

CURRICULUM VITAE

성명 임 석 아

Seock-Ah Im, M.D., Ph D.

소속 서울대학교 의과대학 암연구소

서울대학교 의과대학 내과학교실

서울대학교병원 혈액종양내과

주소 서울특별시 종로구 대학로 103 서울대학교 의과대학 암연구소

서울특별시 종로구 대학로 101 서울대학교병원

Email moisa@snu.ac.kr

Tel. 02-2072-0850, 010-9079-4697



EDUCATION:

1985.3. ~ 1991.2. 이화여자대학교 의과대학 의학사

1993.3. ~ 1995.2 이화여자대학교 대학원 의학석사 (내과학 전공)

1995.3. ~ 1999.2 이화여자대학교 대학원 의학박사 (종양내과학 전공)

PROFESSIONAL EXPERIENCE

1996.03. ~ 1997.02. 서울대학교병원 혈액종양내과 전임의

1997.03. ~ 1998.09. Research Fellow at M.D. Anderson Cancer Center, Houston, Texas, USA

2000.01. ~ 2003.08. 이화여자대학교 의과대학 내과학교실 전임강사, 조교수

2003.09. ~ 2011.03. 서울대학교 의과대학 내과학교실 기금조교수, 부교수

2008.03. ~ 2009.02. Translational Research Scientist at AstraZeneca Global Oncology R&D center, Alderley Park, Cheshire, UK

2007.09. ~ 2010.08.	KCSG-AstraZeneca Global Oncology Fellow (Translational Research Scientist)
2011.04. ~ 현재	서울대학교 의과대학 내과학교실 교수
2011.03. ~ 2013.10.	세계유방암학술대회(Global Breast Cancer Conference) 학술위원장
2014.05. ~ 2018.05.	한국임상암학회 (현:대한종양내과학회) 국제협력 위원장
2015.03. ~ 2019.02.	대한항암요법연구회 유방암분과 위원장
2018.06. ~ 현재	대한종양내과학회 학술위원장
2015.03. ~ 현재	서울대학교암병원 종양내과센터장
2018.08. ~ 현재	서울대학교병원 혈액종양내과분과장
2019.06. ~ 현재	서울대학교 암연구소 연구소 소장

AWARDS

1998.05.	Travel grant from American Society of Clinical Oncology
2001.06.	제4회 대한암학회 한국암연구재단 학술상
2002.10.	Young Investigator Award from European Society of Medical Oncology
2004.06.	Academic Research Award from Korean Cancer Research Association
2005.10.	Best Poster Award from European Society of Medical Oncology
2008.06.	한국임상암학회 학술상 (임상연구)
2009.06.	제9회 대한암학회 사노피-아벤티스 학술상
2014.06.	제3회 대한암학회 공동암학술상 (SCI citation research award)
2016.06.	제19회 대한암학회 한국암연구재단 학술상
2016.06.	한국과학기술단체 총 연합회 제26회 과학기술우수논문상
2018.12.	한국보건산업진흥원 보건의료기술진흥 유공자 복지부 장관표창
2019.12.	서울대학교 의과대학 서울대학교병원 함춘창의 논문상
2020.06.	제 12 회 대한암학회 로슈 암학술상
2020.09.	2020 서울대학교 의과대학 연구업적 우수 교원
2020.10.	제 19회 보령 암학술상

