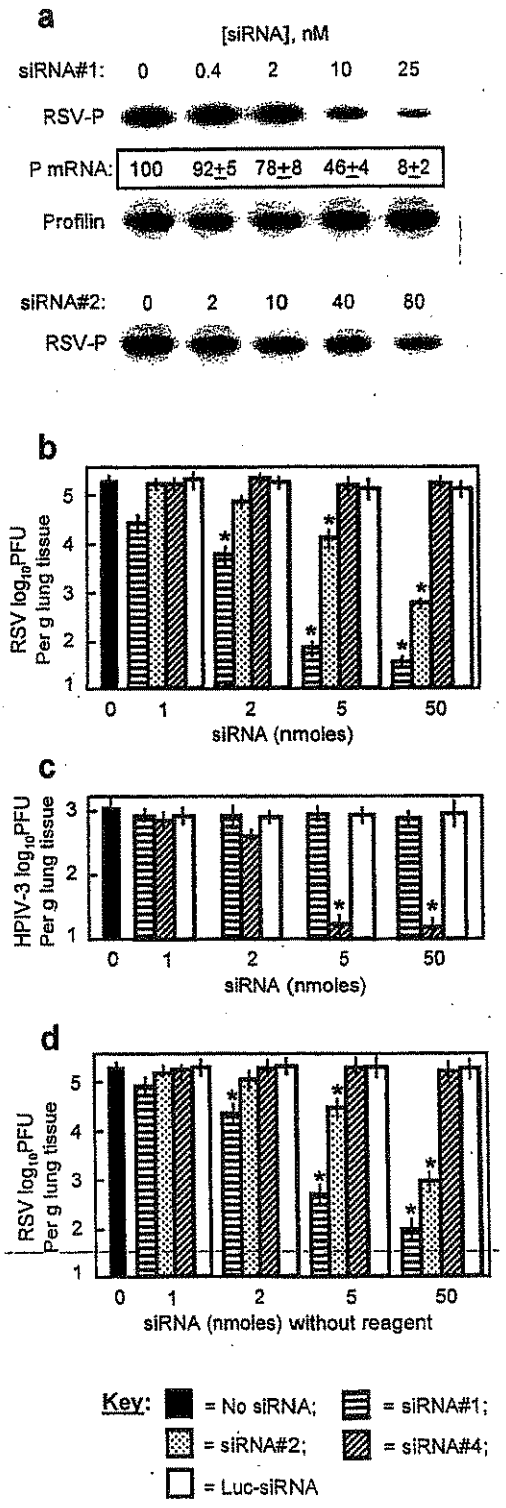

a
[siRNA], nM
siRNA#1: 0 0.4 2 10 25
RSV-P
P mRNA: 100 92±5 78±8 46±4 8±2
Profilin
siRNA#2: 0 2 10 40 80
RSV-P
b
RSV log10PFU Per g lung tissue
siRNA (nmoles)
c
HPIV-3 log10PFU Per g lung tissue
siRNA (nmoles)
d
RSV log10PFU Per g lung tissue
siRNA (nmoles) without reagent
Key: = No siRNA; = siRNA#1; = siRNA#2; = siRNA#4; = Luc-siRNA

