



Induction of CD4+CD25+Foxp3+ regulatory T cells by oral administration of IgG-enhanced colostrum suppressed the chronic inflammation state in ob/ob mice alleviating insulin resistance and liver injury



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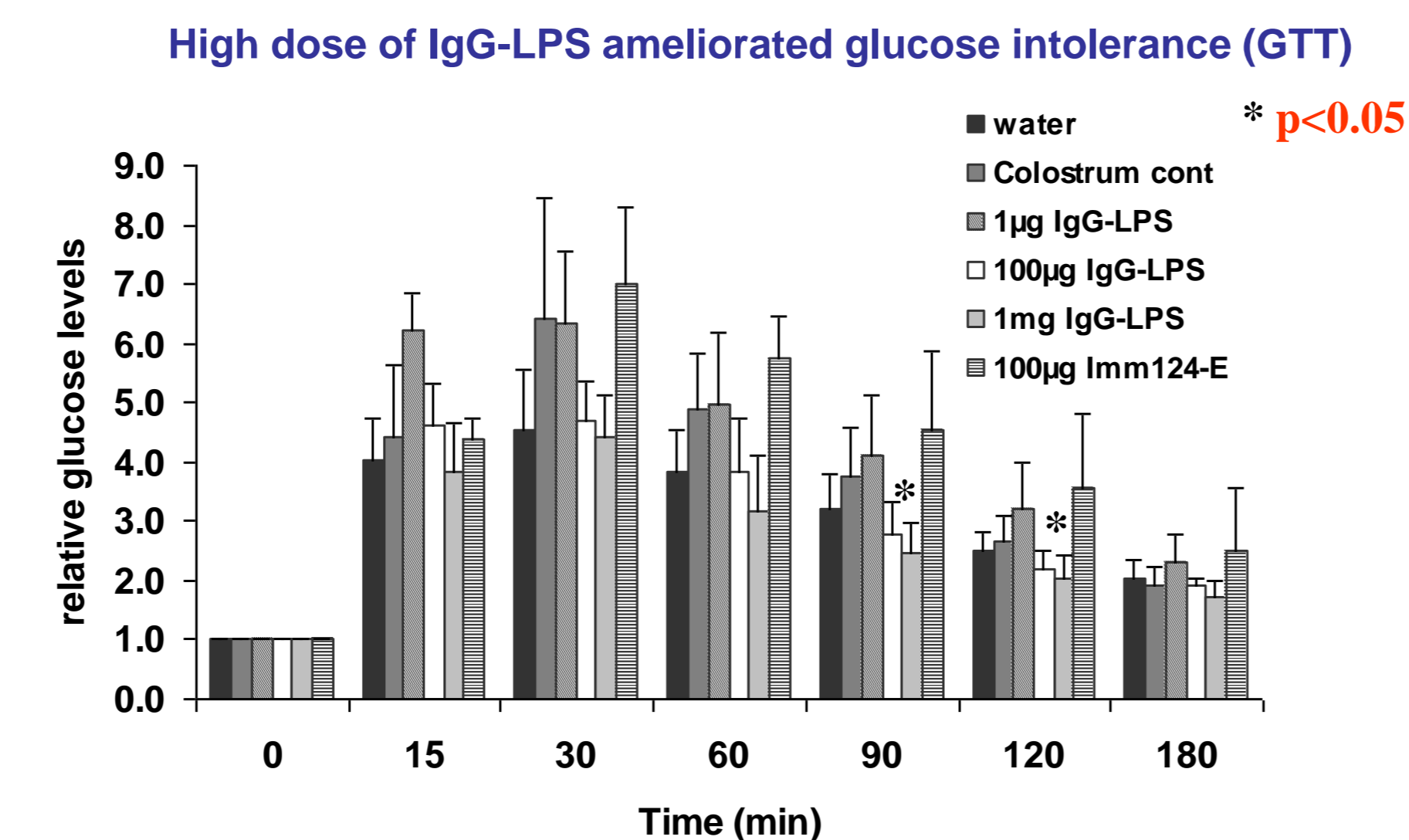