REPRESENTATIVE PUBLICATIONS

1. **Im SA**, Lu YS, Bardia A, et al.(제1저자) Overall Survival with Ribociclib plus Endocrine Therapy in Breast Cancer. *N Engl J Med*. 2019 Jul 25;381(4):307-316. (IF 74.699)
2. Park YH, Kim TY, Kim GM, Kang SY, Park IH, Kim JH, Lee KE, Ahn HK, Lee MH, Kim HJ, Kim HJ, Lee JI, Koh SJ, Kim JY, Lee KH, Sohn J, Kim SB, Ahn JS, Im YH, Jung KH, **Im SA**; Korean Cancer Study Group (KCSG). (공동제일) Palbociclib plus exemestane with gonadotropin-releasing hormone agonist versus capecitabine in premenopausal women with hormone receptor-positive, HER2-negative metastatic breast cancer (KCSG-BR15-10): a multicentre, open-label, randomised, phase 2 trial. *Lancet Oncol*. 2019 Dec;20(12):1750-1759 (IF 33.752)
3. Lee HW, Choi B, Kang HN, Kim H, Min A, Cha M, Ryu JY, Park S, Sohn J, Shin K, Yun MR, Han JY, Shon MJ, Jeong C, Chung J, Lee SH, **Im SA**, Cho BC, Yoon TY.(공동교신) Profiling of protein-protein interactions via single-molecule techniques predicts the dependence of cancers on growth-factor receptors. *Nat Biomed Eng*. 2018 Apr;2(4):239-253 (IF 18.952)
4. Min A, Kim JE, Kim YJ, Lim JM, Kim S, Kim JW, Lee KH, Kim TY, Oh DY, Bang YJ, **Im SA**.(교신저자) Cyclin E overexpression confers resistance to the CDK4/6 specific inhibitor palbociclib in gastric cancer cells. *Cancer Lett*. 2018 Aug 28;430:123-132 (IF 7.36)
5. Kim JY, **Im SA**, Jung KH, et al. breast cancer committee of Korean Cancer Study Group (KCSG).(공동제1) Fulvestrant plus goserelin versus anastrozole plus goserelin versus goserelin alone for hormone receptor-positive, HER2-negative tamoxifen-pretreated premenopausal women with recurrent or metastatic breast cancer (KCSG BR10-04): a multicentre, open-label, three-arm, randomised phase II trial (FLAG study). *Eur J Cancer*. 2018 Nov;103:127-136 (IF 7.275)
6. Lee DW, Ryu HS, Jin MS, Lee KH, Suh KJ, Youk J, Kim JY, Min A, Lee HB, Moon HG, Kim TY, Han SW, Oh DY, Han W, Park IA, Noh DY, **Im SA**.(공동교신) Immune recurrence score using 7 immunoregulatory protein expressions can predict recurrence in stage I-III breast cancer patients. *Br J Cancer*. 2019 Jul;121(3):230-236 (IF 5.791)
7. Min A, Jang H, Kim S, Lee KH, Kim DK, Suh KJ, Yang Y, Elvin P, O'Connor MJ, **Im SA**. (교신저자) Androgen Receptor Inhibitor Enhances the Antitumor Effect of PARP Inhibitor in Breast Cancer Cells by Modulating DNA Damage Response. *Mol Cancer Ther*. 2018 Dec;17(12):2507-2518 (IF 5.615)
8. Min A, Kim K, Jeong K, Choi S, Kim S, Suh KJ, Lee KH, Kim S, **Im SA**.(공동교신) Homologous repair deficiency score for identifying breast cancers with defective DNA damage response. *Sci Rep*. 2020 Jul 27;10(1):12506.(IF 3.998)
9. Ha DH, Min A, Kim S, Jang H, Kim SH, Kim HJ, Ryu HS, Ku JL, Lee KH, **Im SA**.(교신저자) Antitumor effect of a WEE1 inhibitor and potentiation of olaparib sensitivity by DNA damage response modulation in triple-negative breast cancer. *Sci Rep*. 2020 Jun 18;10(1):9930. (IF 3.998)
10. Cho N, **Im SA**, Cheon GJ, et al.(교신저자) Integrated 18F-FDG PET/MRI in breast cancer: early prediction of response to neoadjuvant chemotherapy. *Eur J Nucl Med Mol Imaging*. 2018 Mar;45(3):328-339 (IF 7.081)
11. **Im SA**, Xu B, Li W, et al. (제1, 교신저자) Olaparib monotherapy for Asian patients with a germline BRCA mutation and HER2-negative metastatic breast cancer: OlympiAD randomized trial subgroup analysis. *Sci Rep*. 2020 May 29;10(1):8753. (IF 3.998)
12. Min A, **Im SA**. (교신저자) PARP Inhibitors as Therapeutics: Beyond Modulation of PARylation. *Cancers (Basel)*. 2020 Feb 8;12(2):394 (IF 6.126)
13. Kim JW, Min A, **Im SA**, et al. (교신저자) TDP1 and TOP1 Modulation in Olaparib-Resistant Cancer Determines the Efficacy of Subsequent Chemotherapy. *Cancers (Basel)*. 2020 Feb 3;12(2):334. (IF 6.126)
14. Park YH, Lee KH, Sohn JH, Lee KS, Jung KH, Kim JH, Lee KH, Ahn JS, Kim TY, Kim GM, Park IH, Kim SB, Kim SH, Han HS, Im YH, Ahn JH, Kim JY, Kang J, **Im SA**.(교신저자) A phase II trial of the pan-HER inhibitor poziotinib, in patients with HER2-positive metastatic breast cancer who had received at least two prior HER2-directed regimens: results of the NOV120101-203 trial. *Int J Cancer*. 2018 Dec 15;143(12):3240-3247 (IF 5.145)

