**METAvivor Progress Report 2021-2022**

**Lay Description of Important Outcomes**

* Our observed findings show that small microvesicles from bone marrow cells initiating drug resistance is beginning to be solved. The vesicle causes changes around the genes, opening up genetic material to express genes to aid in the resistance.
* During the year we added parts of the data in other publications (listed above), including a perspective on how 3D bioprinting can be used to quickly develop drugs.
* The findings are clinically relevant as it is beginning to explain why some epigenetic drugs failed in clinical trials for MBC. These findings will open avenues for other epigenetic drugs for MBC.