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Sala de Conferencias
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The potential of targeted paclitaxel immunonanoparticles conjugated to EpCam or cetuximab for lung cancer treatment by inhalation and intravenous administration



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Pulmonary delivery of nanoparticles is a widely investigated and promising approach for lung cancer treatment. In my presentation I will discuss the c-Raf transgenic lung cancer disease model and the *in vivo* tolerability and potential efficacy of pulmonary delivered paclitaxel palmitate loaded NPs which were covalently conjugated to an anti-EpCAM monoclonal antibody. Formulations were delivered by endotracheal administration to c-Raf transgenic EpCAM positive lung tumor bearing mice. Animals' survival, body weight changes and bronchoalveolar lavage biochemistry demonstrated the general safety of the delivered formulation as compared to the free drug solution. Additionally, histopathology and *in vivo* CT imaging results showed that EpCAM based therapies can be considered as a promising strategy for improving lung cancer treatment using an inhalation administration approach. I will also discuss the results of a cetuximab-conjugated poly lactic-co-glycolic acid (PGLA) nanoparticle formulation for targeted delivery of the lipophilic paclitaxel palmitate (pcpl) prodrug in a mouse xenograft lung cancer model.