Fig. 1

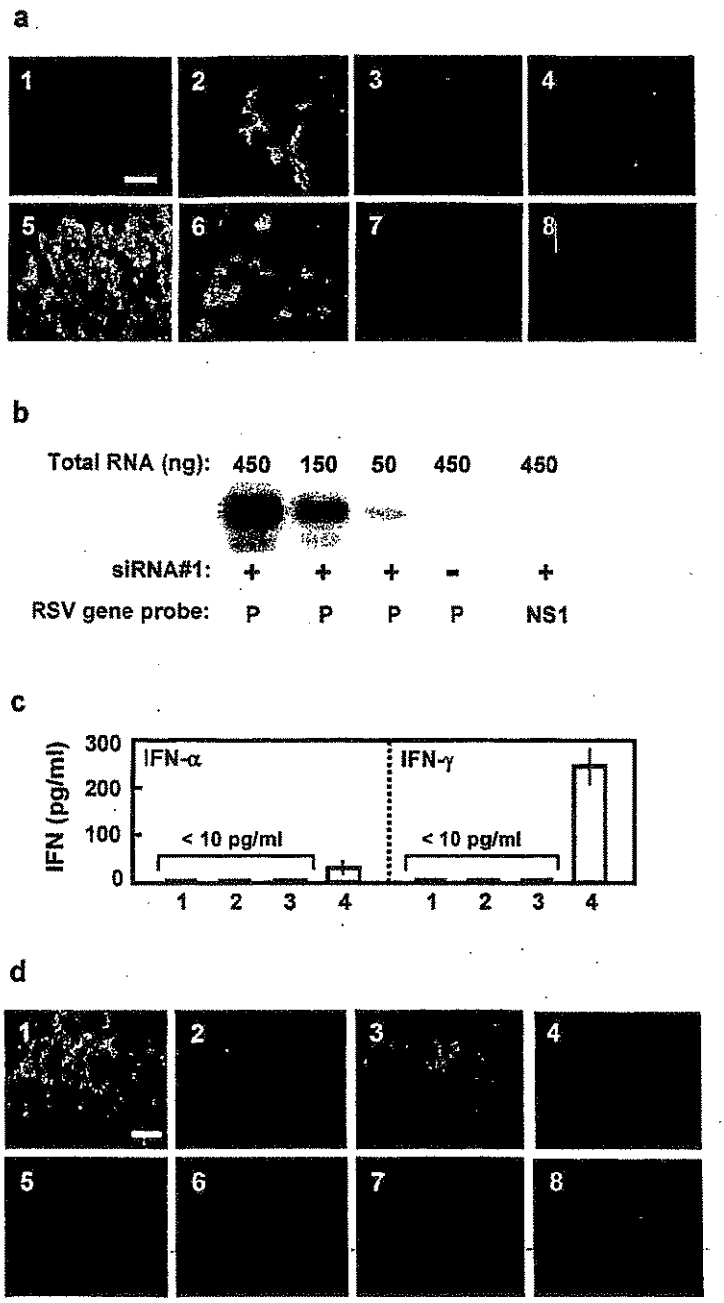

a
1
2
3
4
5
6
7
8
b
Total RNA (ng): 450 150 50 450 450
siRNA#1: + + + - +
RSV gene probe: P P P P NS1
c
IFN (pg/ml)
300
200
100
0
IFN-α
IFN-γ
< 10 pg/ml
< 10 pg/ml
1 2 3 4 1 2 3 4
d
1
2
3
4
5
6
7
8

