

7th Euro-Global Summit on

Toxicology & Applied Pharmacology

October 24-26, 2016 Rome, Italy

A 52-week safety study in *Cynomolgus macaque* for genetically modified rice expressing Cry1Ab/1Ac protein

Qing Xia

National Center of Biomedical Analysis, China

A 52-week feeding study in *Cynomolgus macaques* was carried out to evaluate the safety of Bt-rice Huahui 1 (HH1), a transgenic rice line expressing Cry1Ab/1Ac protein. Monkeys were fed a diet with 20% or 60% HH1 rice, 20% or 60% parental rice (Minghui 63, MH63), normal diet, normal diet spiked with purified recombinant Cry1Ab/1Ac fusion protein or bovine serum albumin (BSA) respectively. During the feeding trail, clinical observations were conducted daily, and multiple parameters, including body weight, body temperature, electrocardiogram, hematology, blood biochemistry, serum metabolome and gut microbiome were examined at regular intervals. Upon sacrifice, the organs were weighted, and the macroscopic, microscopic and electron microscopic examinations were performed. The results show no adverse or toxic effects of Bt-rice HH1 or Cry1Ab/1Ac fusion protein on monkeys. Therefore, the present 52-week primate feeding study suggests that the transgenic rice containing Cry1Ab/1Ac is equivalent to its parental rice line MH63.

Biography

Qing Xia has completed her PhD from the Second Military Medical University and Post-doctoral studies from Duke University School of Medicine. She is the Vice Director of National Center of Biomedical Analysis, Beijing, China. She has published more than 20 papers in reputed journals and has been serving as a Member of the Chinese Committee of Bio-Safety on Transgenic Products.

qxia@ncba.ac.cn

Notes: