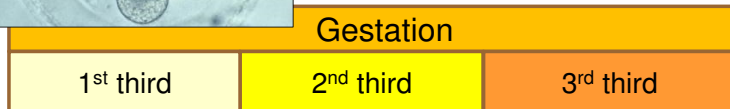


# Passive transfer of dam immunoglobulins to calf in two beef breeds undernourished in early pregnancy



## Subnutrition during gestation



- ▶ Foetal programming
- ▶ Embryo cell differentiation
- ▶ Tissue composition

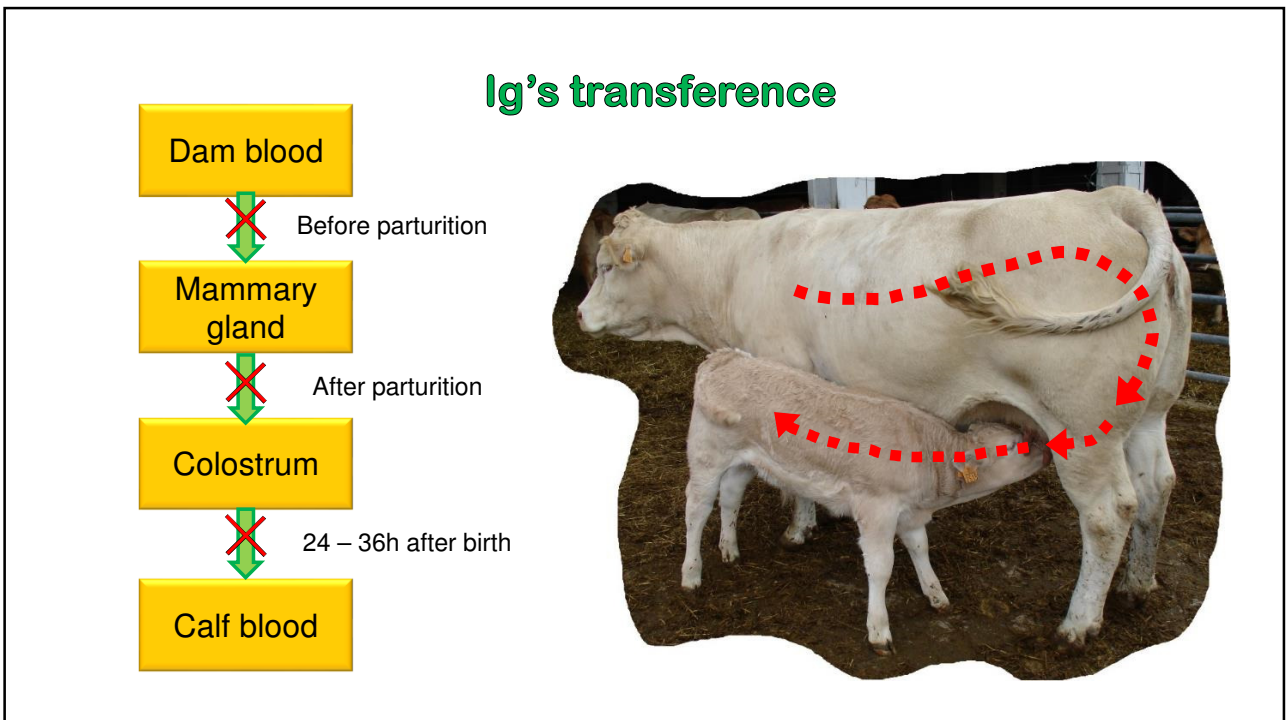
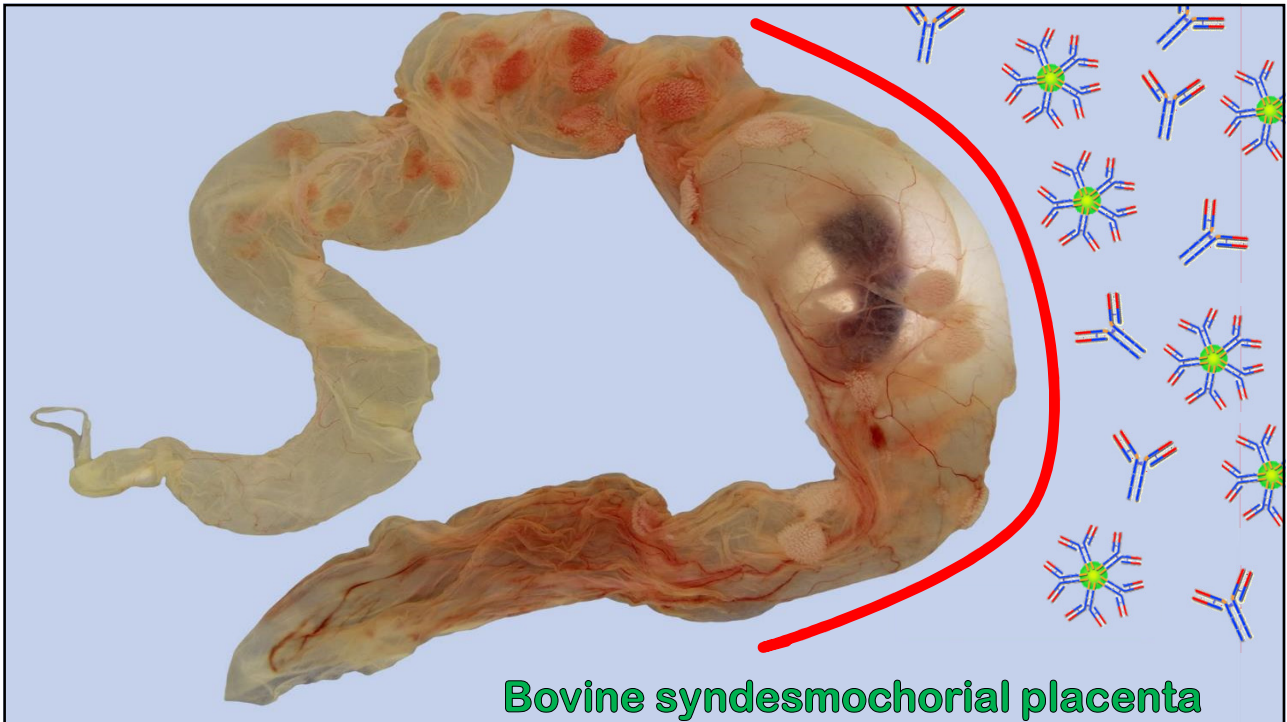
- ▶ Mammary gland
- ▶ Colostrum yield



