| Name          | TAE IL KIM |
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| Affiliation   | Division of Gastroenterology, Department of Internal Medicine, Yonsei University College of Medicine |
| Country       | Korea      |
| Major Field   | Intestinal epithelial biology, Intestinal stem cell, Cancer stem cell, Organoid, Microenvironment, Chemoprevention, Familial and hereditary intestinal neoplasia, Prevention and treatment of colorectal neoplasia |

**Educational Background**

- 1985-1991 Medical Degree, Yonsei University College of Medicine
- 1993-1995 Master course of Medical science, Graduate School, Yonsei University, Seoul, Korea
- 1995-2002 Ph. D. course of Medical science, Graduate School, Yonsei University, Seoul, Korea

**Professional Experience**

- 2002.3-2007.2 Assistant Professor of Internal Medicine, Division of Gastroenterology, Yonsei University College of Medicine
- 2006.8-2008.7 Research fellow, Post-doc, Division of Gastroenterology, Vanderbilt University Medical Center, TN, USA
- 2007.3-2012.2 Associate Professor of Internal Medicine, Division of Gastroenterology, Yonsei University College of Medicine
- 2012.3-present Professor of Internal Medicine, Division of Gastroenterology, Yonsei University College of Medicine
- 2014.5-2022.2 Director of Yonsei Cancer Prevention Center, Yonsei Cancer Center, Severance Hospital
- 2018.12-2019.12 President of Korean Society of Cancer Prevention
- 2021.3-present Director of Division of Gastroenterology, Director of Yonsei Institute of Gastroenterology, Director of Digestive Disease Center, Severance Hospital, Yonsei University College of Medicine
- 2021.4-present Vice president of KASID (Korean Association for the Study of Intestinal Diseases)

**Main Scientific Publications**

1. Tumor-Suppressive Effect of Metformin via the Regulation of M2 Macrophages and Myeloid-Derived Suppressor Cells in the Tumor Microenvironment of Colorectal Cancer. Kang J, Kim TI, et al. Cancers 2022;14(12):2881.
2. MRI assessment of glutamine uptake correlates with the distribution of glutamine transporters and cancer stem cell markers. Seo Y, Kim TI, et al. Scientific Reports 2022;12(1):5511.
3. Application of multigene panel testing in patients with high risk for hereditary colorectal cancer: a descriptive report on genotype-phenotype correlation. Park JS, Kim TI, et al. Diseases of the Colon & Rectum 2022;65(6):793-803.
4. Metformin and Niclosamide Synergistically Suppress Wnt and YAP in APC-Mutated Colorectal Cancer. Kang HE, Seo Y, Yun JS, et al. Cancers 2021; 13(14): 3437.
5. The Effect of Metformin in Treatment of Adenomas in Patients with Familial Adenomatous
6. IL-6 and IL-8, secreted by myofibroblasts in the tumor microenvironment, activate HES1 to expand the cancer stem cell population in early colorectal tumor. Kim B, Seo Y, Kwon J, et al. Molecular Carcinogenesis 2021;60(3): 188-200.

7. Fusobacterium nucleatum in biopsied tissues from colorectal cancer patients and alcohol consumption in Korea. Kim M, Lee S, Choi S, et al. Scientific Reports 2020;10(1): 19915.

8. Metformin Suppresses Cancer Stem Cells through AMPK Activation and Inhibition of Protein Prenylation of the Mevalonate Pathway in Colorectal Cancer. Seo Y, Kim J, Park SJ, et al. Cancers 2020;12(9): 2554.

9. mTOR Signaling Combined with Cancer Stem Cell Markers as a Survival Predictor in Stage II Colorectal Cancer. Chang JY, Kim JH, Kang J, et al. Yonsei Med J 2020;61(7): 572-578.

10. Survival Benefit for Metformin Through Better Tumor Response by Neoadjuvant Concurrent Chemoradiotherapy in Rectal Cancer. Kim JM, Park JW, Lee JH, et al. Diseases of the Colon & Rectum 2020;63(6): 758-768.

11. Next-generation sequencing with comprehensive bioinformatics analysis facilitates somatic mosaic APC gene mutation detection in patients with familial adenomatous polyposis. Kim B, Won D, Jang M, et al. BMC Medical Genomics 2019;12(1): 103.