15. Suh KJ, Ryu HS, Lee KH, Kim H, Min A, Kim TY, Yang Y, Lee HB, Moon HG, Han SW, Oh DY, Han W, Park IA, Noh DY, **Im SA**.(공동교신) Prognostic effects of abnormal DNA damage response protein expression in breast cancer. *Breast Cancer Res Treat*. 2019 May;175(1):117-127. (IF 3.831)
16. Lee M, Lee KH, Min A, Kim J, Kim S, Jang H, Lim JM, Kim SH, Ha DH, Jeong WJ, Suh KJ, Yang YW, Kim TY, Oh DY, Bang YJ, **Im SA**.(교신저자) Pan-Pim Kinase Inhibitor AZD1208 Suppresses Tumor Growth and Synergistically Interacts with Akt Inhibition in Gastric Cancer Cells. *Cancer Res Treat*. 2019 Apr;51(2):451-463. (IF 3.761)
17. Yang Y, Min A, Lee KH, Ryu HS, Kim TY, Woo GU, Suh KJ, Lee DW, Lee HB, Moon HG, Han W, Park IA, Noh DY, **Im SA**.(교신저자) Prognostic Role of Androgen Receptor Expression in Surgically Resected Early Breast Cancer Patients. *J Breast Cancer*. 2020 Apr 20;23(2):182-193. (IF 2.241)
18. Modi S, Saura C, Yamashita T, Park YH, Kim SB, Tamura K, Andre F, Iwata H, Ito Y, Tsurutani J, Sohn J, Denduluri N, Perrin C, Aogi K, Tokunaga E, **Im SA**, et al. (공동) DESTINY-Breast01 Investigators. Trastuzumab Deruxtecan in Previously Treated HER2-Positive Breast Cancer. *N Engl J Med*. 2020 Feb 13;382(7):610-621. (IF 74.699)
19. Slamon DJ, Neven P, Chia S, Fasching PA, De Laurentiis M, **Im SA**, et al. (공동) Overall Survival with Ribociclib plus Fulvestrant in Advanced Breast Cancer. *N Engl J Med*. 2020 Feb 6;382(6):514-524. (IF 74.699)
20. Schmid P, Adams S, Rugo HS, Schneeweiss A, Barrios CH, Iwata H, Diéras V, Hegg R, **Im SA**, et al. (공동) Atezolizumab and Nab-Paclitaxel in Advanced Triple-Negative Breast Cancer. *N Engl J Med*. 2018 Nov 29;379(22):2108-2121. (IF 74.699)
21. Turner NC, Slamon DJ, Ro J, Bondarenko I, **Im SA**, et al. (공동) Overall Survival with Palbociclib and Fulvestrant in Advanced Breast Cancer. *N Engl J Med*. 2018 Nov 15;379(20):1926-1936. (IF 74.699)
22. Cortes J, Cescon DW, Rugo HS, Nowecki Z, **Im SA**, et al. (공동) Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for previously untreated locally recurrent inoperable or metastatic triple-negative breast cancer (KEYNOTE-355): a randomised, placebo-controlled, double-blind, phase 3 clinical trial. *Lancet*. 2020 Dec 5;396(10265):1817-1828. (IF 60.392)
23. Tan AR, **Im SA**, Mattar A, Colomer R, et al. (공동) Fixed-dose combination of pertuzumab and trastuzumab for subcutaneous injection plus chemotherapy in HER2-positive early breast cancer (FeDeRiCa): a randomised, open-label, multicentre, non-inferiority, phase 3 study. *Lancet Oncol*. 2021 Jan;22(1):85-97. (IF 33.752)
24. Swain SM, Miles D, Kim SB, Im YH, **Im SA**, et al. (공동) Pertuzumab, trastuzumab, and docetaxel for HER2-positive metastatic breast cancer (CLEOPATRA): end-of-study results from a double-blind, randomised, placebo-controlled, phase 3 study. *Lancet Oncol*. 2020 Apr;21(4):519-530. (IF 33.752)
25. Tolaney SM, Wardley AM, Zambelli S, Hilton JF, Troso-Sandoval TA, Ricci F, **Im SA**, Kim SB, et al. (공동) Abemaciclib plus trastuzumab with or without fulvestrant versus trastuzumab plus standard-of-care chemotherapy in women with hormone receptor-positive, HER2-positive advanced breast cancer (monarchHER): a randomised, open-label, phase 2 trial. *Lancet Oncol*. 2020 Jun;21(6):763-775. (IF 33.752)
26. Domchek SM, Postel-Vinay S, **Im SA**, Park YH, Delord JP, et al. (공동) Olaparib and durvalumab in patients with germline BRCA-mutated metastatic breast cancer (MEDIOLA): an open-label, multicentre, phase 1/2, basket study. *Lancet Oncol*. 2020 Sep;21(9):1155-1164. (IF 33.752)
27. Emens LA, Esteva FJ, Beresford M, Saura C, De Laurentiis M, Kim SB, **Im SA**, et al. (공동) Trastuzumab emtansine plus atezolizumab versus trastuzumab emtansine plus placebo in previously treated, HER2-positive advanced breast cancer (KATE2): a phase 2, multicentre, randomised, double-blind trial. *Lancet Oncol*. 2020 Oct;21(10):1283-1295. (IF 33.752)
28. Tripathy D, **Im SA**, Colleoni M, et al. (공동) Ribociclib plus endocrine therapy for premenopausal women with hormone-receptor-positive, advanced breast cancer (MONALEESA-7): a randomised phase 3 trial. *Lancet Oncol*. 2018 Jul;19(7):904-915. (IF 33.752)
29. Johnston SRD, Hegg R, **Im SA**, Park IH, et al. (공동) Phase III, Randomized Study of Dual Human Epidermal Growth Factor Receptor 2 (HER2) Blockade With Lapatinib Plus Trastuzumab in Combination With an Aromatase Inhibitor

