of Cancer Research 2009 Denver, CO (Poster presentation).
27. Doursout M, Liang Y, Deng X, **Cao Y**, Salsbury J, Ko TC, Conyers J, Holcomb JB. Plasma resuscitation suppresses reactive oxygen species production in hemorrhaged rats. Annual Conference on Shock 2010 Portland OR (Poster presentation).
28. Duan C, **Cao Y**, Deng X, Yang W, Kozar RA, Gonzalez EA, Holcomb JB, Ko TC. Plasma adiponectin levels decrease after hemorrhagic shock (HS). Annual Conference on Shock 2010 Portland OR (Poster presentation).
29. Deng X, **Cao Y**, Doursout MF, He G, Kozar RA, Holcomb JB and Ko TC. Standard Storage of Fresh Frozen Plasma (FFP) Reduces its Anti-apoptotic Effects during Hemorrhagic Shock (HS) Resuscitation. Annual Conference on Shock 2010 Portland OR (Poster presentation).
30. Straughan DM, Sun C, Deng X, **Cao Y**, Pati S, Dong J, Holcomb JB, Ko TC. Identification of the anti-apoptotic components in fresh frozen plasma. American College of Surgeons Clinical Congress 2010 Washington DC (Oral presentation).
31. Buendia FI, Deng X, **Cao Y**, Holcomb JB, Ko TC. Identification of FFP-induced tyrosine phosphorylation on bad protein. American College of Surgeons Clinical Congress 2010 Washington DC (Oral presentation).
32. Deng X, Doursout MF, **Cao Y**, Duan CJ, He G, Kozar RA, Holcomb JB and Ko TC. Fresh Frozen Plasma Induces Nitric Oxide Production Through AMPK-Akt-mediated eNOS Activation. Experimental Biology 2010 Anaheim CA (Poster presentation).
33. **Cao Y**, Tyler M, Yang W, Chao C, Hellmich MR, and Ko TC. BMP2 Stimulates Inflammatory Responses in Pancreatic Acinar Cells. American Pancreas Association 41th Annual Meeting 2010 Chicago IL (Poster presentation).
34. Tyler M, **Cao Y**, Yang W, Aronson JF, Popov V, Chao C, Hellmich MR, and Ko TC. BMP Regulates Autophagy in Acute Pancreatitis (AP). American Pancreas Association 41th Annual Meeting 2010 Chicago IL (Poster of Distinction).
35. Deng X, Doursout MF, **Cao Y**, Kozar R, Holcomb JB, Ko TC. Resuscitation with Fresh Frozen Plasma Protects the Gut from Hemorrhagic Shock-Induced Injury Digestive Disease Week-American Gastroenterology Association 2010 New Orleans LA (Poster presentation).
36. Kim SO, Chao C, Ko TC, **Cao Y**, Hellmich MR. The MEK/ERK signalling axis regulates autophagy during the development of acute pancreatitis. American Gastroenterology Association 2010 New Orleans LA (Poster presentation).
37. Duan C, Yang W, **Cao Y**, Hellmich MR, Ko TC. Bone Morphogenetic Protein 2 Inhibits TGF- β Activation of Pancreatic Stellate Cells. Digestive Disease Week-American Gastroenterology Association 2010 New Orleans LA (Poster presentation).
38. Yang W, **Cao Y**, Duan C, Aronson JF, Celia C, Hellmich MR, Ko TC. Inhibition of BMP/Smad1/5/8 Signaling Pathway Deteriorates Cerulein-Induced Acute Pancreatitis. Digestive Disease Week-American Gastroenterology Association 2010 New Orleans LA (Poster presentation).
39. Deng X, **Cao Y**, Doursout MF, He G, Kozar RA, Wade CE, Holcomb JB, Ko TC. The Role of AMP-activated Protein Kinase (AMPK) in Mediating Fresh Frozen Plasma (FFP)'s Protective Effects in Endothelial Cells (ECs). Annual Conference on Shock 2011 Norfolk VA (Poster presentation).
