

# Supplementary Figures 1-13

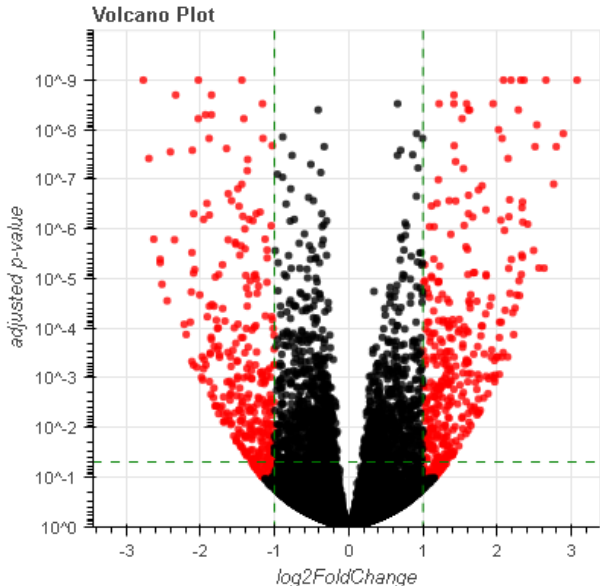
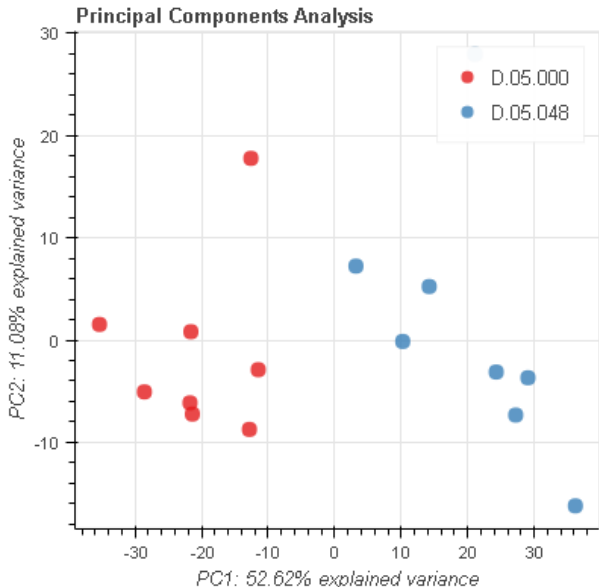
**Blood immune transcriptome analysis of artificially fed dairy calves and naturally suckled beef calves from birth to 7 days of age**

C. Surlis<sup>1\*</sup>, B. Earley<sup>1</sup>, M. McGee<sup>1</sup>, K. Keogh<sup>1</sup>, P. Cormican<sup>1</sup>, G. Blackshields<sup>1</sup>, K. Tiernan<sup>1</sup>, A. Dunn<sup>2</sup>, S. Morrison<sup>2</sup>, A. Arguello<sup>1</sup>, S. M. Waters<sup>1</sup>

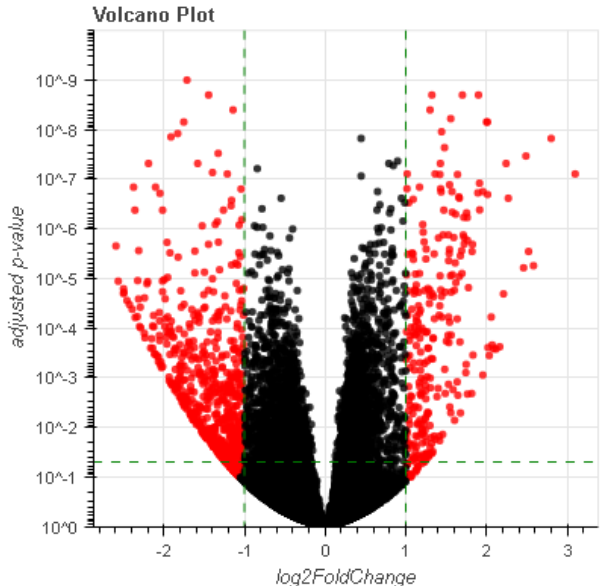
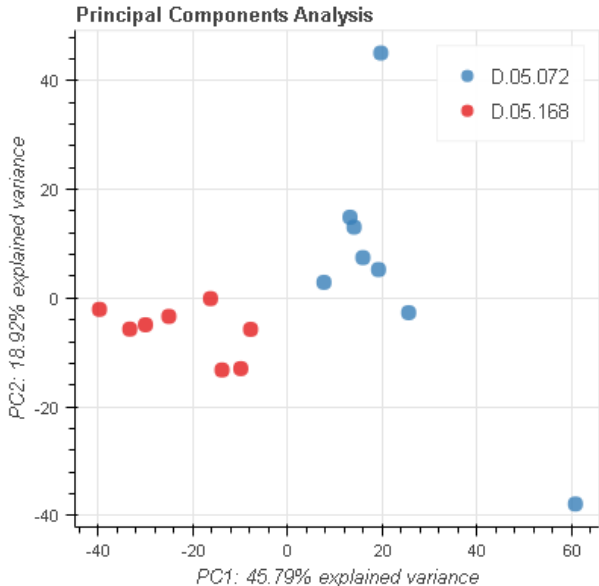
# Supplementary Figure 1