- in Postmenopausal Women With HER2-Positive, Hormone Receptor-Positive Metastatic Breast Cancer: Updated Results of ALTERNATIVE. *J Clin Oncol.* 2021 Jan 1;39(1):79-89. (IF 32.956)
30. Kim HA, Lee JW, Nam SJ, Park BW, **Im SA**, Lee ES, et al. (공동) Adding Ovarian Suppression to Tamoxifen for Premenopausal Breast Cancer: A Randomized Phase III Trial. *J Clin Oncol.* 2020 Feb 10;38(5):434-443. (IF 32.956)
 31. Slamon DJ, Neven P, Chia S, Fasching PA, De Laurentiis M, **Im SA**, Petrakova K, et al. (공동) Phase III Randomized Study of Ribociclib and Fulvestrant in Hormone Receptor-Positive, Human Epidermal Growth Factor Receptor 2-Negative Advanced Breast Cancer: MONALEESA-3. *J Clin Oncol.* 2018 Aug 20;36(24):2465-2472. (IF 32.956)
 32. Pivot X, Bondarenko I, Nowecki Z, Dvorkin M, Trishkina E, Ahn JH, Vinnyk Y, **Im SA**, Sarosiek T, et al. (공동) Phase III, Randomized, Double-Blind Study Comparing the Efficacy, Safety, and Immunogenicity of SB3 (Trastuzumab Biosimilar) and Reference Trastuzumab in Patients Treated With Neoadjuvant Therapy for Human Epidermal Growth Factor Receptor 2-Positive Early Breast Cancer. *J Clin Oncol.* 2018 Apr 1;36(10):968-974. (IF 32.956)
 33. Johnston SRD, Hegg R, **Im SA**, Park IH, Burdaeva O, Kurteva G, et al. (공동) Phase III, Randomized Study of Dual Human Epidermal Growth Factor Receptor 2 (HER2) Blockade With Lapatinib Plus Trastuzumab in Combination With an Aromatase Inhibitor in Postmenopausal Women With HER2-Positive, Hormone Receptor-Positive Metastatic Breast Cancer: ALTERNATIVE. *J Clin Oncol.* 2018 Mar 10;36(8):741-748. (IF 32.956)
 34. Park YH, Senkus-Konefka E, **Im SA**, Pentheroudakis G, Saji S, Gupta S, et al. (공동) Pan-Asian adapted ESMO Clinical Practice Guidelines for the management of patients with early breast cancer: a KSMO-ESMO initiative endorsed by CSCO, ISMPO, JSMO, MOS, SSO and TOS. *Ann Oncol.* 2020 Apr;31(4):451-469. (IF 18.274)
 35. André T, Vernerey D, **Im SA**, Bodoky G, Buzzoni R, Reingold S, et al. (공동) Bevacizumab as adjuvant treatment of colon cancer: updated results from the S-AVANT phase III study by the GERCOR Group. *Ann Oncol.* 2020 Feb;31(2):246-256. (IF 18.274)
