## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

**Description:** PER2::Luciferase bioluminescence recording from SCN slice before and after treatment

with VIP.

File Name: Supplementary Movie 2

**Description:** Simultaneous recordings of CRE::Luciferase bioluminescence and RCaMPfluorescence

reporting intra-cellular calcium from SCN slice before and after treatment with VIP.