## Comparing Dairy 5% over time

D.05.048 V D.05.000



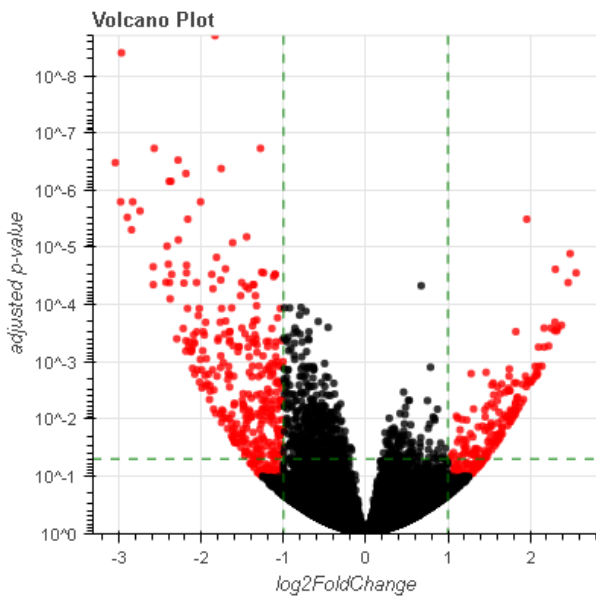
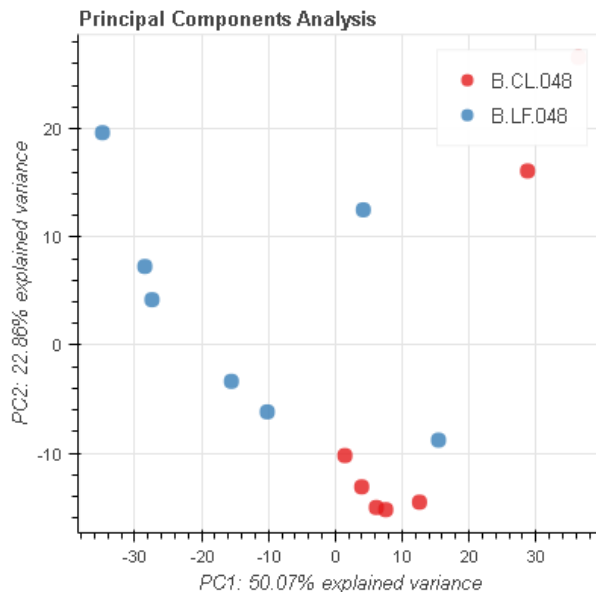
D.05.168 V D.05.072



# Supplementary Figure 2

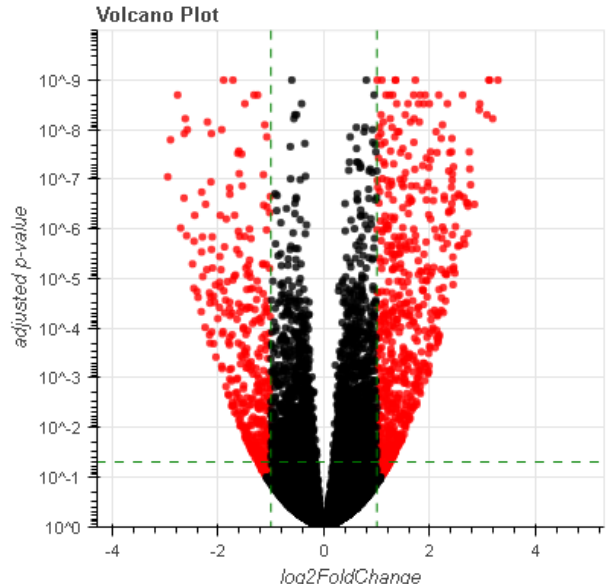
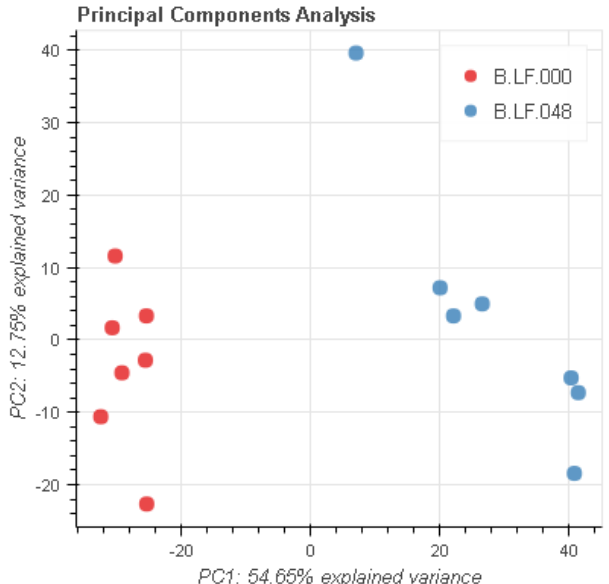
## Comparing Beef Breeds Beef LF V Beef CL across timepoints

**B.CL.048 V B.LF.048**

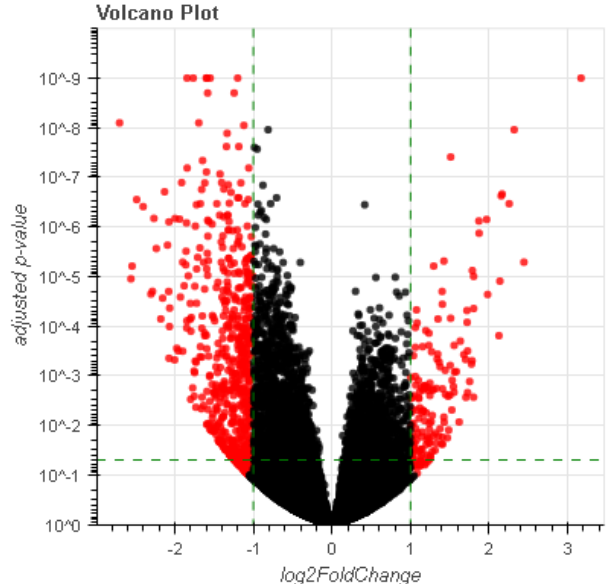
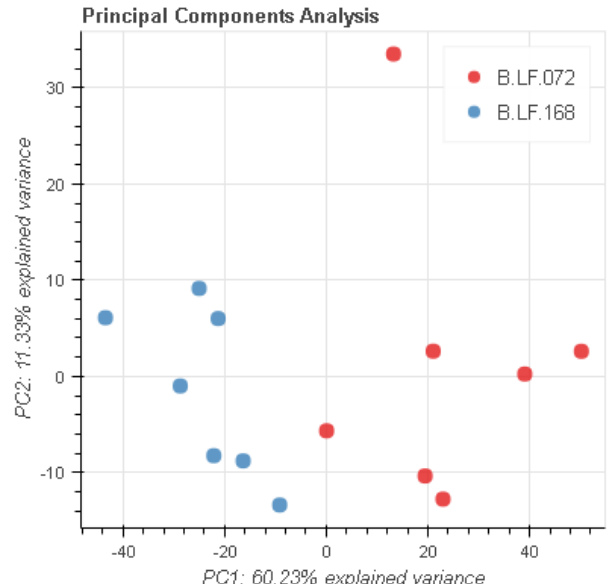