 36. Schmid P, Salgado R, Park YH, Muñoz-Couselo E, Kim SB, Sohn J, **Im SA**, et al. (공동) Pembrolizumab plus chemotherapy as neoadjuvant treatment of high-risk, early-stage triple-negative breast cancer: results from the phase 1b open-label, multicohort KEYNOTE-173 study. *Ann Oncol.* 2020 May;31(5):569-581 (IF 18.274)
 37. Robson ME, Tung N, Conte P, **Im SA**, Senkus E, Xu B, et al. (공동) OlympiAD final overall survival and tolerability results: Olaparib versus chemotherapy treatment of physician's choice in patients with a germline BRCA mutation and HER2-negative metastatic breast cancer. *Ann Oncol.* 2019 Apr 1;30(4):558-566. (IF 18.274)
 38. Turner NC, Finn RS, Martin M, **Im SA**, DeMichele A, Ettl J, et al. (공동) Clinical considerations of the role of palbociclib in the management of advanced breast cancer patients with and without visceral metastases. *Ann Oncol.* 2018 Mar 1;29(3):669-680. (IF 18.274)
 39. Lin CH, Yap YS, Lee KH, **Im SA**, Naito Y, Yeo W, et al. (공동) Contrasting Epidemiology and Clinicopathology of Female Breast Cancer in Asians vs the US Population. *J Natl Cancer Inst.* 2019 Dec 1;111(12):1298-1306. (IF 11.577)
 40. Finn RS, Liu Y, Zhu Z, Martin M, Rugo HS, Diéras V, **Im SA**, et al. (공동) Biomarker Analyses of Response to Cyclin-Dependent Kinase 4/6 Inhibition and Endocrine Therapy in Women with Treatment-Naïve Metastatic Breast Cancer. *Clin Cancer Res.* 2020 Jan 1;26(1):110-121. (IF 10.107)
 41. Paoletti C, Schiavon G, Dolce EM, Darga EP, Carr TH, Geradts J, Hoch M, Klinowska T, Lindemann J, Marshall G, Morgan S, Patel P, Rowlands V, Sathiyayogan N, Aung K, Hamilton E, Patel M, Armstrong A, Jhaveri K, **Im SA**, Iqbal N, Butt F, Dive C, Harrington EA, Barrett JC, Baird R, Hayes DF. (공동) Circulating Biomarkers and Resistance to Endocrine Therapy in Metastatic Breast Cancers: Correlative Results from AZD9496 Oral SERD Phase I Trial. *Clin Cancer Res.* 2018 Dec 1;24(23):5860-5872. (IF 10.107)
 42. Rugo HS, Cortes J, Awada A, O'Shaughnessy J, Twelves C, **Im SA**, et al. (공동) Change in Topoisomerase 1-Positive Circulating Tumor Cells Affects Overall Survival in Patients with Advanced Breast Cancer after Treatment with Etrinecetan Pegol. *Clin Cancer Res.* 2018 Jul 15;24(14):3348-3357. (IF 10.107)
 43. Rugo HS, Delord JP, **Im SA**, Ott PA, Piha-Paul SA, Bedard PL, Sachdev J, Le Tourneau C, van Brummelen EMJ,

