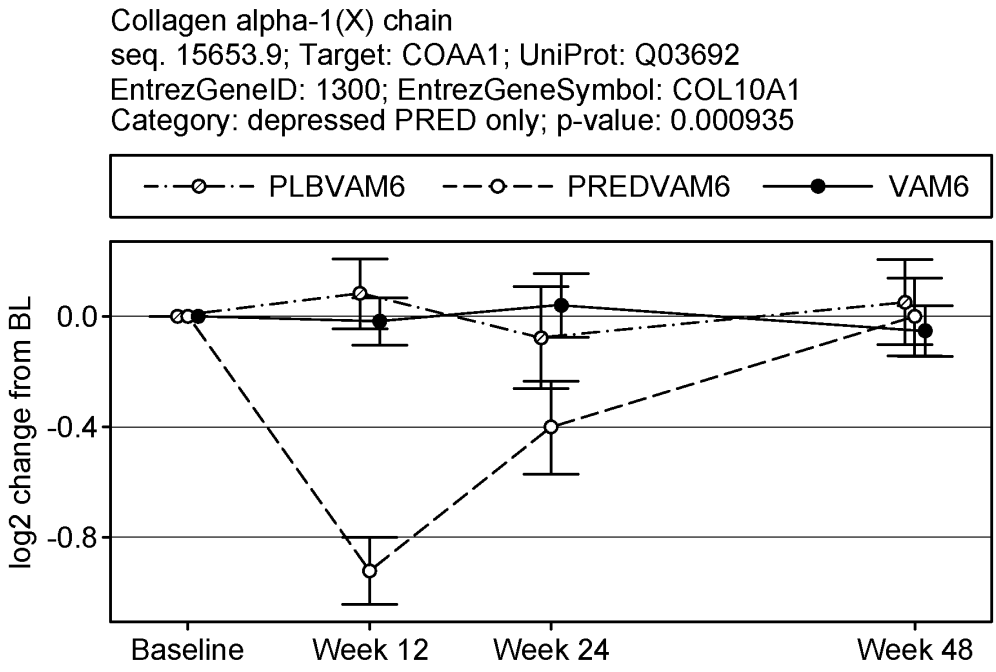

Collagen alpha-1(X) chain
seq. 15653.9; Target: COAA1; UniProt: Q03692
EntrezGeneID: 1300; EntrezGeneSymbol: COL10A1
Category: depressed PRED only; p-value: 0.000935
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.0
-0.4
-0.8
Baseline
Week 12
Week 24
Week 48

FIG. 1A

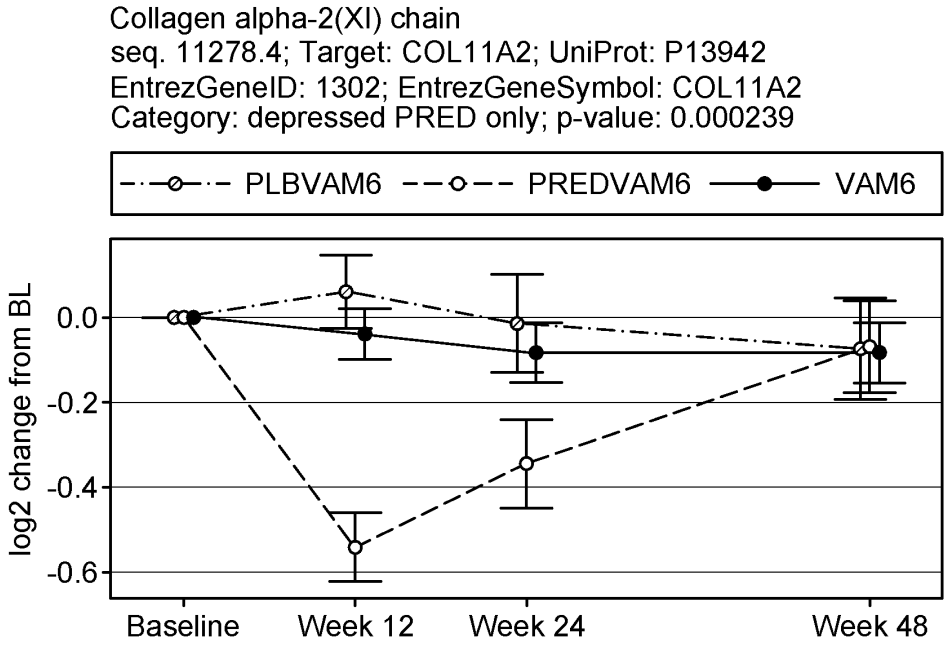

Collagen alpha-2(XI) chain
seq. 11278.4; Target: COL11A2; UniProt: P13942
EntrezGeneID: 1302; EntrezGeneSymbol: COL11A2
Category: depressed PRED only; p-value: 0.000239
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.0
-0.2
-0.4
-0.6
Baseline
Week 12
Week 24
Week 48

FIG. 1B

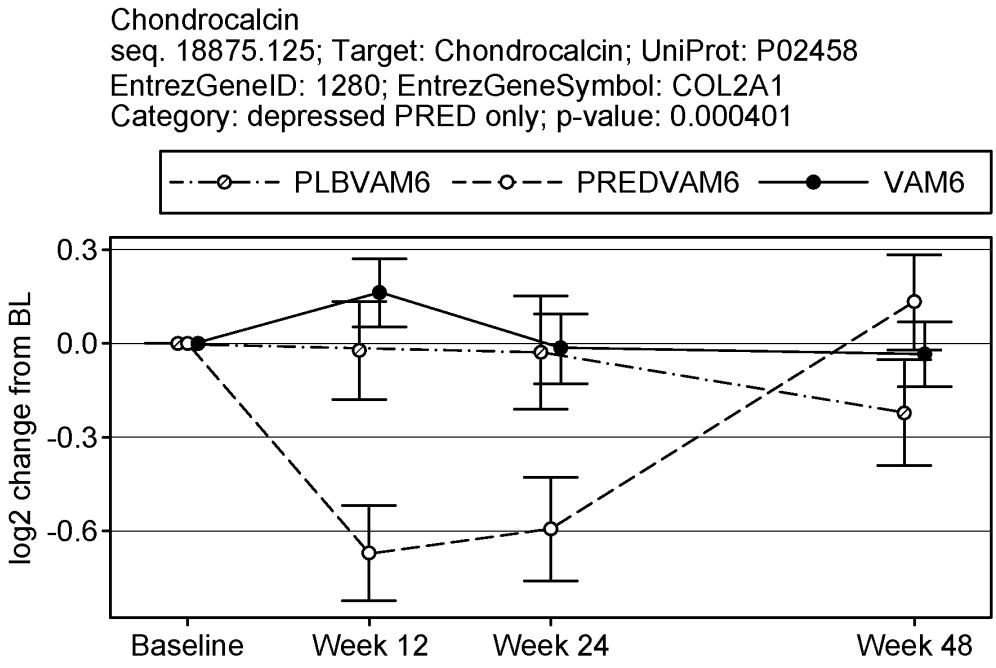

Chondrocalcin
seq. 18875.125; Target: Chondrocalcin; UniProt: P02458
EntrezGeneID: 1280; EntrezGeneSymbol: COL2A1
Category: depressed PRED only; p-value: 0.000401
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.3
0.0
-0.3
-0.6
Baseline
Week 12
Week 24
Week 48