## Maternal subnutrition



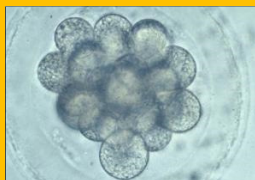






## Objective

**Undernutrition  
1<sup>st</sup> third  
gestation**



**Dam  
Ig G – Ig M**



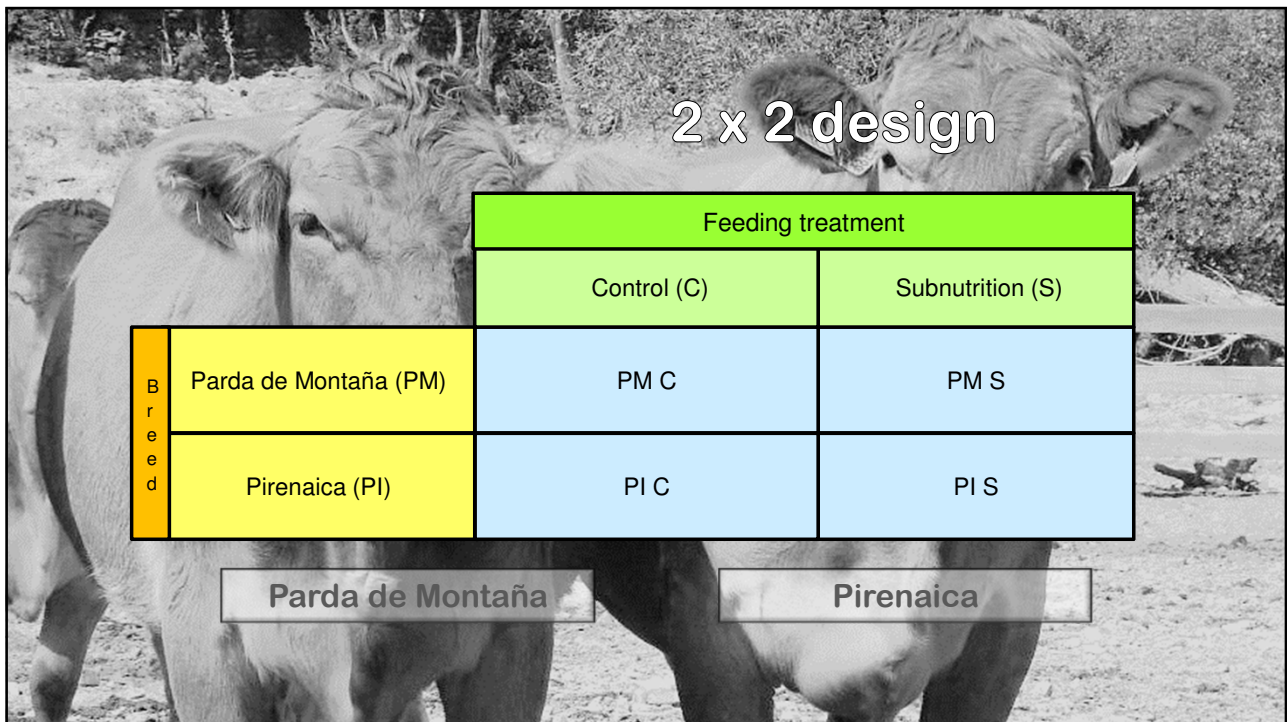
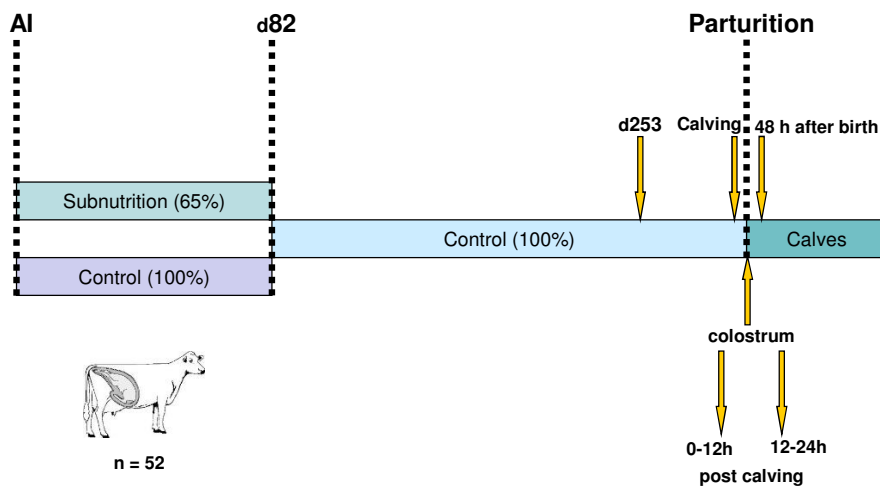
**Colostrum  
Ig G – Ig M**



