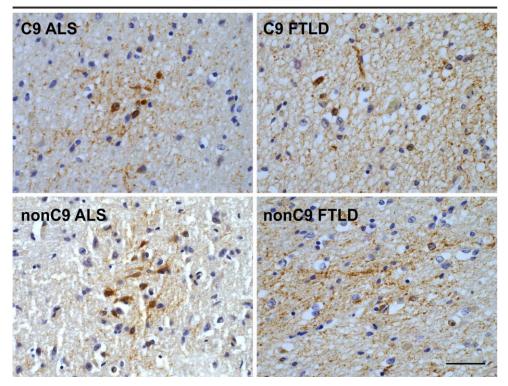


**Figure S1: Poly(GA) pathology in the pineal gland of** *C9orf72* **and non***C9orf72* **ALS and FTLD cases.** Numerous poly(GA) inclusions were observed in the pineal gland of *C9orf72* cases with ALS or FTLD in a similar manner (case C9-2 and C9-7), but not in the pineal gland tissue of non*C9orf72* cases (case nonC9-11 and nonC9-1). Scale bar represents 50 µm.

## Pineal gland

## **SCN-related neurons**



**Figure S2: VIP-immunostaining of the SCN-related neurons in** *C9orf72* **and non***C9orf72* **ALS and FTLD cases.** VIP-positive neurons are observed in ALS or FTLD-TDP cases with and without the *C9orf72* repeat expansion (case C9-3, C9-7, nonC9-17, nonC9-1). Due to mild-moderate variations in the cutting levels of the hypothalamus sections, it is not possible to draw conclusions about differences in the pattern of the SCN-related neurons. Scale bar represents 50 µm. VIP stands for vasoactive intestinal peptide; SCN, suprachiasmatic nucleus