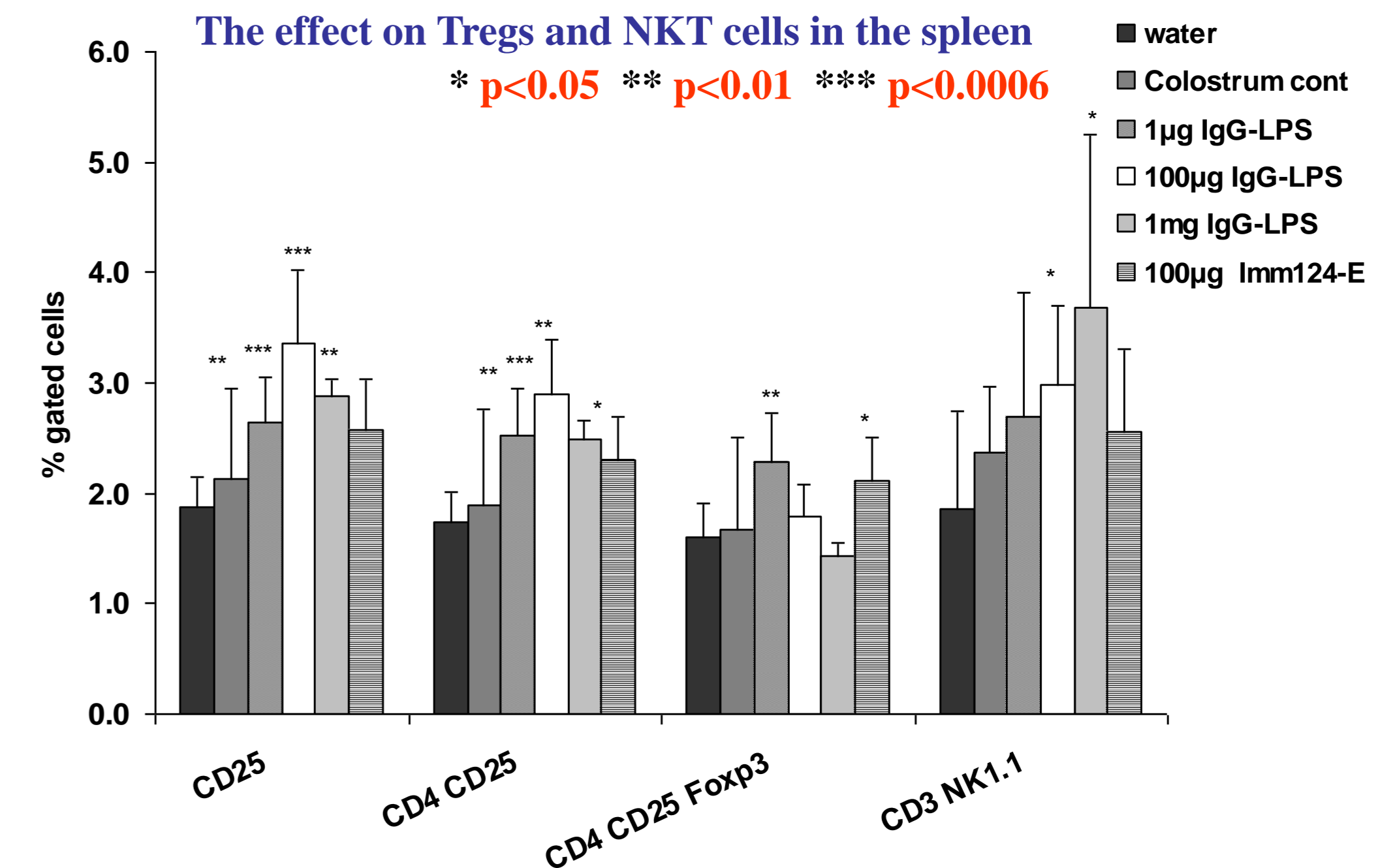
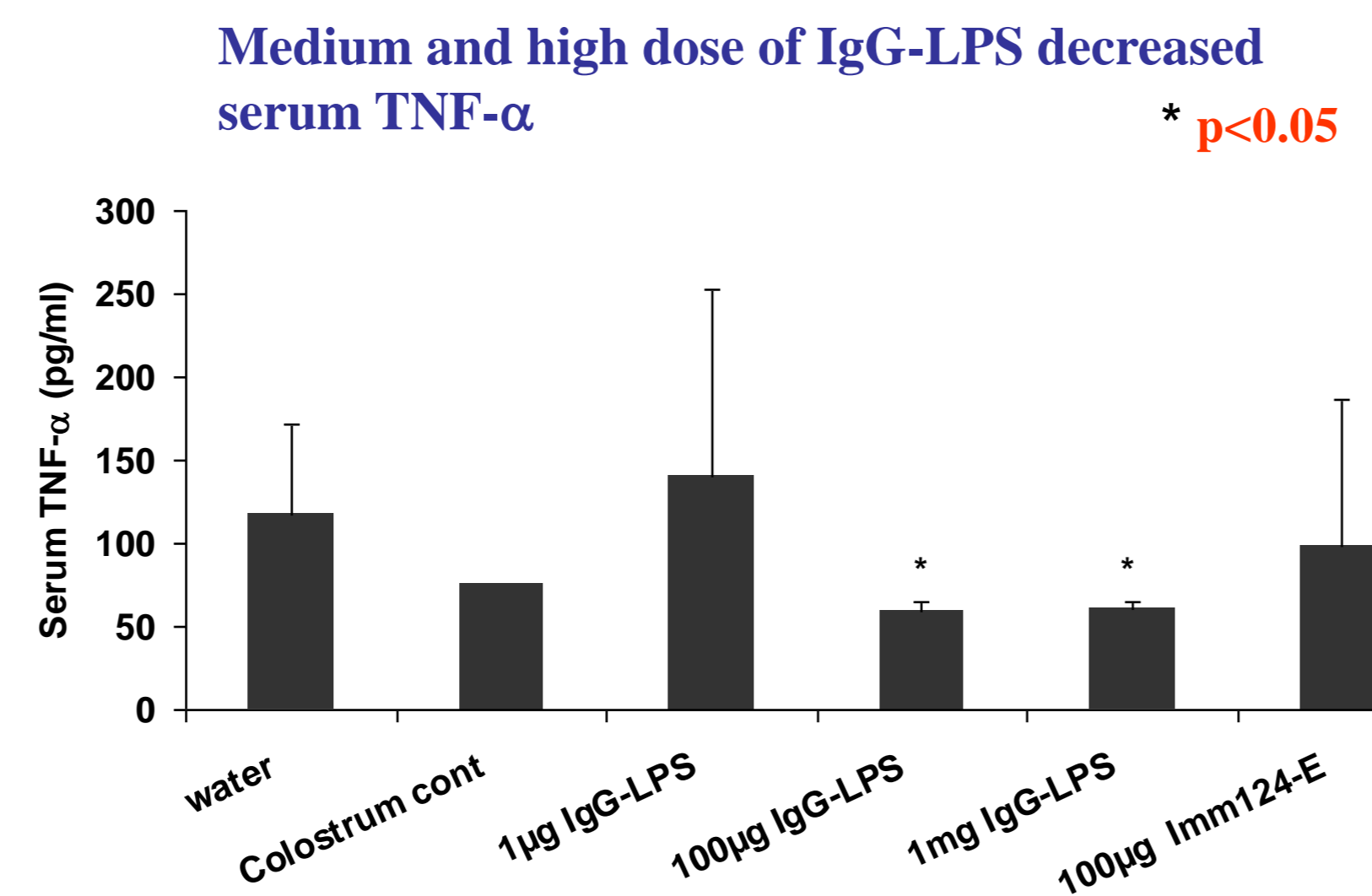
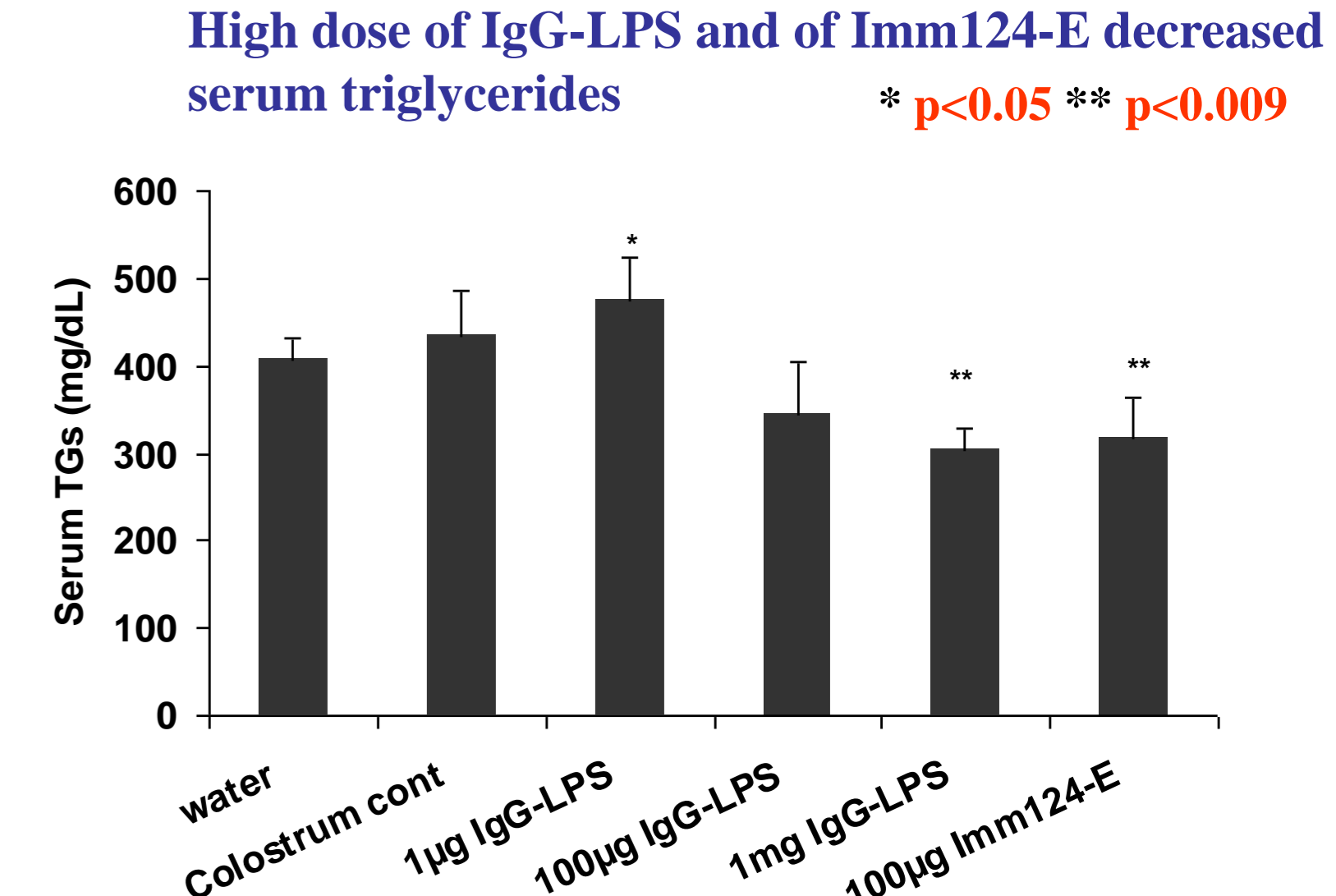