- Varga A, Salgado R, Loi S, Saraf S, Pietrangelo D, Karantza V, Tan AR. , et al. (공동) Safety and Antitumor Activity of Pembrolizumab in Patients with Estrogen Receptor-Positive/Human Epidermal Growth Factor Receptor 2-Negative Advanced Breast Cancer. *Clin Cancer Res.* 2018 Jun 15;24(12):2804-2811. (IF 10.107)
44. Hamilton EP, Patel MR, Armstrong AC, Baird RD, Jhaveri K, Hoch M, Klinowska T, Lindemann JPO, Morgan SR, Schiavon G, Weir HM, **Im SA.** (공동) A First-in-Human Study of the New Oral Selective Estrogen Receptor Degradar AZD9496 for ER+/HER2- Advanced Breast Cancer. *Clin Cancer Res.* 2018 Aug 1;24(15):3510-3518. (IF 10.107)
 45. Keam B, Kang CK, Jun KI, Moon SM, Suh KJ, Lee DW, Ock CY, Kim M, Choi Y, Lim Y, Lee KH, Kim SH, Kim TM, Kim TY, Oh DY, Kim DW, **Im SA.** Lee JS, Kim ES, Kim HB, Kim NJ, Kim YJ, Park WB, Oh MD. (공동) Immunogenicity of Influenza Vaccination in Patients with Cancer Receiving Immune Checkpoint Inhibitors. *Clin Infect Dis.* 2020 Jul 11;71(2):422-425. (IF 8.313)
 46. Robson M, Ruddy KJ, **Im SA.** Senkus E, Xu B, Domchek SM, et al. (공동) Patient-reported outcomes in patients with a germline BRCA mutation and HER2-negative metastatic breast cancer receiving olaparib versus chemotherapy in the OlympiAD trial. *Eur J Cancer.* 2019 Oct;120:20-30. (IF 7.275)
 47. Cristofanilli M, DeMichele A, Giorgetti C, Turner NC, Slamon DJ, **Im SA.** et al. (공동) Predictors of prolonged benefit from palbociclib plus fulvestrant in women with endocrine-resistant hormone receptor-positive/human epidermal growth factor receptor 2-negative metastatic breast cancer in PALOMA-3. *Eur J Cancer.* 2018 Nov;104:21-31. (IF 7.275)
 48. Campone M, **Im SA.** Iwata H, Clemons M, Ito Y, Awada A, et al. (공동) Buparlisib plus fulvestrant versus placebo plus fulvestrant for postmenopausal, hormone receptor-positive, human epidermal growth factor receptor 2-negative, advanced breast cancer: Overall survival results from BELLE-2. *Eur J Cancer.* 2018 Nov;103:147-154. (IF 7.275)
 49. Rugo HS, Turner NC, Finn RS, Joy AA, Verma S, Harbeck N, Masuda N, **Im SA.** et al. (공동) Palbociclib plus endocrine therapy in older women with HR+/HER2- advanced breast cancer: a pooled analysis of randomised PALOMA clinical studies. *Eur J Cancer.* 2018 Sep;101:123-133. (IF 7.275)
