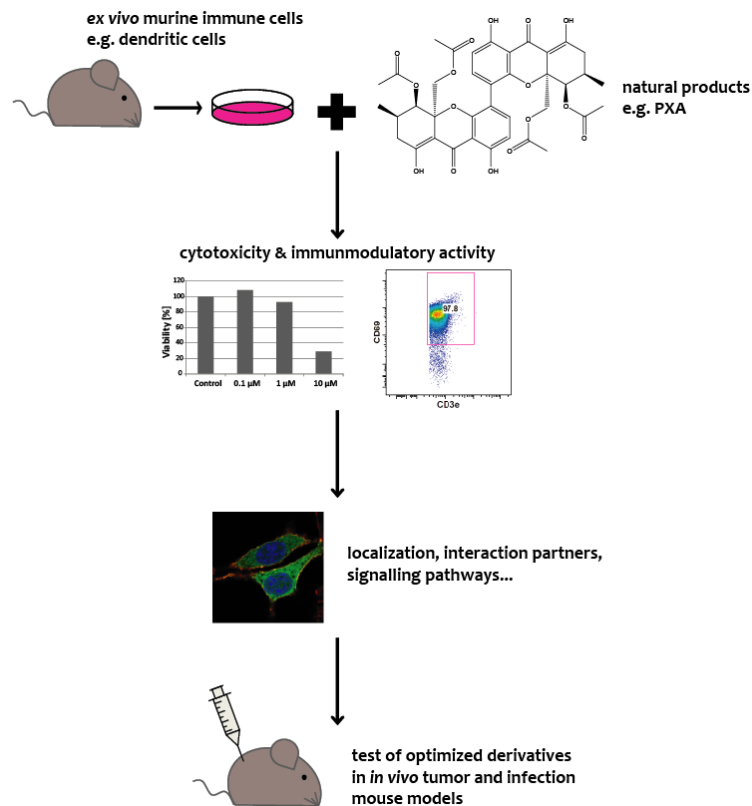


Identifying immunological properties of natural products for the treatment of chemoresistant tumors and bacterial pathogens.



Bioactive molecules that activate the immune response can help to overcome resistances that might for example appear in bacterial infections and anti-cancer chemotherapy. Phomoxanthone A (PXA) is a natural product which has been shown to exert an immunomodulatory activity. Topics and goals of the project are the elucidation of the mechanism underlying immunactivation by PXA, its subcellular localization, molecular interaction partners and signalling pathways involved using a panel of *in vitro* methods. On the basis of these results, optimization of the immunomodulatory effectivity can be performed, and optimized derivatives will be tested *in vivo*. Additionally, further natural products will be screened for immunomodulatory activities and examined for their immunological modes of action.

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