

# ReishiMax extends the lifespan in an aging model: A preliminary report

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## ABSTRACT

*Ganoderma lucidum* (Reishi) has long been used as a medicinal herb in China for immune enhancement and cancer prevention and adjuvant therapy. ReishiMax (RM), a proprietary extract of Reishi enriched in Reishi triterpenes and polysaccharides showed immune enhancement (enhanced proliferations of macrophages, B, T and NK lymphocytes, increases in serum IgA, IgG, IgM & secretion of IL2 and Interferon, and decreases in IL5 secretion) and inhibition of cancer malignancy (FASEB J 2007, 21:A1100; 2008, 22:1136.2). We further examined the RM's effect in lifespan extension in mice. ICR mice (12 m of age; 100 males & 100 females) were randomized into 4 groups, receiving either rat chaw alone or the forage prior mixed with RM at a dose of 175, 350 or 700 mg/kg. Calorie intake was monitored twice a week and adjusted to match the calorie intake of controls. RM treatment (36 wks so far) showed: (1) no significant differences in body weight and calorie intake among the groups; (2) compared to controls, the 90% survival time extends 20, 56 and 44 days in the 3 RM dose groups, and the 75% survival time extends 21, 70 and 24 days, respectively. Kaplan-Meier Survivor analysis showed significantly extended lifespan and reduced death risks by RM:  $p=0.048$  (Wk28),  $p=0.045$  (Wk32),  $p=0.022$  (Wk36), with the best survivor curve for the RM 350 mg/kg therapy (equivalent to the human dose). The data thus far indicates that RM extends the lifespan in mice.