 50. Pivot X, Bondarenko I, Nowecki Z, Dvorkin M, Trishkina E, Ahn JH, **Im SA.** et al. (공동) A phase III study comparing SB3 (a proposed trastuzumab biosimilar) and trastuzumab reference product in HER2-positive early breast cancer treated with neoadjuvant-adjuvant treatment: Final safety, immunogenicity and survival results. *Eur J Cancer.* 2018 Apr;93:19-27. (IF 7.275)
 51. Lee S, **Im SA.** Kim GM, Jung KH, Kang SY, Park IH, et al. (공동) Patient-Reported Outcomes of Palbociclib Plus Exemestane with GnRH Agonist versus Capecitabine in Premenopausal Women with Hormone Receptor-Positive Metastatic Breast Cancer: A Prospective, Open-Label, Randomized Phase II Trial (KCSG-BR 15-10). *Cancers (Basel).* 2020 Nov 5;12(11):3265. (IF 6.126)
 52. Lee KH, Lee KJ, Kim TY, Hutomo F, Sun HJ, Cheon GJ, Park SI, Cho SW, **Im SA.** (공동) Circulating Osteocalcin-Positive Cells as a Novel Diagnostic Biomarker for Bone Metastasis in Breast Cancer Patients. *J Bone Miner Res.* 2020 Oct;35(10):1838-1849. (IF 5.854)
 53. Sim SH, Park IH, Jung KH, Kim SB, Ahn JH, Lee KH, **Im SA.** et al. (공동) Randomised Phase 2 study of lapatinib and vinorelbine vs vinorelbine in patients with HER2+ metastatic breast cancer after lapatinib and trastuzumab treatment (KCSG BR11-16). *Br J Cancer.* 2019 Dec;121(12):985-990(IF 5.791)
 54. Kim JY, Lee E, Park K, Jung HH, Park WY, Lee KH, Sohn J, Lee KS, Jung KH, Kim JH, Lee KH, **Im SA.** Park YH. (공동) Molecular alterations and poziotinib efficacy, a pan-HER inhibitor, in human epidermal growth factor receptor 2 (HER2)-positive breast cancers: Combined exploratory biomarker analysis from a phase II clinical trial of poziotinib for refractory HER2-positive breast cancer patients. *Int J Cancer.* 2019 Sep 15;145(6):1669-1678. (IF 5.145)
 55. Choi M, Han J, Yang BR, Jang MJ, Kim M, Kim TY, **Im SA.** et al. (공동) Prognostic Impact of Pregnancy in Korean Patients with Breast Cancer. *Oncologist.* 2019 Dec;24(12):e1268-e1276. (IF 5.025)
 56. Ettl J, **Im SA.** Ro J, Masuda N, Colleoni M, Schnell P, et al. (공동) Hematologic adverse events following palbociclib dose reduction in patients with hormone receptor-positive/human epidermal growth factor receptor 2-negative advanced breast cancer: pooled analysis from randomized phase 2 and 3 studies. *Breast Cancer Res.* 2020 Mar 12;22(1):27. (IF

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