FIGURE 1

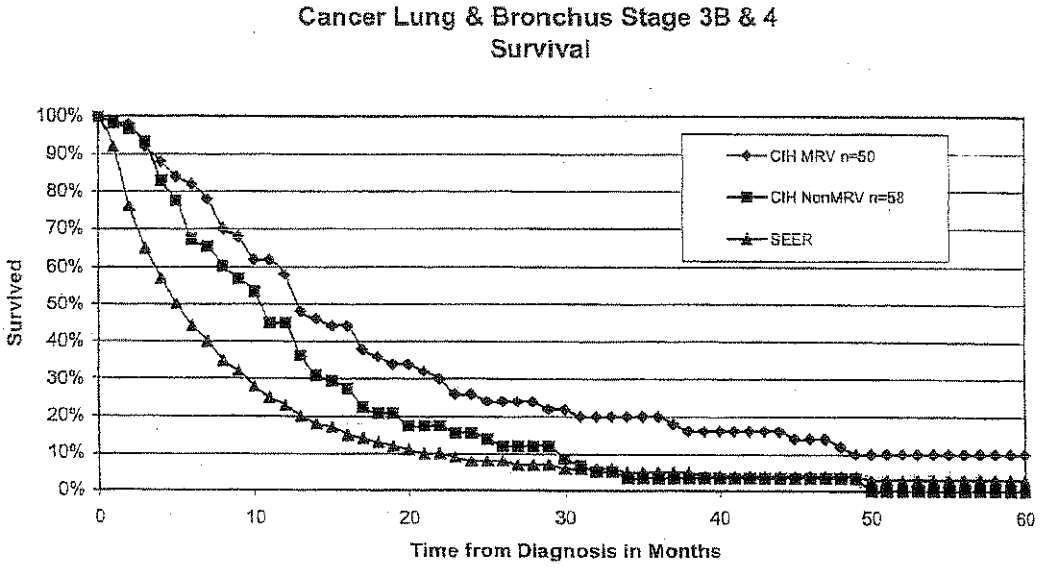

Cancer Lung & Bronchus Stage 3B & 4
Survival
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Survived
0
10
20
30
40
50
60
Time from Diagnosis in Months
CIH MRV n=50
CIH NonMRV n=58
SEER

FIGURE 2

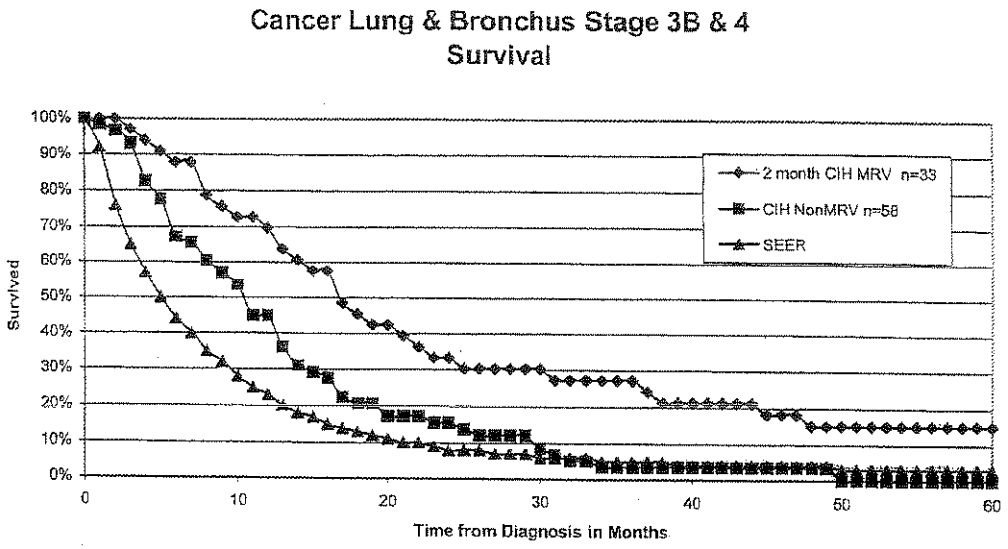

Cancer Lung & Bronchus Stage 3B & 4
Survival
Survived
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0
10
20
30
40
50
60
Time from Diagnosis in Months
2 month CIH MRV n=33
CIH NonMRV n=58
SEER