FIG. 2A

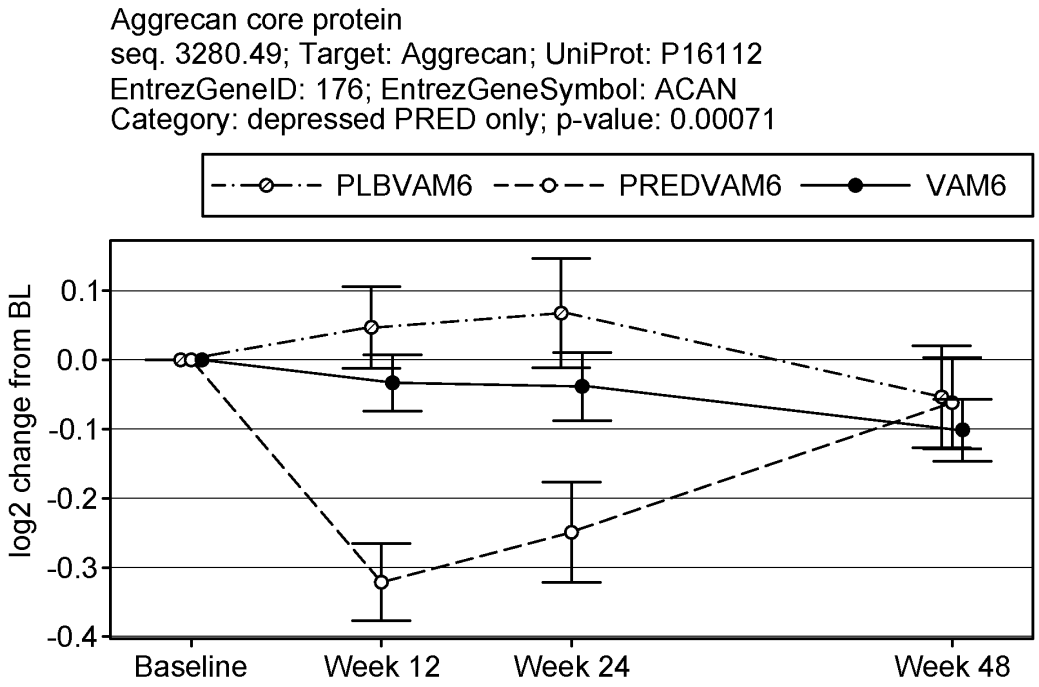

Aggrecan core protein
seq. 3280.49; Target: Aggrecan; UniProt: P16112
EntrezGeneID: 176; EntrezGeneSymbol: ACAN
Category: depressed PRED only; p-value: 0.00071
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.1
0.0
-0.1
-0.2
-0.3
-0.4
Baseline
Week 12
Week 24
Week 48

FIG. 2B

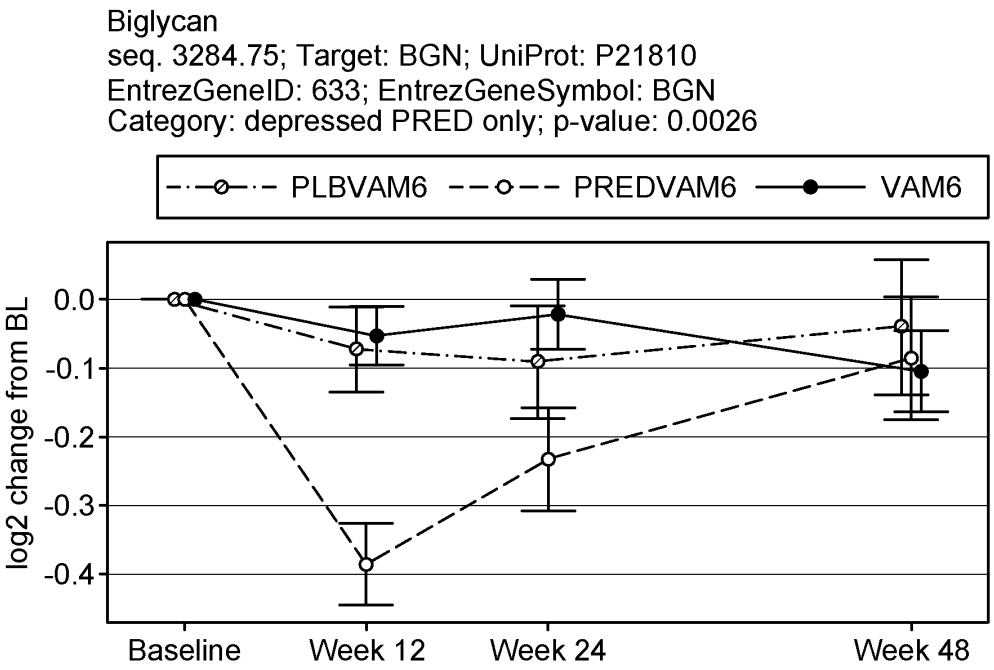

Biglycan
seq. 3284.75; Target: BGN; UniProt: P21810
EntrezGeneID: 633; EntrezGeneSymbol: BGN
Category: depressed PRED only; p-value: 0.0026
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.0
-0.1
-0.2
-0.3
-0.4
Baseline
Week 12
Week 24
Week 48

FIG. 3A

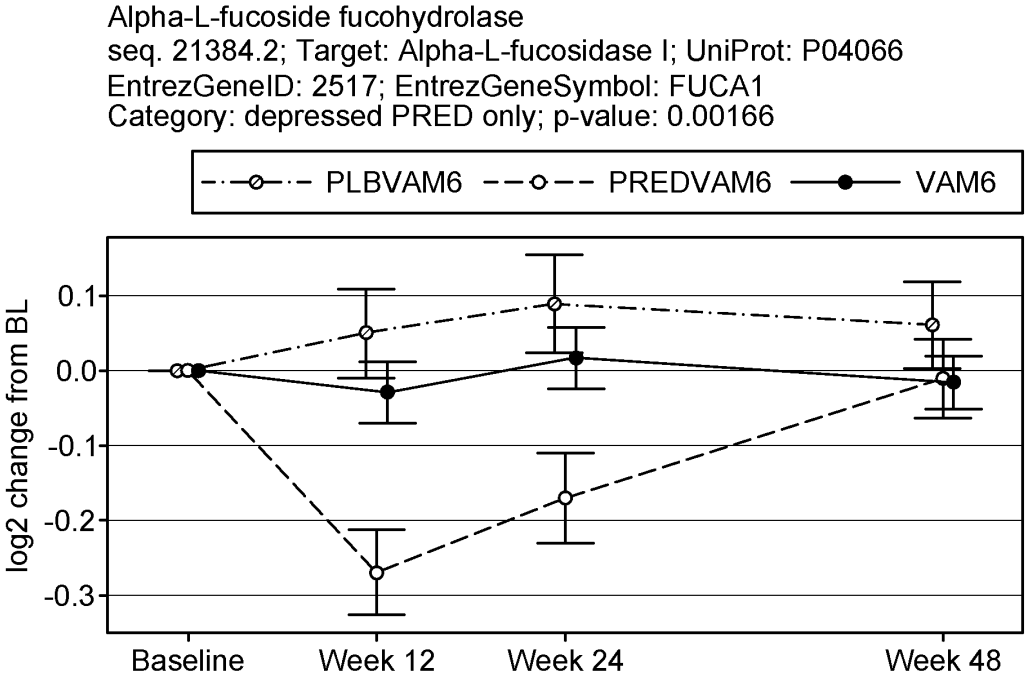

Alpha-L-fucoside fucohydrolase
seq. 21384.2; Target: Alpha-L-fucosidase I; UniProt: P04066
EntrezGeneID: 2517; EntrezGeneSymbol: FUCA1
Category: depressed PRED only; p-value: 0.00166
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.1
0.0
-0.1
-0.2
-0.3
Baseline
Week 12
Week 24
Week 48

