MeBoP

Middle Eastern Biology of Parasitism

Drug target against *Toxoplasma gondii* Aspartyl Protease III (*Group Experiment*)

Oyetunde Oyeyemi[1], Darline Dize[2] and Isaac Carillo[3]

University of Medical Sciences, Ondo, Nigeria[1], University of Yaounde, Cameroon[2], University of Ghana, Legon[3]

Dates: July 23 - August 6th, 2017
Location: University of Bern, Bern, Switzerland

Background

- Aspartic proteases (ASPs)are generally synthesized as zymogens and subsequently activated by proteolytic cleavage of the inhibitory proregion.
- Present in eukaryotes and viruses for nutrient degradation and activation of signaling molecules
- They are important virulence factors in pathogens including *Toxoplasma gondii*
- TgASP3 is expressed in tachyzoites, the rapidly dividing asexual stage of *T. gondii*

Aim

- We aim to use TgASP3 as a drug target for *T. gondii* in order to control the parasite

Hypothesis

- Compound 49c modulates the activity of *Toxoplasma gondii* Aspartyl protease 3 (TgASP3)

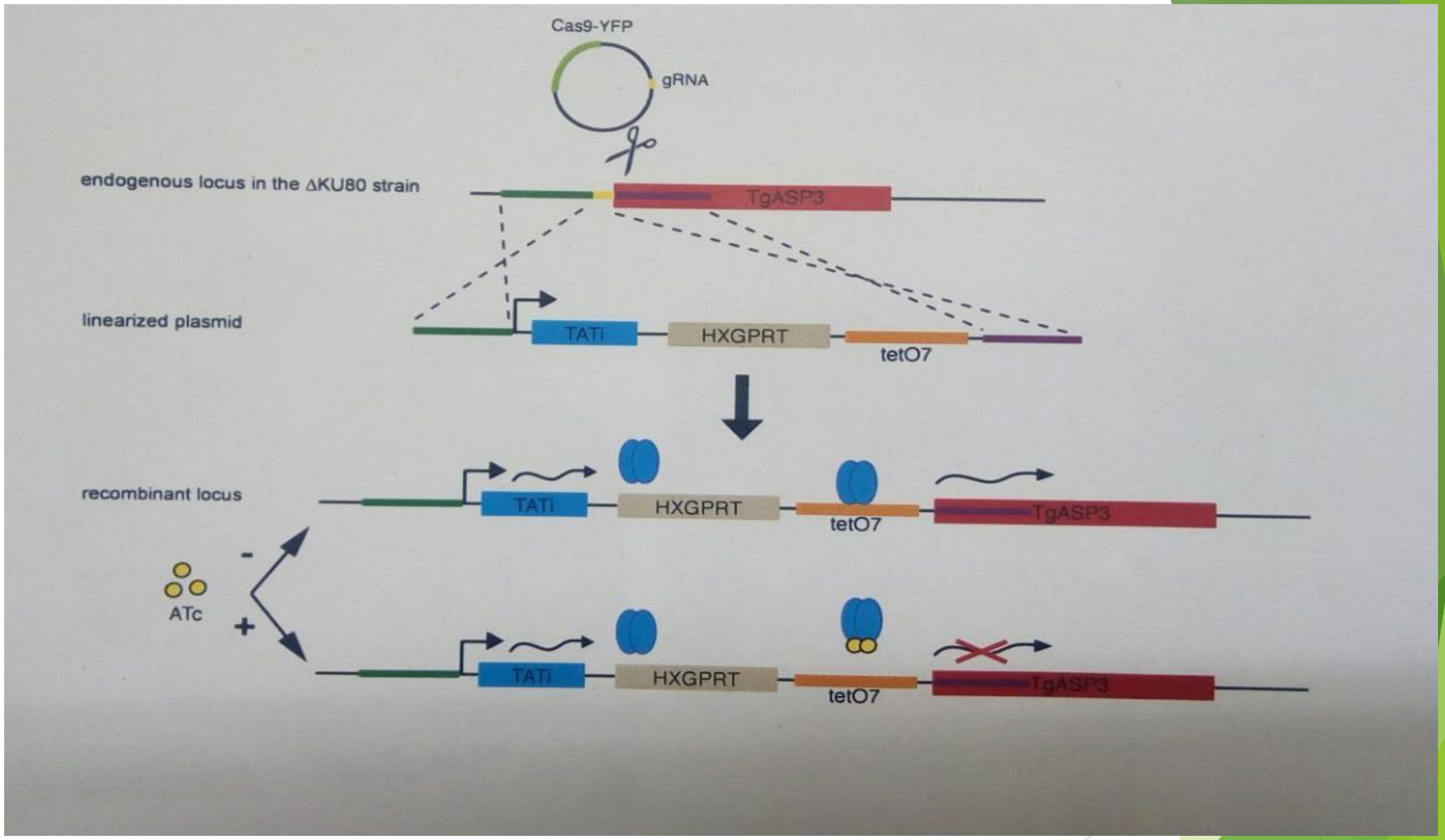

Fig. 1: Principle of TgASP3 Regulation

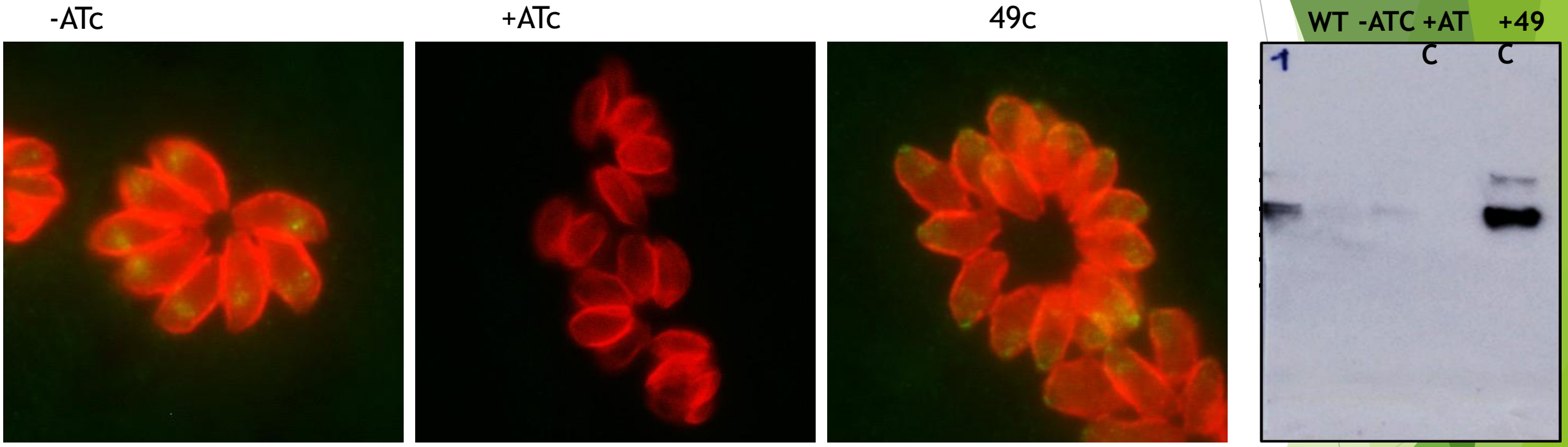

Fig.2: TgASP3 expression by immunofluorescence and immunoblotting assays

CONCLUSIONS

- The 49c target the TgASP3
- It increases the stability of TgASP3.