Figure 3: Combined Analysis
MRV vs. Non-MRV Lung 2

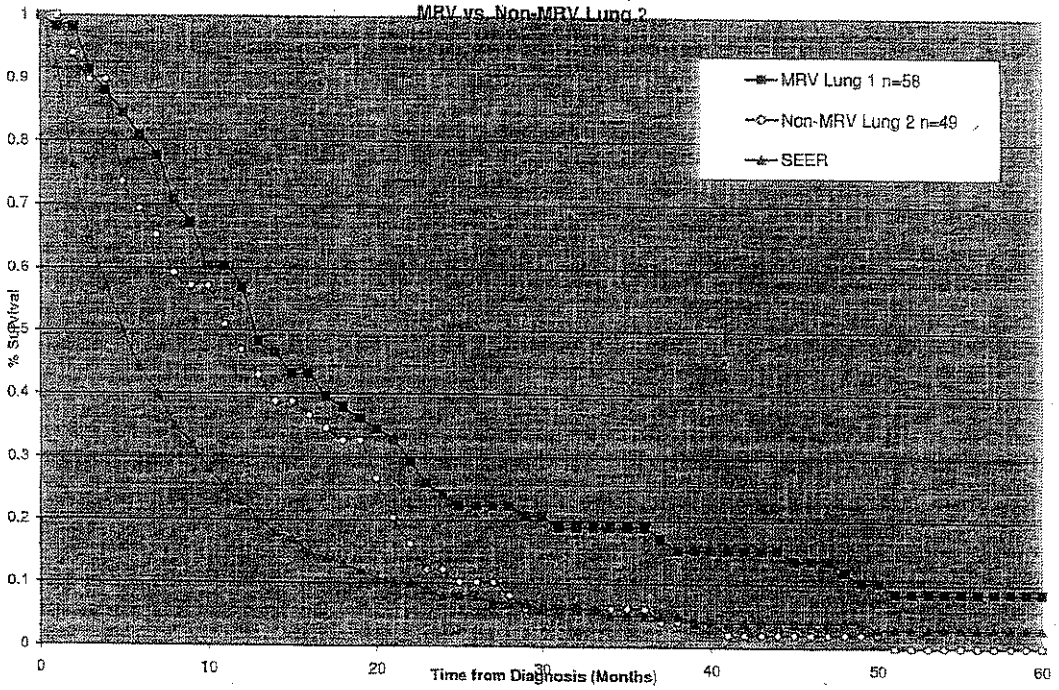


Figure 4: Combined Analysis
>2 months MRV vs. Non-MRV Lung 2

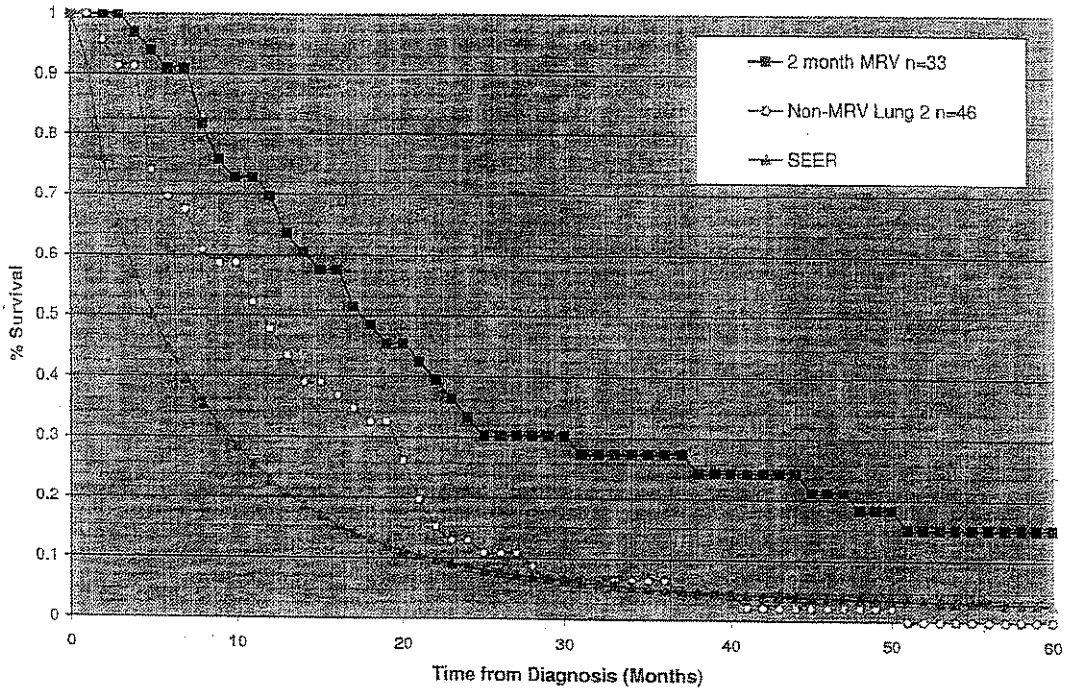


Figure 5: Combined Analysis
>6 months MRV vs. Non-MRV Lung 2

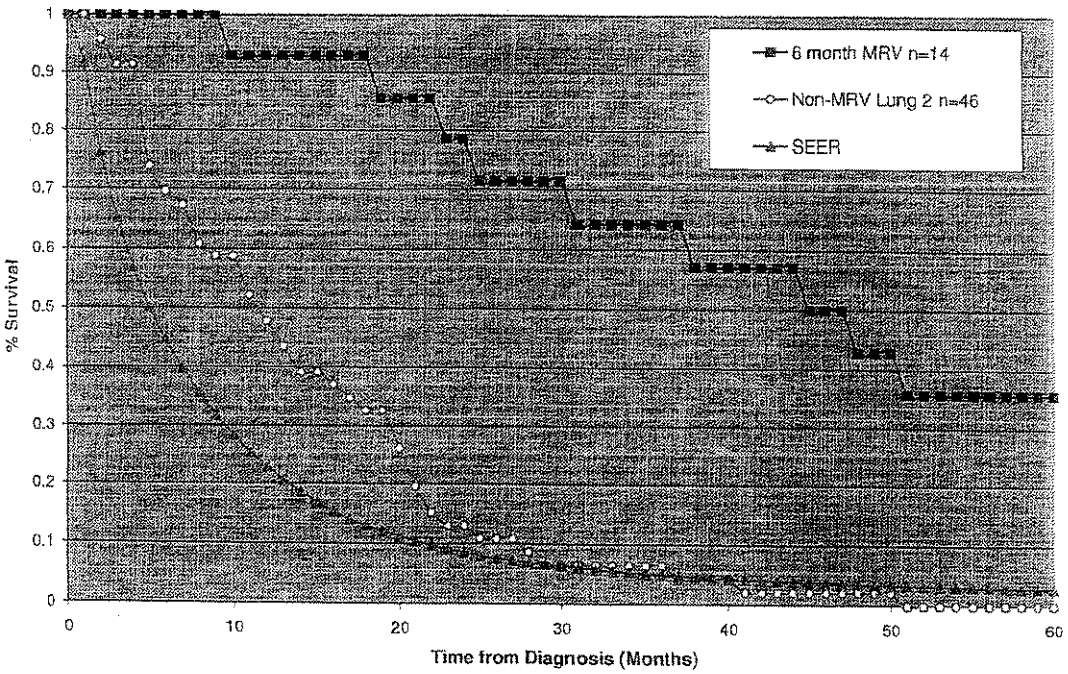


Figure 6
Stage 4 Breast Cancer
Survival Curve for Bone/Lung Metastasis

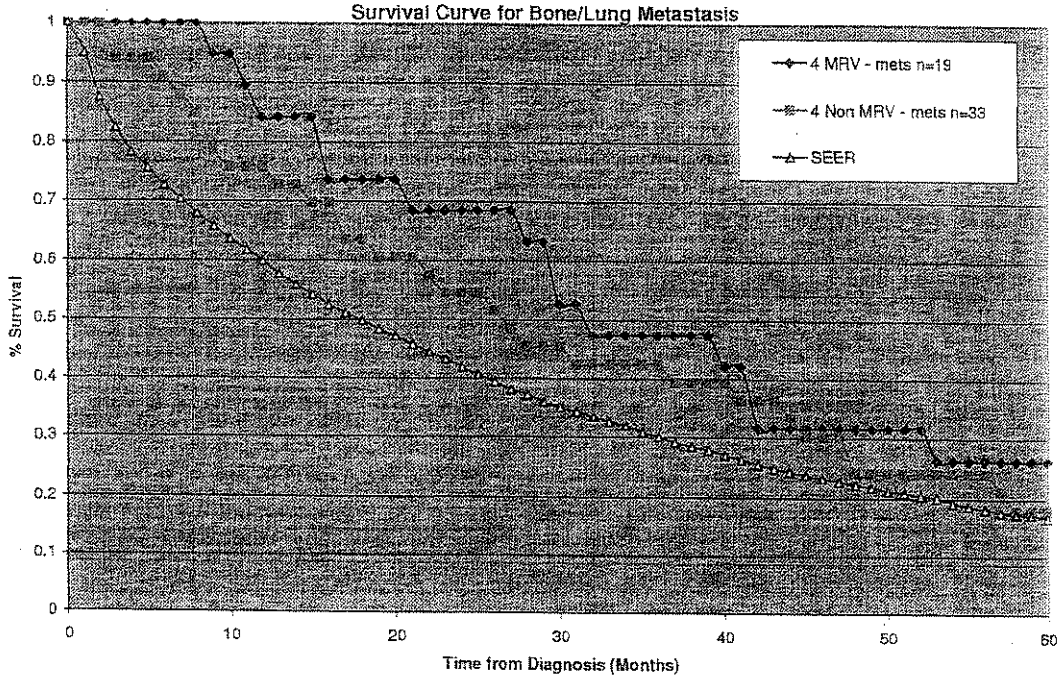


Figure 7
Survival of Stage 4 Prostate Cancer Patients with Bone Metastases
Surgery or Radiation to Destroy Prostate

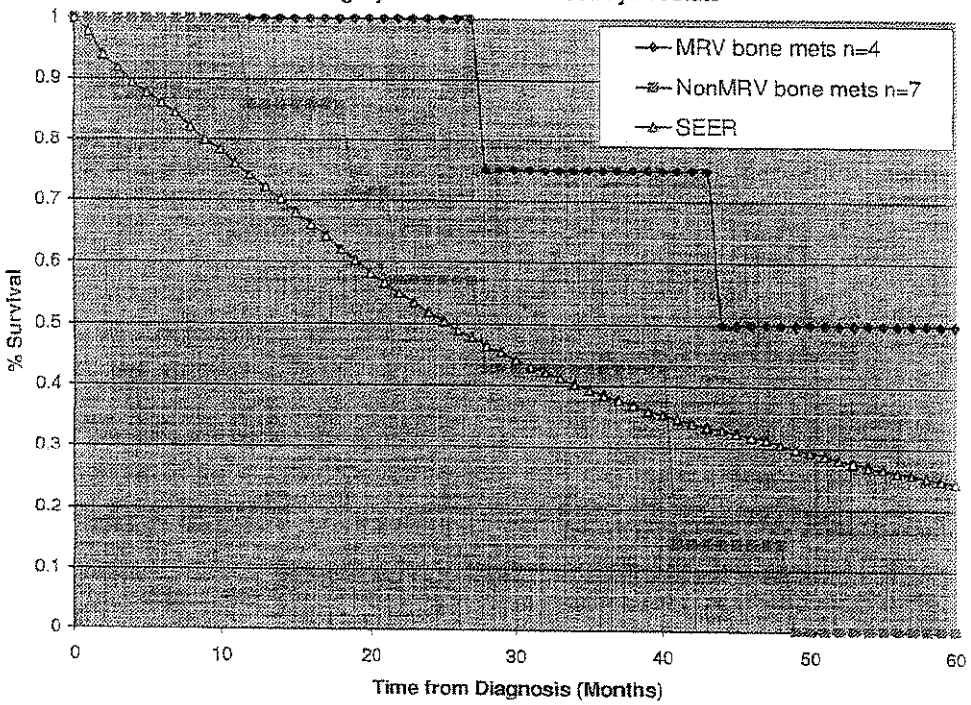


Figure 8: Stage 4 Colorectal Cancer
Treatment Comparison

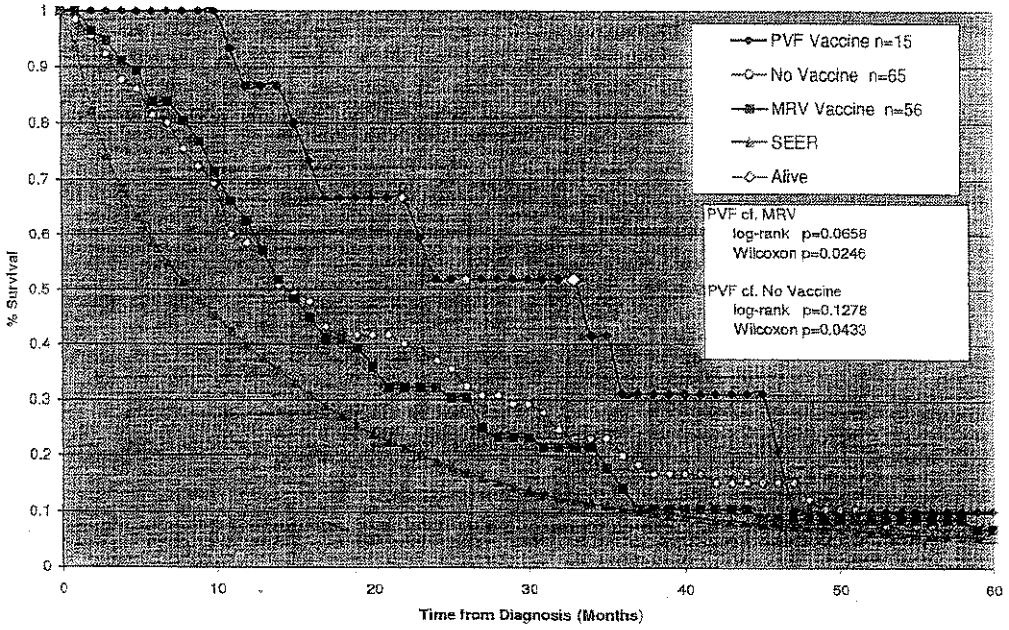


Figure 9: Stage 4 Colorectal Cancer
First Visit within 3 months of metastatic date

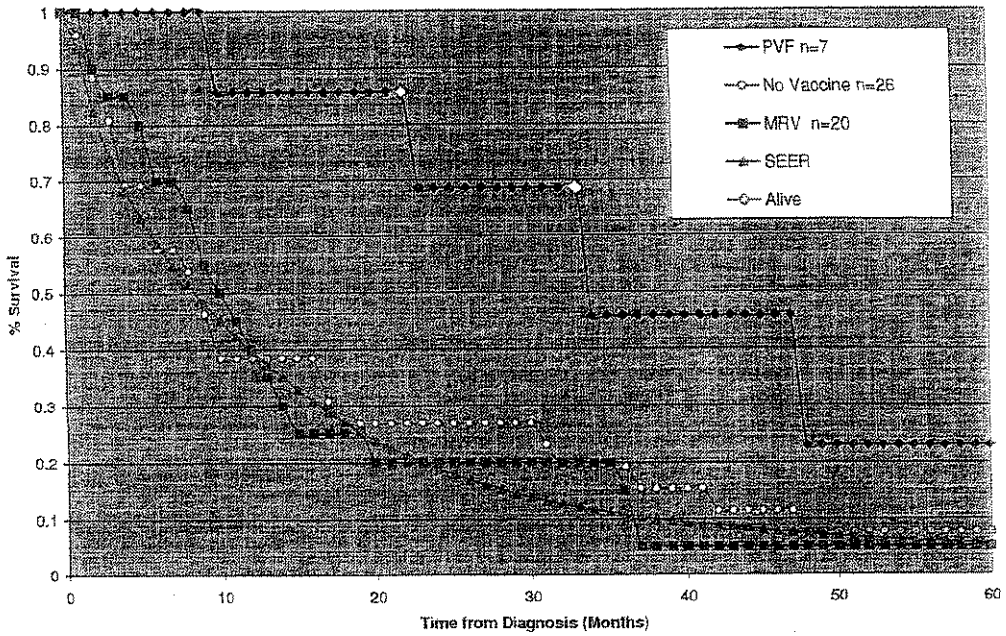


Figure 10

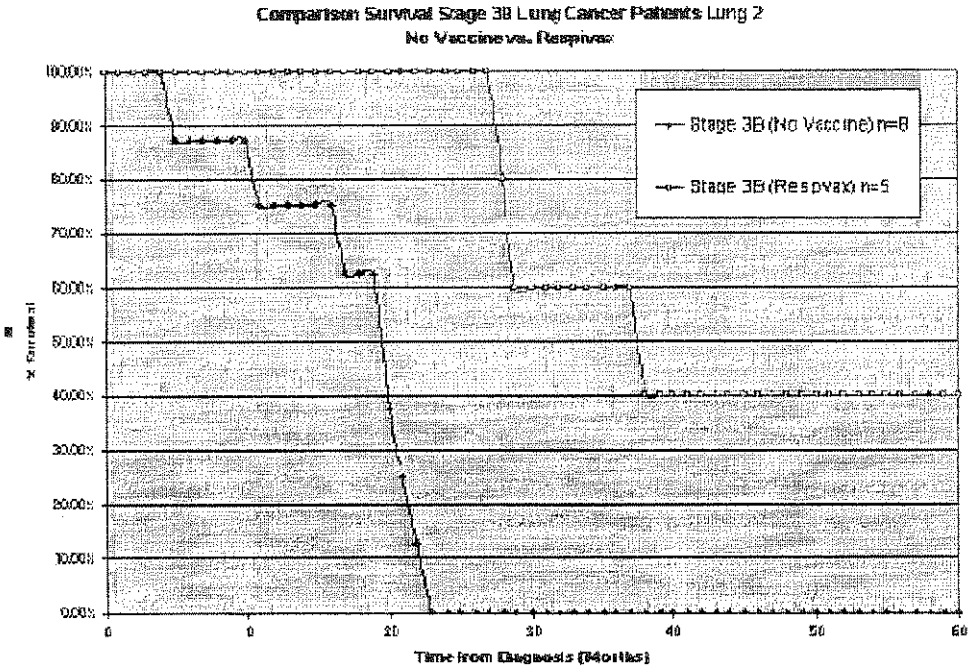

Comparison Survival Stage 3B Lung Cancer Patients Lung 2
No Vaccine vs. Respivax
Stage 3B (No Vaccine) n=8
Stage 3B (Respvax) n=5
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
0
0
20
30
40
50
60
Time from Diagnosis (Months)

Figure 11: Stage 3B & 4 Lung Cancer
Survival for cases diagnosed in 1992-2000 inclusive

