

DR. YIBIN KANG (2015 AWARD)

Development of a Humanized Mouse Model of Breast Cancer Liver Metastasis

With this project we have studied the utility of a new humanized chimeric mouse model to test the requirements of the human liver for tumor initiation and metastasis.

Major achievements from the METAvivor-funded project:

- **Clinical relevance:** Clinically relevant models of liver metastasis are desperately needed to make research and treatment advancements. We used METAvivor funding to establish a humanized mouse model of breast cancer liver metastasis and used this model to select breast cancer cells capable of metastasizing to the liver for future studies.
- **Impact:** We are now using our new (clinically relevant) model to identify gene targets that could potentially be drivers for breast cancer metastasis to the liver. Validation of candidate liver metastasis genes will open the door to mechanistic studies of the pathways involving in the seeding and expansion of liver metastasis from breast cancer. Importantly, our model system will provide an ideal platform to test the therapeutic effect of potential agents targeting breast cancer liver metastasis.
- **Publication and funding support:** A manuscript and R01 application based on this work is anticipated to be submitted by the end of 2018