Muller applies microscopy to human tissue samples, subsequently inventing the field of pathology [9,10].

Boveri experiments on chromosome theory of inheritance [12].

Vogelstein demonstrates cancer results from sequential mutations and tumors display monoclonal origin [8].

First exome sequencing depicts genomic landscapes of human breast and colorectal cancers [31].

Evidence for tumor evolution revealed by single-cell sequencing [35].

Intratumor heterogeneity and branched evolution revealed by multiregion sequencing of clinical solid tumor samples [69].

Evidence from International Cancer Genome Consortium implies the existence of long-lived, quiescent cell lineages, which give rise to subclonal diversification [32].

Experimental evidence shows intratumoral cell competition among heterogeneous clones [77,78].