# Supplementary Figure 3

## Beef LF across time B.LF.048 V B.LF.000

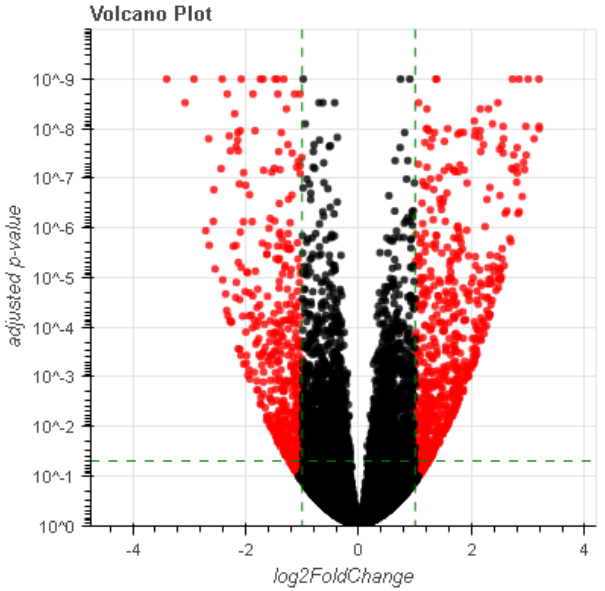
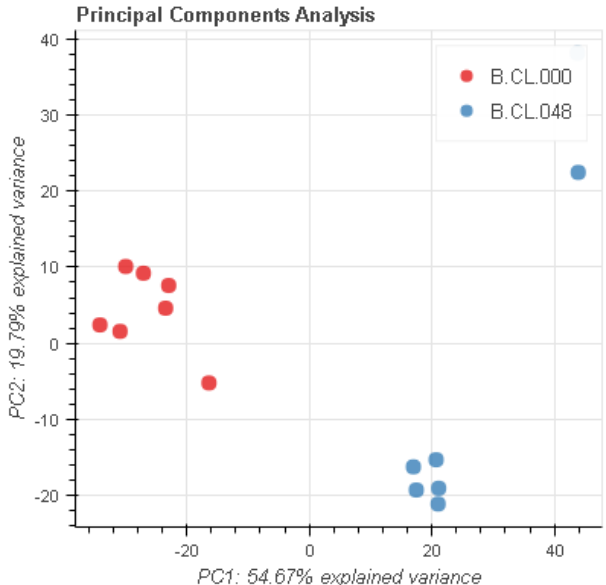


## B.LF.168 V B.LF.072

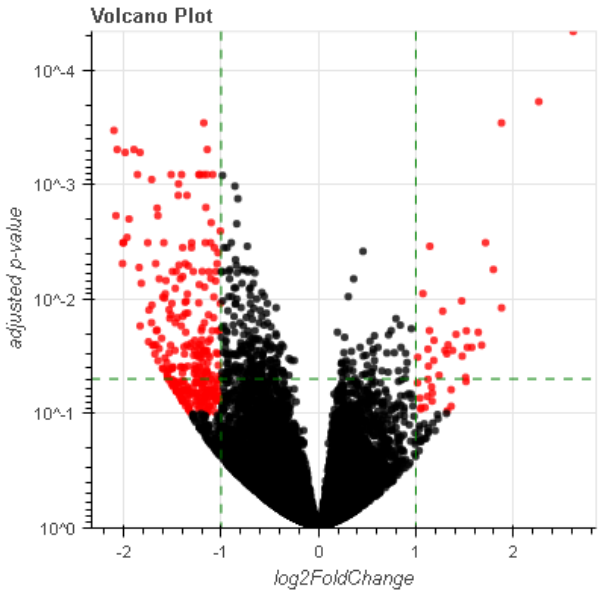
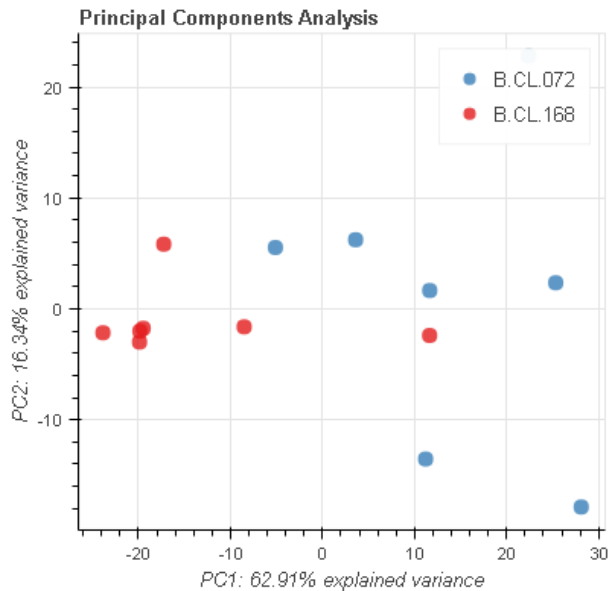


