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Characterization of the oncogenic protein HBZ from human retrovirus HTLV-1

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The human T cell Leukemia Virus Type 1 is an oncogenic retrovirus that causes Adult T-cell Leukemia (ATLL) characterized by malignant T cell. The viral protein **Tax** encoded by the plus strand is important for the transcription of the provirus and is oncogenic potential. The virus also encodes a protein from the complementary strand designated HTLV-1 bZIP (**HBZ**) protein. There is a spliced form of this protein containing 206 amino acids (sp1) which is more abundant in ATL patients and an unspliced form with 209 amino acids (us). **Tax** is expressed in the initial stages of leukemia and is important for infectivity by interacting with a plethora of cellular factors (pleiotropic effect). But during the later stages of infection, HBZ seems to be predominant. All these data however are based on mRNA expression profiles during various stages of infection. Thus the existence and importance of HBZ protein in infected cells demands verification. In addition, the list of cellular factors partnered with HBZ protein needs to be elucidated. To this end we generated and validated a firstly reported monoclonal antibody against the HTLV-1 bZIP factor which will be instrumental to finally assess the role of HBZ in malignant transformation

