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Jung-Min Lee, M.D.

**Current Position:**

Investigator, Lasker Clinical Research Scholar, Women's Malignancies Branch, Center for Cancer Research, National Cancer Institute, MD, USA

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**Research Interest:**

Ovarian cancer, BRCA mutation, triple negative breast cancer, clinical trials and biomarker development

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USA

**Selected Main Scientific Publications (for the past 5 years):**

**Research paper:**

1. Lampert EJ, Hays JL, Kohn EC, Annunziata CM, Minasian L, Yu M, Gordon N, Sissung TM, Chiou VL, Figg WD, Houston N, **Lee J**. Phase I/Ib study of olaparib and carboplatin in heavily pretreated recurrent high-grade serous ovarian cancer at low genetic risk. *Oncotarget*. 2019 Apr 23;10(30):2855-2868. PMID:31080557
2. Thomas A, Wilimas R, Trinidad C, Erwin-Cohen R, Roper N, Xi L, Krishnasamy V, Levy E, Mammen A, Nichols S, Chen Y, Velcheti V, Yin F, Szabo E, Steinberg SM, Trepel J, Raffeld M, Young HA, Khan J, Hewitt S, **Lee J**. Durvalumab in combination with olaparib in patients with relapsed small cell lung cancer: results from a phase II study. *J Thorac Oncol*. 2019 May 4. [Epub ahead of print] PMID: 31063862
3. Liu JF, Barry WT, Birrer M, **Lee J**, Buckanovich RJ, Fleming GF, Rime BJ, Buss MK, Nattam SR, Hurteau J, Luo W, Curtis J, Whalen C, Kohn EC, Ivy SP, and Matulonis UA. Overall survival and updated progression-free survival outcomes in a randomized phase 2 study of combination cediranib and olaparib versus olaparib in relapsed platinum-sensitive ovarian cancer. *Annals Oncol*. 2019 Feb 7. [Epub ahead of print] PMID:30753272
4. Karzai F, VanderWeele D, Madan RA, Owens H, Cordes LM, Hankin A, Couvillon A, Nichols E, Bilusic M, Beshiri M, Kelly K, Krishnasamy V, Lee MJ, Lee S, Yuno A, Trepel J, Merino MJ, Dittamore R, Marte J, Donahue RN, Schlom J, Killian K, Meltzer P, Steinberg SM, Gulley JL, **Lee J**, Dahut WL\*. \* These authors contributed equally. Activity of durvalumab plus olaparib in metastatic castration-resistant prostate cancer in men with and without DNA damage repair mutations. *J Immunother Cancer*. 2018; 6(1):141. PMID: 30514390
5. Rice CM, Davies LC, Subleski JJ, Maio N, Andrews C, Gonzalez-Cotto M, **Lee J**, Annunziata CM, Rouault TA, Durum SK and McVicar DW. Tumour-elicited neutrophils engage mitochondrial metabolism to circumvent nutrient limitations and maintain immune inhibition. *Nat Commun*. 2018; 9(1):5099. PMID: 30504842
6. Pettitt SJ, Krastev DB, Brandsma I, Drean A, Song F, Aleksandrov R, Harrell MI, Menon M, Brough R, Campbell J, Frankum J, Ranes M, Pemberton HN, Rafiq R, Fenwick K, Swain A, Guettler S, **Lee J**, Swisher EM, Stoyanov S, Yusa K, Ashworth A, Lord CJ. Genome-wide and high-density CRISPR-Cas9 screens identify point mutations in PARP1 causing PARP inhibitor resistance. *Nat Commun*. 2018;9(1):1849. PMID: 29748565
7. **Lee J**, Nair J, Zimmer A, Lipkowitz S, Annunziata CM, Merino MJ, Swisher EM, Harrell MI, Trepel JB, Lee MJ, Bagheri MH, Botesteanu DA, Steinberg SM, Minasian L, Ekwede I, and Kohn EC. Prexasertib, a cell cycle checkpoint kinase 1 and 2 inhibitor, in BRCA wild-type recurrent high-grade serous ovarian cancer: a first in class, proof-of-concept, single arm phase 2 study. *The Lancet Oncol*. 2018;19(2):207-215. PMID: 29361470
8. Brill E, Yokoyama T, Nair J, Minshu Yu, Ahn Y, **Lee J**. Prexasertib, a cell cycle checkpoint kinases 1 and 2 inhibitor, increases in vitro toxicity of PARP inhibition by preventing Rad51 foci formation in BRCA wild type high-grade serous ovarian cancer. *Oncotarget*. 2017;8(67):111026-111040. PMID: 2934003
9. **Lee J**, Cimino-Mathews A, Peer CJ, Zimmer A, Lipkowitz S, Annunziata CM, Cao L, Harrell M, Swisher E, Houston N, Botesteanu DA, Taube JM, Thompson E, Ogurtsova A, Xu H, Nguyen J, Ho TW, Figg WD, Kohn EC. Safety and Clinical Activity of the PD-L1 Inhibitor Durvalumab in Combination With a PARP Inhibitor, Olaparib, or a VEGFR1-3 Inhibitor, Cediranib, in Women's Cancers: A Dose-Escalation, Phase I Study. *J Clin Oncol*. 2017;35(19):2193-2202. PMID: 28471727
10. **Lee J**, Hays JL, Chiou VL, Annunziata CM, Swisher EM, Harrell MI, Yu M, Gordon N, Sissung TM, Ji J, Figg WD, Minasian L, Lipkowitz S, Wood BJ, Doroshow J, Kohn EC. Phase I/Ib study of olaparib and carboplatin in women with sporadic triple negative breast cancer. *Oncotarget*. 2017;8(45):79175-79187. PMID: 291082977.
11. Yokoyama T, Kohn EC, Brill E, **Lee J**. Apoptosis is augmented in high-grade serous ovarian cancer by the combined inhibition of Bcl-2/Bcl-xL and PARP. *Int J Oncol*. 2017;50:1064-1074. PMID: 28350129

