

RELATION OF THE REACTIVE OXYGEN SPECIES IN SEMINAL PLASMA WITH BOAR SPERM FREEZABILITY

J. Gómez-Fernández¹, C. Tomás², E. Gómez-Izquierdo¹, E. de Mercado¹

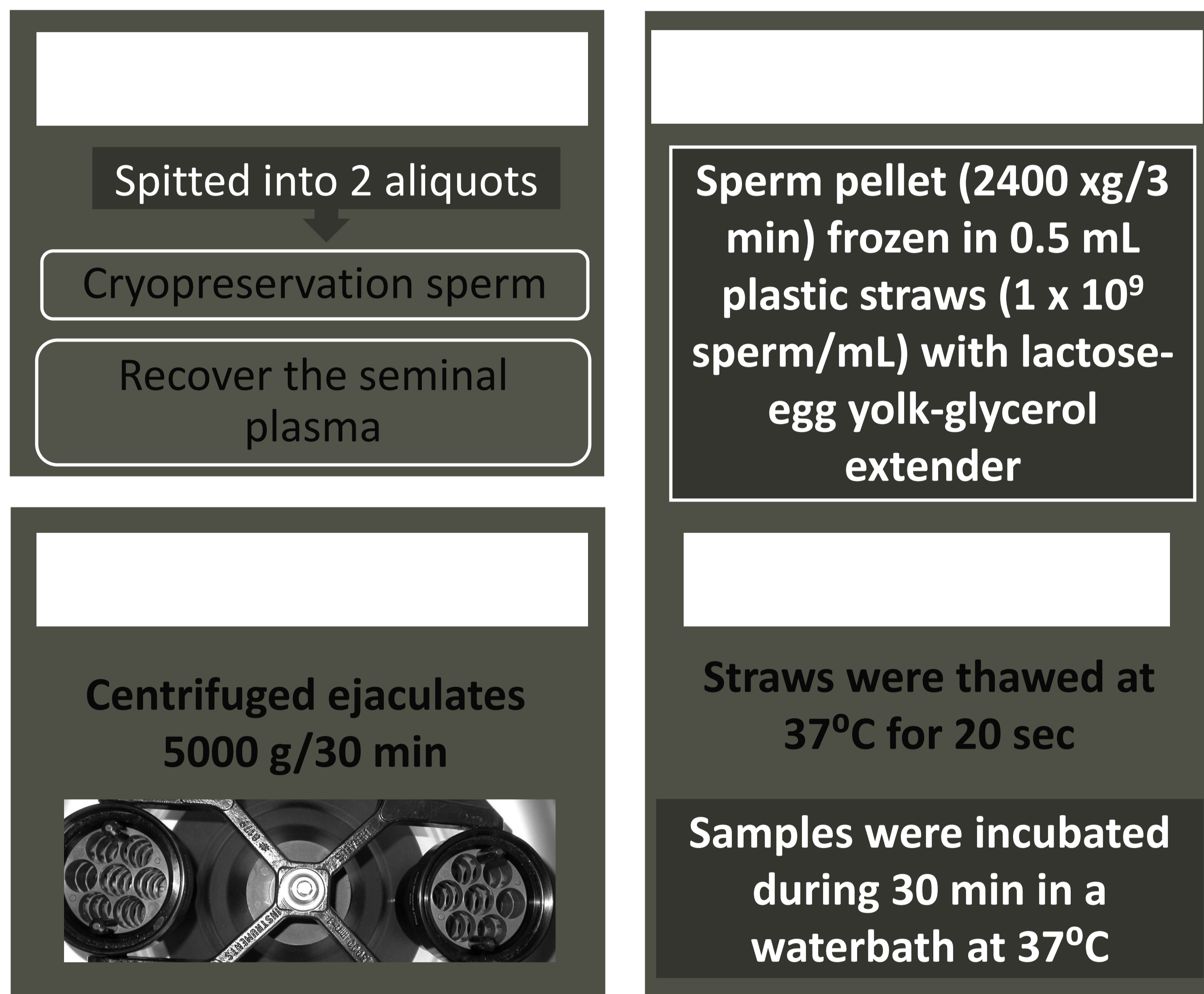
¹ Centro de Pruebas de Porcino, ITACyL. Hontalbilla (Segovia). Spain.