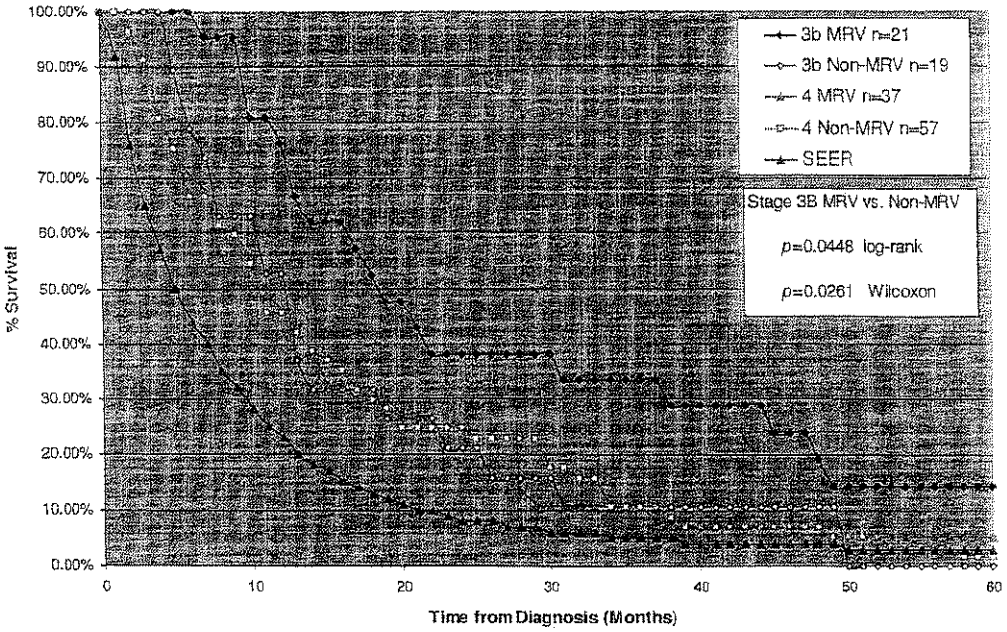


Figure 12: Stage 3B & 4 Lung Cancer
Survival from CIH First Visit

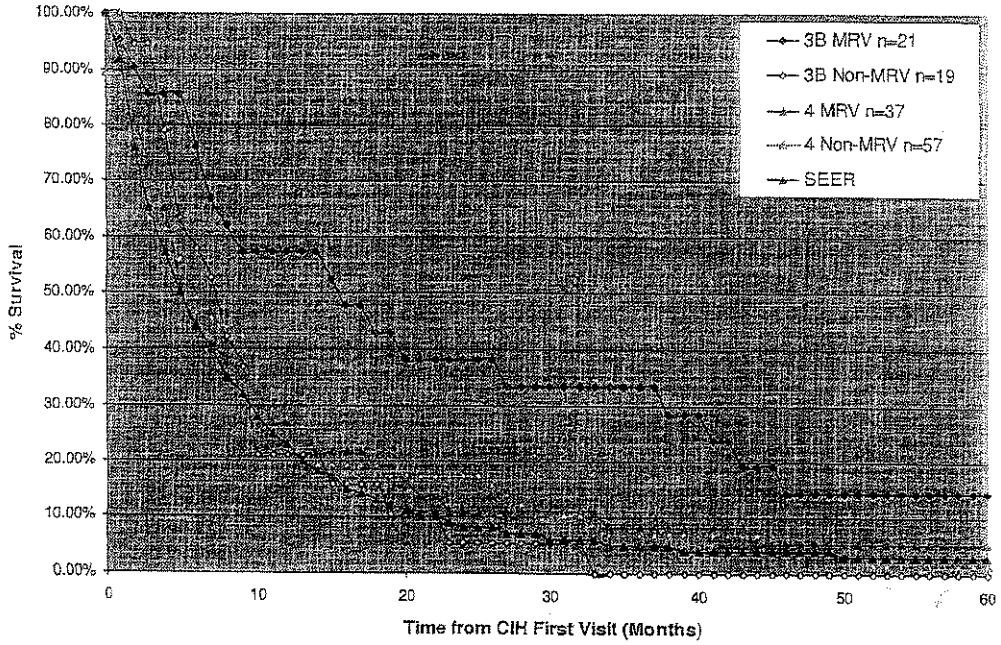
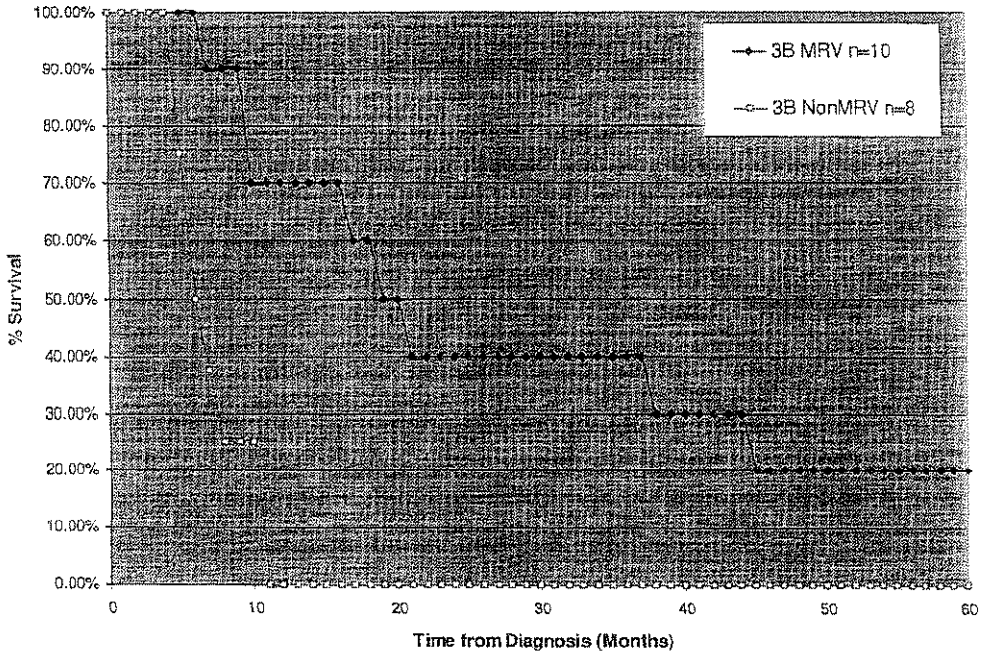


Figure 13: Stage 3B Lung Cancer
CIH Visit within 3 months after diagnosis with stage 3B



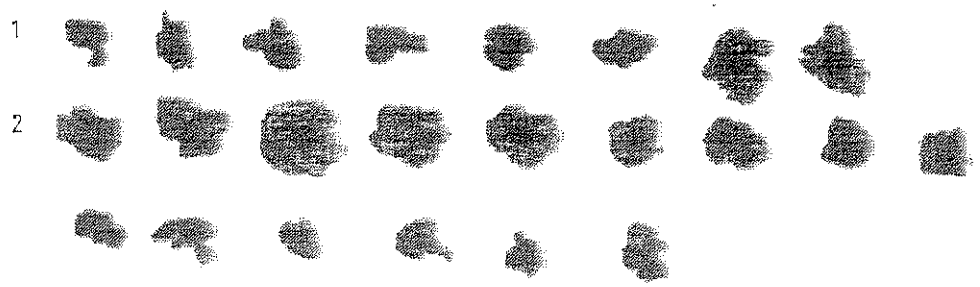


FIG. 14

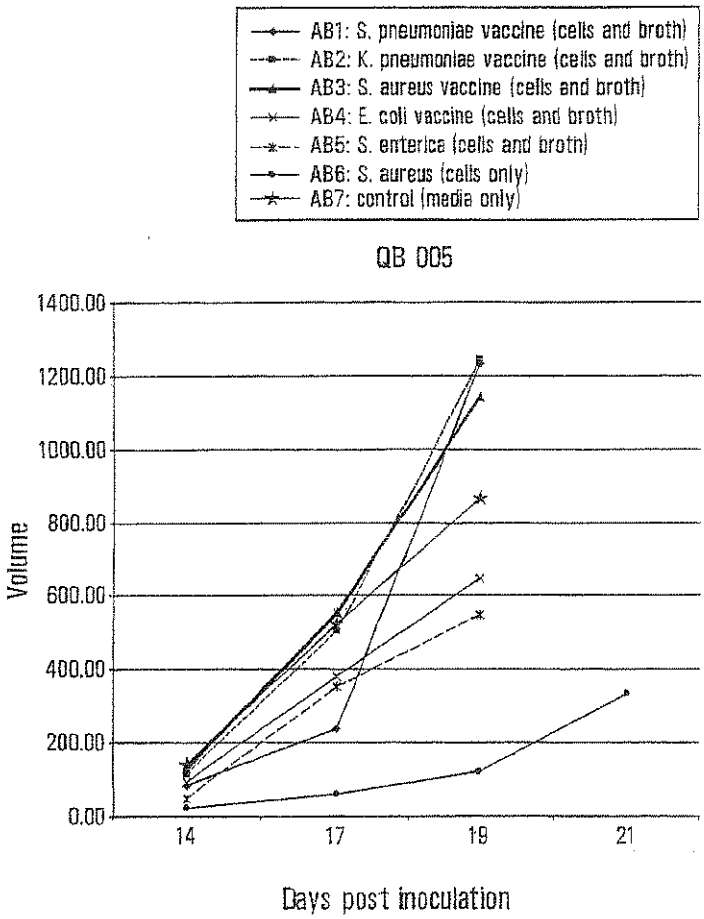

AB1: S. pneumoniae vaccine (cells and broth)
AB2: K. pneumoniae vaccine (cells and broth)
AB3: S. aureus vaccine (cells and broth)
AB4: E. coli vaccine (cells and broth)
AB5: S. enterica (cells and broth)
AB6: S. aureus (cells only)
AB7: control (media only)
QB 005
1400.00
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
Volume
14
17
19
21
Days post inoculation

FIG. 15

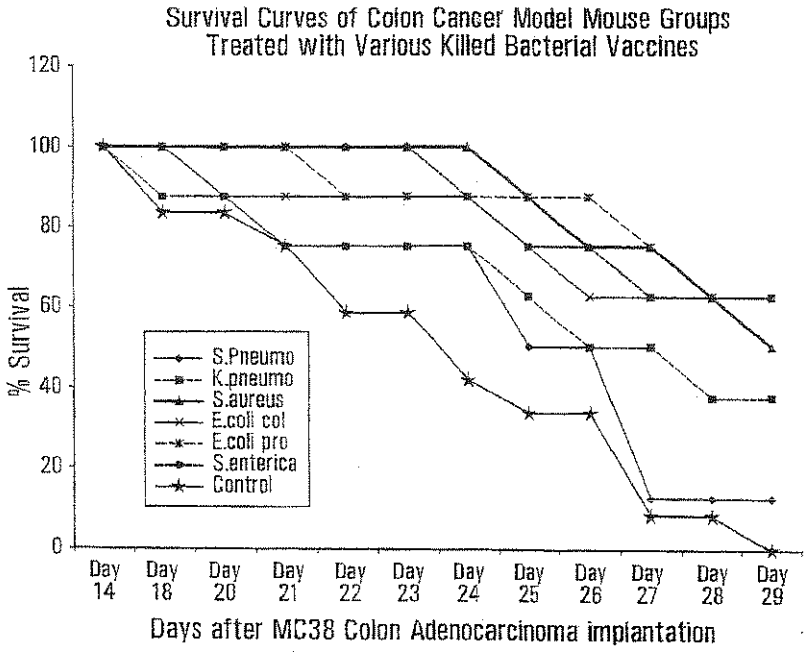

Survival Curves of Colon Cancer Model Mouse Groups
Treated with Various Killed Bacterial Vaccines
% Survival
120
100
80
60
40
20
0
S.Pneumo
K.pneumo
S.aureus
E.coli col
E.coli pro
S.enterica
Control
Day 14
Day 18
Day 20
Day 21
Day 22
Day 23
Day 24
Day 25
Day 26
Day 27
Day 28
Day 29
Days after MC38 Colon Adenocarcinoma implantation