40. Gao X, **Cao Y**, Rostellini C, Chao C, Hellmich MR, Ko TC. Human Pancreatic Stellate Cells as an in vitro Model for the Study of Bone Morphogenetic Proteins' Anti-fibrogenic Role in the Pancreas. American Pancreas Association 42th Annual Meeting 2011 Chicago IL (Poster presentation).
41. **Cao Y**, Gao X, Yang W, Aronson, JF, Varughese M, Deng X, Duan C, Chao C, Greeley GH, Hellmich MR, Ko TC. Induction of Gremlin, a Bone Morphogenetic Protein Antagonist,

- during the Development of Chronic Pancreatitis. Digestive Disease Week-American Gastroenterology Association 2011 Chicago IL (Poster presentation).
42. Hellmich MR, Kim SO, Ives KL, Jeseong P, Wang X, Djukom CD, **Cao Y**, Greeley GH, Ko TC, Chao C. Etoh-Induced Sensitization of CCK Signaling in Pancreatic Acinar Cells: Role of Raf Kinase Inhibitory Protein (RKIP). Digestive Disease Week-American Gastroenterology Association 2011 Chicago IL (Oral presentation).
 43. Deng X, Huby MP, Baer L, He G, Sun W, **Cao Y**, Dong JF, Kozar RA, Wade CE, Holcomb IB, Ko TC. Adiponectin (adpn) is a key component in fresh frozen plasma (FFP) responsible for its endothelial protective effects after hemorrhagic shock (HS). Annual Conference on Shock 2012 Miami FL (Oral presentation).
 44. Wang X, Chen H, Ives KL, **Cao Y**, Aronson JF, Ko TC, Chao C, Zhou J, Hellmich MR. Apigenin inhibits pancreatic stellate cell proliferation, stimulates apoptosis and inhibits fibrosis associated with chronic pancreatitis. American Pancreas Association 43th Annual Meeting 2012 Miami FL (Poster presentation).
 45. Gao X, **Cao Y**, Aronson JF, Chao C, Hellmich MR, and Ko TC. BMPR2 Deletion Increases Susceptibility To Chronic Pancreatitis. American Pancreas Association 43th Annual Meeting 2012 Miami FL (Poster presentation).
 46. Staloch D, Gao X, **Cao Y**, Aronson JF, Chao C, Hellmich MR, and Ko TC. Grem1 Deletion Reduces Susceptibility to Chronic Pancreatitis. Digestive Disease Week-American Gastroenterology Association 2013 New Orleans LA (Poster presentation).
 47. Gonzales M, Gao X, **Cao Y**, Xue H, Aronson JF, Pati S, Ko TC. The Protective Role of Human Mesenchymal Stem Cells in Acute Pancreatitis in Mice. Digestive Disease Week-American Gastroenterology Association 2013 New Orleans LA (Poster presentation).
 48. Bhatia V, **Cao Y**, Ko TC, Greeley G Jr, Falzon M. Regulation of gremlin and apelin levels by ethanol via a PTHrP-dependent pathway in pancreatic acinar cells. American Pancreas Association 44th Annual Meeting 2013 Miami FL (Poster presentation).
 49. **Cao Y**, Rastellini C, Gao X, Han S, Bhatia V, Falzon M, Greeley G Jr 2 and Ko TC. Interaction of BMP, Apelin and PTHrP Pathways in Pancreatic Duct Ligation-Induced Chronic Pancreatitis. American Pancreas Association 44th Annual Meeting 2013 Miami FL (Poster presentation).
 50. **Cao Y**, Dua A, Matijevic N, Wang Y-W, Pati S, Wade CE, Ko TC, Holcomb JB. Never-Frozen Liquid Plasma Blocks Endothelial Permeability as Effectively as Thawed Fresh Frozen Plasma. The association of women's surgeon (AWS) in conjunction with the American College of Surgeons meeting 2013 Anaheim CA (Poster presentation).