# Supplementary Figure 4

Beef CL across time  
B.CL.048 V B.CL.000



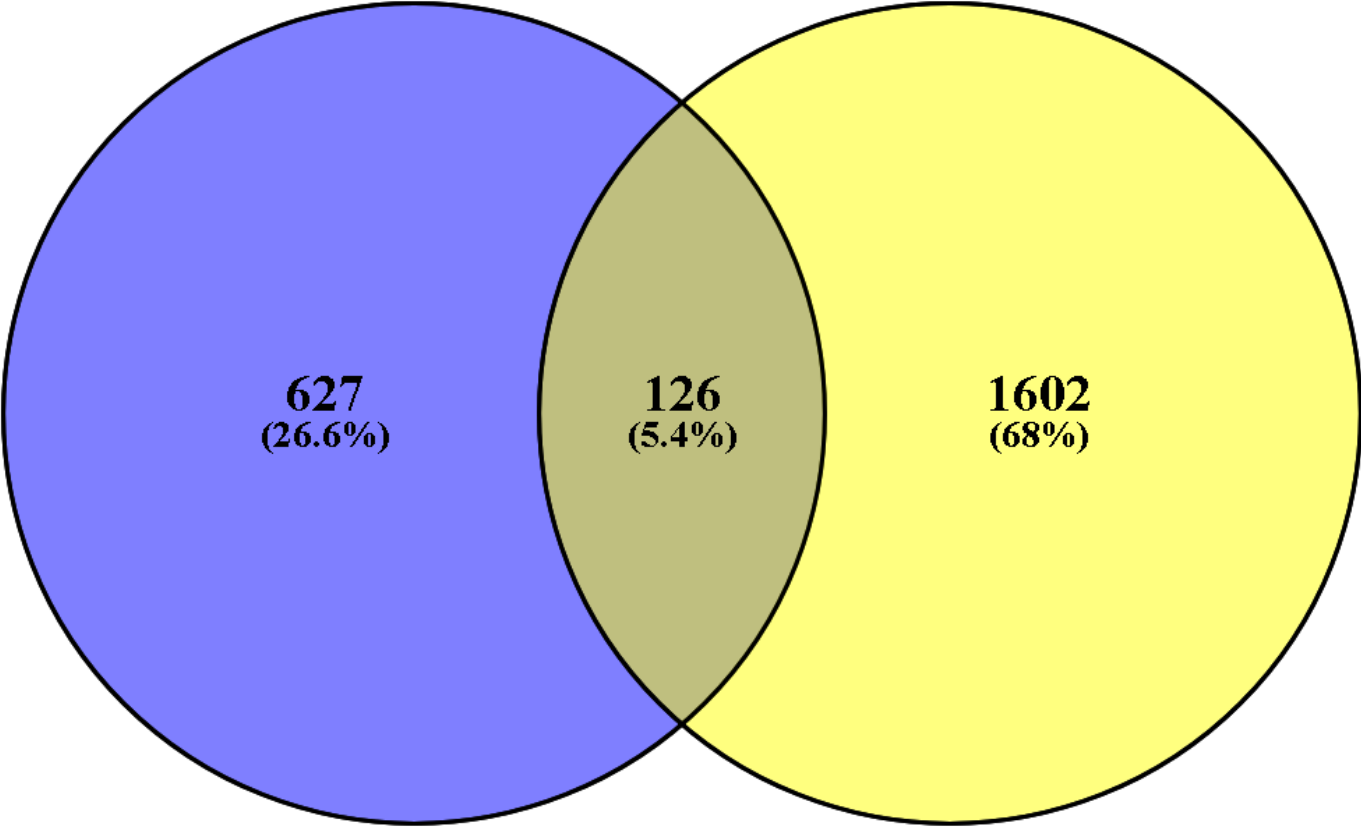
B.CL.168 V B.CL.072



Supplementary Figure 5

**Dairy 0h v 48h**

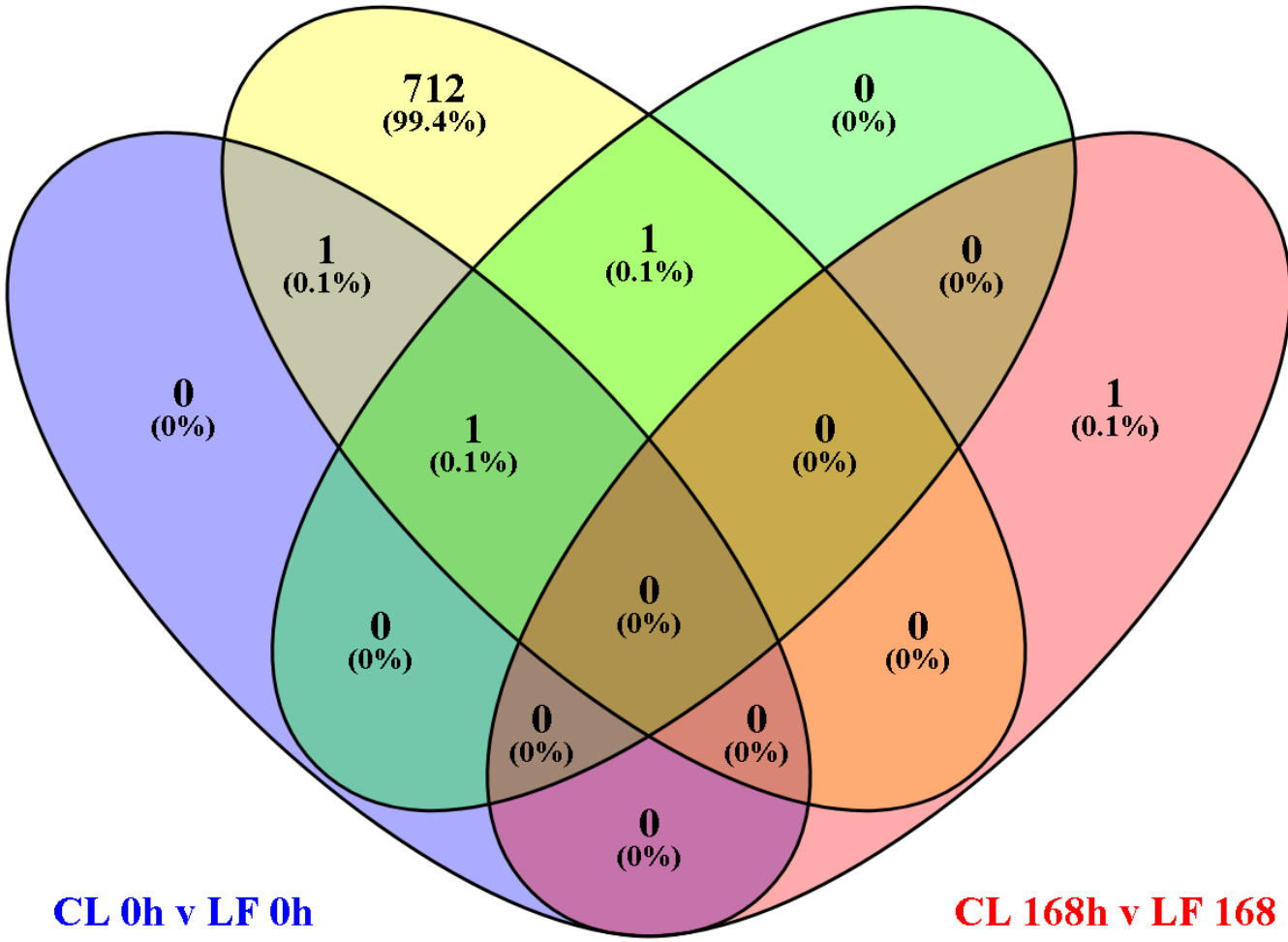