FIG. 16

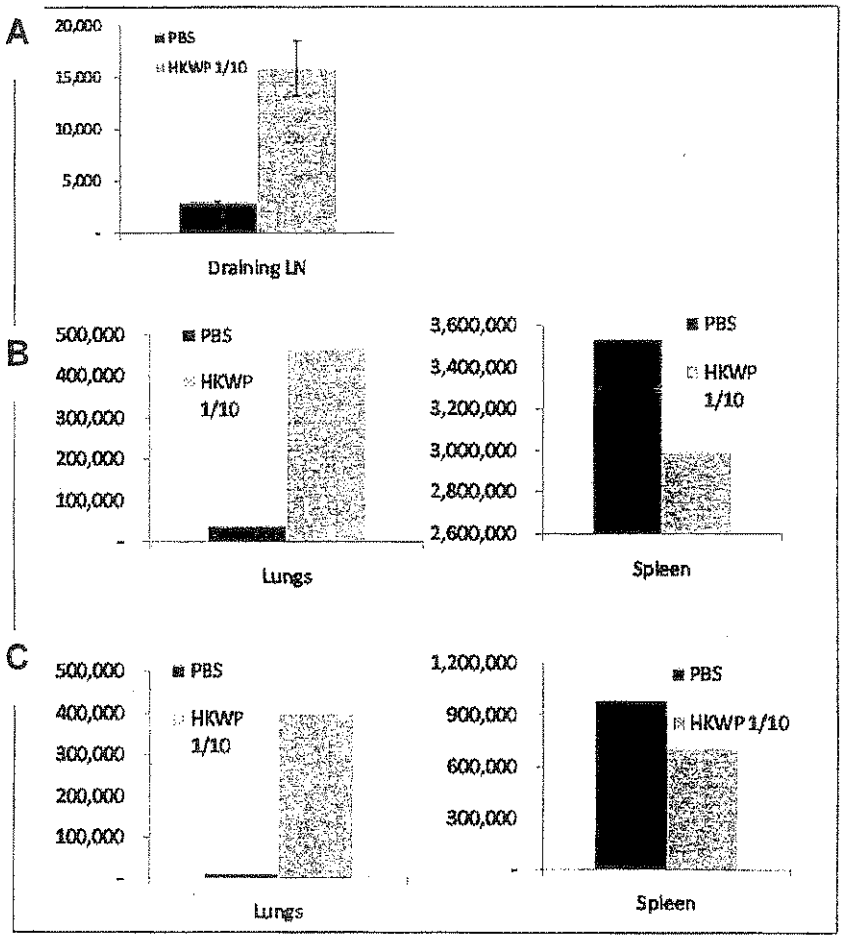

A
20,000
15,000
10,000
5,000
-
PBS
HKWP 1/10
Draining LN
B
500,000
400,000
300,000
200,000
100,000
-
PBS
HKWP 1/10
Lungs
3,600,000
3,400,000
3,200,000
3,000,000
2,800,000
2,600,000
PBS
HKWP 1/10
Spleen
C
500,000
400,000
300,000
200,000
100,000
-
PBS
HKWP 1/10
Lungs
1,200,000
900,000
600,000
300,000
-
PBS
HKWP 1/10
Spleen

FIGURE 17

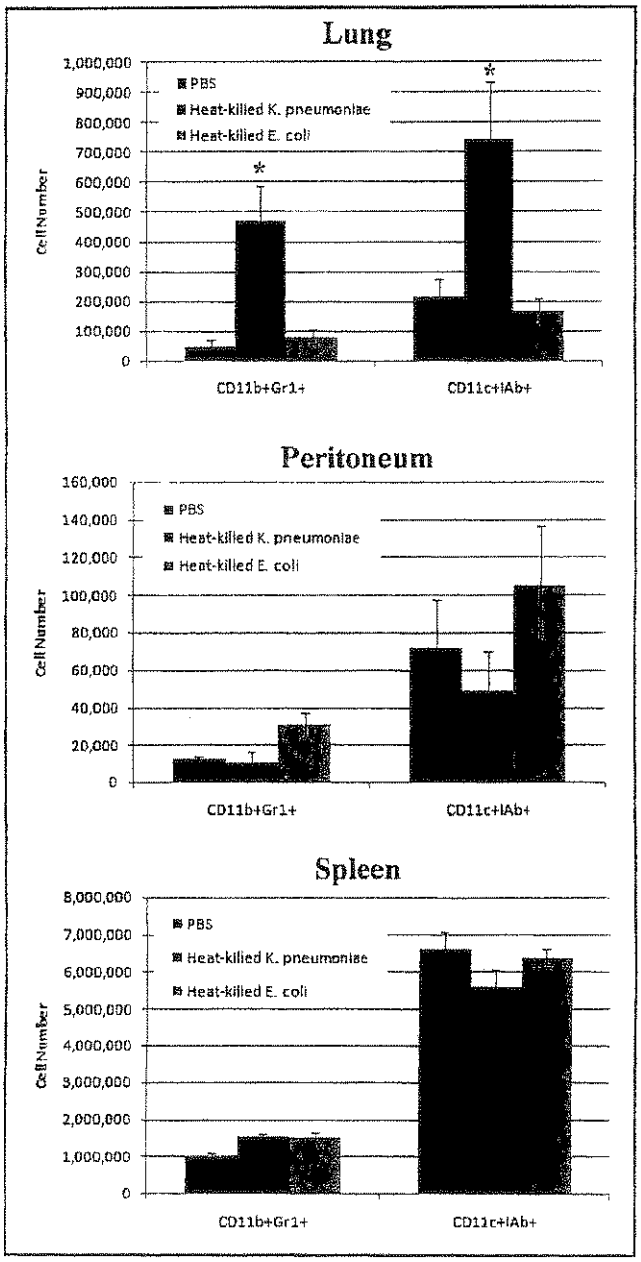

Lung
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
Cell Number
PBS
Heat-killed K. pneumoniae
Heat-killed E. coli
*
*
CD11b+Gr1+
CD11c+IAb+
Peritoneum
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Cell Number
PBS
Heat-killed K. pneumoniae
Heat-killed E. coli
CD11b+Gr1+
CD11c+IAb+
Spleen
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Cell Number
PBS
Heat-killed K. pneumoniae
Heat-killed E. coli
CD11b+Gr1+
CD11c+IAb+

FIGURE 18

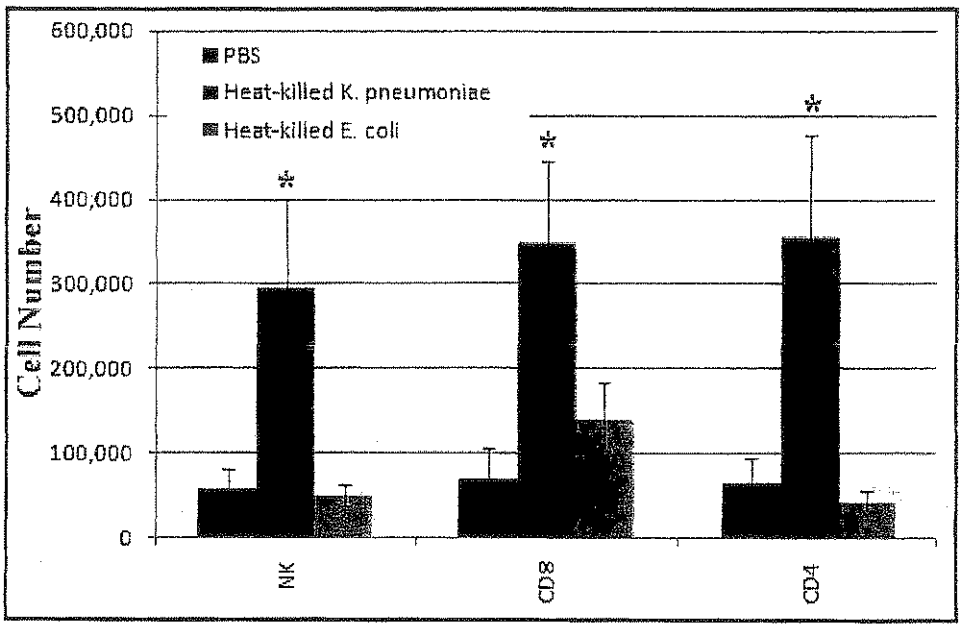

600,000
500,000
400,000
300,000
200,000
100,000
0
Cell Number
PBS
Heat-killed K. pneumoniae
Heat-killed E. coli
*
*
*
NK
CD8
CD4

FIGURE 19

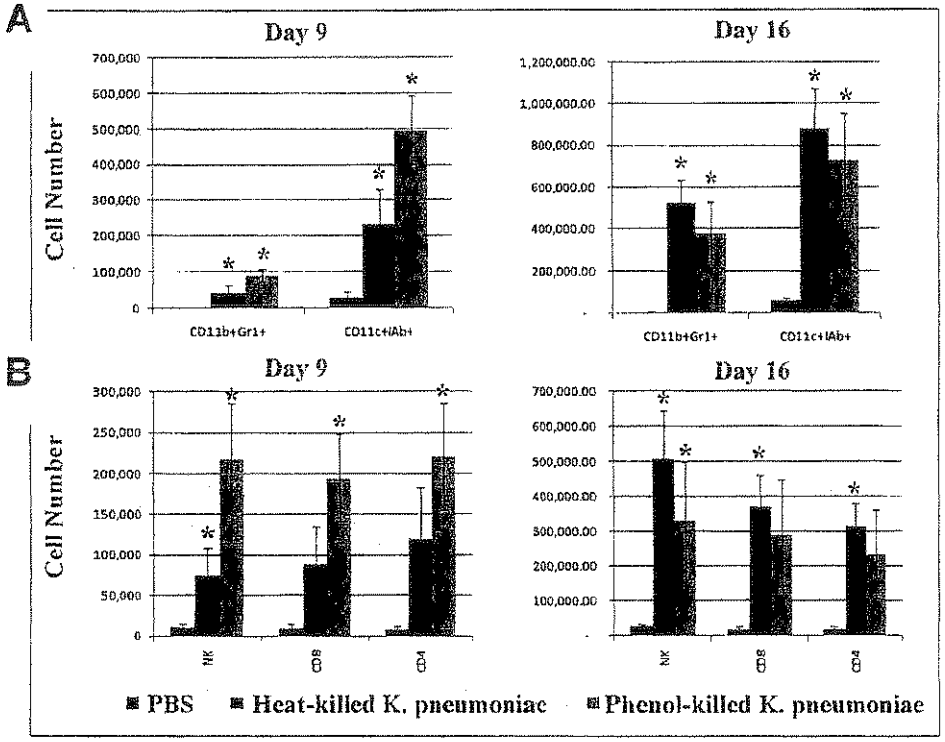

A
Day 9
Day 16
Cell Number
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
1,200,000.00
1,000,000.00
800,000.00
600,000.00
400,000.00
200,000.00
CD11b+Gr1+
CD11c+IAb+
B
Day 9
Day 16
Cell Number
300,000
250,000
200,000
150,000
100,000
50,000
0
700,000.00
600,000.00
500,000.00
400,000.00
300,000.00
200,000.00
100,000.00
NK
CD8
CD4
PBS
Heat-killed K. pneumoniae
Phenol-killed K. pneumoniae

FIGURE 20

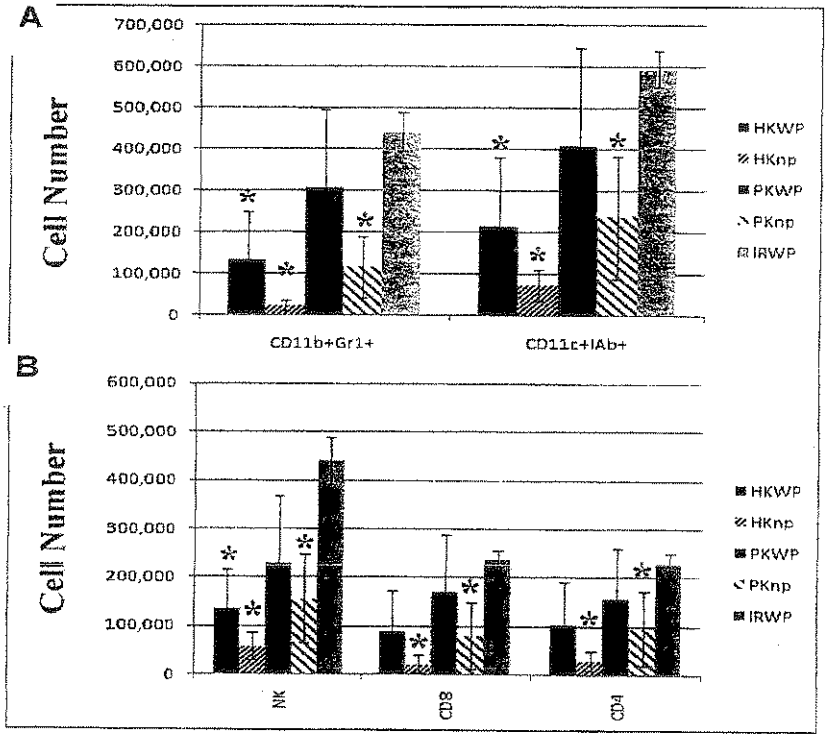

A
Cell Number
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
CD11b+Gr1+
CD11c+IAb+
HKWP
HKnp
PKWP
PKnp
IRWP
B
Cell Number
600,000
500,000
400,000
300,000
200,000
100,000
0
NK
CD8
CD4
HKWP
HKnp
PKWP
PKnp
IRWP

