



# Speaker Bio



## Bio

**Dr. Pei-Chi Wei** completed her Bachelor's degree in Zoology and Master's degree in Immunology at National Taiwan University before pursuing her Ph.D. at the National Defense Medical Center in a joint program with Academia Sinica. Her doctoral research focused on redox sensing and unfolded protein response and DNA damage. After obtaining her Ph.D., Pei-Chi Wei embarked on a postdoctoral journey at Frederick W. Alt's laboratory, based at Boston Children's Hospital. There, she honed her skills in genomic integrity and neural stem cells, contributing significantly to the frontier of biomedical research.

Dr. Wei is a principal investigator of a research lab at the German Cancer Research Center, the largest cancer centre in Europe. Her lab investigates genome mosaicism in the brain, and the underlying mechanisms that protect neural stem and progenitor cells from making excessive errors when duplicating their DNA. They found that genomic regions with few backup mechanisms for replication failure are DNA break hotspots in neural progenitor cells. This fragility is limited to neural progenitor cells. Next, we will test if replication stress promotes large-scale translocations leading to cancer initiation. Her lab currently investigates whether clonal evolution alters mutation burdens in the developing brain. Her lab is working on the clonal fitness mechanisms to address transformation and cancer initiation.