FIG. 3B

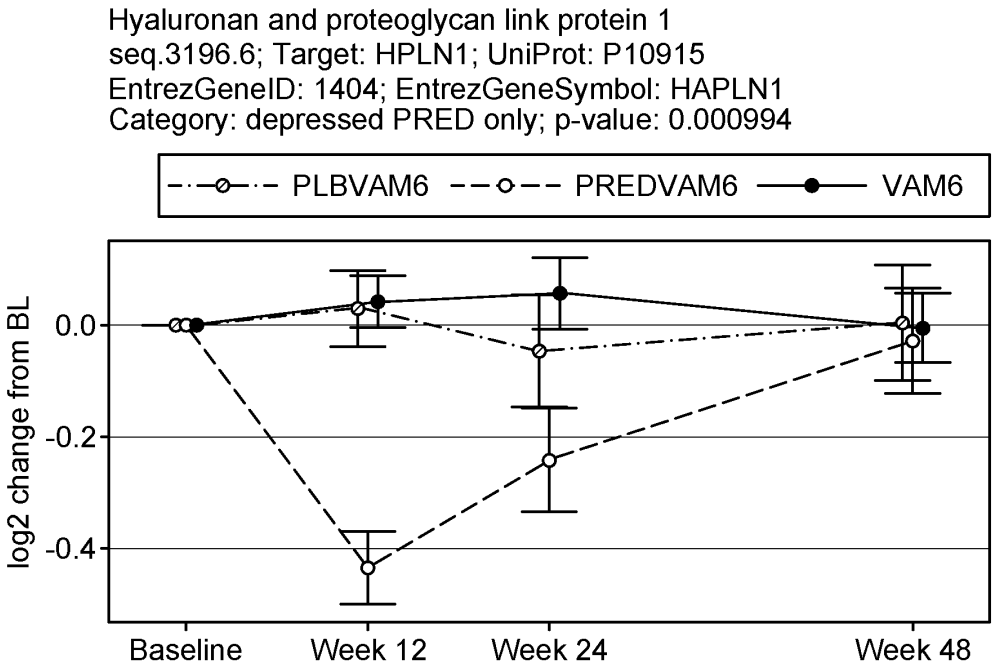

Hyaluronan and proteoglycan link protein 1
seq.3196.6; Target: HPLN1; UniProt: P10915
EntrezGeneID: 1404; EntrezGeneSymbol: HAPLN1
Category: depressed PRED only; p-value: 0.000994
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.0
-0.2
-0.4
Baseline
Week 12
Week 24
Week 48

FIG. 4A

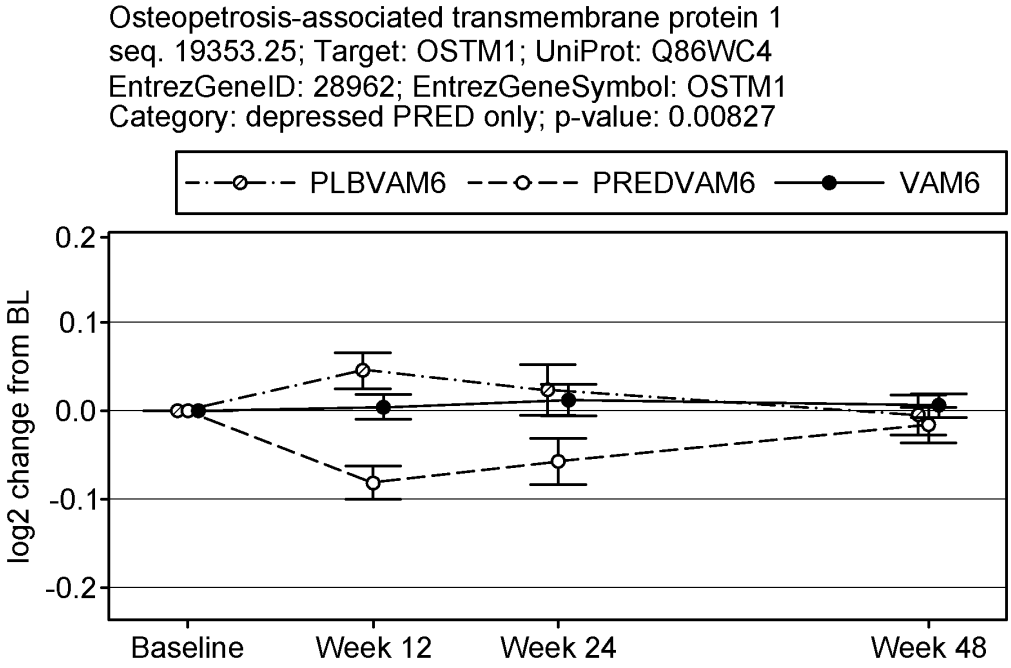

Osteopetrosis-associated transmembrane protein 1
seq. 19353.25; Target: OSTM1; UniProt: Q86WC4
EntrezGeneID: 28962; EntrezGeneSymbol: OSTM1
Category: depressed PRED only; p-value: 0.00827
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.2
0.1
0.0
-0.1
-0.2
Baseline
Week 12
Week 24
Week 48