FIGURE 21

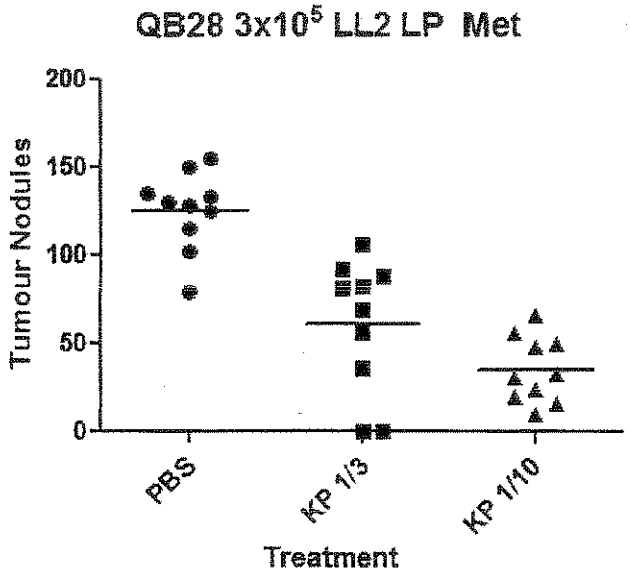

QB28 3x10^5 LL2 LP Met
Tumour Nodules
200
150
100
50
0
PBS
KP 1/3
KP 1/10
Treatment

Figure 22

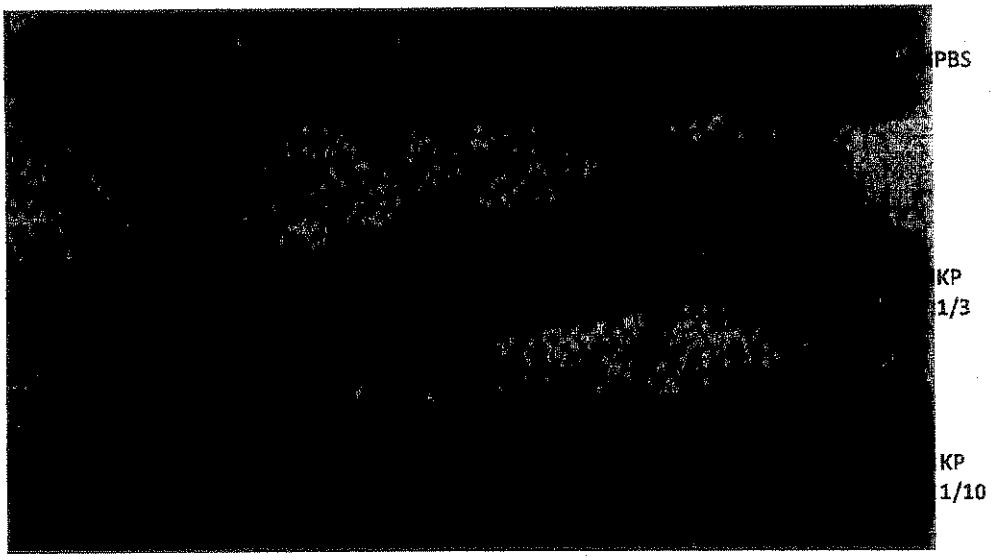


Figure 23

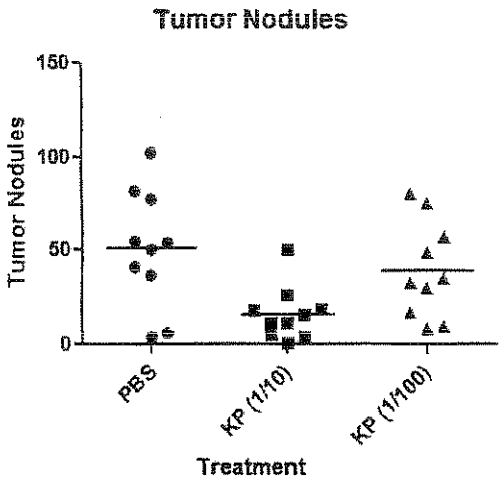

Tumor Nodules
150
100
50
0
Tumor Nodules
PBS
KP (1/10)
KP (1/100)
Treatment

Figure 24

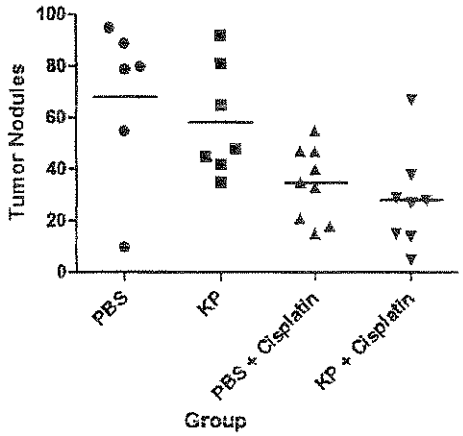

Tumor Nodules
100
80
60
40
20
0
PBS
KP
PBS + Cisplatin
KP + Cisplatin
Group

Figure 25

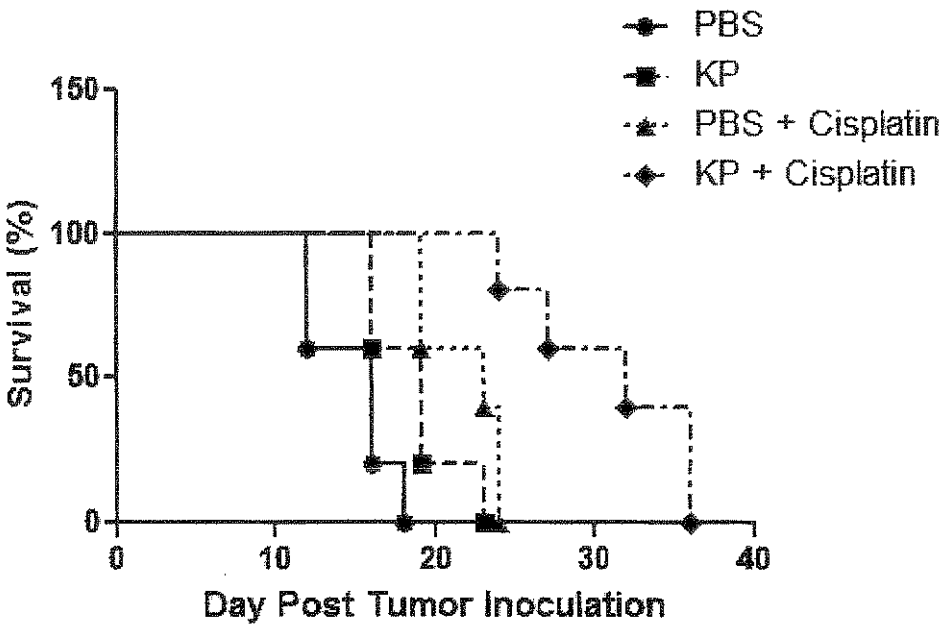

PBS
KP
PBS + Cisplatin
KP + Cisplatin
Survival (%)
150
100
50
0
0
10
20
30
40
Day Post Tumor Inoculation

Figure 26

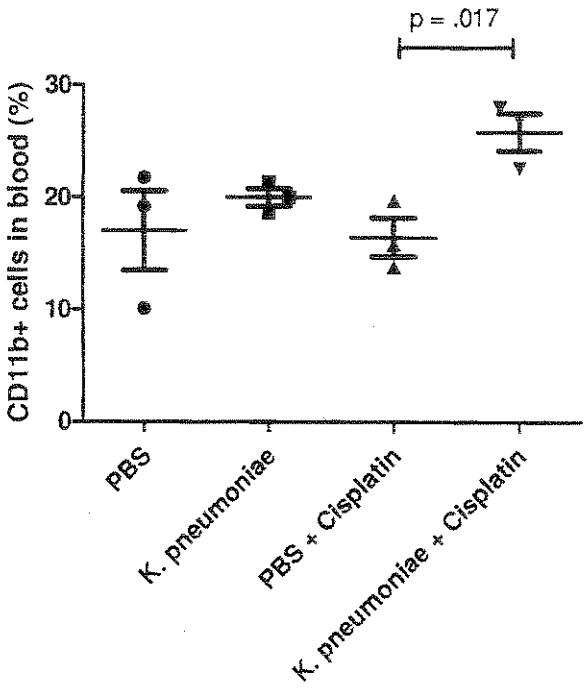

p = .017
CD11b+ cells in blood (%)
30
20
10
0
PBS
K. pneumoniae
PBS + Cisplatin
K. pneumoniae + Cisplatin

Figure 27

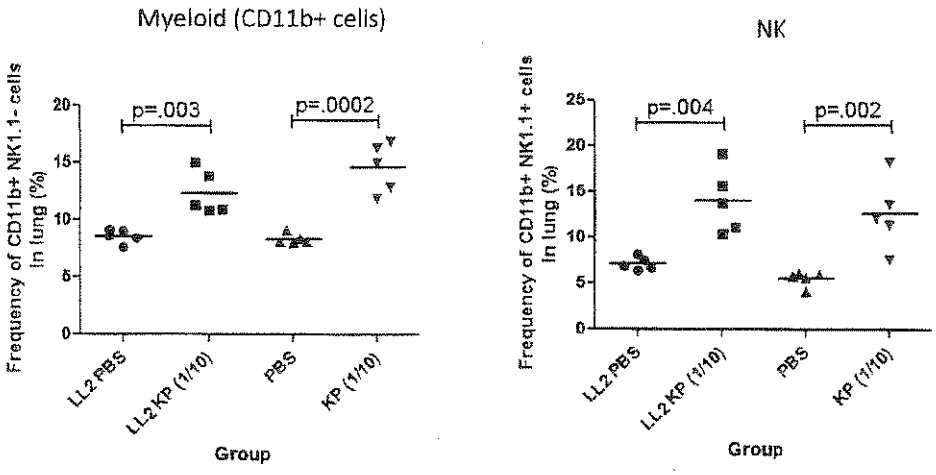

Myeloid (CD11b+ cells)
Frequency of CD11b+ NK1.1- cells in lung (%)
p=.003
p=.0002
LL2 PBS
LL2 KP (1/10)
PBS
KP (1/10)
Group
NK
Frequency of CD11b+ NK1.1+ cells in lung (%)
p=.004
p=.002
LL2 PBS
LL2 KP (1/10)
PBS
KP (1/10)
Group