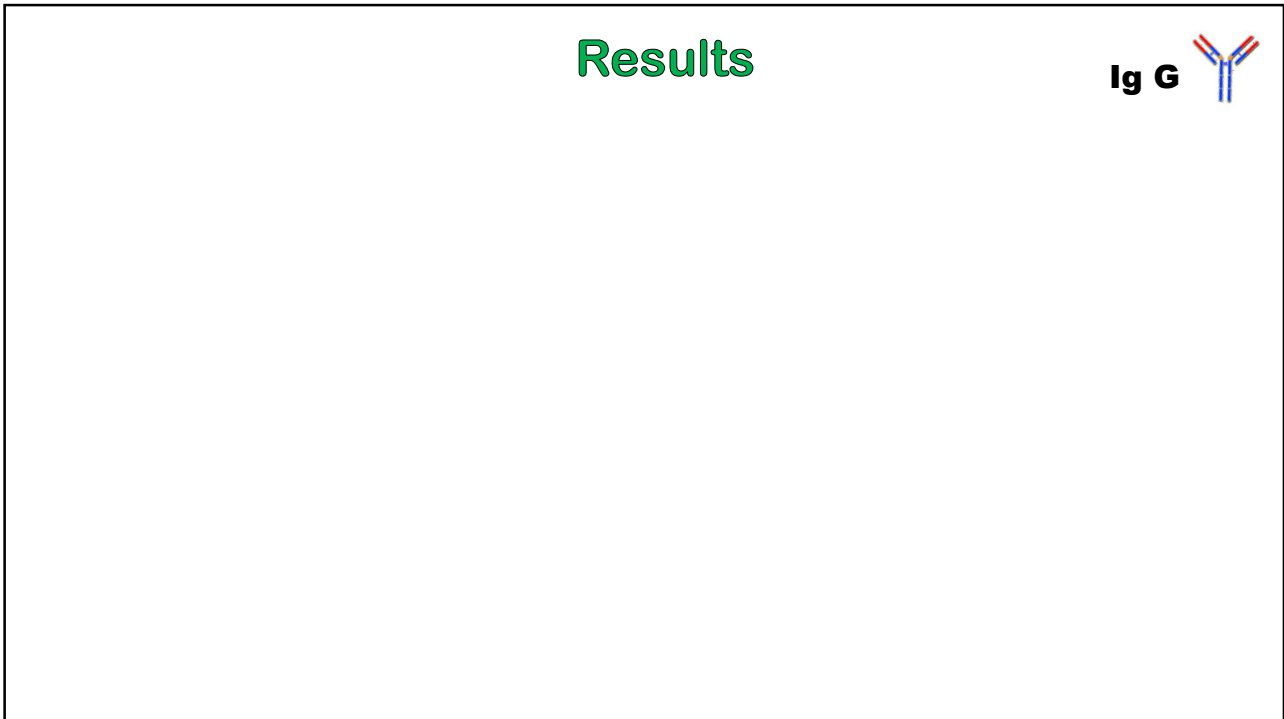
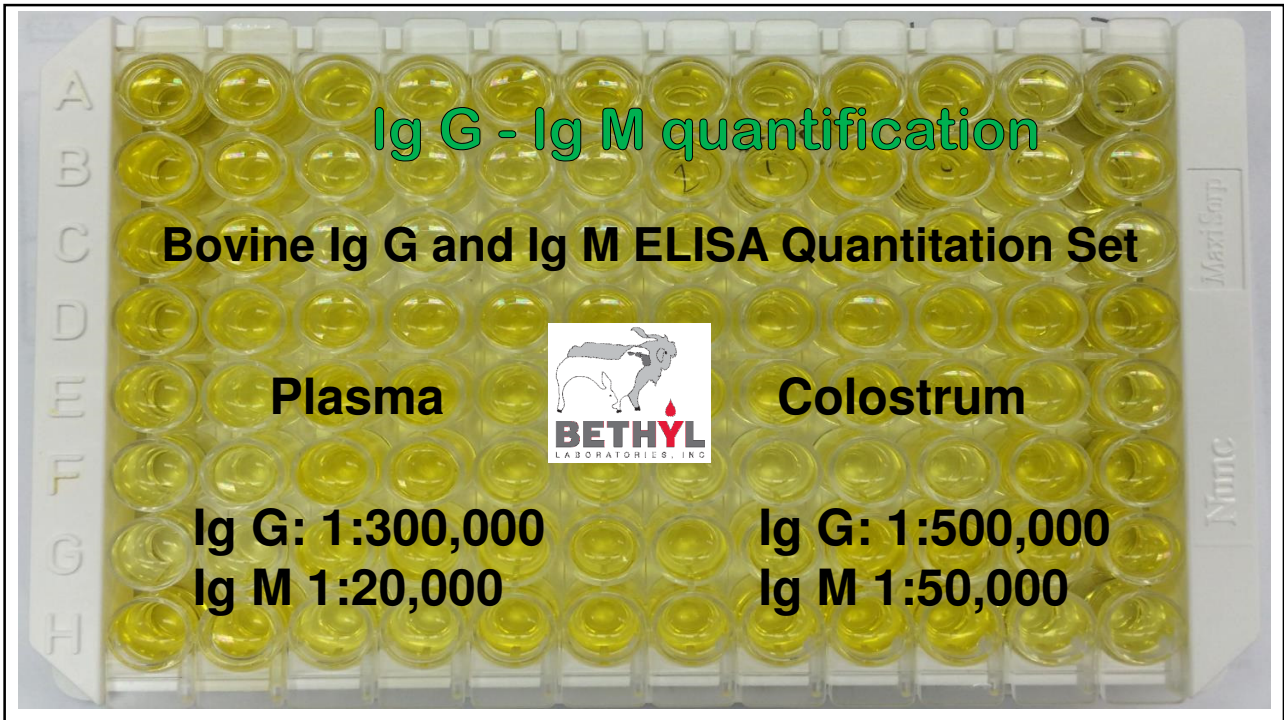
**Calves  
Ig G – Ig M**