 51. **Cao Y**, Dua A, Matijevic N, Wang Y-W, Pati S, Wade CE, Ko TC, Holcomb JB. Never-Frozen Liquid Plasma Blocks Endothelial Permeability as Effectively as Thawed Fresh Frozen Plasma. The 27th Annual Eastern Association for the Surgery of Trauma meeting 2014 Naples FL (Oral presentation).
 52. Liu K, **Cao Y**, Greeley G Jr and Ko TC. Gremlin is a Novel Mediator of Pancreatic Fibrosis in Chronic Pancreatitis. American Pancreas Association 45th Annual Meeting American Pancreas Association 2014 Kohala Coast HI (Poster presentation).
 53. Zhao W, Gao X, Liu K, Ko TC, **Cao Y**. Characterization of Inducible BMPR2 Homozygous Knockout Mice. Digestive Disease Week-American Gastroenterology Association 2015 Washington DC (Poster presentation).
 54. Liu K, **Cao Y**, and Ko TC. Gremlin Mediates Pro-fibrogenic Activity of TGF- β in Chronic Pancreatitis. American Pancreas Association 46th Annual Meeting 2015 San Diego, CA (Poster presentation).
 55. P. Yu, K. Liu, **Y. Cao**, and T.C. Ko. Opposing Effects of TGF- β and BMP2 on MicroRNA-200b in the Pancreas. American Pancreas Association 47th Annual Meeting 2016 Boston, MA (Poster of Distinction).

56. K. Liu, **Y. Cao**, C. Rastellini, J.M. Bailey, C. Chao, and T.C. Ko. Pro-Fibrogenic Gremlin is a Novel Marker of Pancreatic Stellate Cells. American Pancreas Association 47th Annual Meeting 2016 Boston, MA (Poster presentation).
57. **Y. Cao**, B. Cheng, J. Li, J.M. Bailey, M. Younes, and T.C. Ko. Characterization of Collagen Producing Cells in Acute Pancreatitis via Lineage Tracing. American Pancreas Association 48th Annual Meeting 2017 San Diego, CA (Oral presentation).
58. T.F. Obafemi, K. Liu, B. Cheng, P. Yu, J. Li, M. Younes, T.C. Ko, **Y. Cao**. Comparable Responses in Male and Female Mice to Cerulein-Induced Chronic Pancreatic Injury and Recovery. American Pancreas Association 48th Annual Meeting 2017 San Diego, CA (Poster presentation).
59. J. Davis, K. Liu, P. Yu, M. Younes, T.C. Ko, and **Y. Cao**. A Novel Target for Chronic Pancreatitis Therapy: Blocking Gremlin1 in a Mouse Model. American Pancreas Association 49th Annual Meeting 2018 Miami, FL (Poster presentation).

At International meeting:

1. **Cao Y**, Li H, Ma D and Huang P. The preparation of biotin labelled STII DNA probe. The 2nd National Symposium on Life Science for Young Scientist. Beijing China 1989 (Oral presentation).
2. **Cao Y**, Li H, Ma D and Huang P. The application of ETEC STII gene probe. The 2nd National Congress of Immunological Labelling. Beijing China 1989 (Oral presentation).
3. Andonov A, **Cao Y**, Booth T and Callaghan M. Insertion of Hepatitis C Virus (HCV) immunodominant epitopes into recombinant Woodchuck Hepatitis Virus (WHV) nucleocapsid. The 6th International Symposium on Hepatitis C & Related Viruses Bethesda MD 1999 (Poster presentation).
4. **Cao Y** and Ko TC. Transforming Growth Factor (TGF)-beta Superfamily Signaling in Pancreatitis. Department of General Surgery, University of Qingdao, Affiliated Hospital of Medical College, Qingdao, China 2011 (Invited oral presentation).