FIG. 4B

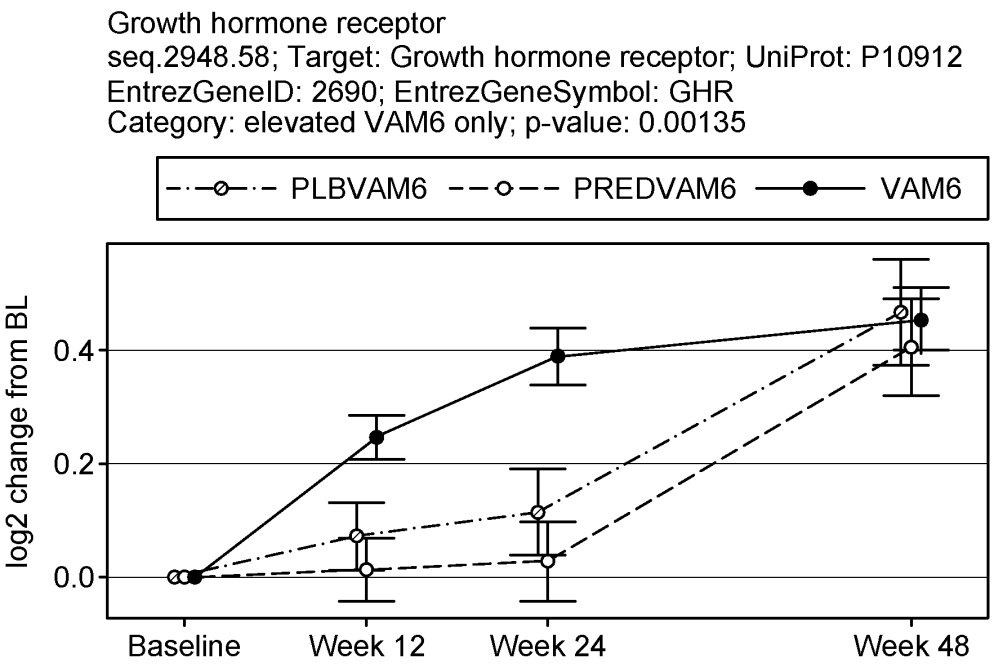

Growth hormone receptor
seq.2948.58; Target: Growth hormone receptor; UniProt: P10912
EntrezGeneID: 2690; EntrezGeneSymbol: GHR
Category: elevated VAM6 only; p-value: 0.00135
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.4
0.2
0.0
Baseline
Week 12
Week 24
Week 48

FIG. 5A

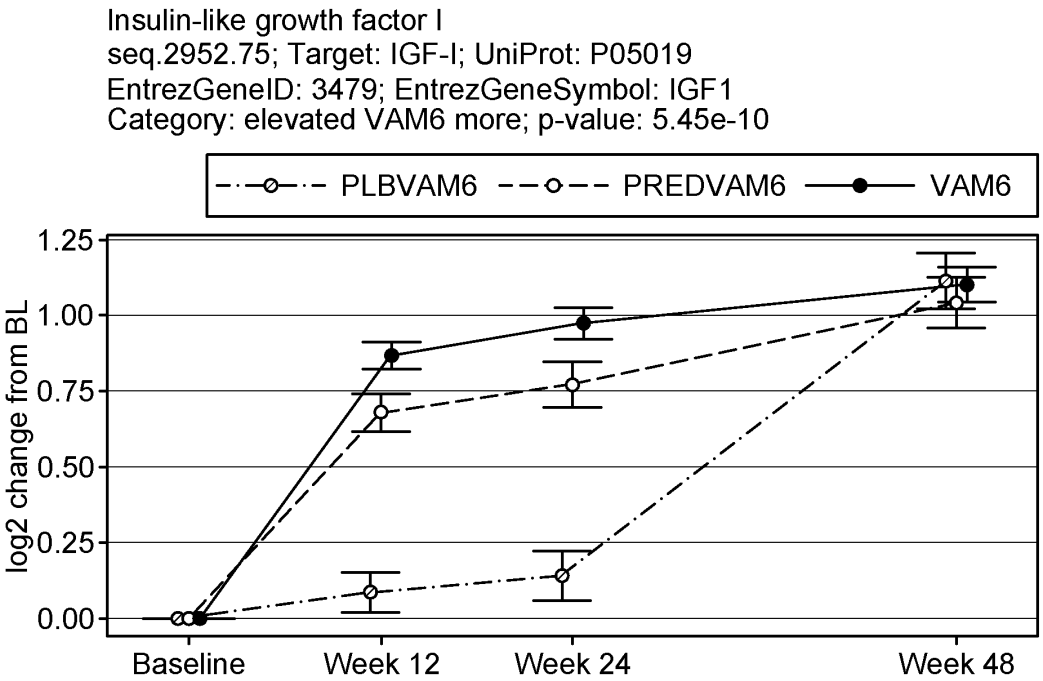

Insulin-like growth factor I
seq.2952.75; Target: IGF-I; UniProt: P05019
EntrezGeneID: 3479; EntrezGeneSymbol: IGF1
Category: elevated VAM6 more; p-value: 5.45e-10
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
1.25
1.00
0.75
0.50
0.25
0.00
Baseline
Week 12
Week 24
Week 48

FIG. 5B

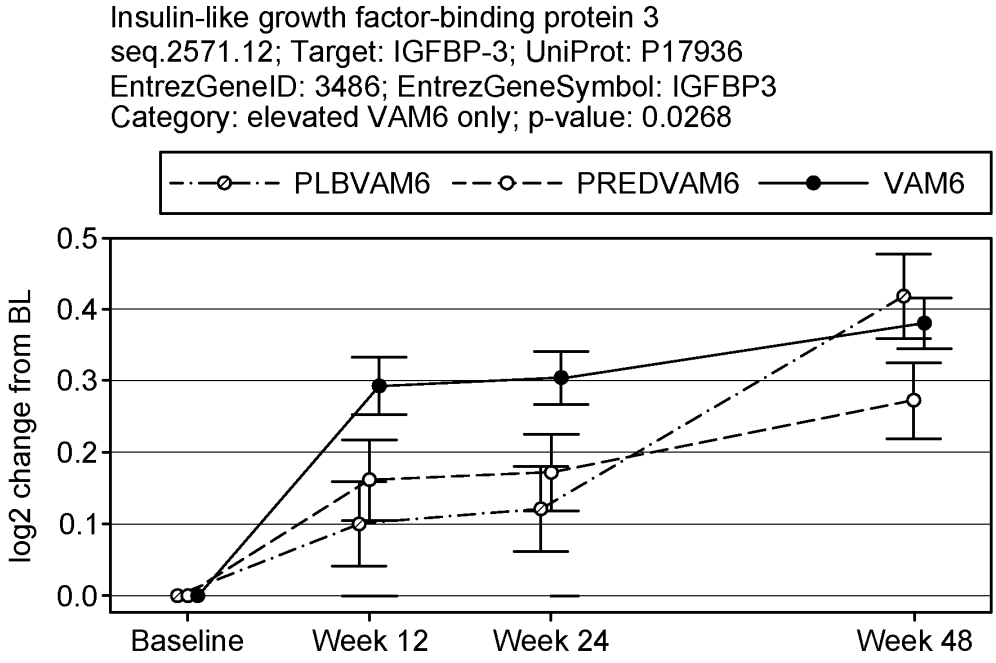

Insulin-like growth factor-binding protein 3
seq.2571.12; Target: IGFBP-3; UniProt: P17936
EntrezGeneID: 3486; EntrezGeneSymbol: IGFBP3
Category: elevated VAM6 only; p-value: 0.0268
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.5
0.4
0.3
0.2
0.1
0.0
Baseline
Week 12
Week 24
Week 48

