Presentations

GS2-01. Maher CA, Silva-Fisher J, Eteleeb A, Tang C, et al. Discovery and characterization of an estrogen bound LncRNA in late-stage breast cancer.

The authors conclude that:

Overall, this is the first study to discover ESR1 bound lncRNAs that may be contributing to late-stage relapse in breast cancer. In the short-term, our ongoing research may lead to significant breakthroughs establishing the importance of LASER-1 as a master regulator in late-stage relapse. In the longer-term, we envision this research may lead to the development of novel therapeutics targeting LASER-1 with the potential for rapid clinical translation.

GS2-02. Chang EC, Zheng Z, Philip L, Burcu C, et al. Direct regulation of estrogen receptor-α (ER) transcriptional activity by NF1.

The authors conclude that:

Further preclinical treatment studies indicate that while NF1-deficient ER+ breast cancer should not be treated by tamoxifen or AIs, fulvestrant remains effective. Furthermore, when fulvestrant is combined with dabrafinib and trametinib to inhibit Ras effectors Raf and MEK, apoptosis is induced in vitro, and tumor regression is observed in vivo. In conclusion, we have demonstrated that NF1 is a dual negative regulator at the intersection of two potent oncogenic signaling pathways, Ras and ER, and that NF1-deficient ER+ breast cancer patients may be more effectively treated by co-targeting the Ras and ER signaling. These patients, up to 10% of those with advanced ER+ breast cancer, can be readily identified for treatment by ctDNA analysis. A clinical trial is under development.

GS2-03. Priedigkeit N, Vareslija D, Basudan A, Watters RJ, et al. Highly recurrent transcriptional remodeling events in advanced endocrine resistant ER-positive breast cancers.

The authors conclude that:

Taken together, these results demonstrate profound, recurrent and metastatic site-specific LTREs in advanced breast cancers, which may be essential to our understanding of endocrine-therapy resistance and metastasis. Although current emphasis for longitudinal clinical profiling of tumors is on DNA-level alterations, these results suggest LTREs as a compelling, shared mechanism of cancer progression. Given remarkably high recurrence rates of specific LTREs across multiple cohorts, further preclinical and clinical investigations of LTREs are demanded, especially considering some (i.e. FGFR4 and RET) are readily druggable.

GS2-04. Myles A. Brown, MD Discussant

GS2-05. Tripathy D, Sohn J, Im S-A, Franke F, Bardia A, et al. First-line ribociclib vs placebo with goserelin and tamoxifen or a non-steroidal aromatase inhibitor in premenopausal women with hormone receptor-positive, HER2-negative advanced breast cancer: Results from the randomized phase III MONALEESA-7 trial.

The authors conclude that:

MONALEESA-7, the first dedicated trial investigating a CDK4/6 inhibitor in pre- and peri-menopausal women with HR+, HER2– ABC, demonstrated that addition of ribociclib to first-line ET (tamoxifen/NSAI + goserelin) significantly prolonged PFS and had a manageable safety profile. The trial validates the clinical utility of ribociclib with multiple endocrine therapies, including tamoxifen, in premenopausal women with

HR+, HER2– ABC. See the webcast from the press conference

GS2-06. Loi S, Giobbe-Hurder A, Gombos A, Bachelot T, net al. Phase Ib/II study evaluating safety and efficacy of pembrolizumab and trastuzumab in patients with trastuzumab-resistant HER2-positive metastatic breast cancer: Results from the PANACEA (IBCSG 45-13/KEYNOTE-014) study. See the webcast from the press conference

GS2-07. Schmid P, Zaiss M, Harper-Wynne C, Ferreira M, et al. MANTA - A randomized phase II study of fulvestrant in combination with the dual mTOR inhibitor AZD2014 or everolimus or fulvestrant alone in estrogen receptor-positive advanced or metastatic breast cancer.

The authors conclude that:

The trial failed to demonstrate a benefit of adding the TORC1/2 inhibitor vistusertib (AZD2014) to FULV. The combination FULV+EVE demonstrated significantly longer PFS compared to FULV+VIS or FULV.