**Dairy 72h v 168h**



**Supplementary Figure 6**

**CL 48h v LF 48h**

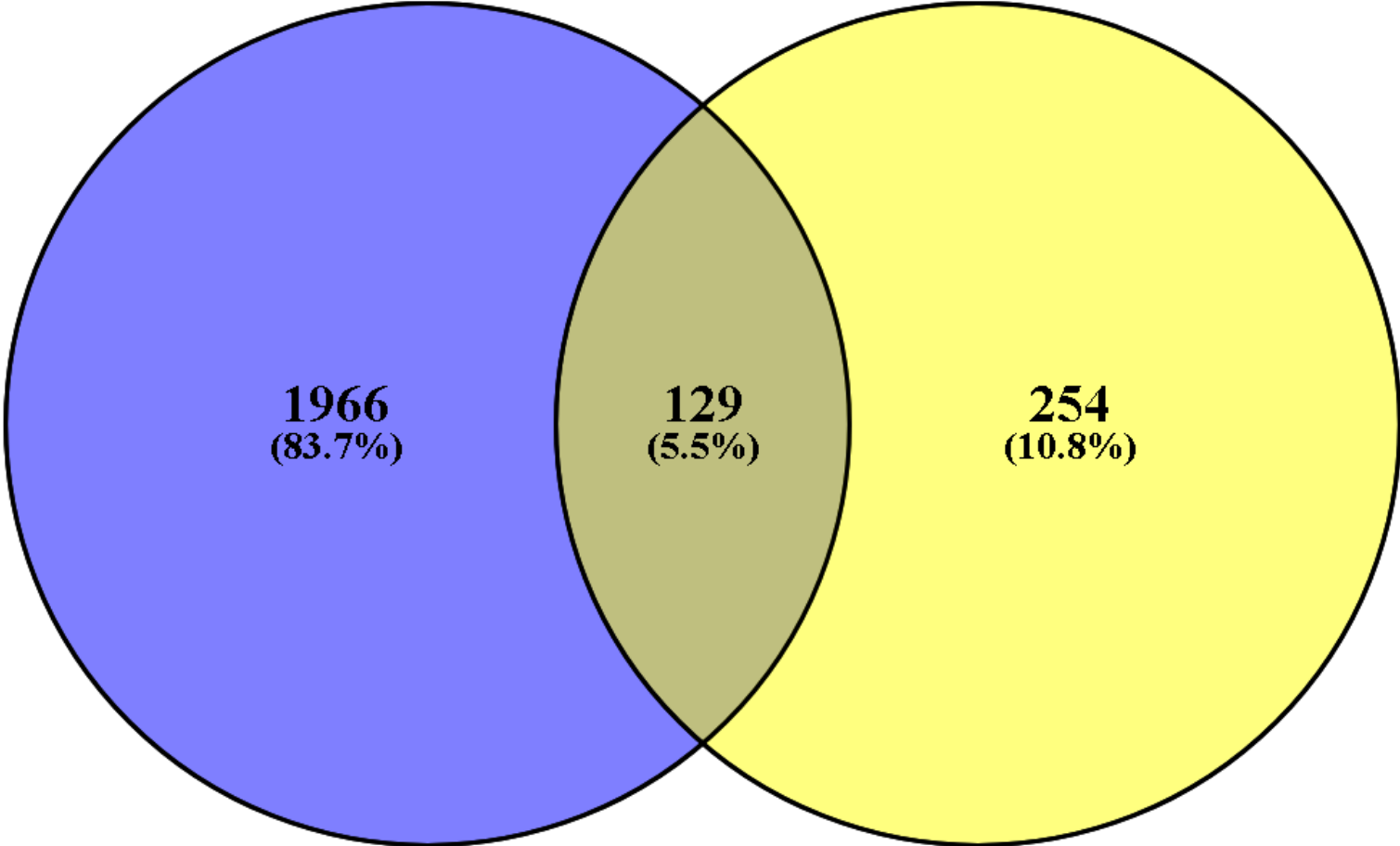
**CL 72h v LF 72h**



Supplementary Figure 7