FIG. 6

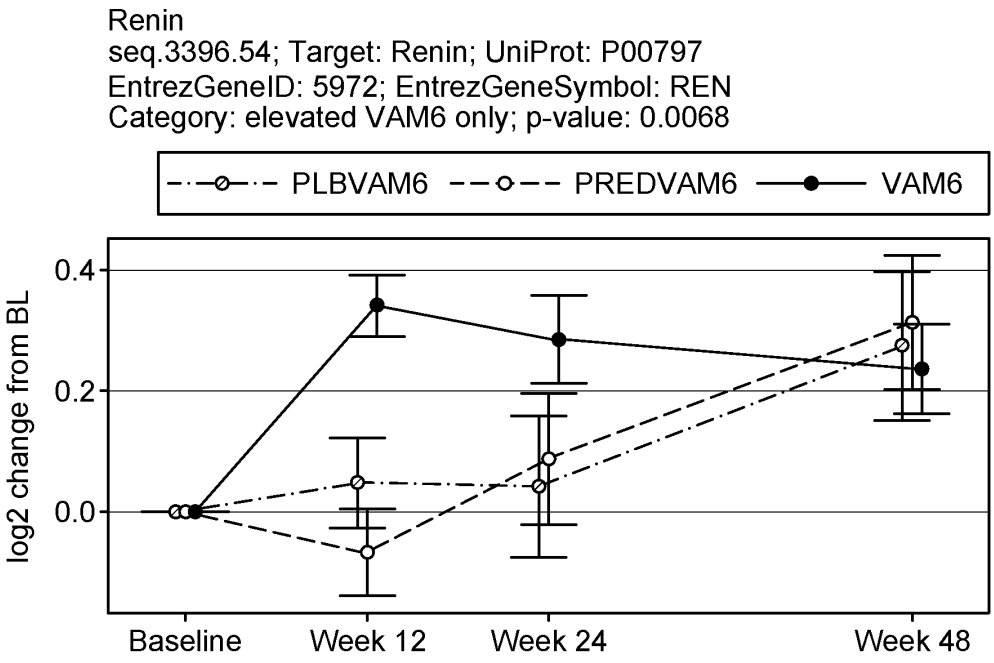

Renin
seq.3396.54; Target: Renin; UniProt: P00797
EntrezGeneID: 5972; EntrezGeneSymbol: REN
Category: elevated VAM6 only; p-value: 0.0068
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.4
0.2
0.0
Baseline
Week 12
Week 24
Week 48

FIG. 7A

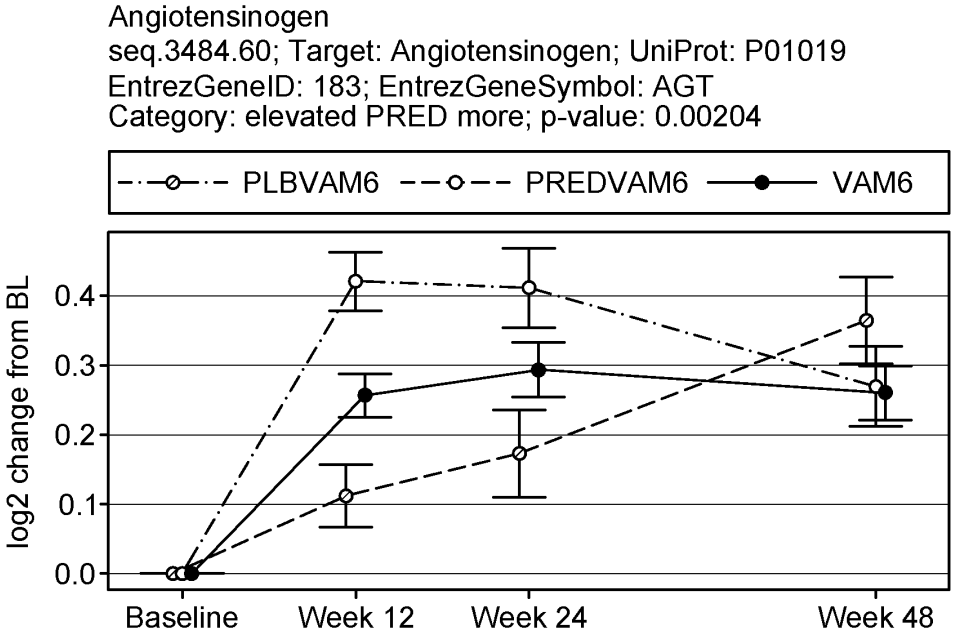

Angiotensinogen
seq.3484.60; Target: Angiotensinogen; UniProt: P01019
EntrezGeneID: 183; EntrezGeneSymbol: AGT
Category: elevated PRED more; p-value: 0.00204
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.4
0.3
0.2
0.1
0.0
Baseline
Week 12
Week 24
Week 48

FIG. 7B

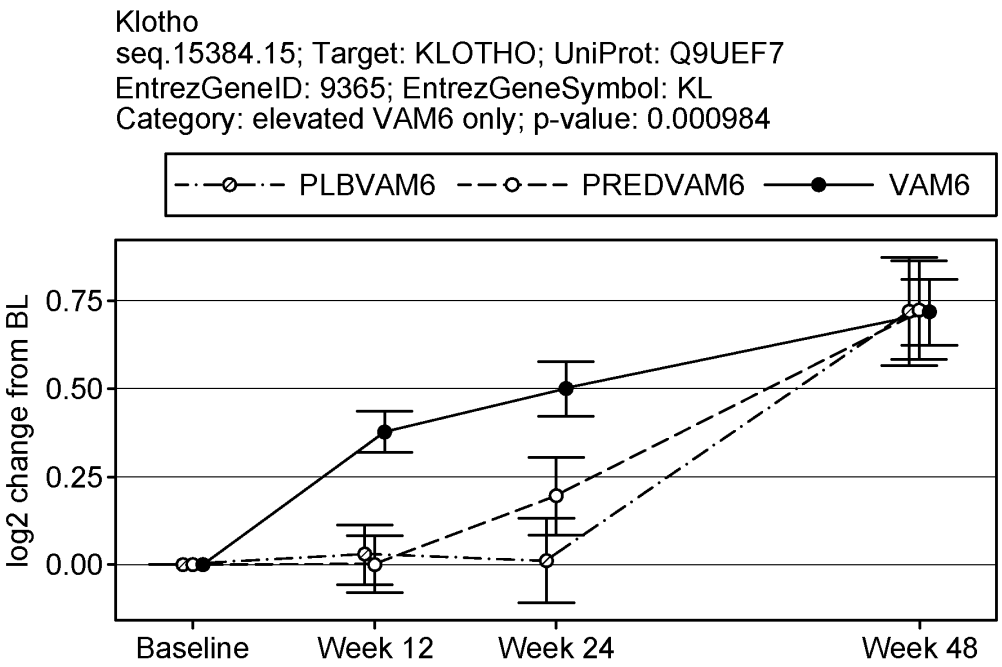

Klotho
seq.15384.15; Target: KLOTHO; UniProt: Q9UEF7
EntrezGeneID: 9365; EntrezGeneSymbol: KL
Category: elevated VAM6 only; p-value: 0.000984
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.75
0.50
0.25
0.00
Baseline
Week 12
Week 24
Week 48