## Methodology

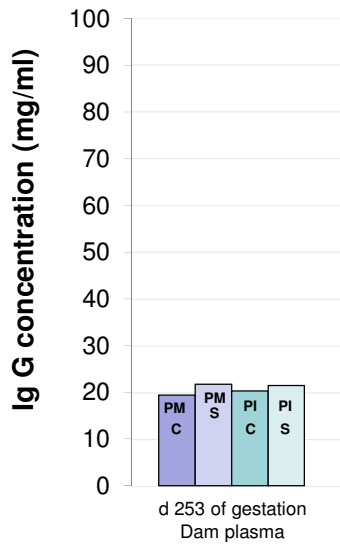






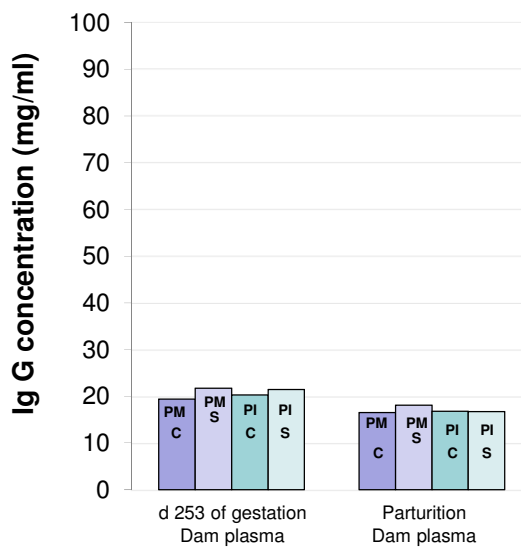
## Results

Ig G 



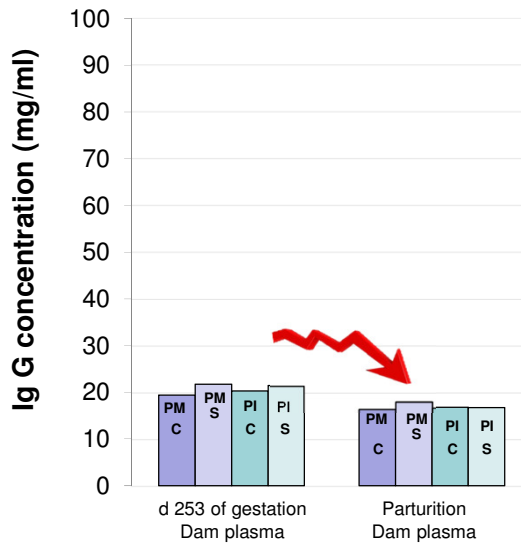
## Results

Ig G 



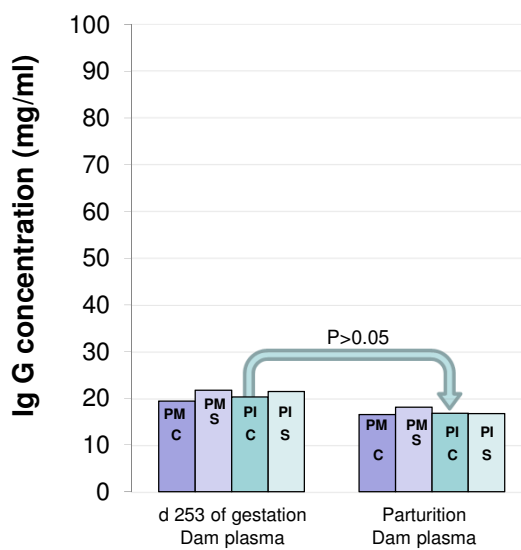
## Results

Ig G 