## INTRODUCTION

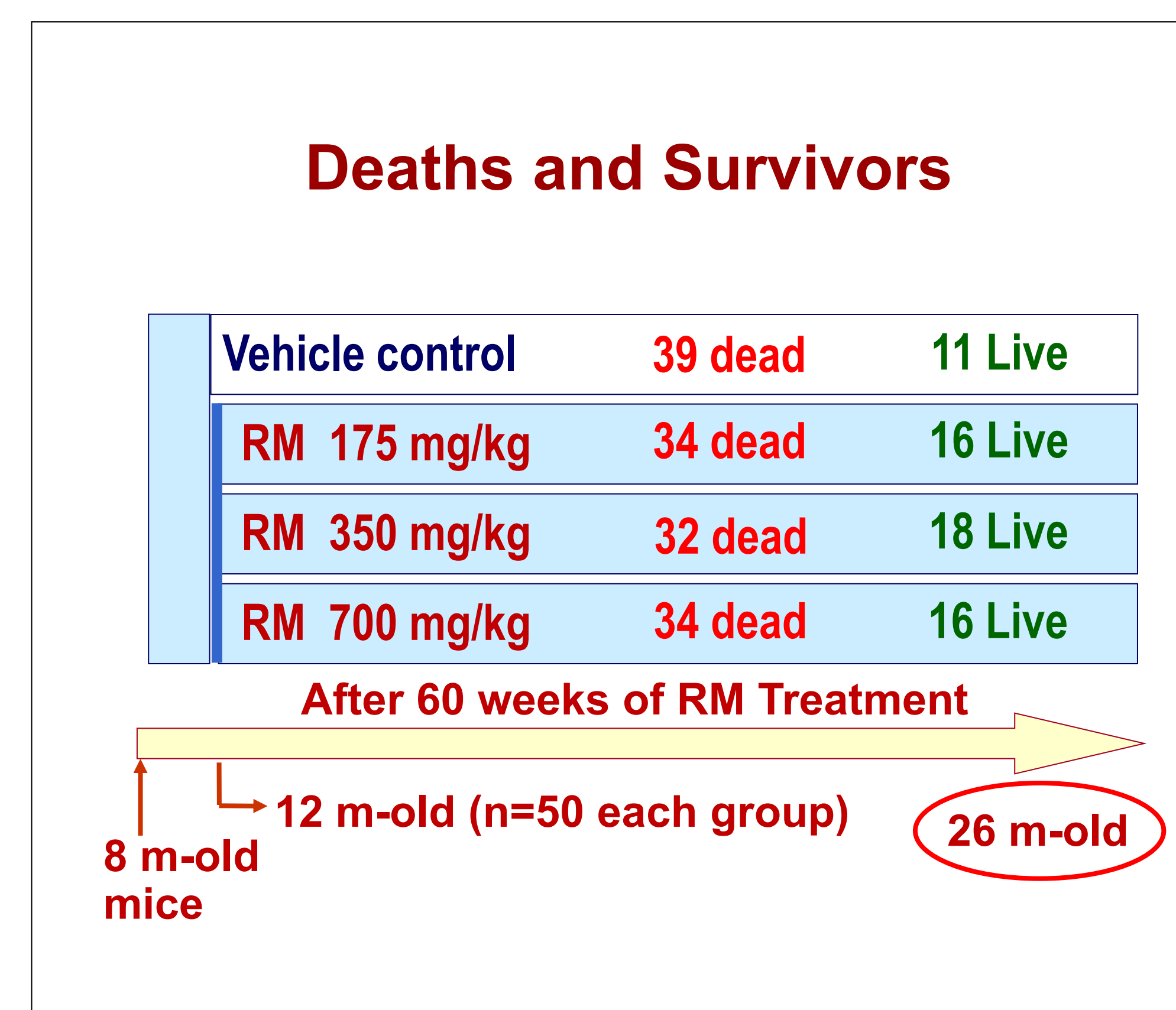
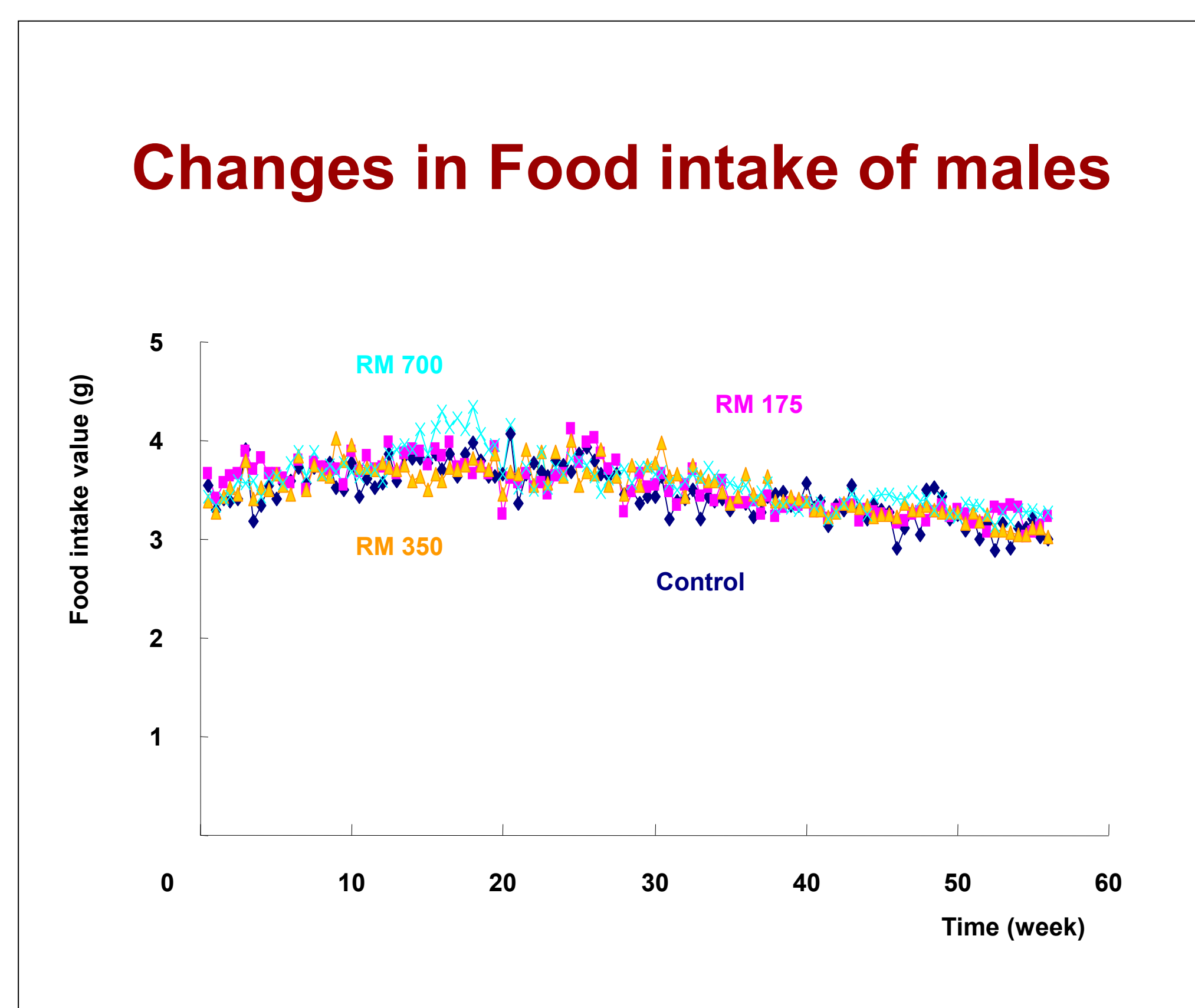
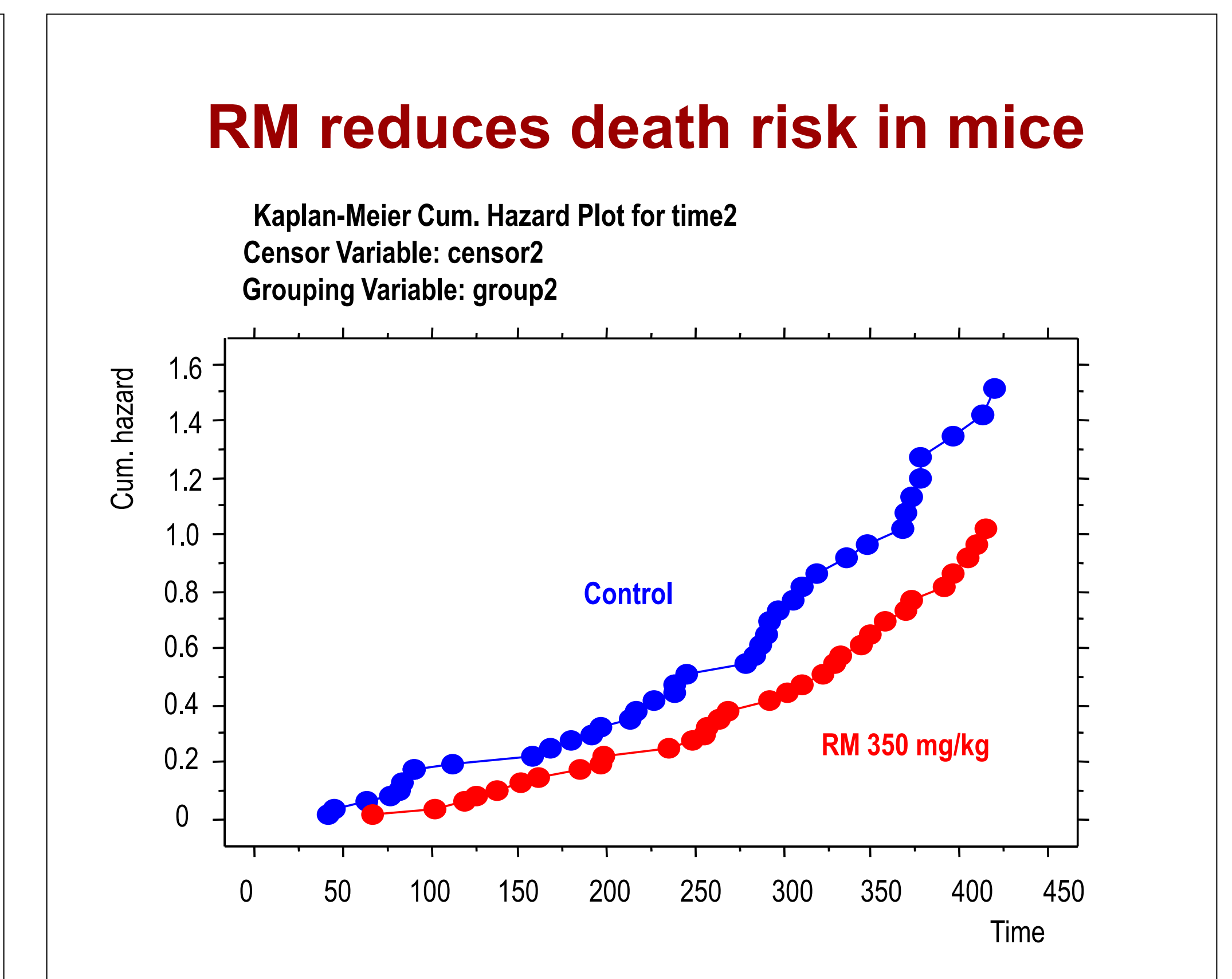
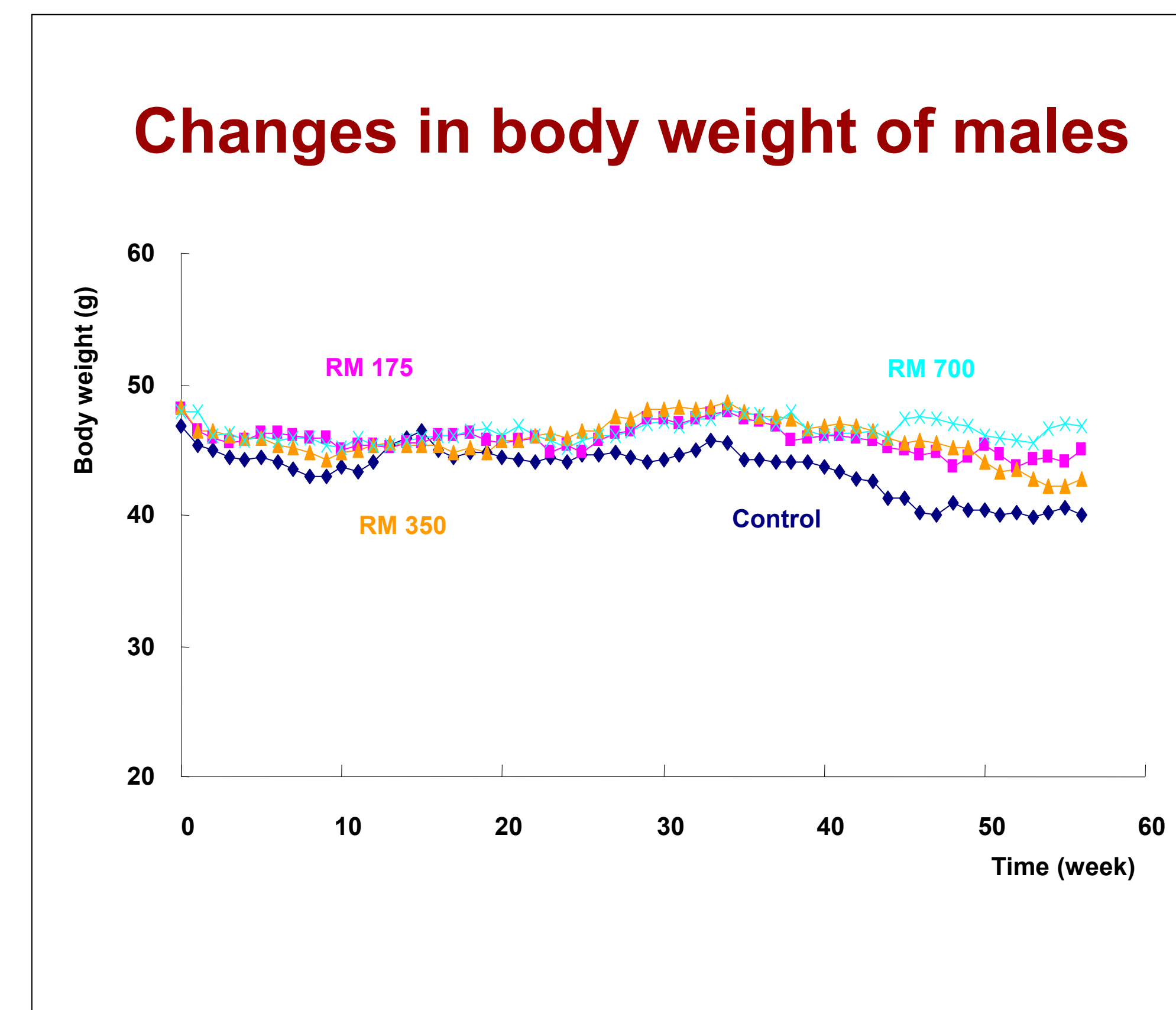
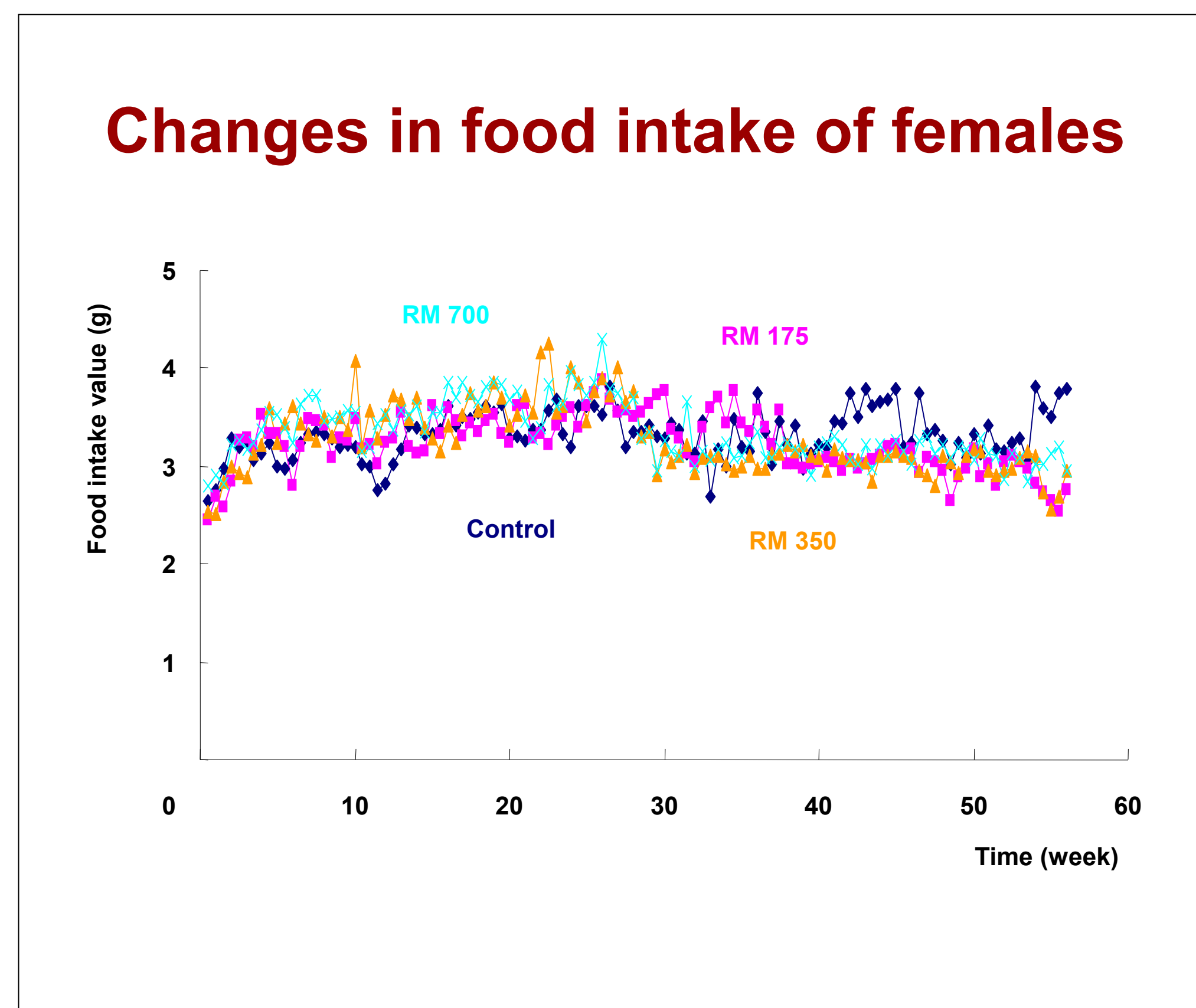
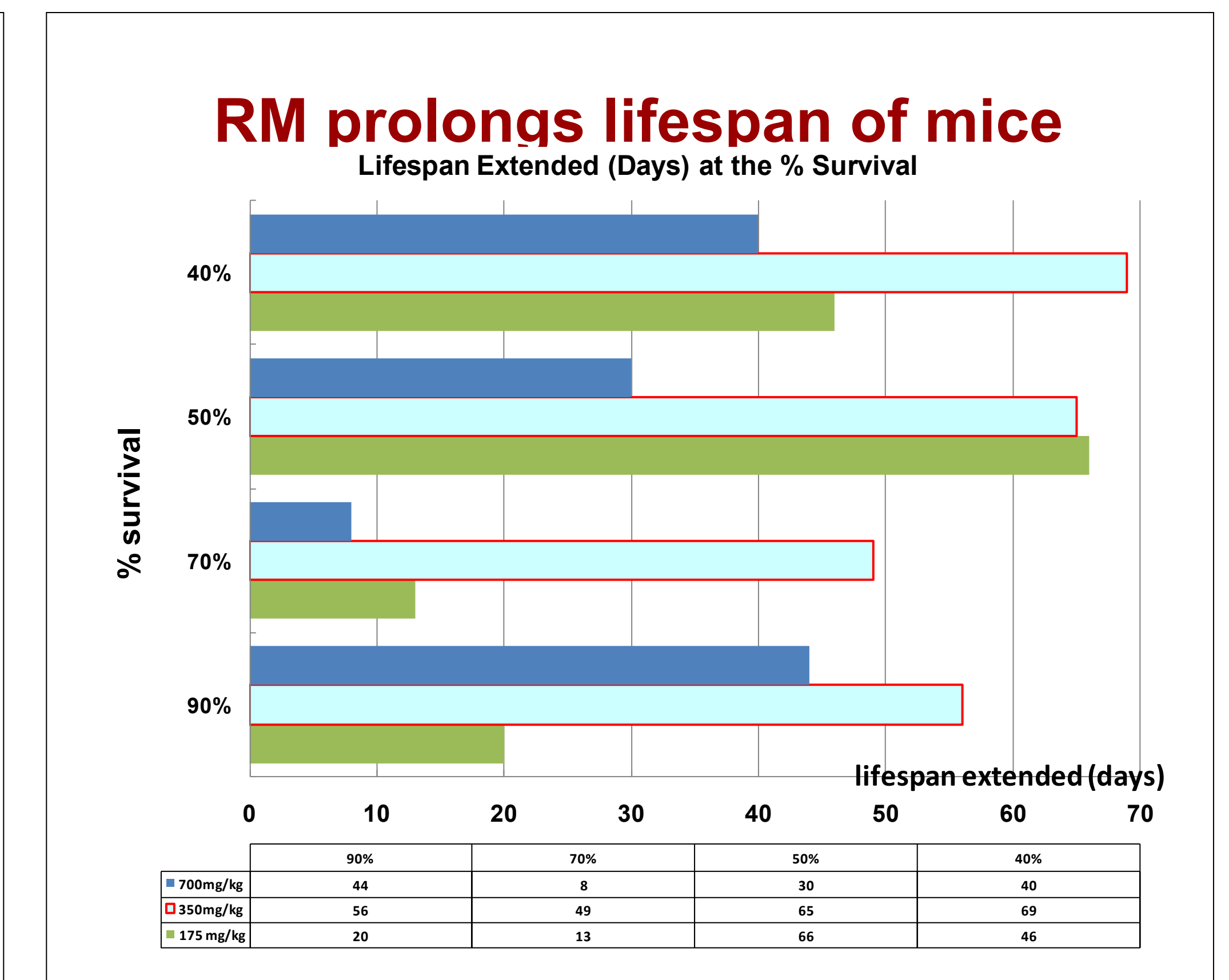
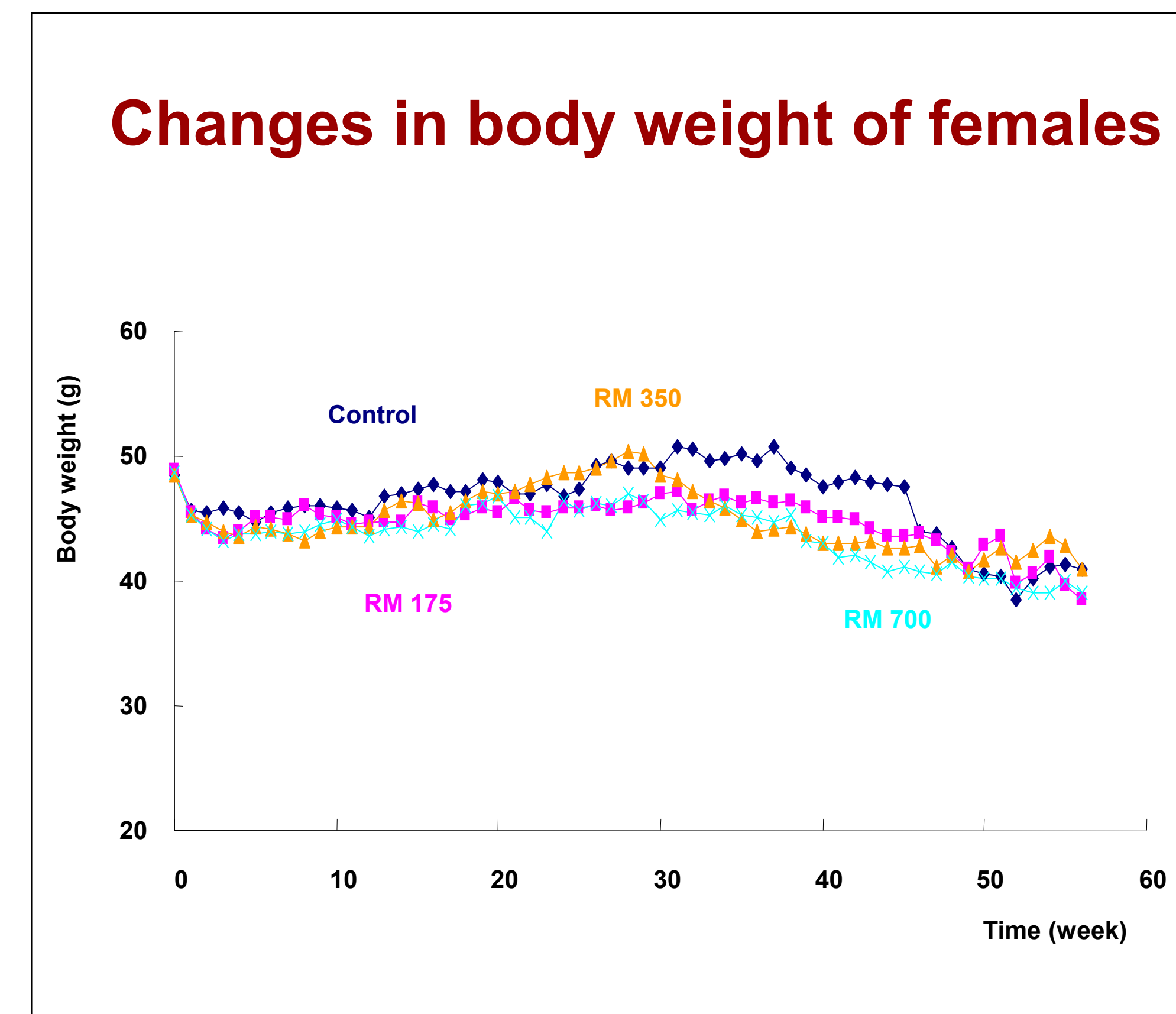
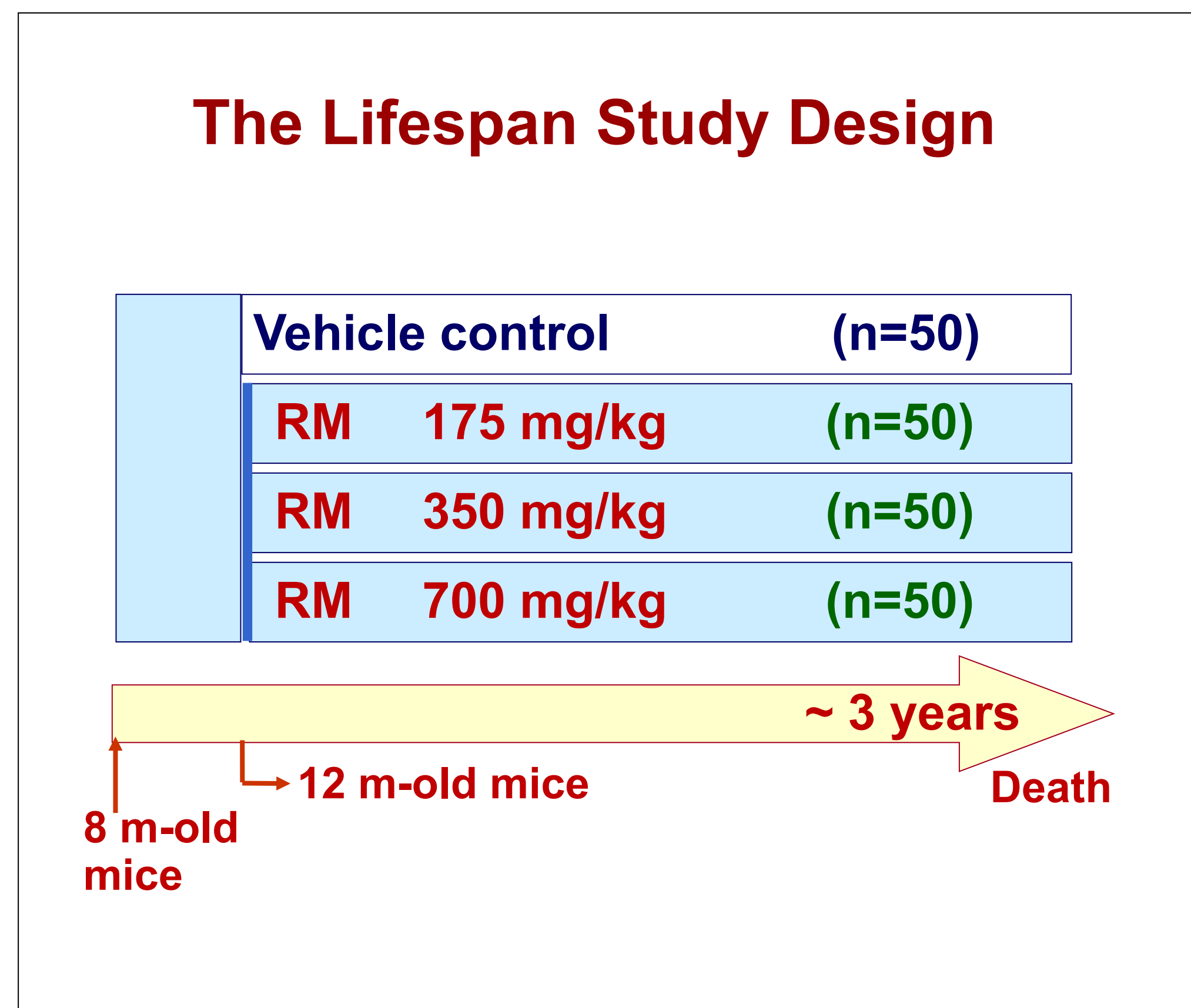
