Brachyury is a protein that in humans is encoded by the T gene.

Brachyury is a transcription factor within the T-box complex of genes.

It has been found in all bilaterian animals that have been screened, and is also present in the cnidaria.

Expression of the brachyury gene has been identified as a definitive diagnostic marker of chordoma, a malignant tumor that arises from remnant notochordal cells lodged in the vertebrae.

Furthermore, germ line duplication of brachyury confers major susceptibility to chordoma. The chromosomal region on 6q27 containing the brachyury gene was gained in 6 of 21 chordomas (29%), and none of the 21 chordomas analyzed showed deletions that could have affected this gene.

Brachyury is an important factor in promoting the epithelial-mesenchymal transition (EMT). Cells that over-express brachyury have down-regulated expression of the adhesion molecule E-cadherin, which allows them to undergo EMT. This process is at least partially mediated by the transcription factors AKT[12] and Snail.

Overexpression of brachyury has been linked to Hepatocellular carcinoma (HCC, also called malignant hepatoma), a common type of liver cancer. While brachyury is promoting EMT, it can also induce metastasis of HCC cells. Brachyury expression is a prognostic biomarker for HCC, and the gene may be a target for cancer treatments in the future.

Additionally, overexpression of brachyury may play a part in EMT associated with benign disease such as renal fibrosis.

Brachyury is overexpressed in a number of tumor types.