## Results

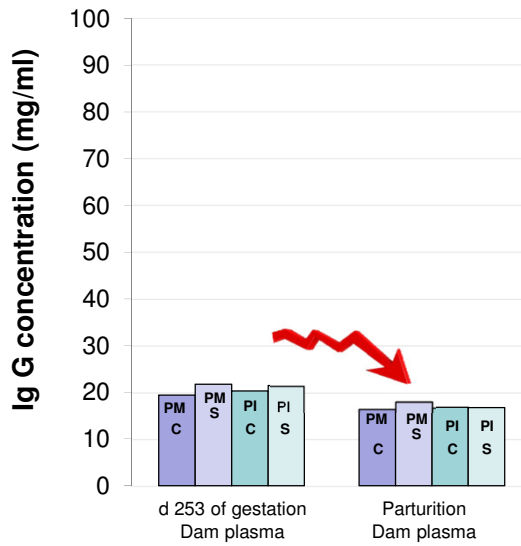
Ig G 





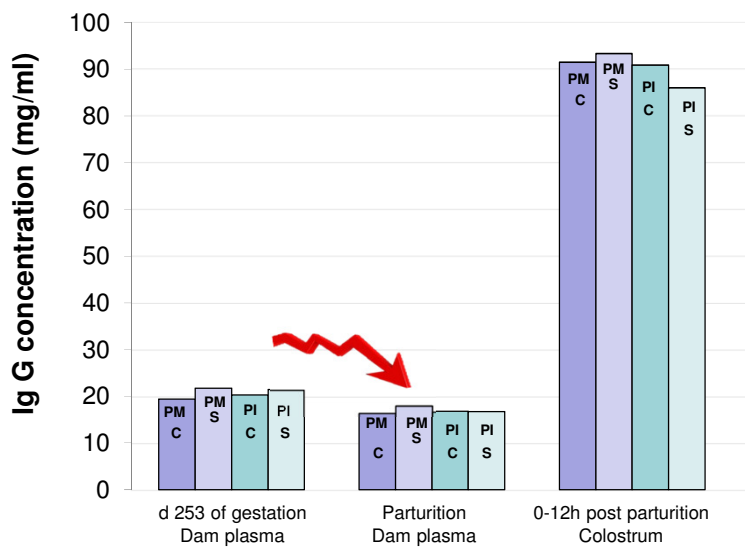
## Results

Ig G 



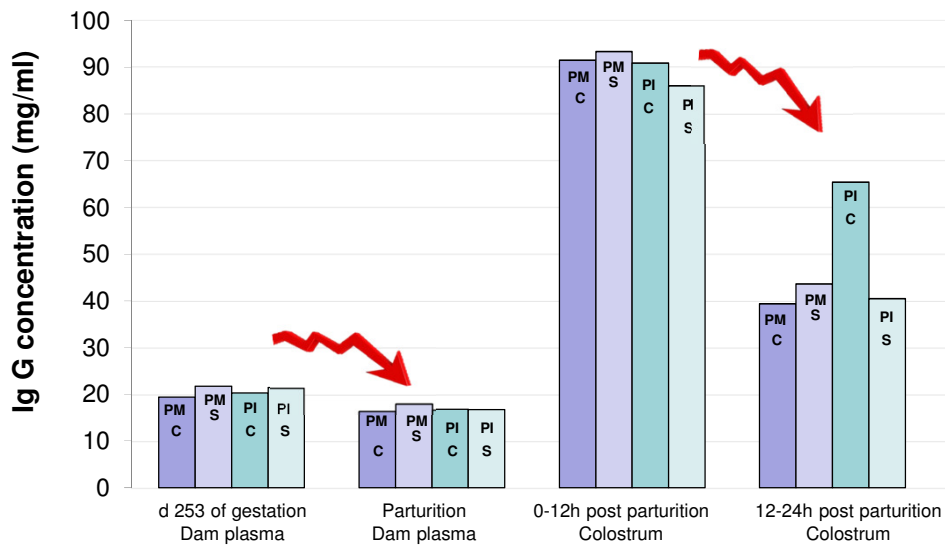
## Results

Ig G 



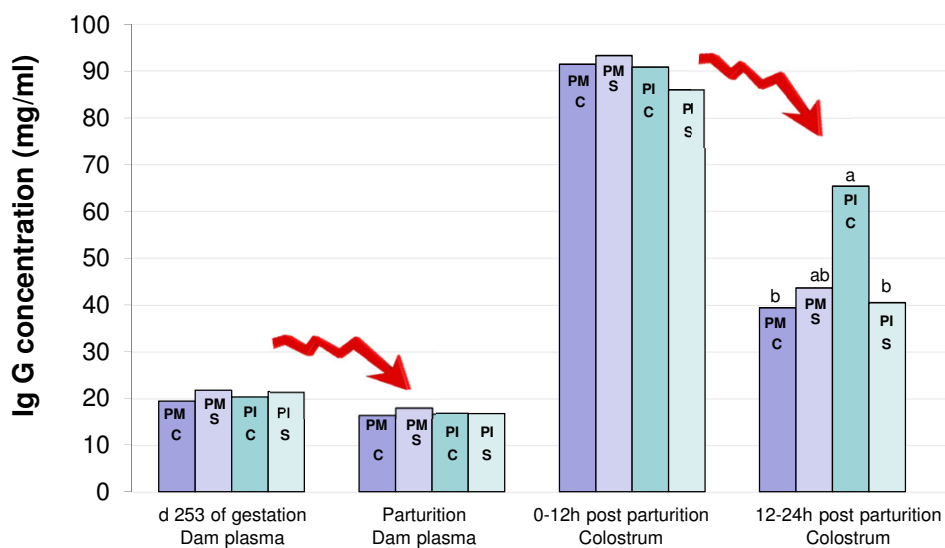
## Results

Ig G 

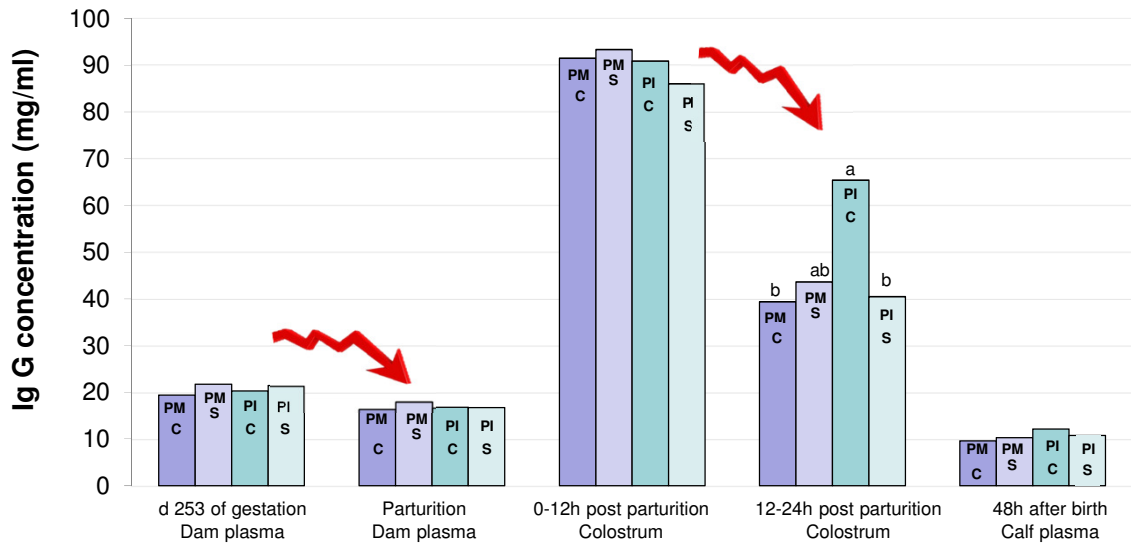