**CL 0h v 48h**

**CL 72h v 168h**

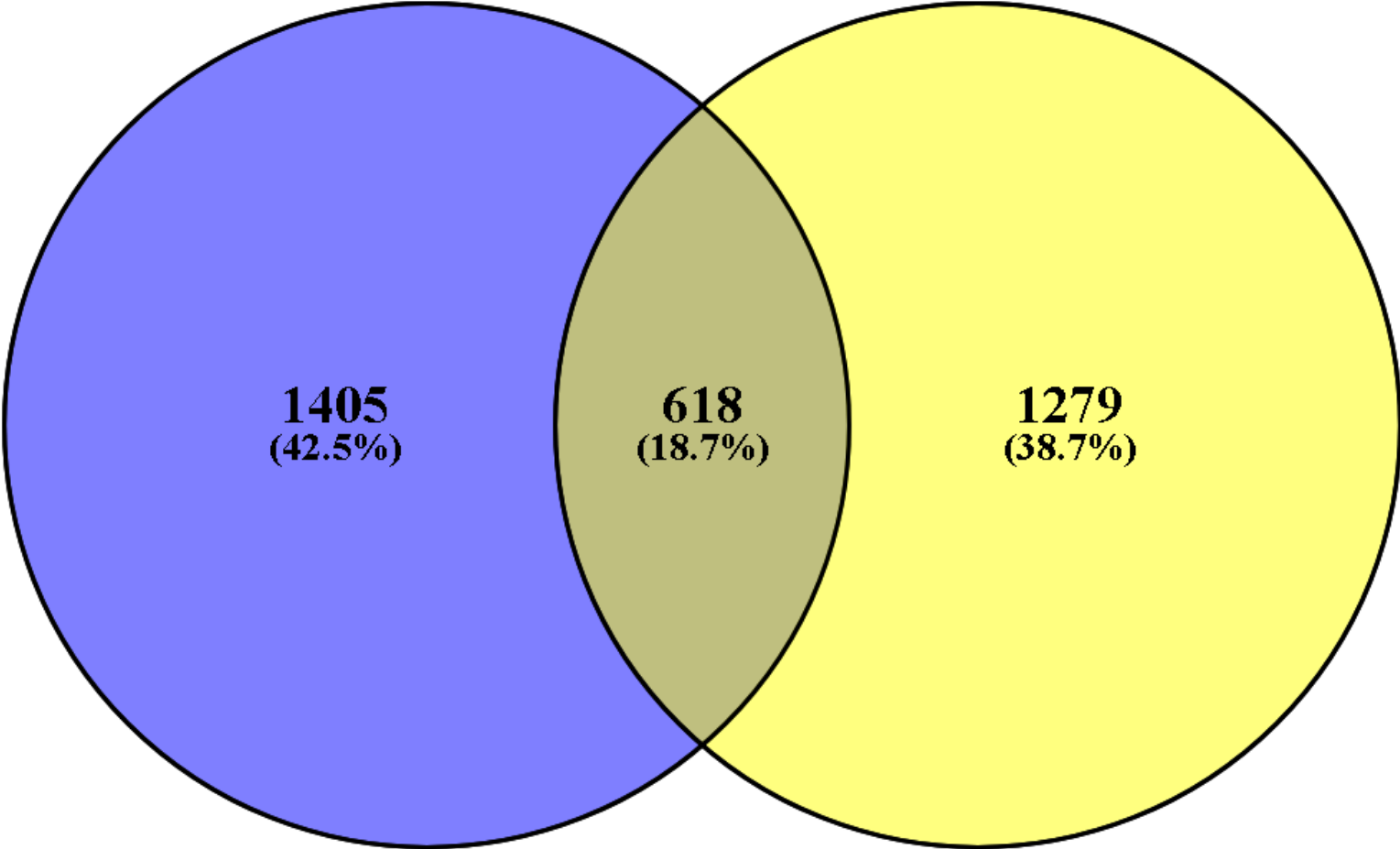




Supplementary Figure 8

**LF 0h v 48h**

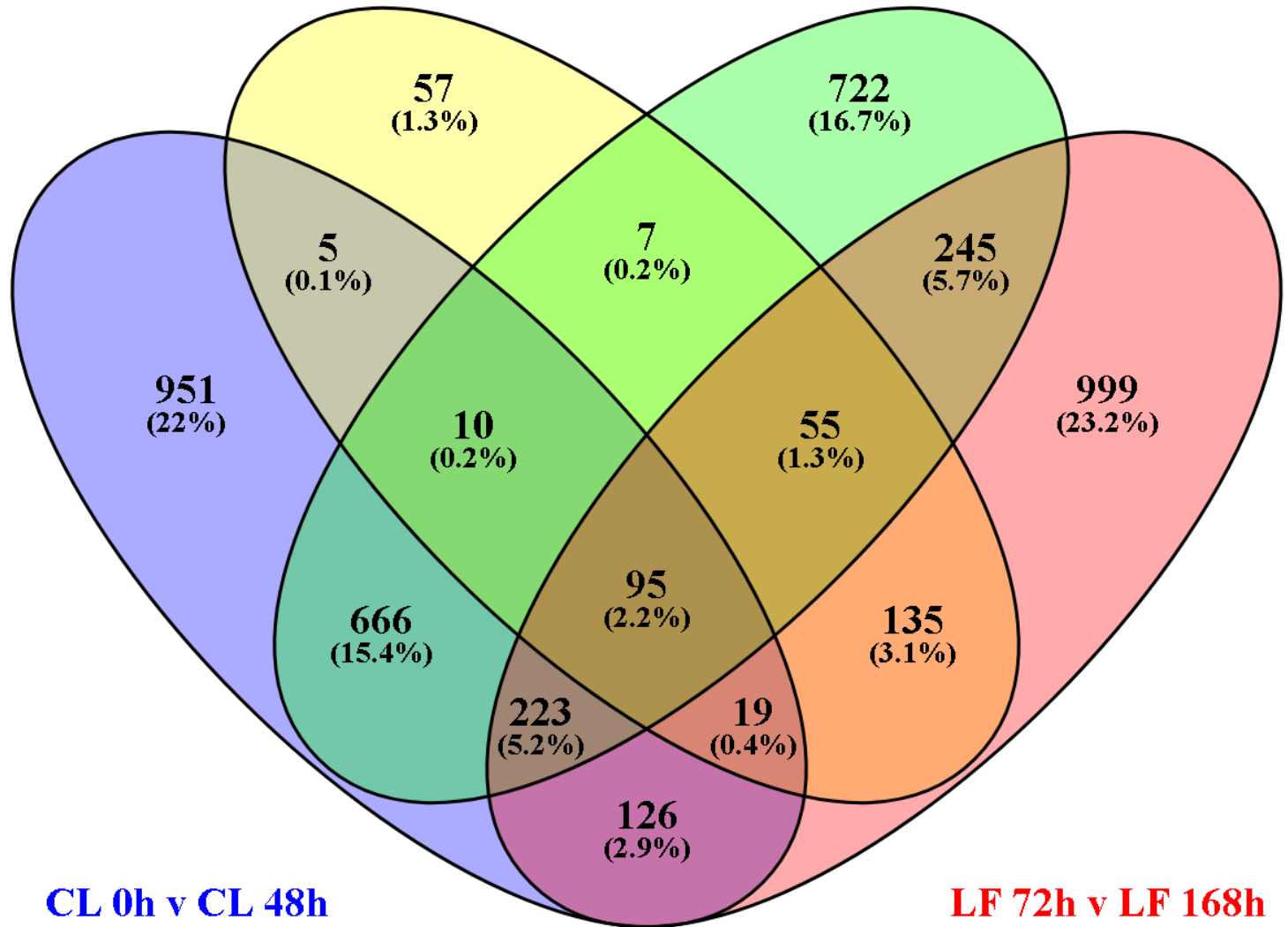
**LF 72h v 168h**



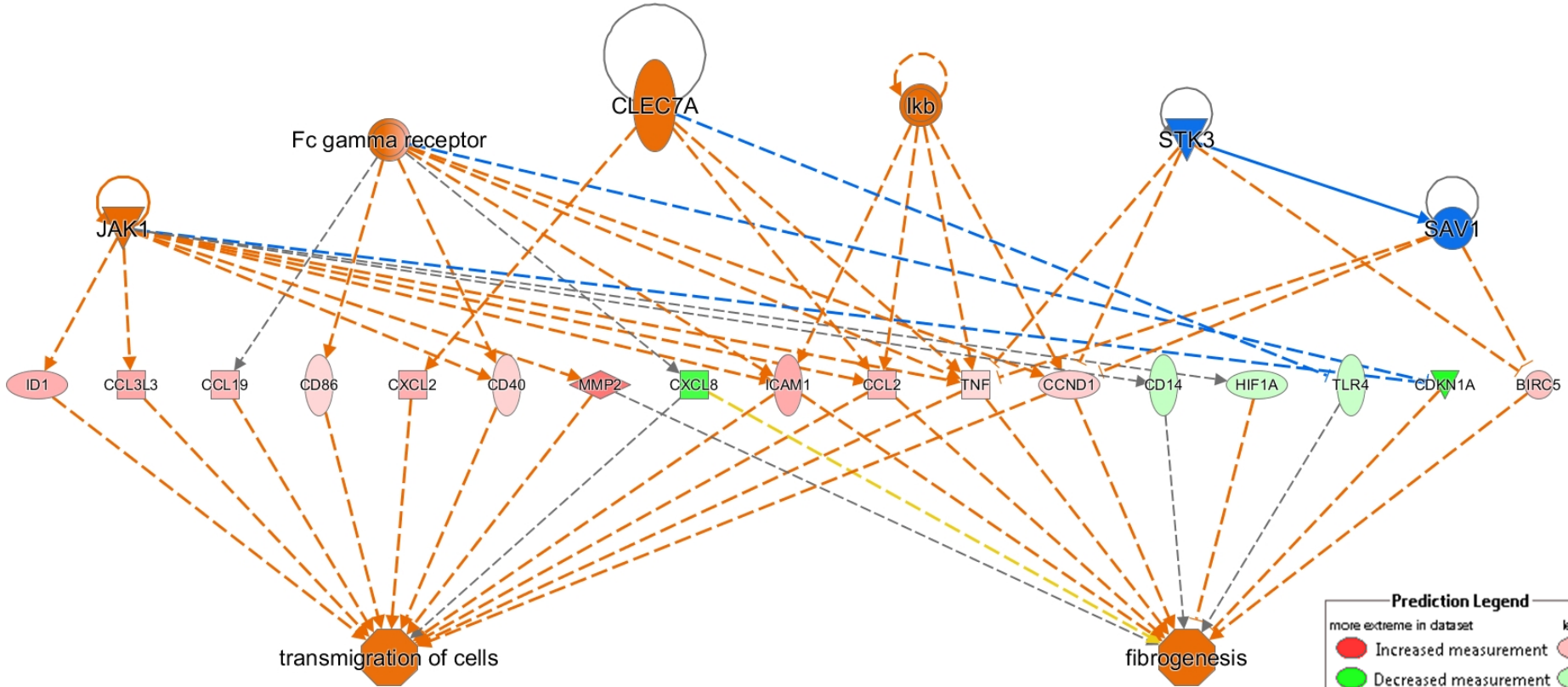
**Supplementary Figure 9**

**CL 72h v CL 168h**

**LF 0h v LF 48h**



Supplementary Figure 10  
 Beef CL 48h v CL 0h  
 Fibrogenesis and transmigration of cells network regulators upregulated in 48hour