*Ganoderma lucidum* (Reishi) has long been used as a medicinal herb in China for immune modulation, cancer prevention and as an adjuvant therapy for cancer treatment.

ReishiMax (RM), a proprietary extract of Reishi, enriched in Reishi triterpenes and Reishi polysaccharides has shown immune modulation activities:

1. Promoting the proliferations of macrophages, B, T and NK lymphocytes
2. Increasing serum IgA, IgG, IgM
3. Increasing secretion of IL2 and Interferon
4. Decreasing IL5 secretion
5. Inhibiting cancer malignancy

(*J Nat Prod* 2002, 65:72; *Bioorg Med Chem* 2002, 10:1057; *FASEB J* 2007, 21:A1100; 2008, 22:1136.2; *Internat J Oncol.* 30:963, 2007; *Proceedings of 2008 Symp Chin Asso Med Mycol.* pp 165-171)

**The aim of this study is to examine the lifespan-extension effect of ReishiMax in normal ICR mice.**



## SUMMARY & CONCLUSION

1. Kaplan-Meier Cumuli Survivor Plot analysis shows extension of mouse lifespan and reduced death risks by supplementation of ReishiMax.
2. ReishiMax treatment at the medium dose (equivalent to the human dose) appears to show the best survivor curve thus far.
3. The preliminary results from this study indicate that ReishiMax extends the lifespan of mice, while the experiment is still ongoing.