## Results

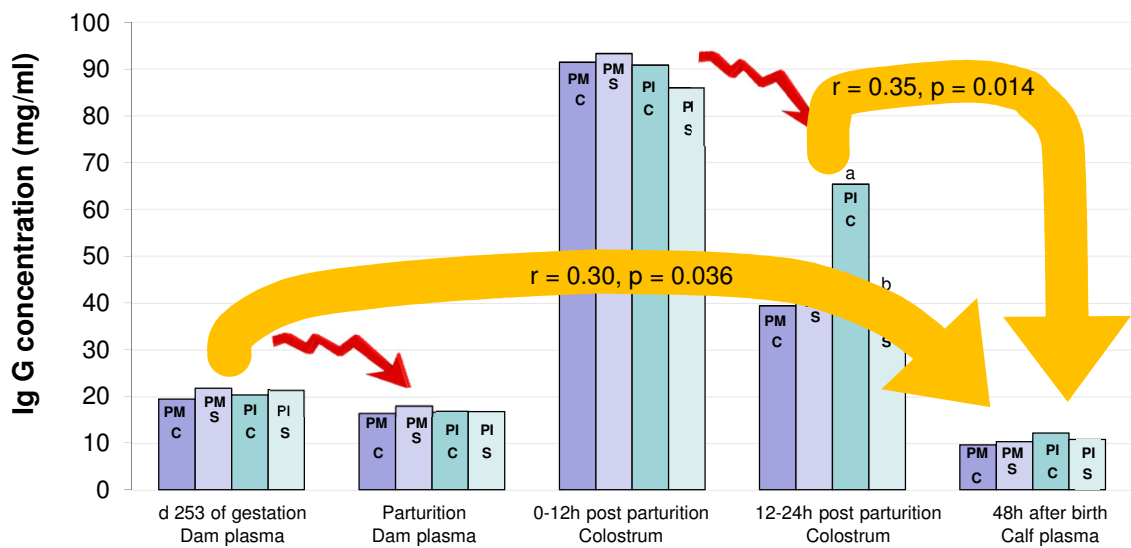
Ig G 



## Results

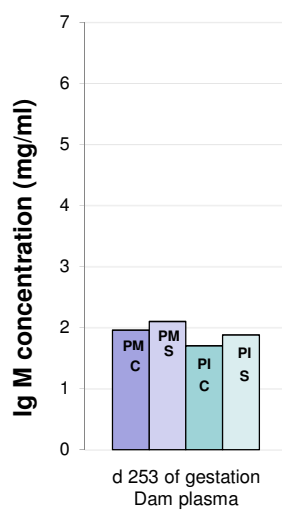
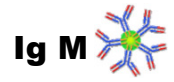


## Results

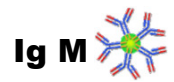




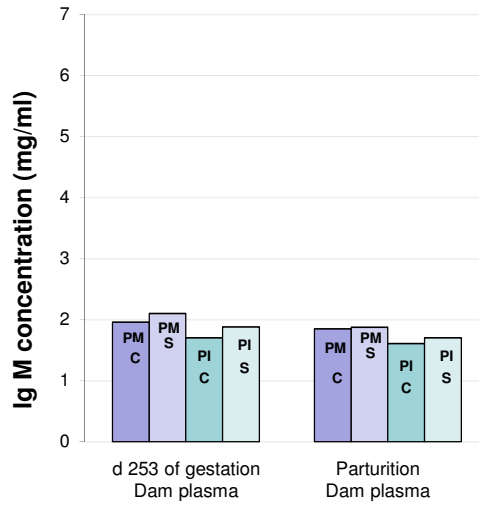