Figure 28

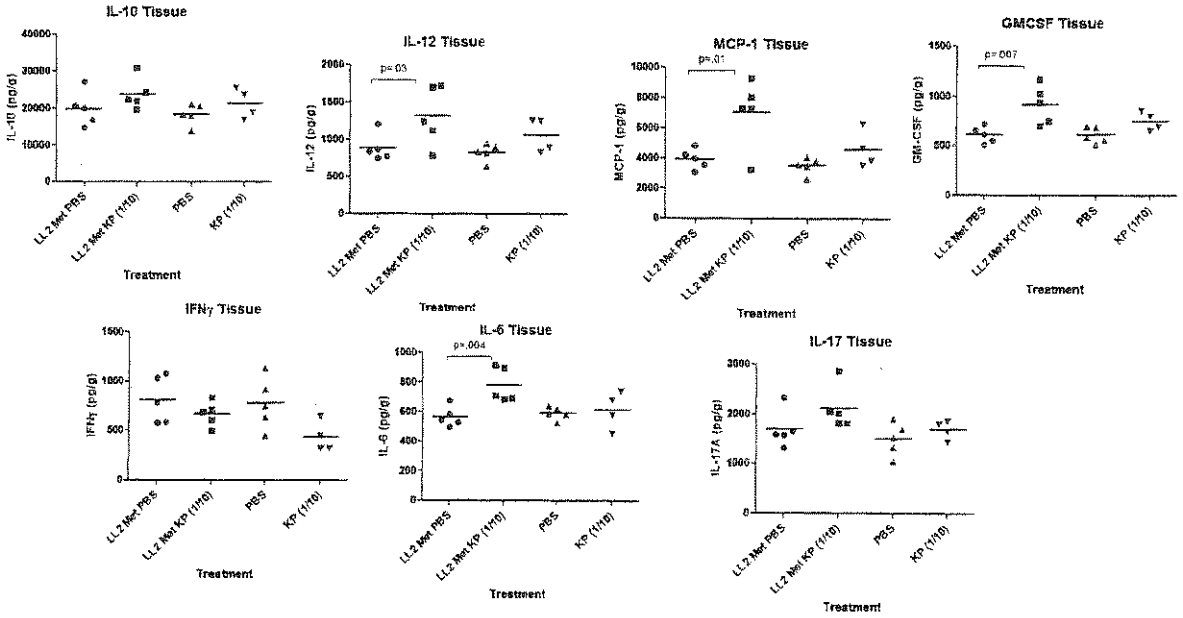

IL-10 Tissue
IL-10 (pg/g)
LL2 Met PBS
LL2 Met KP (1/10)
PBS
KP (1/10)
Treatment
IL-12 Tissue
p=.03
IL-12 (pg/g)
MCP-1 Tissue
p=.01
MCP-1 (pg/g)
GMCSF Tissue
p=.007
GM-CSF (pg/g)
IFNγ Tissue
IFNγ (pg/g)
IL-6 Tissue
p=.004
IL-6 (pg/g)
IL-17 Tissue
IL-17A (pg/g)

Figure 29

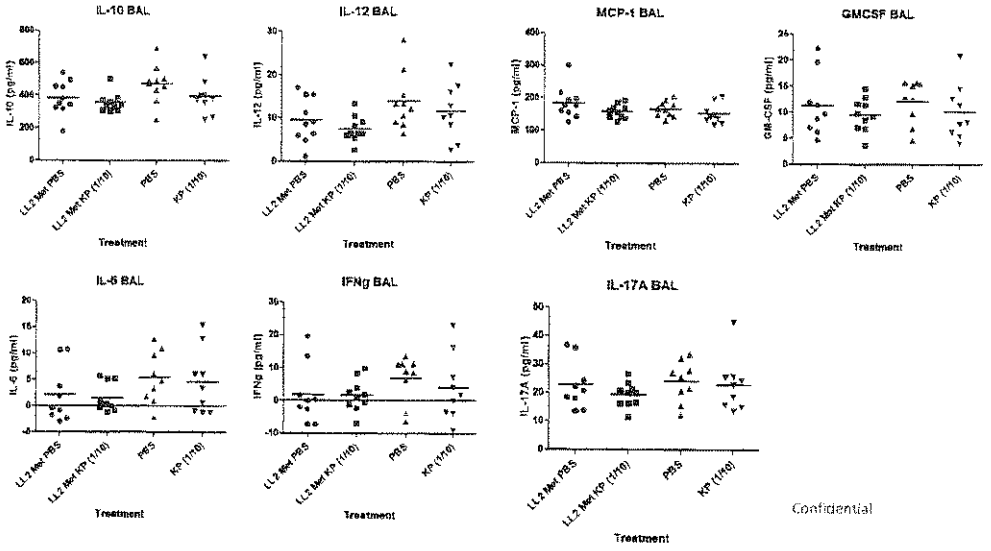

IL-10 BAL
IL-12 BAL
MCP-1 BAL
GMCSF BAL
IL-6 BAL
IFNg BAL
IL-17A BAL
Treatment
LL2 Met PBS
LL2 Met KP (1/10)
PBS
KP (1/10)
Confidential

Figure 30

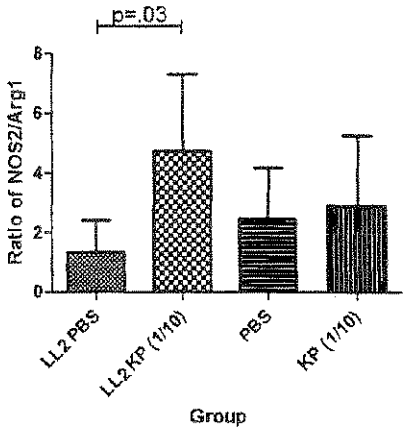

p=.03
Ratio of NOS2/Arg1
0
2
4
6
8
LL2 PBS
LL2 KP (1/10)
PBS
KP (1/10)
Group

Figure 31

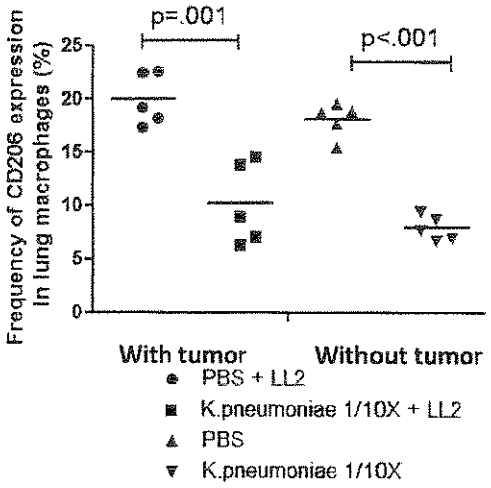

p=.001
p<.001
Frequency of CD206 expression
In lung macrophages (%)
25
20
15
10
5
0
With tumor
Without tumor
PBS + LL2
K.pneumoniae 1/10X + LL2
PBS
K.pneumoniae 1/10X

Figure 32

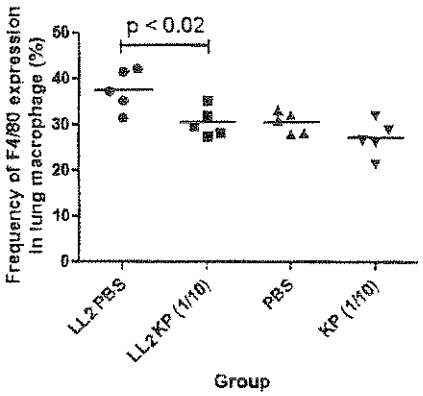

p < 0.02
Frequency of F4/80 expression in lung macrophage (%)
50
40
30
20
10
0
LL2 PBS
LL2 KP (1/10)
PBS
KP (1/10)
Group

Figure 33

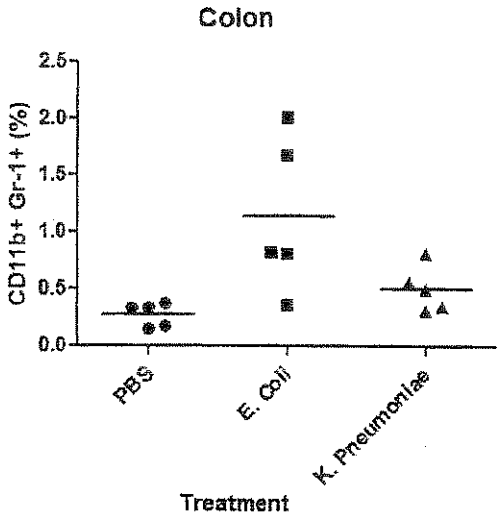

Colon
CD11b+ Gr-1+ (%)
2.5
2.0
1.5
1.0
0.5
0.0
PBS
E. Coli
K. Pneumoniae
Treatment

Figure 34

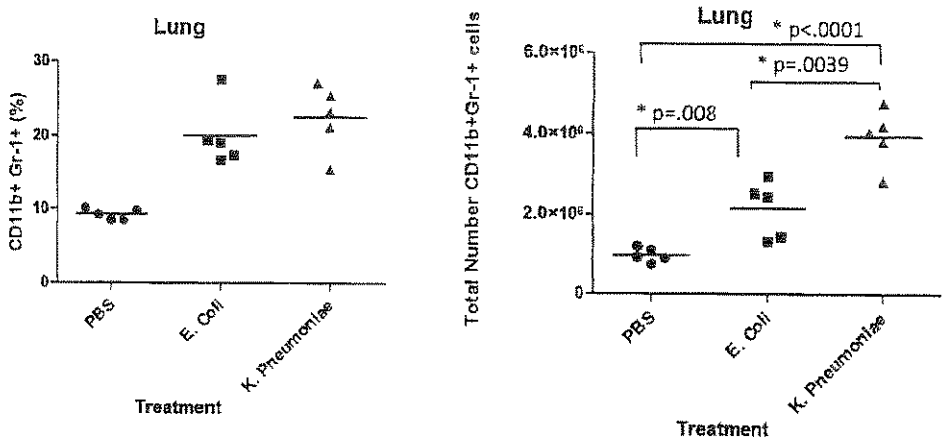

Lung
CD11b+ Gr-1+ (%)
30
20
10
0
PBS
E. Coli
K. Pneumoniae
Treatment
Lung
* p<.0001
* p=.0039
* p=.008
Total Number CD11b+Gr-1+ cells
6.0×10⁶
4.0×10⁶
2.0×10⁶
0
PBS
E. Coli
K. Pneumoniae
Treatment

Figure 35

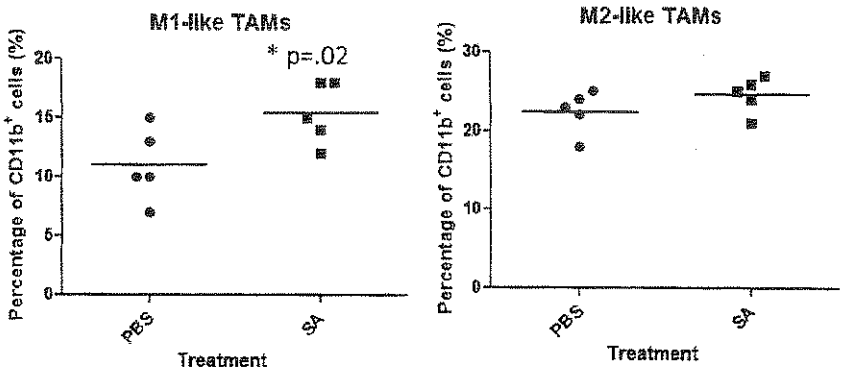

M1-like TAMs
* p=.02
Percentage of CD11b+ cells (%)
20
15
10
5
0
PBS
SA
Treatment
M2-like TAMs
Percentage of CD11b+ cells (%)
30
20
10
0
PBS
SA
Treatment

Figure 36

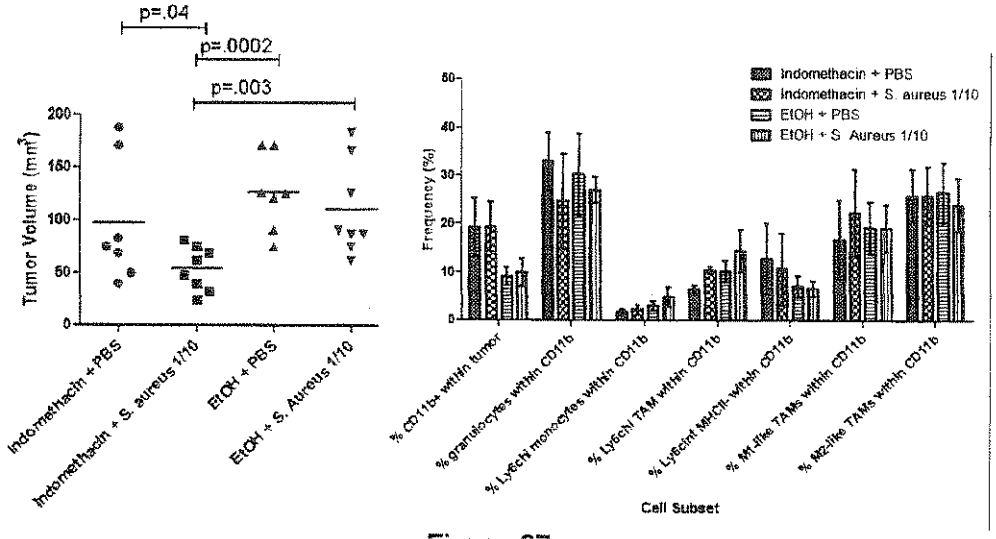

p=.04
p=.0002
p=.003
Tumor Volume (mm³)
200
150
100
50
0
Indomethacin + PBS
Indomethacin + S. aureus 1/10
EtOH + PBS
EtOH + S. Aureus 1/10
Indomethacin + PBS
Indomethacin + S. aureus 1/10
EtOH + PBS
EtOH + S. Aureus 1/10
Frequency (%)
60
40
30
20
10
0
% CD11b+ within tumor
% granulocytes within CD11b
% Ly6cHi monocytes within CD11b
% Ly6cHi TAM within CD11b
% Ly6cInt MHCII+ within CD11b
% M1-like TAMs within CD11b
% M2-like TAMs within CD11b
Cell Subset