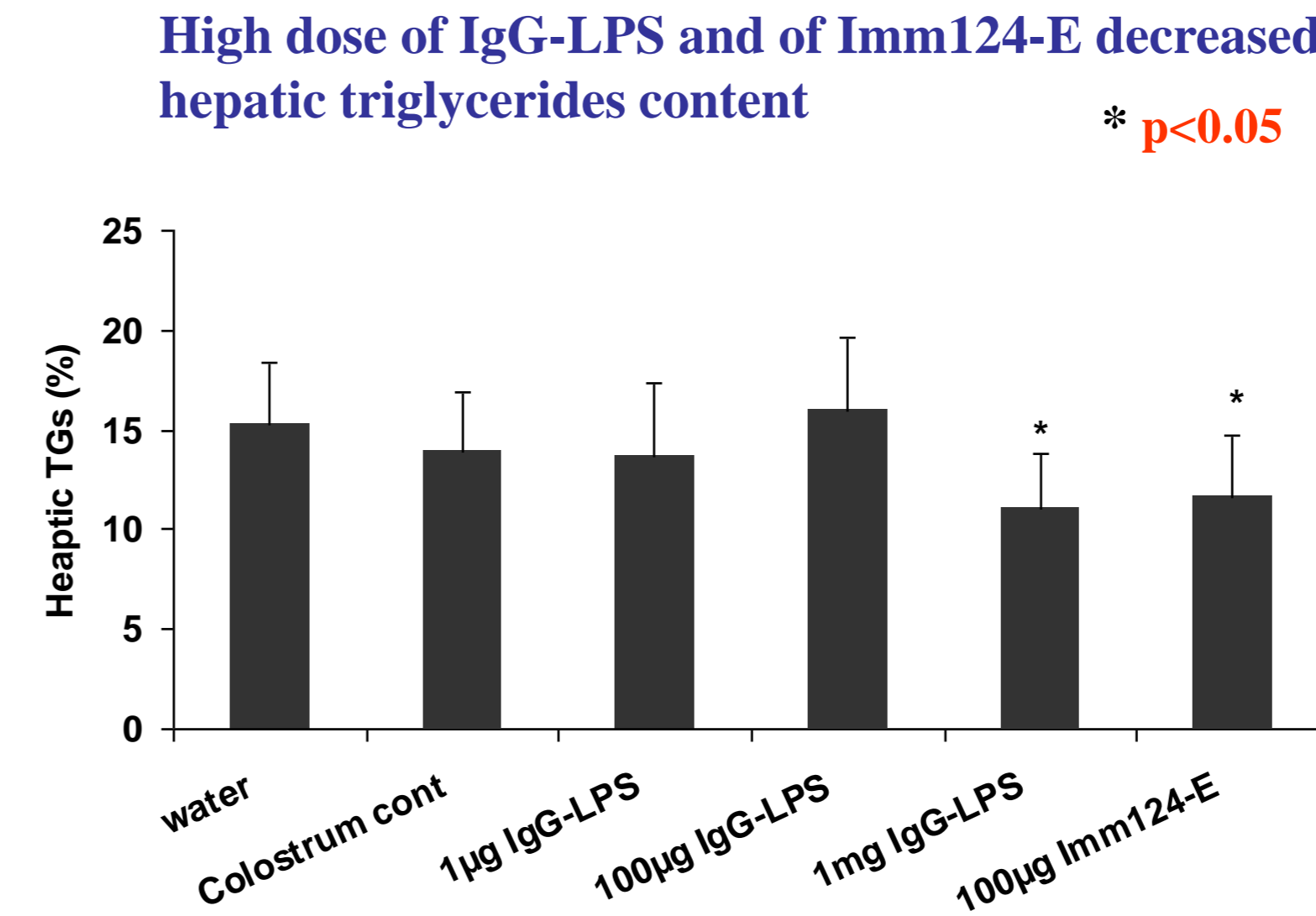
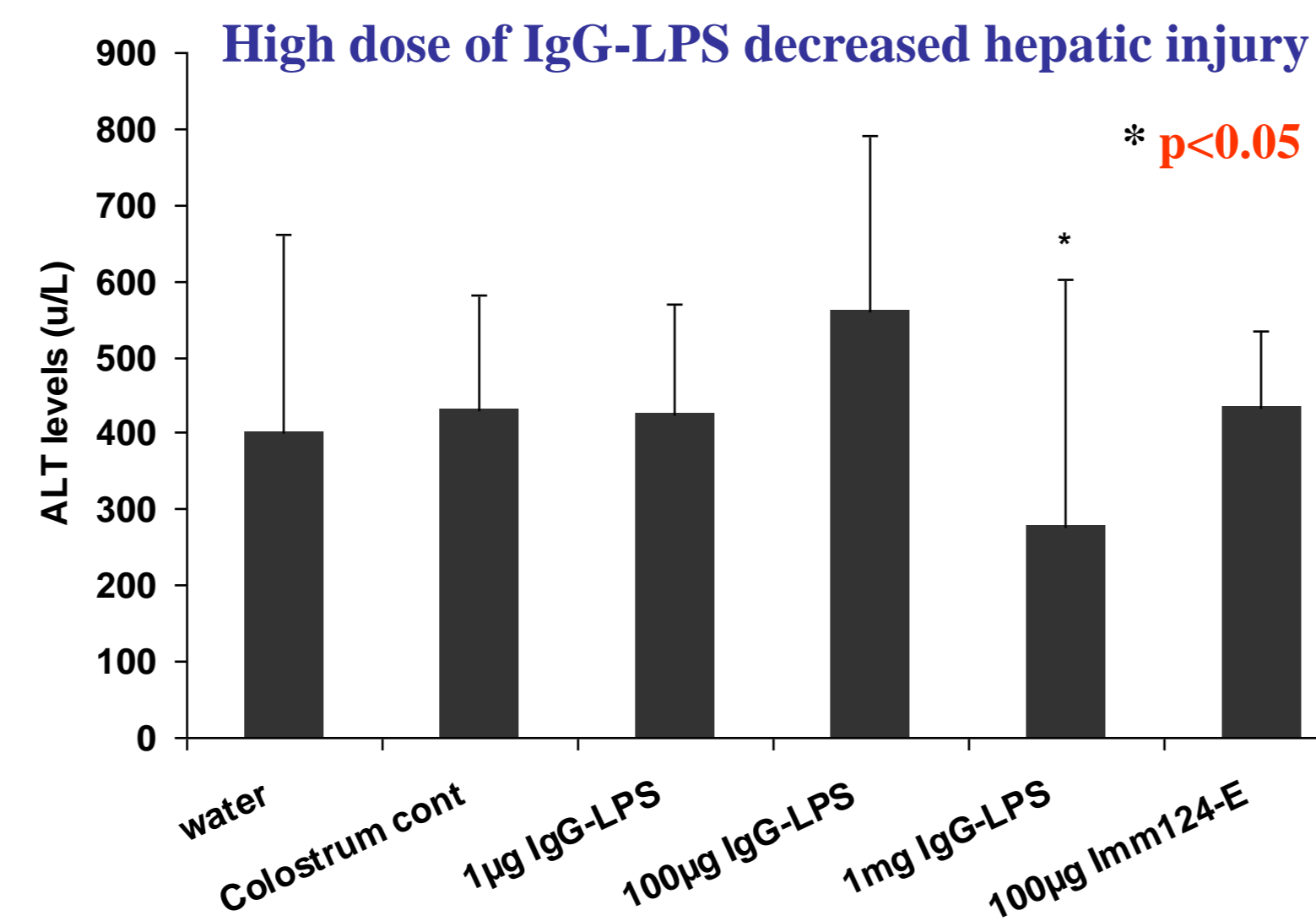
INTRODUCTION

