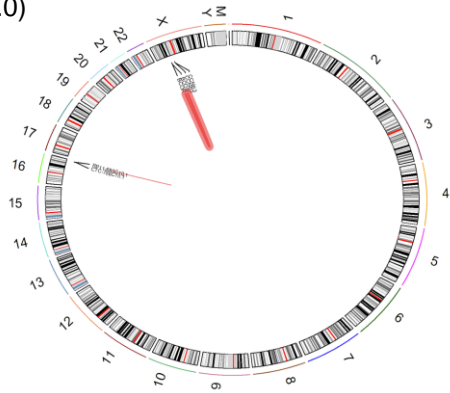
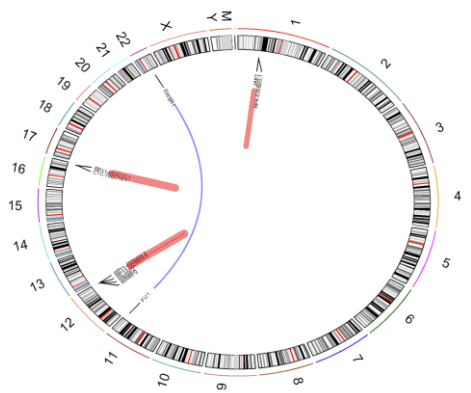


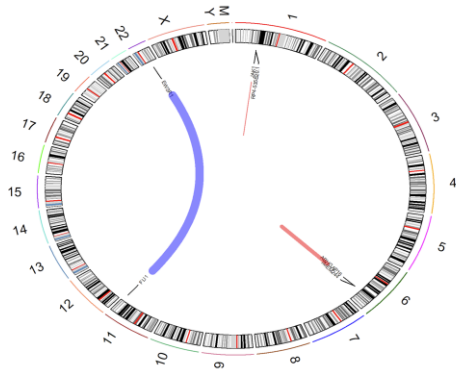
A. Case: SARC_51 Histology: *BCOR*-rearranged sarcoma
Molecular: *BCOR*-rearranged sarcoma (Calibrated score: 1.0)



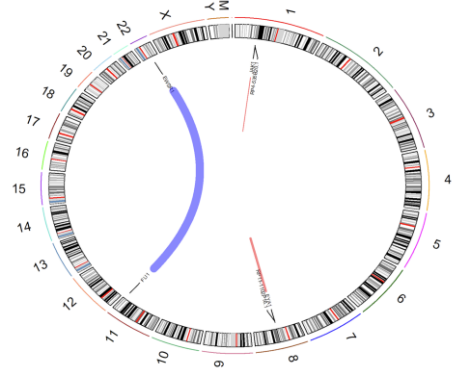
B. Case: SARC_30 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 0.99)



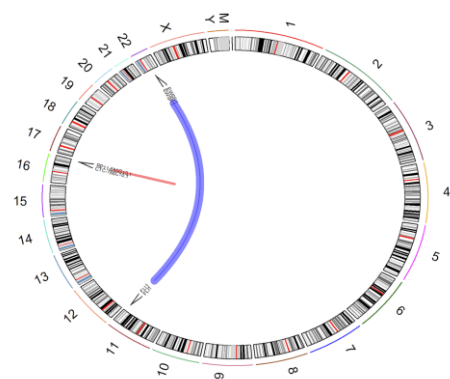
C. Case: SARC_36 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 1.0)



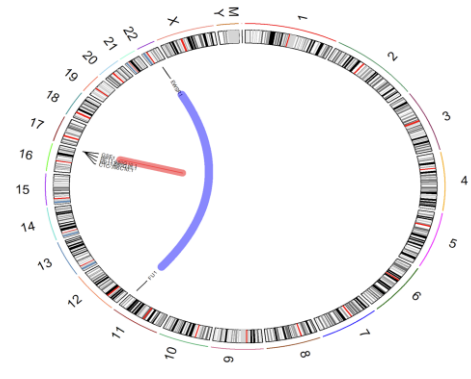
D. Case: SARC_99 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 1.0)



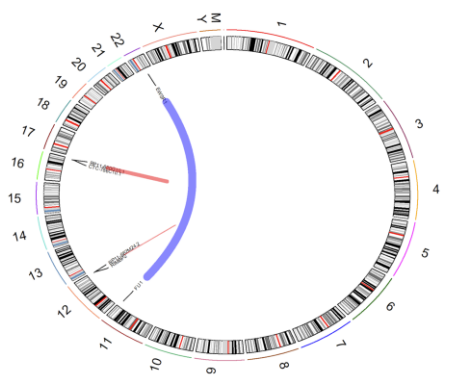
F. Case: SARC_102 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 1.0)