Figure 37

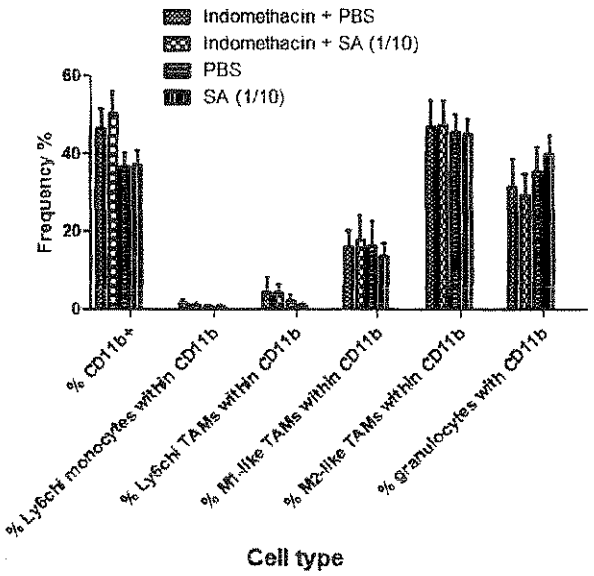

Indomethacin + PBS
Indomethacin + SA (1/10)
PBS
SA (1/10)
Frequency %
60
40
20
0
% CD11b+
% Ly6chi monocytes within CD11b
% Ly6chi TAMs within CD11b
% M1-like TAMs within CD11b
% M2-like TAMs within CD11b
% granulocytes with CD11b
Cell type

Figure 38

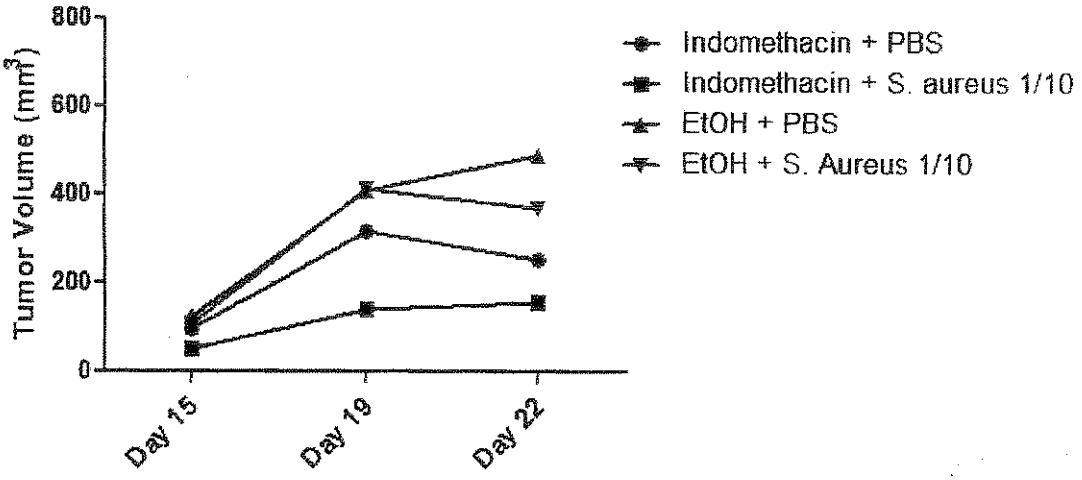

800
600
400
200
0
Tumor Volume (mm3)
Day 15
Day 19
Day 22
Indomethacin + PBS
Indomethacin + S. aureus 1/10
EtOH + PBS
EtOH + S. Aureus 1/10

Figure 39

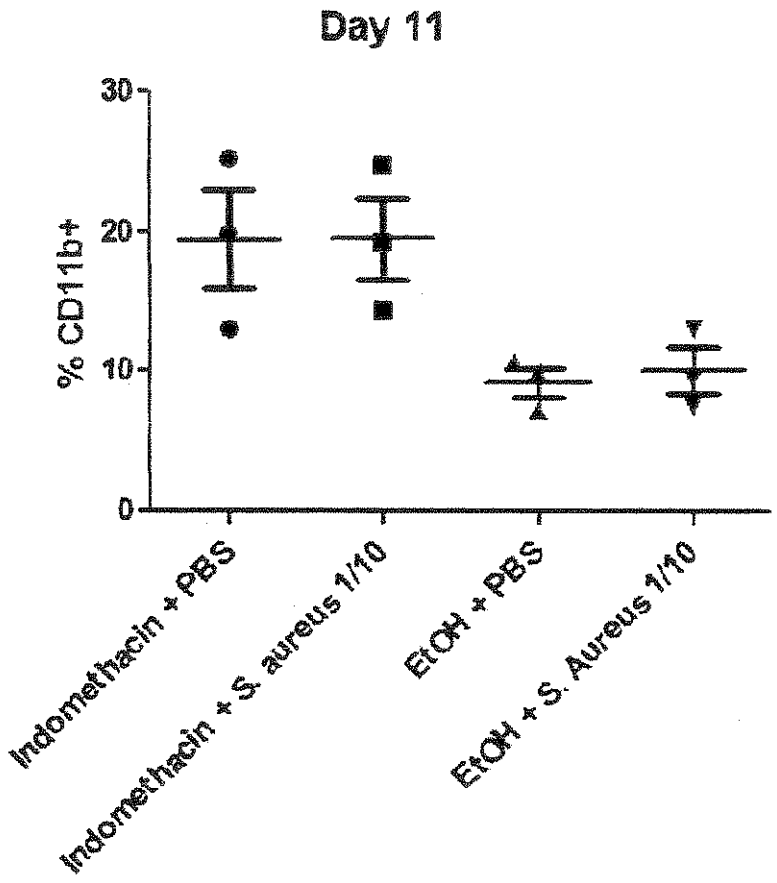

Day 11
30
20
10
0
% CD11b+
Indomethacin + PBS
Indomethacin + S. aureus 1/10
EtOH + PBS
EtOH + S. Aureus 1/10

Figure 40

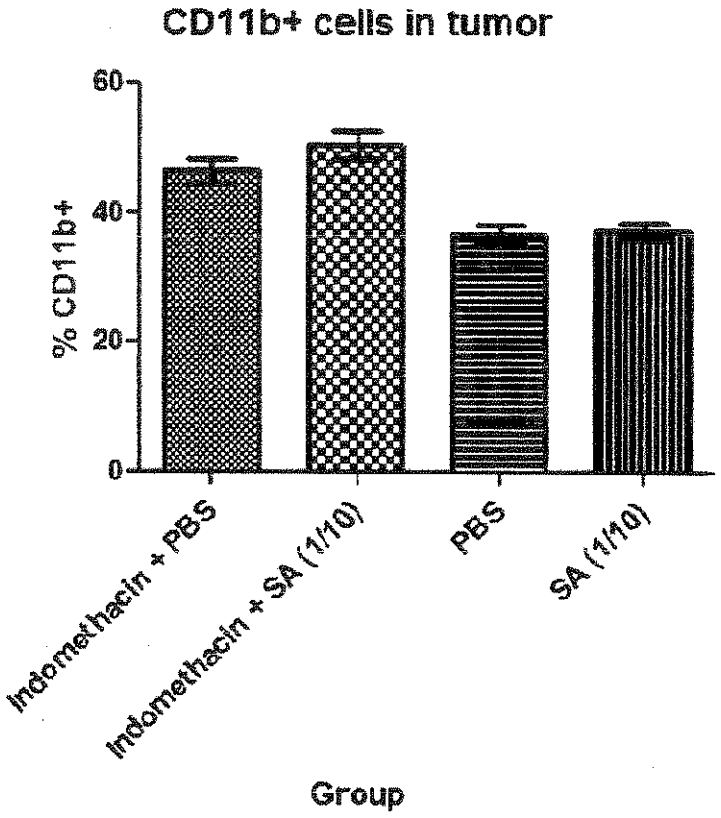

CD11b+ cells in tumor
60
40
20
0
% CD11b+
Indomethacin + PBS
Indomethacin + SA (1/10)
PBS
SA (1/10)
Group

Figure 41

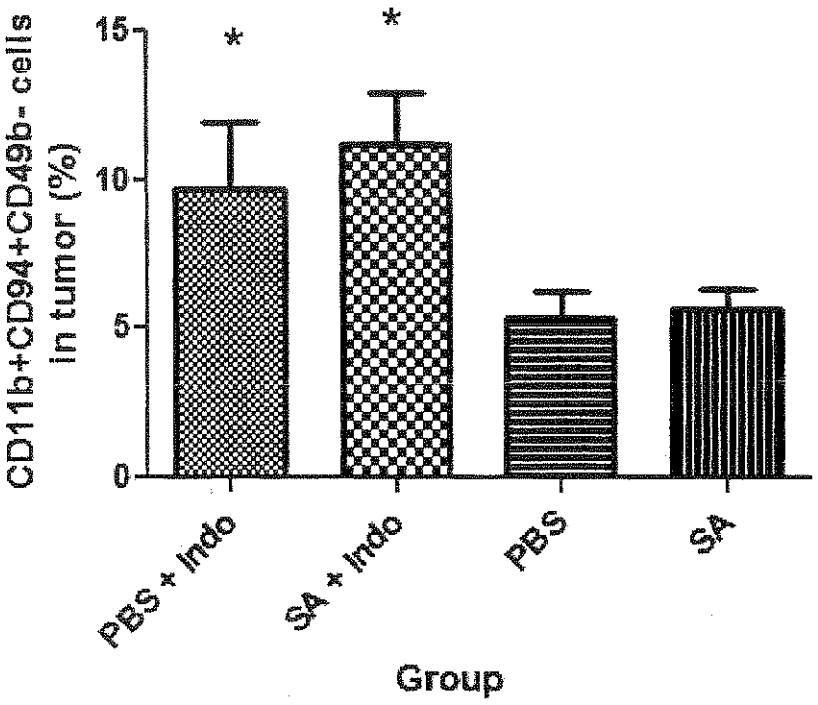
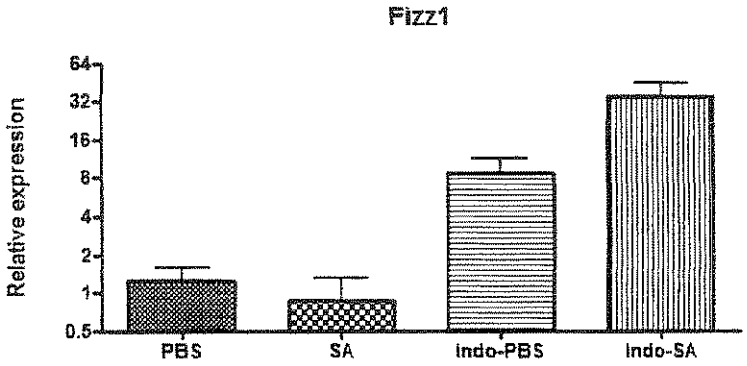

CD11b+CD94+CD49b- cells in tumor (%)
15
10
5
0
*
*
PBS + Indo
SA + Indo
PBS
SA
Group