FIG. 8A

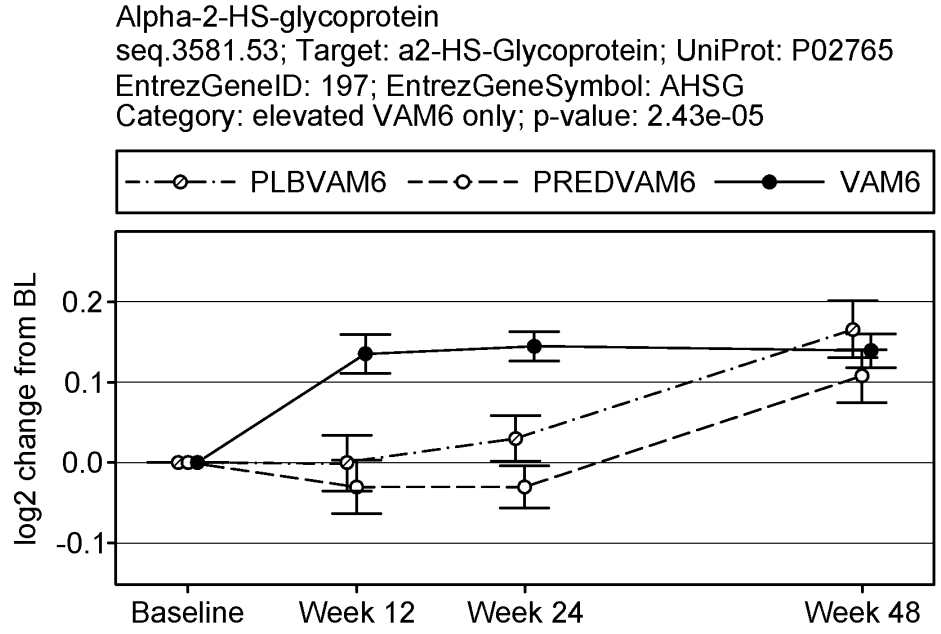
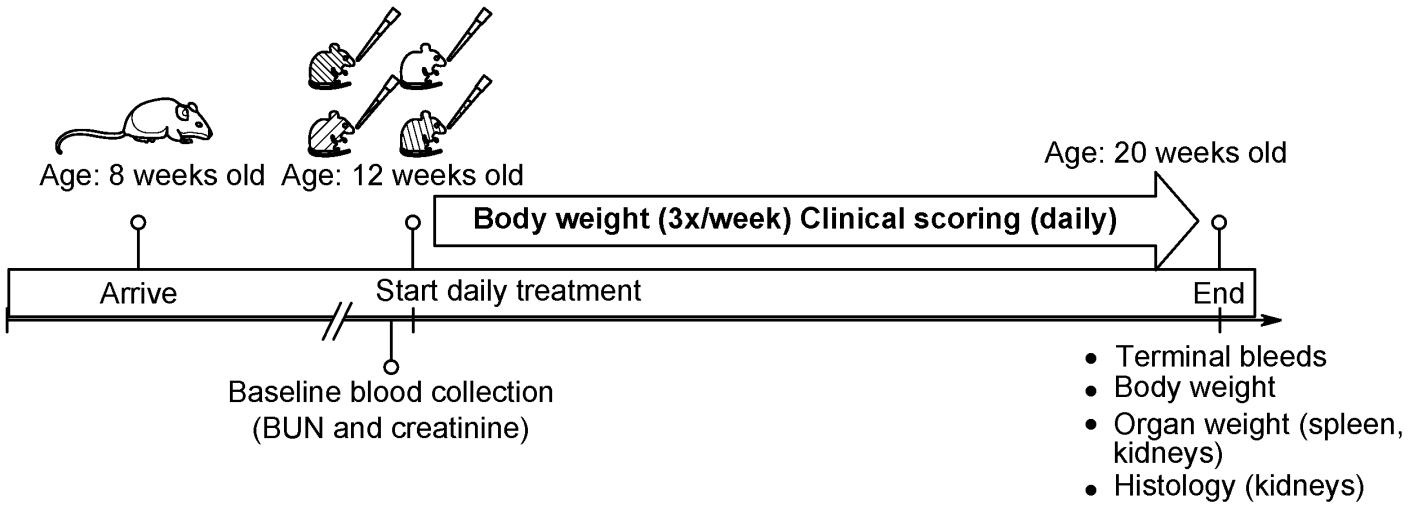

Alpha-2-HS-glycoprotein
seq.3581.53; Target: a2-HS-Glycoprotein; UniProt: P02765
EntrezGeneID: 197; EntrezGeneSymbol: AHSG
Category: elevated VAM6 only; p-value: 2.43e-05
PLBVAM6
PREDVAM6
VAM6
log2 change from BL
0.2
0.1
0.0
-0.1
Baseline
Week 12
Week 24
Week 48

FIG. 8B

Groups

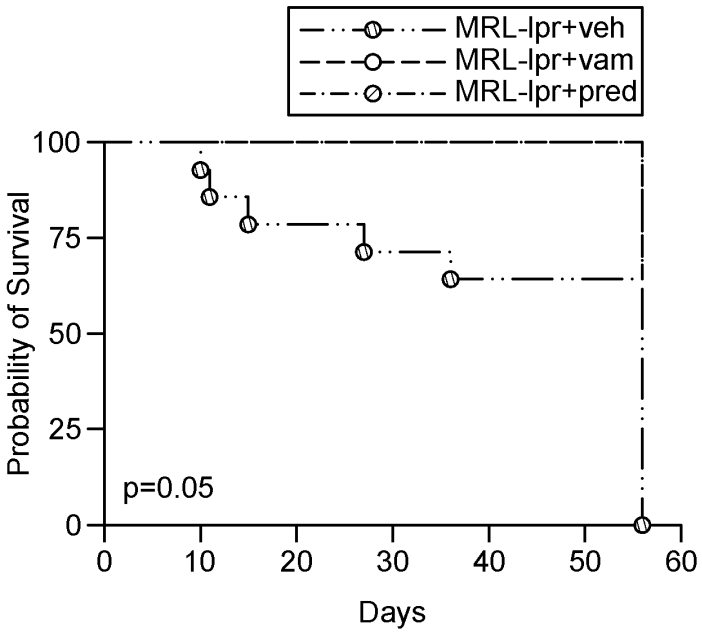
1. MRL + vehicle
2. MRL-lpr + vehicle
3. MRL-lpr + vam
4. MRL-lpr + pred

Groups	End of study (EOS) group size	Strain (Jax #)
MRL + veh	5	MRL/MpJ (#000486)
MRL-lpr + veh	9	MRL/MpJ-Faslpr/J (#000485)
MRL-lpr + vam	5	
MRL-lpr + pred	9	



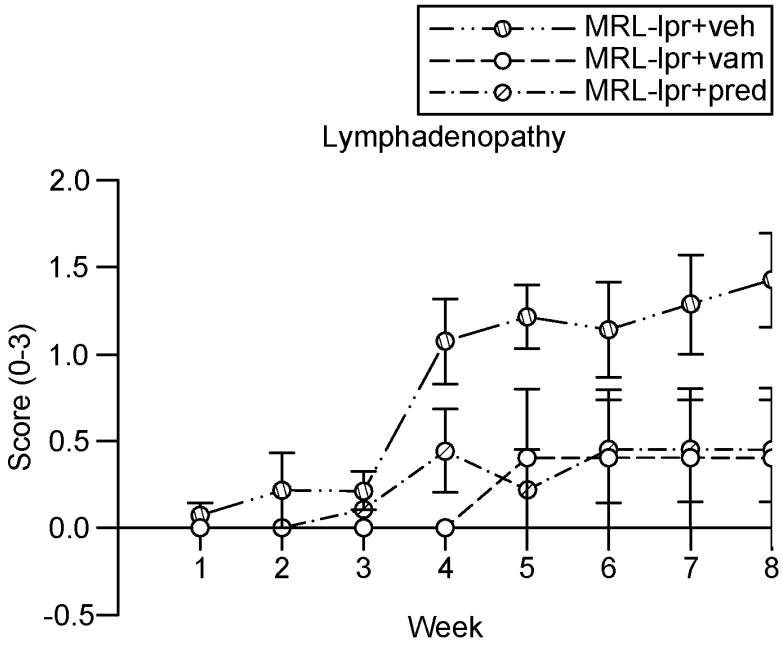
Experimental timeline. Female WT (MRL) and lupus (MRL-lpr) mice arrived at 8 weeks of age. At 12 weeks, blood (submental) was collected and daily treatment with vamorolone (vam; 30 mg/kg), prednisolone (pred; 10 mg/kg) or vehicle began. Mice were euthanized after 8 weeks of treatment.