12. Outcomes of stent insertion and mortality in obstructive stage IV colorectal cancer patients through 10 year duration. Park YE, Park Y, Park SJ, et al. Surgical Endoscopy 2019;33(4): 1225-1234.

13. Resting heart rate is an independent predictor of advanced colorectal adenoma recurrence. Park J, Kim JH, Park Y, et al. PLOS ONE 2018;13:e0193753.

14. Effects of metformin on colorectal cancer stem cells depend on alterations in glutamine metabolism. Kim JH, Lee KJ, Seo Y, et al. Sci Rep 2018;8:409.

15. Postoperative adjuvant chemotherapy is associated with a lower incidence of colorectal adenomas in patients with previous colorectal cancer. Lee HS, Kim SB, Lee HJ, et al. Gastrointest Endosc 2018;87:688-94.e2.

16. Sex-dependent difference in the effect of metformin on colorectal cancer-specific mortality of diabetic colorectal cancer patients. Park JW, Lee JH, Park YH, et al. World Journal of Gastroenterology 2017;23:5196-205.

17. The effects of physical activity and body fat mass on colorectal polyp recurrence in patients with previous colorectal cancer. Park J, Kim JH, Lee HJ, et al. Cancer Prevention Research 2017;10:478-84.

18. The effect of metformin on the recurrence of colorectal adenoma in diabetic patients with previous colorectal adenoma. Han MS, Lee HJ, Park SJ, et al. Int J of Colorectal Dis, 2017;32:1223-6.

19. Tumor characteristics associated with malignant large bowel obstruction in stage IV colorectal cancer patients undergoing chemotherapy. Kim DH, Kim B, Choi JH, et al. International Journal of Colorectal Disease 2016;31:1767-74.

20. Long-Term Effects of Bone Marrow-Derived Mesenchymal Stem Cells in Dextran Sulfate Sodium-Induced Murine Chronic Colitis. Lee HJ, Oh SH, Jang HW, et al. Gut Liver 2016;10:412-9.

21. High-risk metachronous polyps are more frequent in patients with traditional serrated adenomas than in patients with conventional adenomas: a multicenter prospective study. Yoon JY, Kim HT, Hong SP, et al. Gastrointestinal Endoscopy 2015;82:1087-93.

22. Risk Factors for Recurrent High-Risk Polyps after the Removal of High-Risk Polyps at
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| Initial Colonoscopy. Jang HW, Park SJ, Hong SP, et al. Yonsei Med J 2015;56:1559-65. | Nonsteroidal anti-inflammatory drugs suppress cancer stem cells via inhibiting PTGS2 (cyclooxygenase 2) and NOTCH/HES1, and activating PPARγ in colorectal cancer. Moon CM, Kwon J-H, Kim JS, Oh S-H, et al. International Journal of Cancer 2014;134:519-529. | 23. Nonsteroidal anti-inflammatory drugs suppress cancer stem cells via inhibiting PTGS2 (cyclooxygenase 2) and NOTCH/HES1, and activating PPARγ in colorectal cancer. Moon CM, Kwon J-H, Kim JS, Oh S-H, et al. International Journal of Cancer 2014;134:519-529. | 23. Nonsteroidal anti-inflammatory drugs suppress cancer stem cells via inhibiting PTGS2 (cyclooxygenase 2) and NOTCH/HES1, and activating PPARγ in colorectal cancer. Moon CM, Kwon J-H, Kim JS, Oh S-H, et al. International Journal of Cancer 2014;134:519-529. |
| Differential expression of CD133 based on microsatellite instability status in human colorectal cancer. Park JJ, Kwon J-h, Oh S-H, et al. Molecular Carcinogenesis 2014;53:E1-E10. | 24. Differential expression of CD133 based on microsatellite instability status in human colorectal cancer. Park JJ, Kwon J-h, Oh S-H, et al. Molecular Carcinogenesis 2014;53:E1-E10. | 24. Differential expression of CD133 based on microsatellite instability status in human colorectal cancer. Park JJ, Kwon J-h, Oh S-H, et al. Molecular Carcinogenesis 2014;53:E1-E10. | 24. Differential expression of CD133 based on microsatellite instability status in human colorectal cancer. Park JJ, Kwon J-h, Oh S-H, et al. Molecular Carcinogenesis 2014;53:E1-E10. |
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