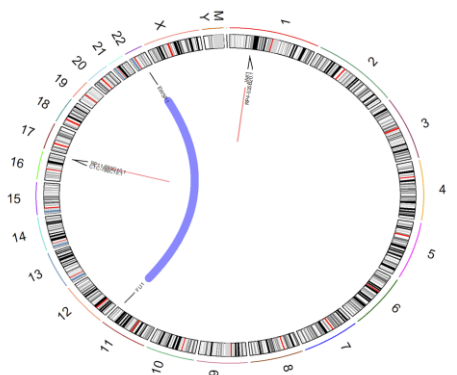
G. Case: SARC_06 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 1.0)



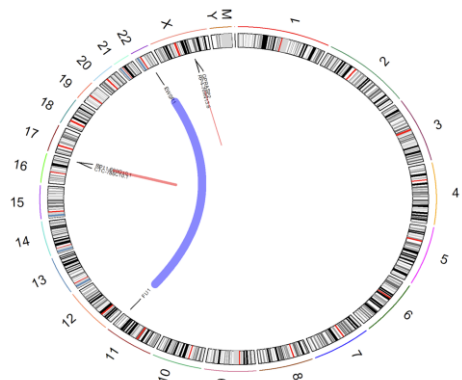
H. Case: SARC_50 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 0.97)



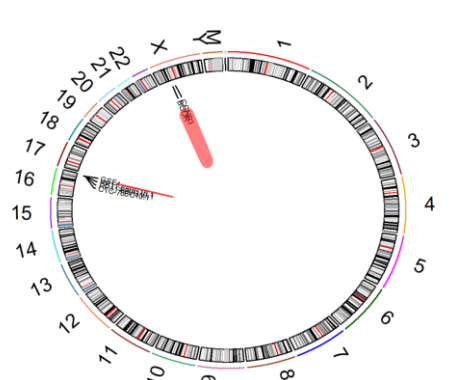
I. Case: SARC_08 Histology: Ewing sarcoma
Molecular: Ewing sarcoma (Calibrated score: 1.0)



J. Case: SARC_110 Histology: Primitive neuroectodermal tumor
Molecular: Ewing sarcoma (Calibrated score: 1.0)

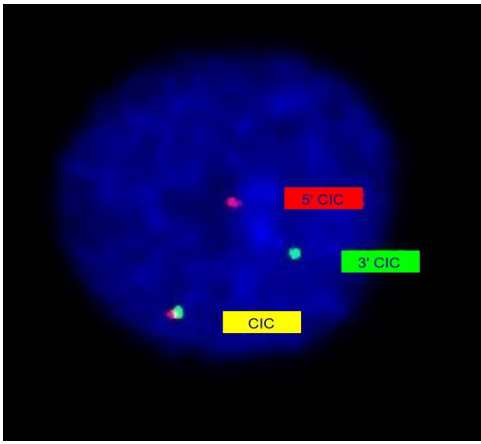


K. Case: SARC_09 Histology: Kidney clear cell sarcoma
Molecular: SBRCT_ *BCOR* (Calibrated score: 1.0)



L. Case: Case: SARC_11 Histology: Small round blue cells sarcoma

Molecular: *CIC*-rearranged sarcoma (Calibrated score: 0.93)



M. Case: SARC_43 Histology: Spindle cell sarcoma

Molecular: *BCOR*-rearranged sarcoma (Calibrated score: 1.0)

Sex: Male

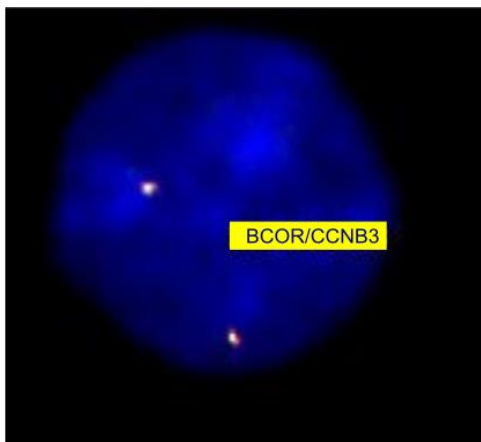


Figure S1. Circos plots (A-K) showing fusion genes detected in RNA sequencing. All chromosomes with cytoband information, Fusion events as links between locations in chromosomes (with gene names), Red links indicate intrachromosomal fusions, while blue links indicate interchromosomal fusions, widths of each link varies according to how many reads support the fusion event. (L-M) Fluorescence in situ hybridization showing *CIC* or *BCOR* rearrangements (obtained from institutional medical records). L. The break-apart probe type revealed the *CIC* rearrangement (ZytoLight SPEC *CIC* Dual Color Break Apart Probe, ZytoVision, cat# Z-2285-50). M. A paracentric inversion on the X chromosome involving *BCOR* (Xp11.4) and *CCNB3* (Xp11.22) was observed (Cytocell myProbes, cat# MPP14810)