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**TITLE:** Efficacy and predict biomarkers of response of Affitinib, a second generation of anti-HER agent.

**ABSTRACT:** Affitinib, is a second generation of small-molecule that targets HER family in a irreversible manner, and is currently on clinical trials for some solid tumors. Nevertheless, few studies addressed its larger spectrum of action, and most importantly, there are no predictive biomarkers of patient response.

In the present talk, it will described a large *in vitro* screening of Affitinib cytotoxicity, evaluating 70 tumor cell lines, representing 11 tumors types. In addition, we will report the discovery and validation of *KRAS* mutation as a biomarker of resistance to Affitinib. Moreover, we will explore the existence of other biomarkers of resistance in head and neck and cervical cancer cell lines, using both in vitro and in vivo approaches, and explore the combination of therapies that could circumvent the resistant phenotype.