**Prediction Legend**

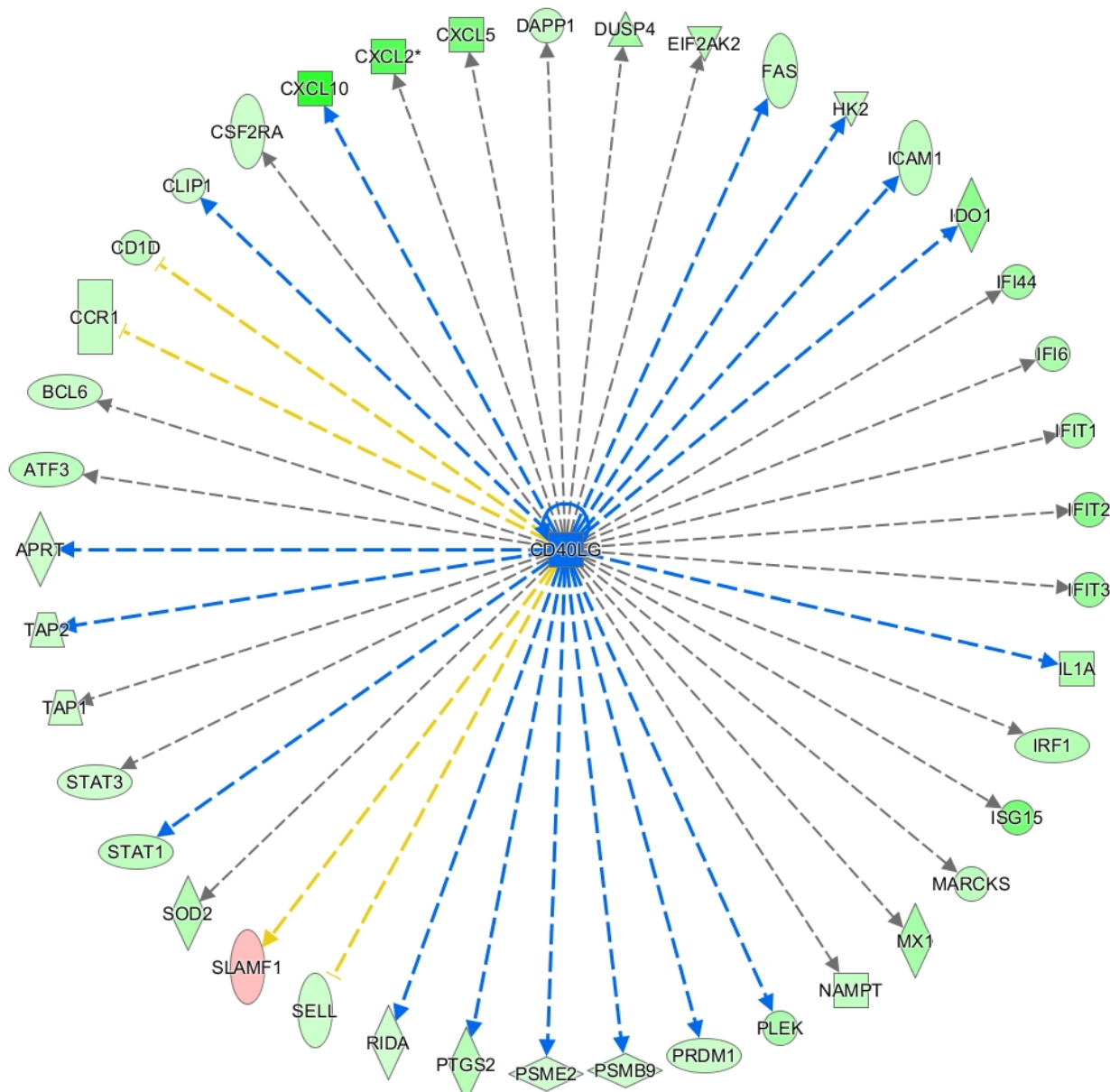
more extreme in dataset	less
Increased measurement (red circle)	Decreased measurement (green circle)
more confidence	less
Predicted activation (orange circle)	Predicted inhibition (blue circle)
Glow Indicates activity when opposite of measurement	
	(red circle) (green circle)
Predicted Relationships	
(orange arrow)	Leads to activation
(blue arrow)	Leads to inhibition
(yellow arrow)	Findings inconsistent with state of downstream molecule
(grey arrow)	Effect not predicted







Supplementary Figure 13  
 Beef CL 48 v LF 48  
 Inhibition of CD40L in CL48- The cytokine that binds to CD40



**Prediction Legend**

more extreme in dataset	less
Increased measurement	
Decreased measurement	
more confidence	less
Predicted activation	
Predicted inhibition	

Glow Indicates activity when opposite of measurement

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**Predicted Relationships**

- Leads to activation
- Leads to inhibition
- Findings inconsistent with state of downstream molecule
- Effect not predicted

## Supplementary Table 1

Calf milk replacer and concentrate composition

DM (dry matter); CP (Crude protein)

Chemical composition	Calf diet		
	Milk replacer	Concentrate	Straw
Oven DM <sup>1</sup> (g/kg fresh)	972	916	882
Composition of DM (g/kg)			
Nitrogen	36.6	29.6	5.7
NDF <sup>2</sup>	-	347.5	869.3
ADF <sup>3</sup>	-	175.9	530.5
Ash	75.1	75.4	47.3
Ether extract	201.9	42.4	13.9
CP <sup>2</sup> (%)	22.8	18.5	3.6