FIG. 9



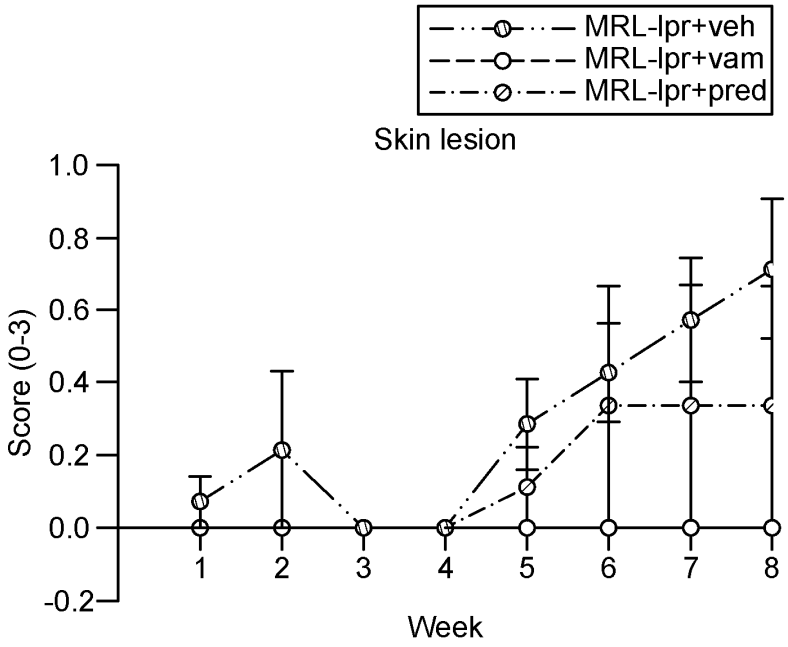
Reasons for Death:
- Found dead in cage (n=1)
- AV recommended euthanasia/met HE (n=4)
  - Lymphadenopathy
  - HE (>20% body weight loss)

FIG. 10



Lymphadenopathy* Scoring key:
0 = Not present
1 = Lymph nodes one side <1 cm
2 = Lymph nodes both sides <1 cm
3 = Lymph nodes both sides >1 cm
*brachial/axillary lymph nodes

FIG. 11A



Skin Lesion Scoring key:

0 = Not present
1 = Skin lesion <4 mm
2 = Skin lesion >4 mm but <1 cm
3 = Skin lesion >1 cm

FIG. 11B

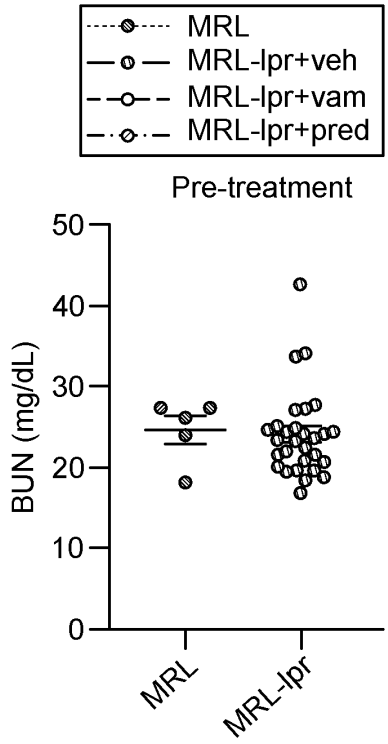


FIG. 12A

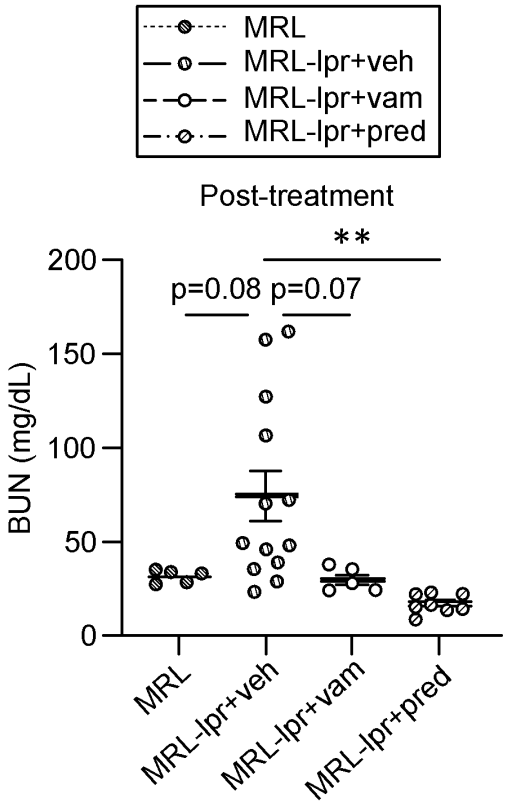


FIG. 12B

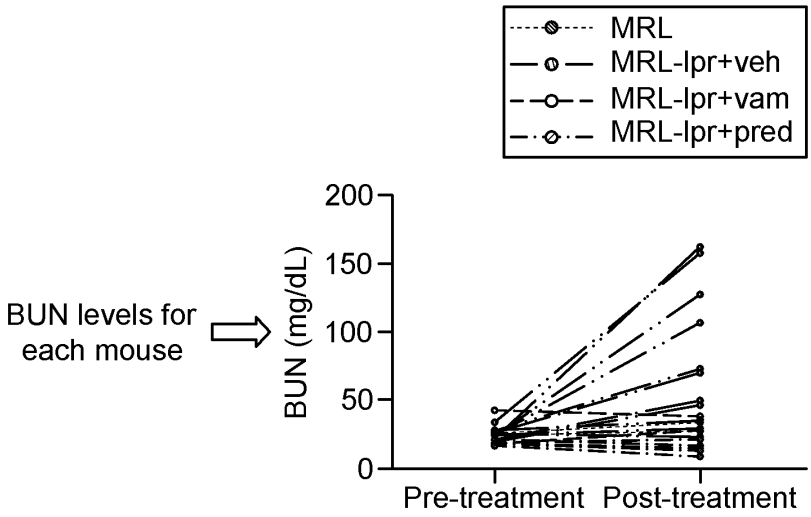

MRL
MRL-lpr+veh
MRL-lpr+vam
MRL-lpr+pred
BUN levels for each mouse
BUN (mg/dL)
200
150
100
50
0
Pre-treatment
Post-treatment