² CITA-IVIA. Segorbe (Castellón). Spain

Introduction

Boar sperm have a high content of polyunsaturated fatty acids which are susceptible to lipid peroxidation in the presence of the reactive oxygen species (ROS). Furthermore it is known that incubation of sperm with the seminal plasma (SP) has an important role in future resistance to the process of cryopreservation.

Material and Methods



The ROS in Seminal Plasma was analyzed by spectrophotometry using PeroxiDetect™ Kit (Sigma, USA)



Sperm samples were analyzed at 30 minutes after thawing

ISAS® (Proiser, Spain)



2 groups were determined by their resistance to the freezing process

Flow cytometry



% Total motile sperm

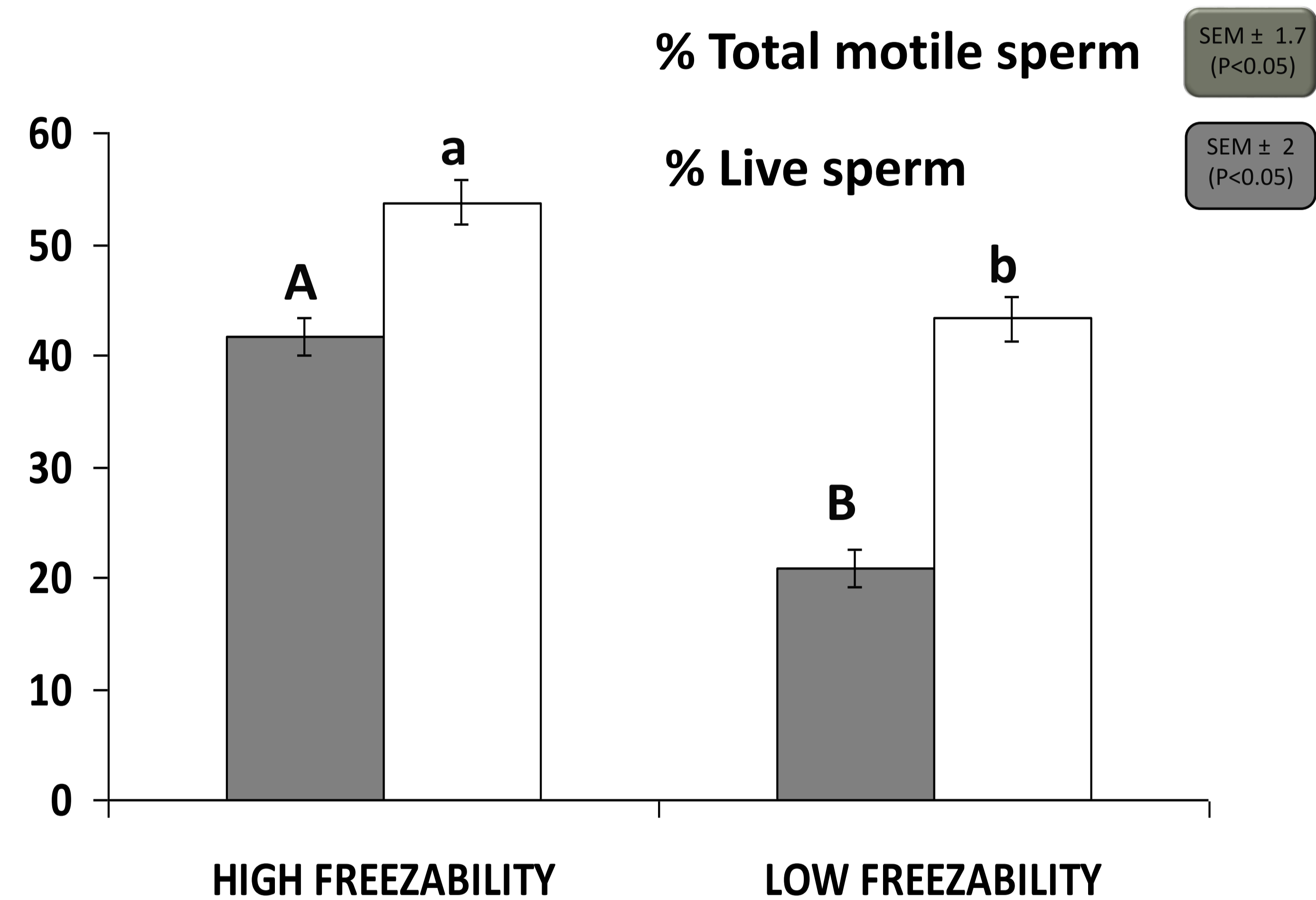
% Live sperm

Aims

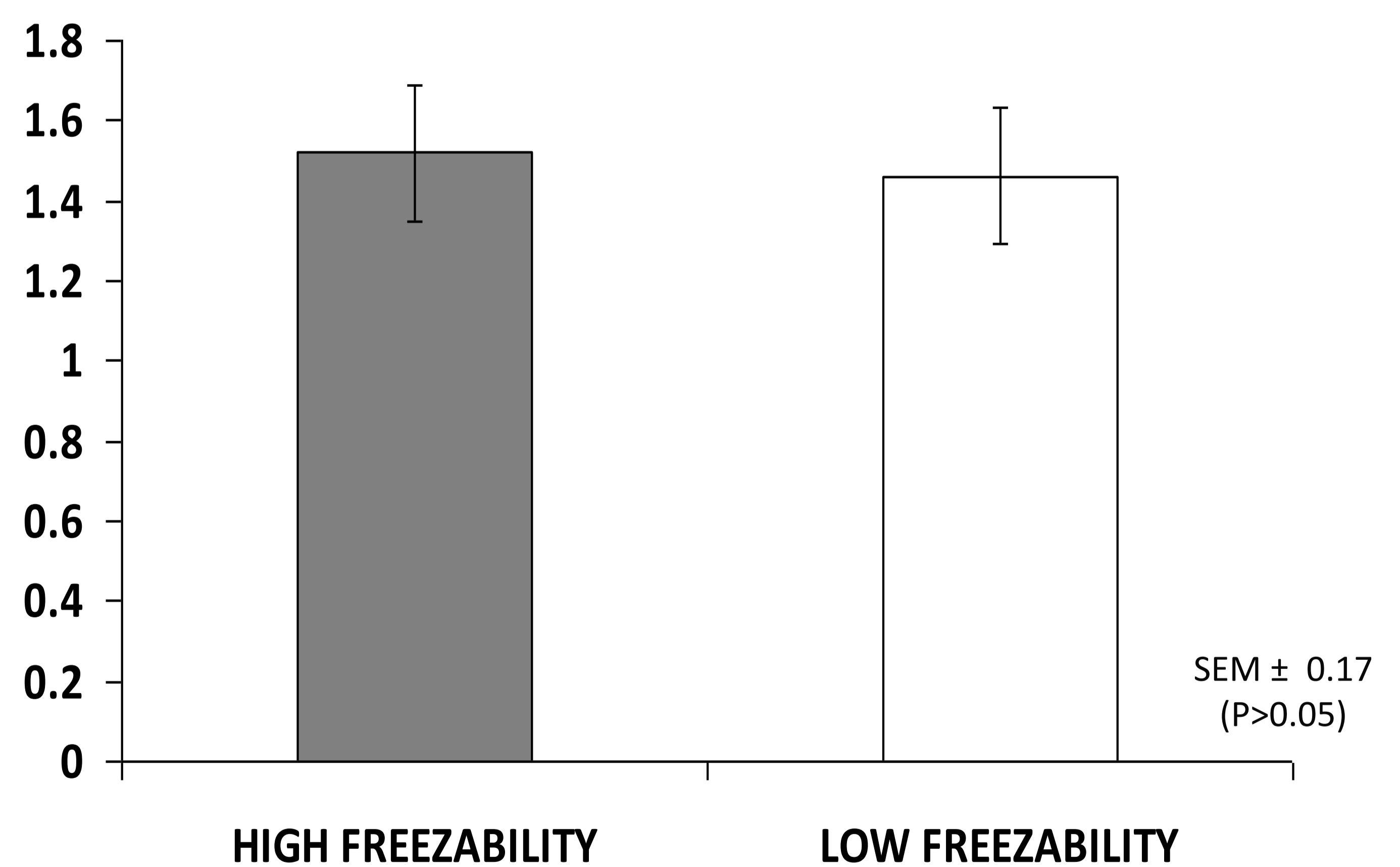
The aim of this study was to determine the possible relationship between levels of ROS in Seminal Plasma with the freezability of boar sperm

Results

Sperm quality of groups of freezability



Amount of ROS in the seminal plasma (nmol/mL)



The results showed that there are not differences between freezability groups in the amount of ROS in their seminal plasma

Conclusion

ROS levels in seminal plasma seem not affecting the future freezability of boar sperm