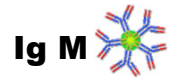
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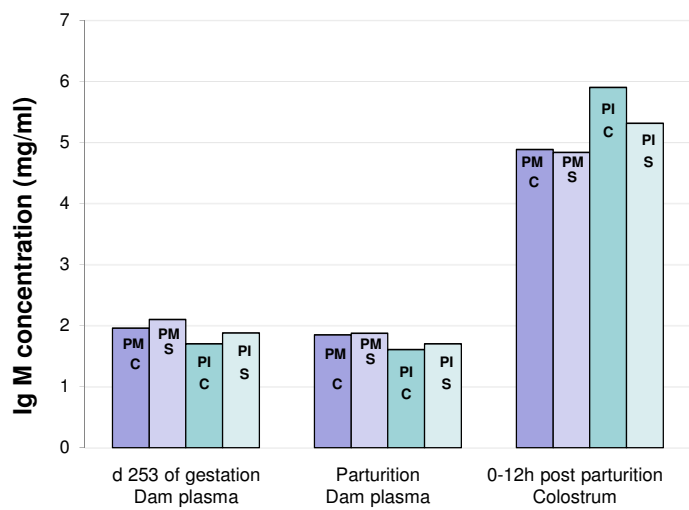
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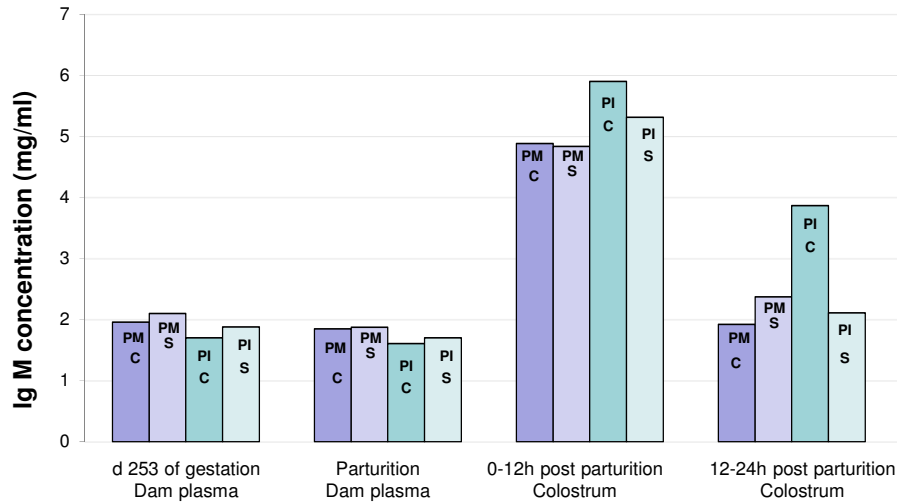
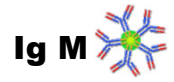
# Results