FIG. 12C

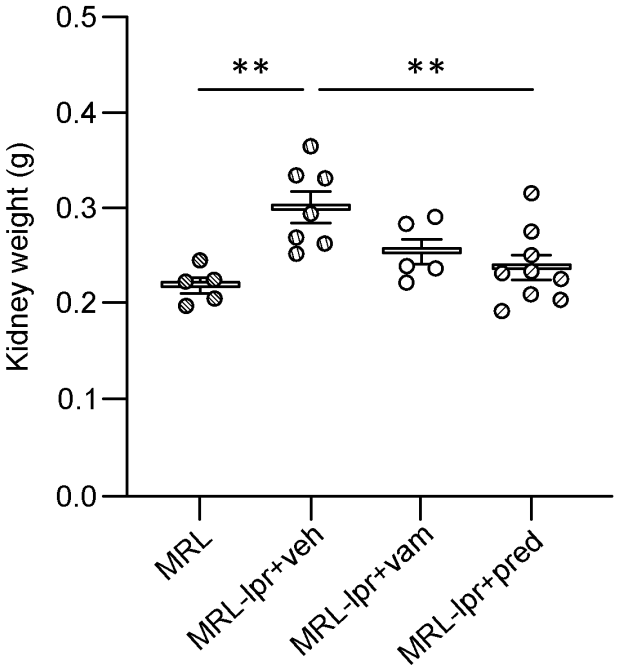


FIG. 13A

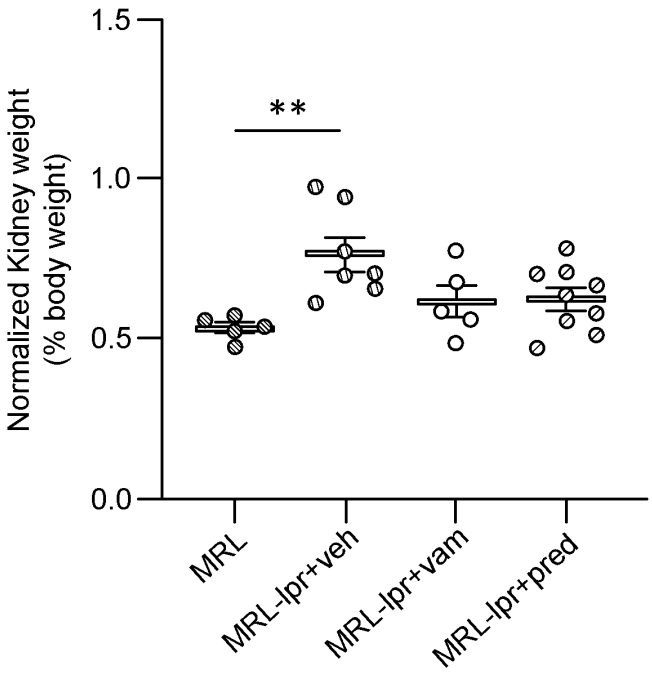


FIG. 13B

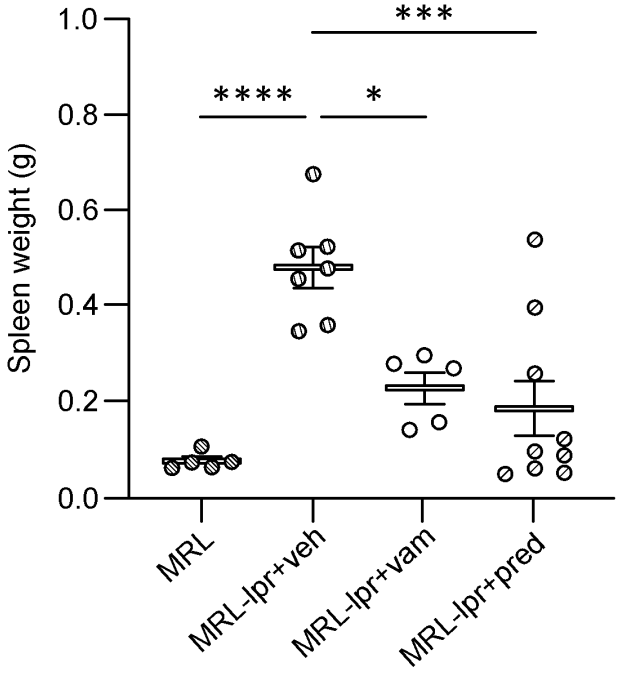


FIG. 13C

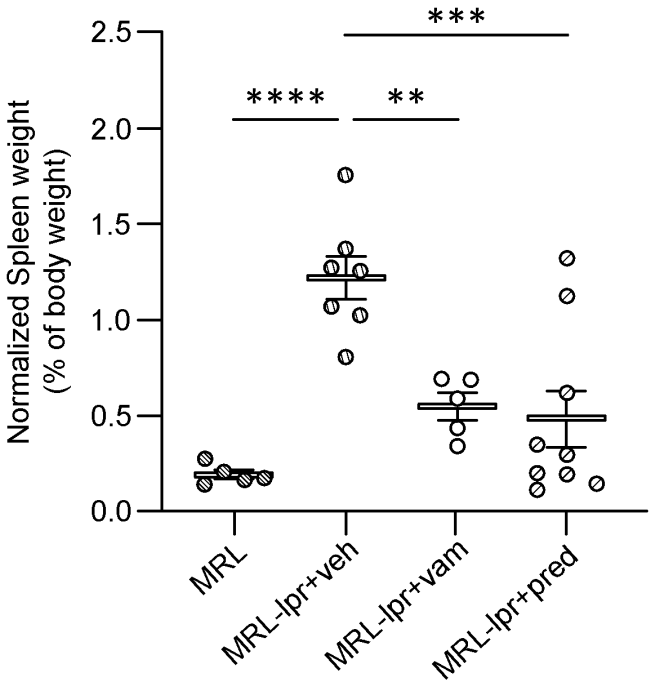


FIG. 13D

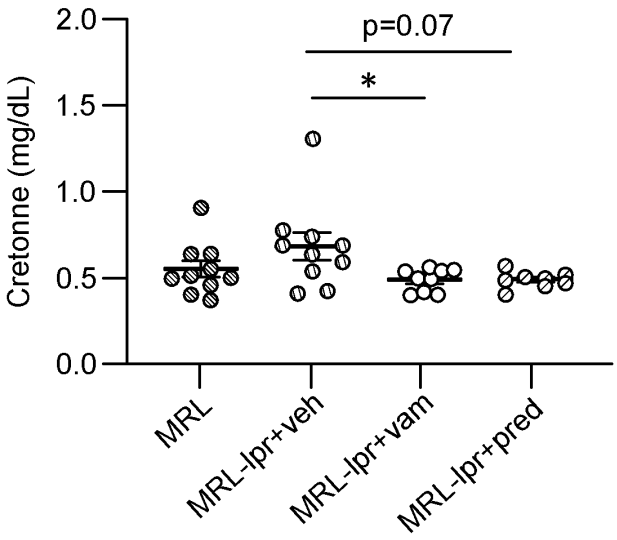

2.0
1.5
1.0
0.5
0.0
Cretonne (mg/dL)
p=0.07
*
MRL
MRL-lpr+veh
MRL-lpr+vam
MRL-lpr+pred

FIG. 14