

BCG

BALB/c

پزشکی

\*

Email: zavarana@modares.ac.ir

BCG

BALB/c

BCG

BALB/c

(ALM+alum)

( )

BCG

BCG

BCG

BCG

( $p \leq /$  )

BCG

T

HIV

BCG

. [ ] ALM

ALM BCG

. [ ]

[ ]

BCG BCG + ALM

) [ ]

(

ALM+BCG

BCG+ALM [ ] [ ]

[ ]

Leishmanin ) LST BCG+ALM [ ]

IL-4 IFN-γ (Skin Test

LST (CL)

LST

CL

LST

[ ] (SI)

[ ]

ALM+BCG

(Nacy) [ ]

BCG [ ]

(J.Convit)

BCG

[ ]

BCG

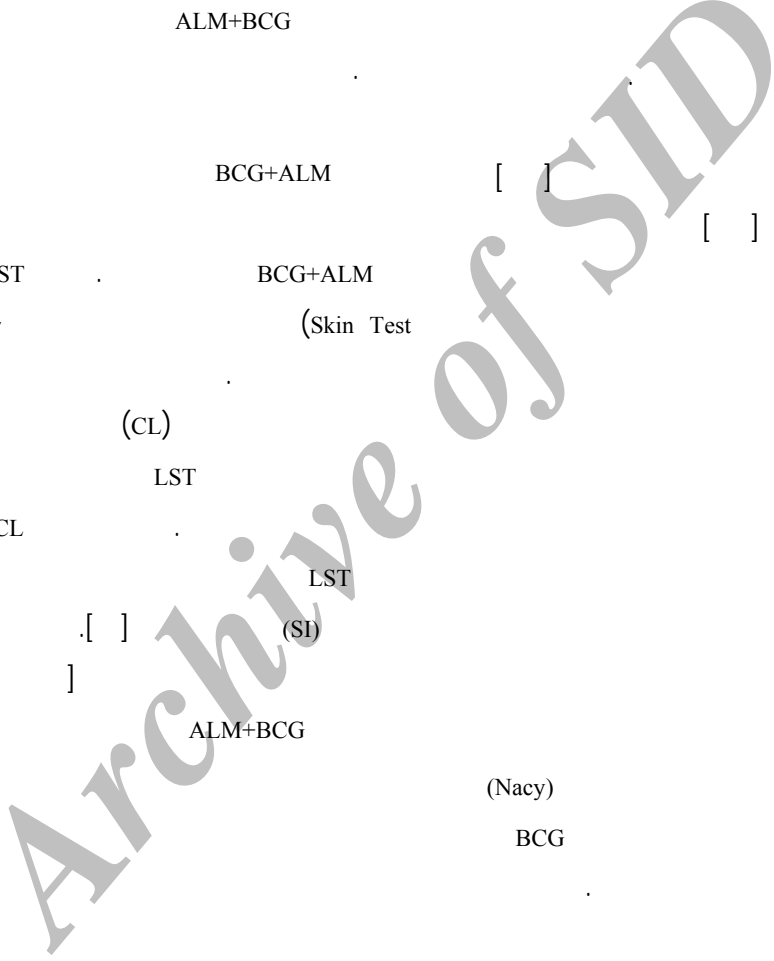
*L.mexicana*

*M.bovis* BCG *L.braziliensis*

[ ]

BCG

IgA





IFN- $\gamma$  IL-12

(ALM+alum)

/

CD4<sup>+</sup>Th1

CD8<sup>+</sup>T

BCG (pasture strain 1173-P2)

× cfu

sauton

[ ]

BCG

BALB/c

**PPD**

BCG

PPD

/ )

BCG

BALB/c

BCG

ALM+alum

[ ]

ALM+alum

BCG

cfu BCG

BCG

ALM+alum

ALM+alum

*L.major*

)

(

F/T

PPD

μg/ml

(Freezed-Thawed)

*L.major*

Archive of SID

- log = / ( μg/ml)  
 ( μg/ml)

SPSS  
 Excel SPSS (NO)  
 kruskal walis O.D.  
 student t test  
 p< /

[ ]

**PPD**

PPD

BCG

BCG

General Linear Model

p< /

BCG

PPD

FCS

( )

°c

) Repeated measure

( ) Friedman ( (multiple comparison)

:[ ]

BCG

PPD

(p< / )

±

/ ± /	/ ± /	/ ±	
/ ± /	/ ± /	/ ± /	BCG
/ ± /	/ ± /	/ ± /	BCG



p < /  
( BCG)

PPD

p < /

(p < / )