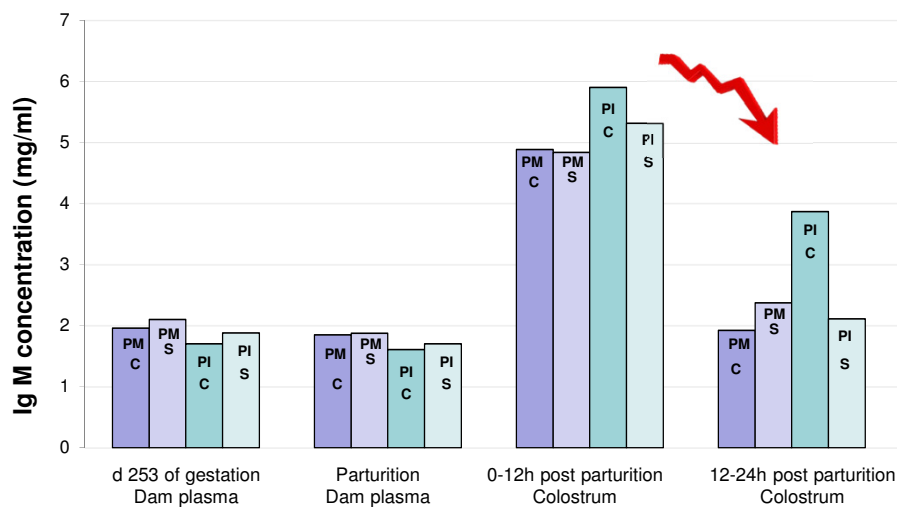
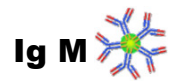
# Results



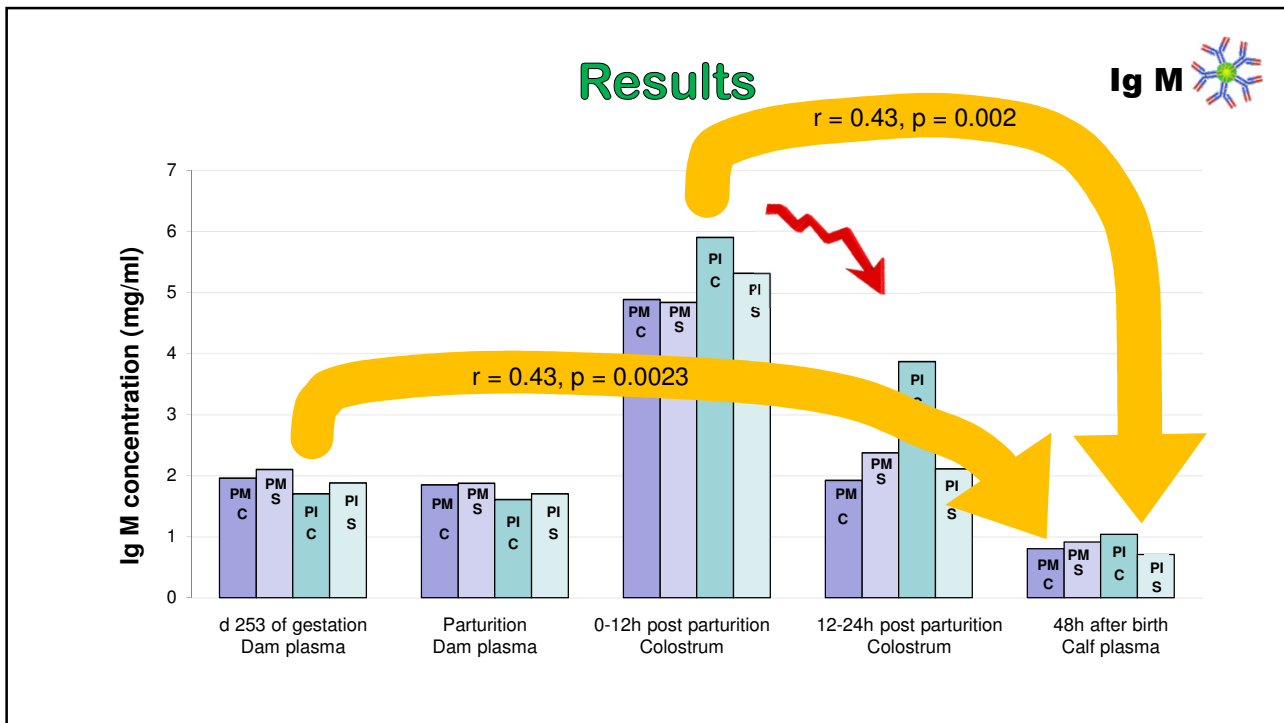
# Results



# Results







## Conclusions

Dam plasma immunoglobulins were transferred into the colostrum, diminishing Ig G plasma concentrations from the 8<sup>th</sup> month of gestation to parturition.

Colostrum samples presented a significant reduction in Ig G and Ig M concentrations over time, highlighting the importance of ensuring the calf colostrum intake during the first hours after birth.

No breed or nutritional effects were observed in calf Ig concentrations, which were related with dam plasma and colostrum Ig concentration.

A breed-nutritional treatment effect could be observed in PI-Control, due to a lack of decrease in dam Ig G plasmatic concentrations and higher concentrations in 2<sup>nd</sup> colostrum sample.

