

Anke Bill, PhD



Oncology

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My multidisciplinary laboratory is interested in dissecting the molecular mechanisms of resistance to inhibition of MAPK signaling and to uncover novel targeting opportunities.

RAF-inhibitors have revolutionized the treatment of RAF-driven cancer types. However, a large fraction of patients still does not experience complete responses or develops resistance. My lab is investigating the function of various RAF isoforms in MAPK-signaling and is exploring the mechanisms underlying resistance to RAF-inhibitors. The unique research environment offers us a unique opportunity to combine multidisciplinary approaches, such as structural biology and protein science to understand the functional requirements for RAF activity, as well as genomic and pharmacological screens, to dissect the cellular signaling requirements. In addition, we have established collaborations with academic leaders in the field to complement our expertise and to ensure optimal progression of the project. Understanding the functional role of various RAF isoforms is anticipated to inform the design of future therapeutic strategies for targeting RAF-dependent cancers to achieve deeper and more sustained patient responses.

Selected Publications

[EndoBind detects endogenous protein-protein interactions in real time.](#)

Bill A*, Espinola S, Guthy D, Haling JR, Lanter M, Lu M, Marelli A, Mendiola A, Miraglia L, Taylor BL, Vargas L, Orth AP, King FJ (* first and corresponding author)

Commun Biol. 2021 Sep 15;4(1):1085.

[Tumor-Associated Fibroblasts Promote HER2-Targeted Therapy Resistance through FGFR2 Activation](#)

Fernández-Nogueira P, Mancino M, Fuster G, López-Plana A, Jauregui P, Almendro V, Enreig E, Menéndez S, Rojo F, Noguera-Castells A, Bill A, Gaither LA, Serrano L, Recalde-Percas L, Moragas N, Alonso R, Ametller E, Rovira A, Lluch A, Albanell J, Gascon P, Bragado P.

Clin Cancer Res. 2020 Mar 15;26(6):1432-1448.

A NMDA-receptor calcium influx assay sensitive to stimulation by glutamate and glycine/D-serine

Guo H, Camargo LM, Yeboah F, Digan ME, Niu H, Pan Y, Reiling S, Soler-Llavina G, Weihofen WA, Wang HR, Shanker YG, Stams T, Bill A.

Sci Rep. 2017 Sep 14;7(1):11608.

[Click here](#) for additional publications.

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List of links present in page

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