Figure 42

A


Fizz1
Relative expression
64
32
16
8
4
2
1
0.5
PBS
SA
Indo-PBS
Indo-SA

B

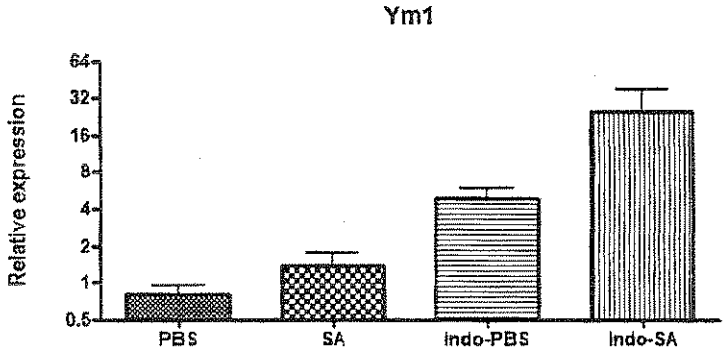
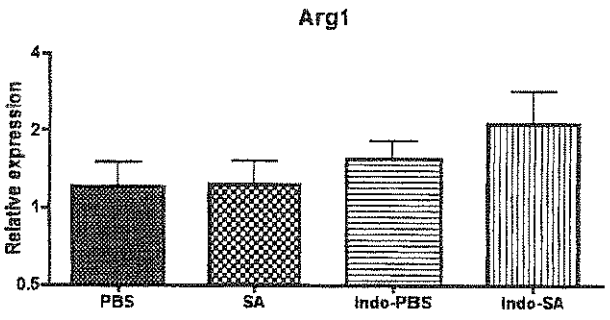

Ym1
Relative expression
64
32
16
8
4
2
1
0.5
PBS
SA
Indo-PBS
Indo-SA

Figure 43

A


Arg1
Relative expression
4
2
1
0.5
PBS
SA
Indo-PBS
Indo-SA

B

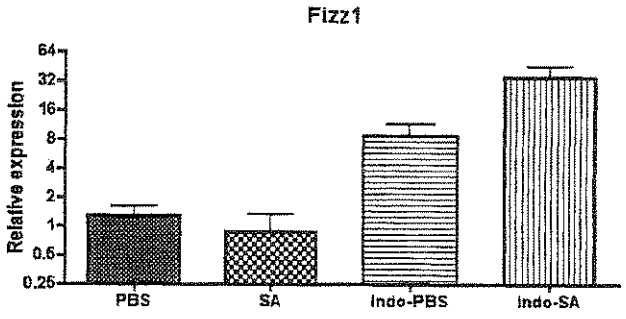
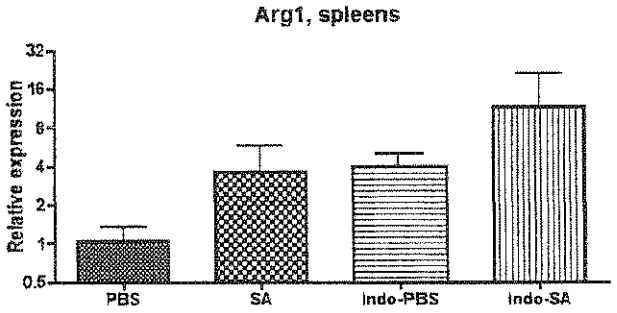

Fizz1
Relative expression
64
32
16
8
4
2
1
0.5
0.25
PBS
SA
Indo-PBS
Indo-SA

Figure 44

C



D

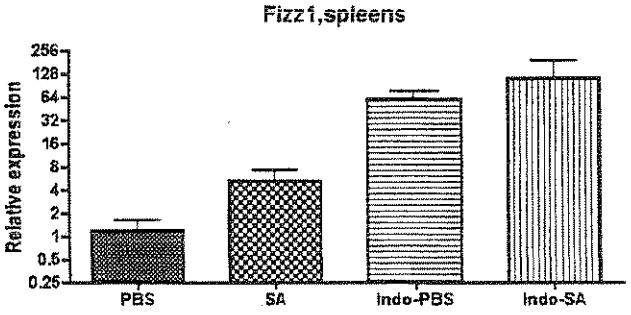
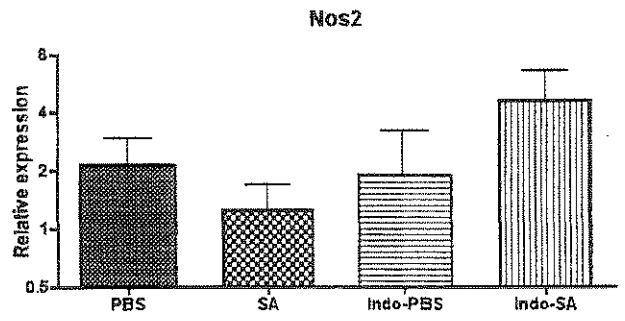


Figure 44 Cont'd

A


Nos2
Relative expression
8
4
2
1
0.5
PBS
SA
Indo-PBS
Indo-SA

B

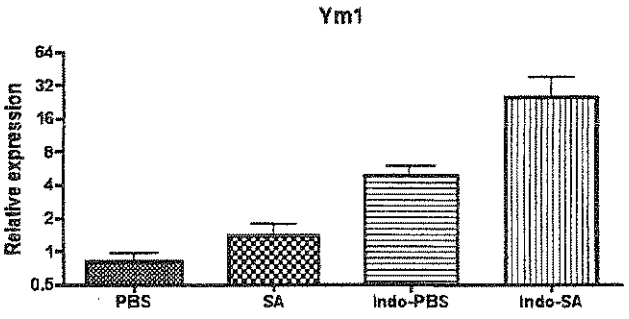
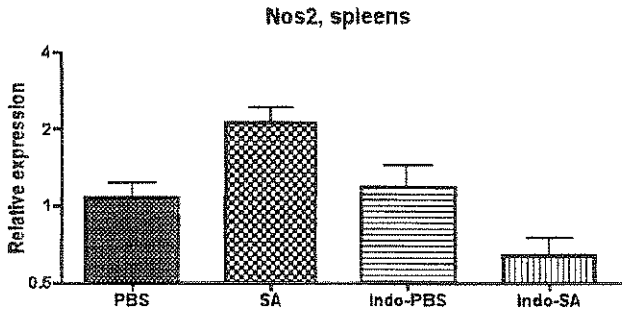

Ym1
Relative expression
64
32
16
8
4
2
1
0.5
PBS
SA
Indo-PBS
Indo-SA

Figure 45

C



D

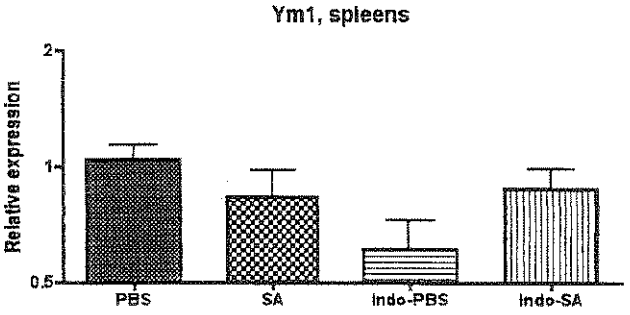


Figure 45 Cont'd

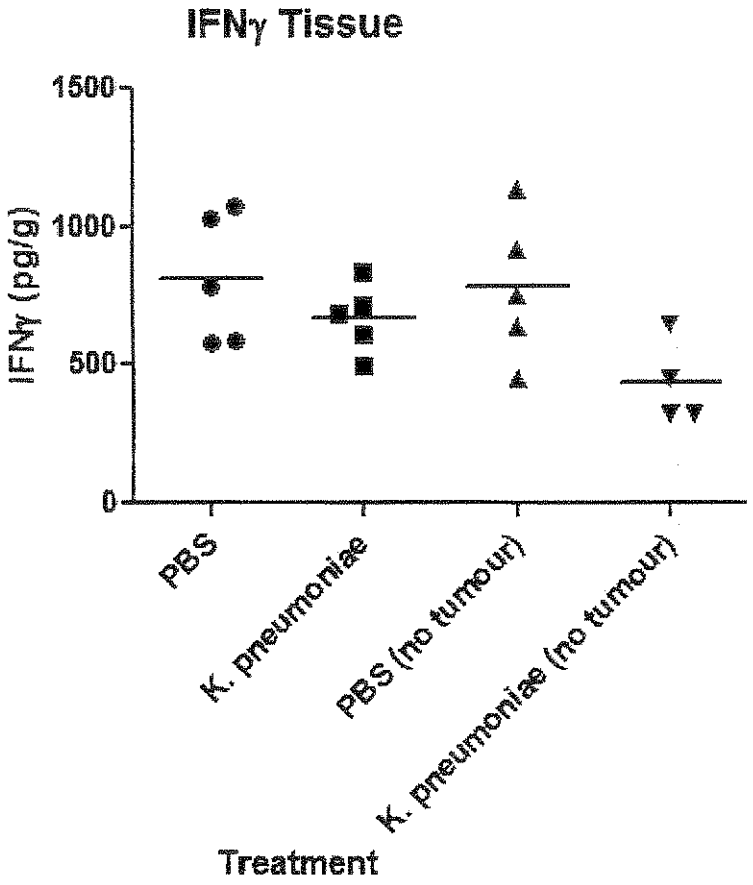

IFNγ Tissue
1500
1000
500
0
IFNγ (pg/g)
PBS
K. pneumoniae
PBS (no tumour)
K. pneumoniae (no tumour)
Treatment

Figure 46

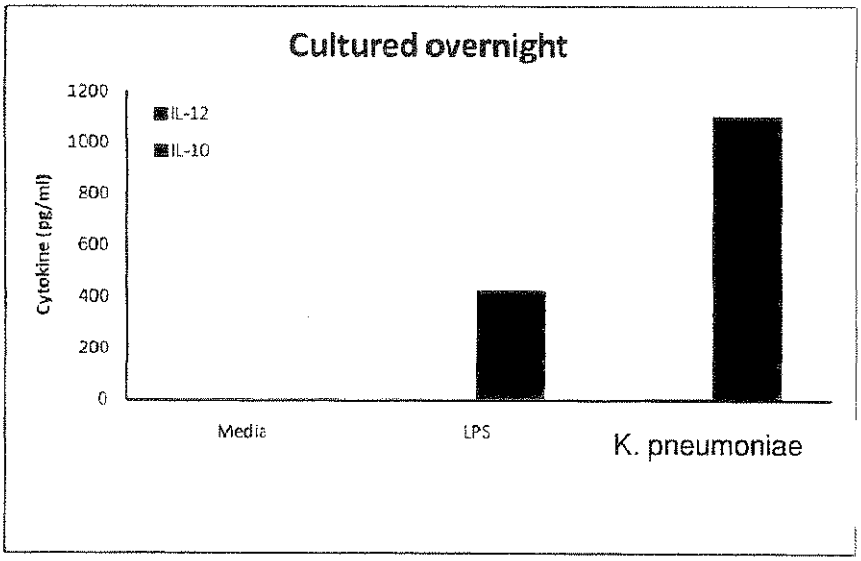

Cultured overnight
1200
1000
800
600
400
200
0
Cytokine (pg/ml)
IL-12
IL-10
Media
LPS
K. pneumoniae

Figure 47

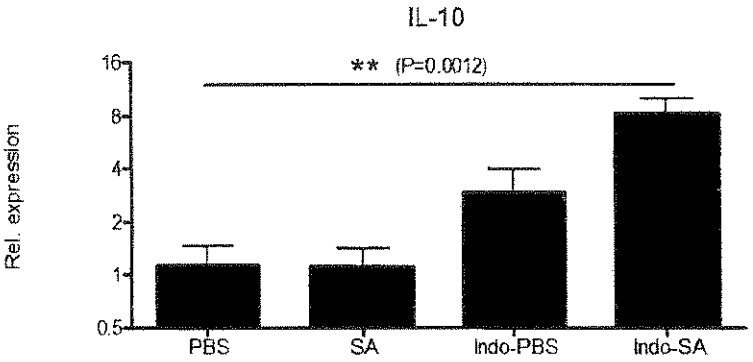


Figure 48