Embryonal tumours represent the largest category of malignant brain tumors in children 0-14 yrs of age. Amongst these medulloblastoma is most common, however 40% of pediatric embryonal brain tumors are rare cancers. In contrast to medulloblastoma, there has been more limited success in treating these rare cancers including ATRTs and ETMRs, which predominantly arise in younger children or infants. This talk will highlight developments in understanding the molecular spectrum of rare embryonal brain tumors in young children, development of novel diagnostic tools and biological insights into therapeutic pathways.