BCG

F/T PPD

PPD

p < /

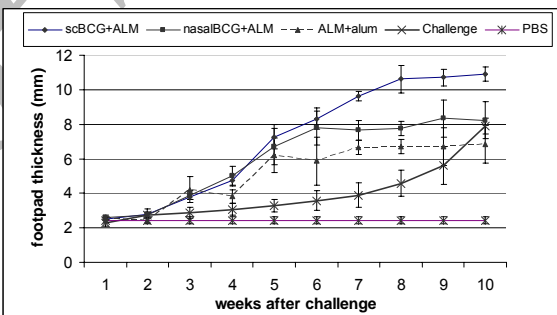
NO

( )

BCG

( )

NO



BCG

ALM+

BCG

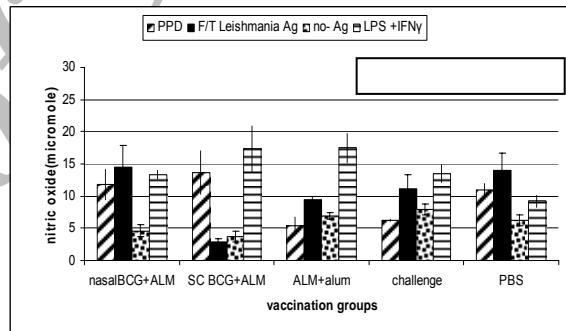
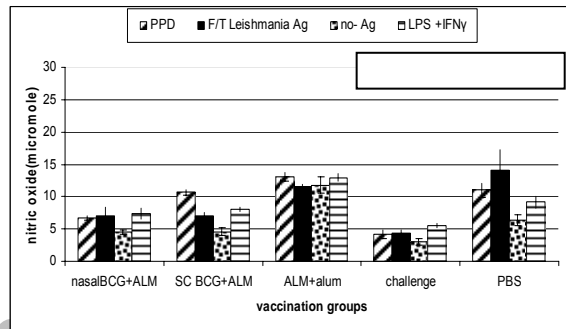
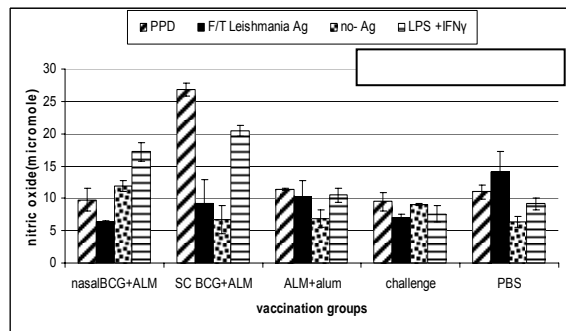
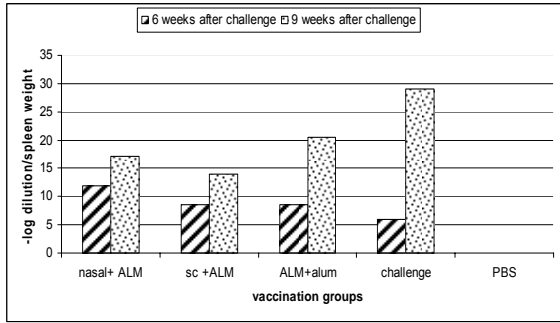
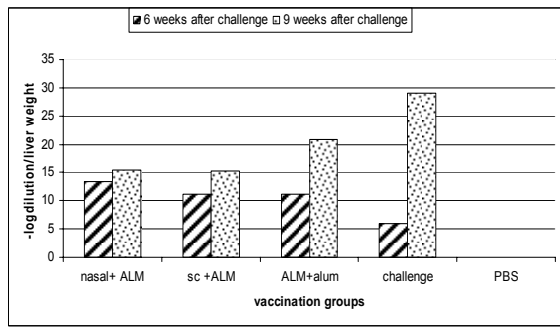
ALM+

ALM+alum

IFN-γ+ PPD, F/T

LPS

Kruskal-Wallis



( ) ( )

(p < / )

ALM + BCG ALM+ BCG

ALM+alum

BCG

(p < / )

PPD

( )

BCG

( )

BCG

F/T PPD

( )

ALM+

BCG

ALM+

BCG

ALM+alum



[ ]

BALB/c  
( ) BCG  
BALB/c

BALB/c

BCG

BCG

BCG

)  
(

[ ]  
(Lihao Chen)

BCG

(Falero Diaz)

BCG

BCG

BCG

[ ]

(NO)

PPD

BCG

BCG

BCG

F/T

PPD

BCG

HIV

(p< / )

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BCG

BCG

ALM+alum

BCG

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