12. **Lee J**, Peer CJ, Yu M, Amable L, Gordon N, Annunziata CM, Houston N, Goey AKL, Sissung TM, Parker B, Minasian L, Chiou V, Murphy R, Widemann BC, Figg WD, Kohn EC. Sequence-specific pharmacokinetic and pharmacodynamics phase I/Ib study of olaparib tablets and carboplatin in women's cancer. *Clin Cancer Res*. 2017; 23(6):1397-1406. PMID: 27663600
13. Botesteanu DA, **Lee J\***, Levy D\*. Modeling the Dynamics of High-Grade Serous Ovarian Cancer Progression. \*These authors contributed equally. *PLoS One*. 2016;11(6):e0156661. PMID: 27257824
14. **Lee J**, Gordon N, Yu M, Lee MJ, Trepel J, Kohn EC. Development of a dual-labeled flow cytometric as a predictive biomarker assay for response to PARP Inhibitor therapy in high-grade serous ovarian cancer. *J Transl Med*. 2015;3:239. PMID:26198537
15. **Lee J**, Trepel JB, Choyke PL, Cao L, Turkbey IB, Sissung T, Lee MJ, Houston ND, Figg WD, Steinberg S, Ivy P, Liu J, Matulonis U, Kohn EC. CECs and IL-8 have prognostic and predictive utility in patients with recurrent platinum-sensitive ovarian cancer: biomarker correlates from the randomized phase 2 trial of olaparib and cediranib compared with olaparib in recurrent platinum-sensitive ovarian cancer. *Front Oncol*. 2015;5:123. PMID:26082895
16. Liu JF, Barry WT, Birrer M, **Lee J**, Buckanovich R, Fleming GF, Rimel BJ, Buss MK, Nattam S, Hurteau J, Luo W, Qu Y, Whalen C, Obermayer L, Lee H, Winer E, Kohn EC, Ivy P, Matulonis U. Combination cediranib and olaparib as recurrence therapy in platinum-sensitive ovarian cancer. *The Lancet Oncol*. 2014;15(11):1207-14. PMID:25218906
17. **Lee J**, Hays JL, Annunziata CM, Noonan AM, Minasian L, Zujewski J, Yu, M, Gordon N, Ji J, Sissung TM, Figg WD, Azad N, Wood BJ, Doroshow J, Kohn EC. Phase I/Ib study of olaparib and carboplatin in BRCA1 or BRCA2 mutation-associated breast or ovarian cancer with biomarker analyses. *J Natl Cancer Inst*. 2014;106(60):dju089. PMID:24842883

#### Review paper:

1. Haynes B, Murai J and **Lee J**. Restored Replication Fork Stabilization, a Mechanism of PARP Inhibitor Resistance, Can Be Overcome by Cell Cycle Checkpoint Inhibition. *Cancer Treatment Reviews*. 2018; 71:1-7. PMID: 30269007
2. Liu J, **Lee J**, Strock E, Phillips R, Mari K, Killiam B, Milenkova T, Kohn EC, and Ivy SP. Technology Applications: Use of Digital Health Technology to Enable Drug Development. *JCO Clin Cancer Inform*. 2018;(2):1-12. PMID: 30652584
3. Zimmer AS, Gillard M, Lipkowitz S, and **Lee J**. Update on PARP Inhibitors in BRCA1 and BRCA2 mutation-associated breast cancer. *Curr Treat Options Oncol*. 2018;19(5):21. PMID: 29644491
4. **Lee J**, Gulley JL. Checkpoint and PARP inhibitors, for whom and when. *Oncotarget*. 2017;8(56):95036-95037. PMID: 29221108
5. Kohn EC, **Lee J**, and Ivy SP. The HRD decision--which PARP inhibitor to use for whom and when. *Clin Cancer Res*. 2017;23(23):7155-7157. PMID: 28974545
6. Ivy SP, Liu JF, **Lee J**, Matulonis UA, and Kohn EC. Cediranib, a pan-VEGFR inhibitor, and olaparib, a PARP inhibitor, in combination therapy for high grade serous ovarian cancer. *Expert Opin Investig Drugs*. 2016;25(5):597-611. PMID: 26899229
7. **Lee J**, Ivy SP, and Kohn EC. Challenges and opportunities for immunotherapies in gynecologic cancers. *Oncology*. 2016;30(1):67-9. PMID: 26791847
8. Chiou V, Kohn EC, Davarpanah N, **Lee J**. Novel Therapeutic Strategies For Angiogenesis Inhibition In Recurrent Ovarian Cancer. *Current Angiogenesis*. 2015;3(4):179-192.
9. Burroto M, Chiou V, **Lee J**, and Kohn EC. The MAPK pathway across different malignancies: A new perspective. *Cancer*. 2014;120(22):3446-5. PMID:24948110
10. O'Sullivan C, Moon DH, Kohn EC, and **Lee J**. Beyond breast and ovarian cancers: PARP inhibitors for BRCA mutation-associated and BRCA-like solid tumors. *Front Oncol*. 2014;4:42. PMID:24616882
11. Kohn EC, Romano S, and **Lee J**. Clinical Implications of Using Molecular Diagnostics for Ovarian Cancers. *Ann Oncol*. 2014;24 Suppl 10:x22-x26. PMID:24265398
12. **Lee J**, Ledermann J, Kohn EC. PARP inhibitors for BRCA1/2 mutation-associated and BRCA-like malignancies. *Ann Oncol*. 2014;25(1):32-40. PMID:24225019