- Insulin resistance and the metabolic syndrome are proinflammatory conditions, associated with liver injury (NASH).
- T regulatory cells (Tregs) were found to alleviate pathological and metabolic abnormalities accompanying NASH
- Bovine colostrum (BC) is the milk that is secreted during the first hours following birth.
- BC may also serve as an easy and safe method for generating antigen-specific antibodies and as a source of immune adjuvants, both of which can promote Tregs.
- This study aimed to assess the effects of hyperimmune bovine colostrum (BC) on the induction of Tregs associated with liver injury and insulin resistance.

METHODS

- *ob/ob* mice were fed for 6 weeks with Imm124-E (BC derived from cows that were immunized with LPS) or with IgG-LPS (purified enhanced fraction prepared from Imm124-E). Another group of mice (colostrum control) was treated with BC which was prepared from non immunized cows.
- Flow cytometry was used to determine alterations in Tregs.
- Mice were followed for liver enzymes, glucose levels, glucose tolerance test (GTT), hepatic and serum triglycerides (TGs) levels.

RESULTS



CONCLUSIONS

- Oral administration of Imm124-E and of IgG- enhanced fraction of LPS colostrum, induced Tregs and alleviated insulin resistance and serum and hepatic TGs.

DISCLOSURE

* Medical Director of Immuron.

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