Fig. 2

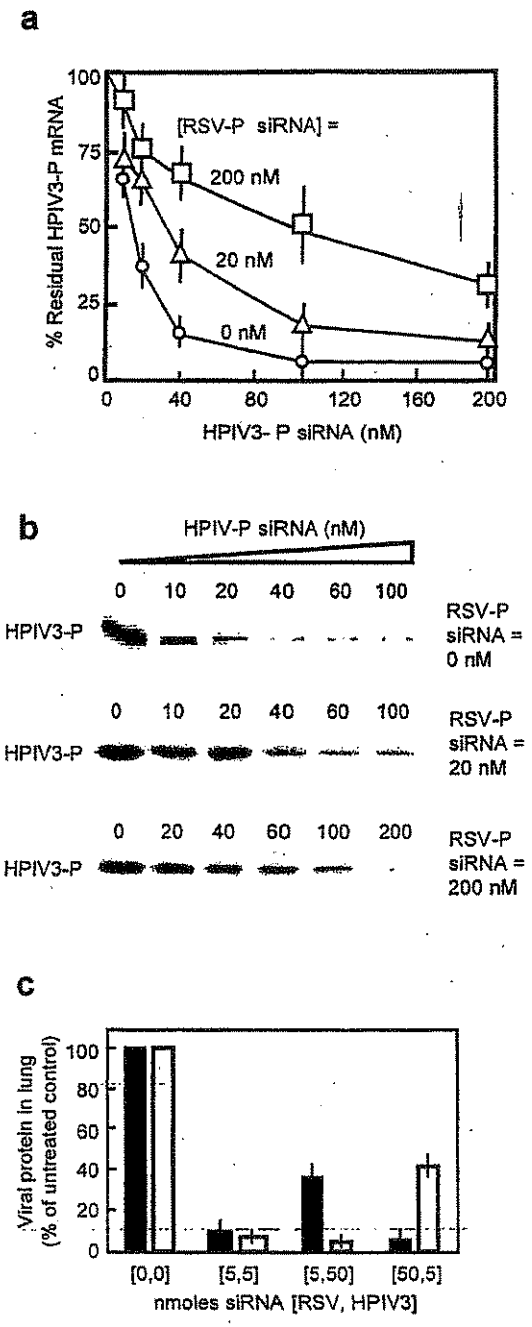

a
% Residual HPIV3-P mRNA
100
75
50
25
0
[RSV-P siRNA] =
200 nM
20 nM
0 nM
0
40
80
120
160
200
HPIV3- P siRNA (nM)
b
HPIV-P siRNA (nM)
0 10 20 40 60 100
HPIV3-P
RSV-P siRNA = 0 nM
0 10 20 40 60 100
HPIV3-P
RSV-P siRNA = 20 nM
0 20 40 60 100 200
HPIV3-P
RSV-P siRNA = 200 nM
c
Viral protein in lung (% of untreated control)
100
80
60
40
20
0
[0,0]
[5,5]
[5,50]
[50,5]
nmoles siRNA [RSV, HPIV3]

Fig. 3

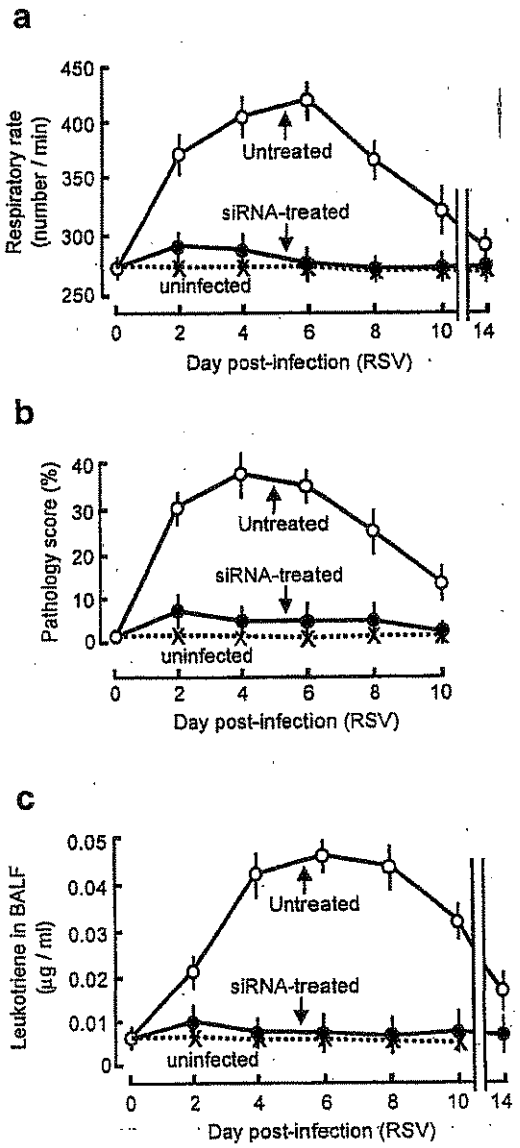

a
Respiratory rate (number / min)
450
400
350
300
250
Untreated
siRNA-treated
uninfected
0 2 4 6 8 10 14
Day post-infection (RSV)
b
Pathology score (%)
40
30
20
10
0
Untreated
siRNA-treated
uninfected
0 2 4 6 8 10
Day post-infection (RSV)
c
Leukotriene in BALF (µg / ml)
0.05
0.04
0.03
0.02
0.01
0
Untreated
siRNA-treated
uninfected
0 2 4 6 8 10 14
Day post-infection (RSV)

Fig. 4

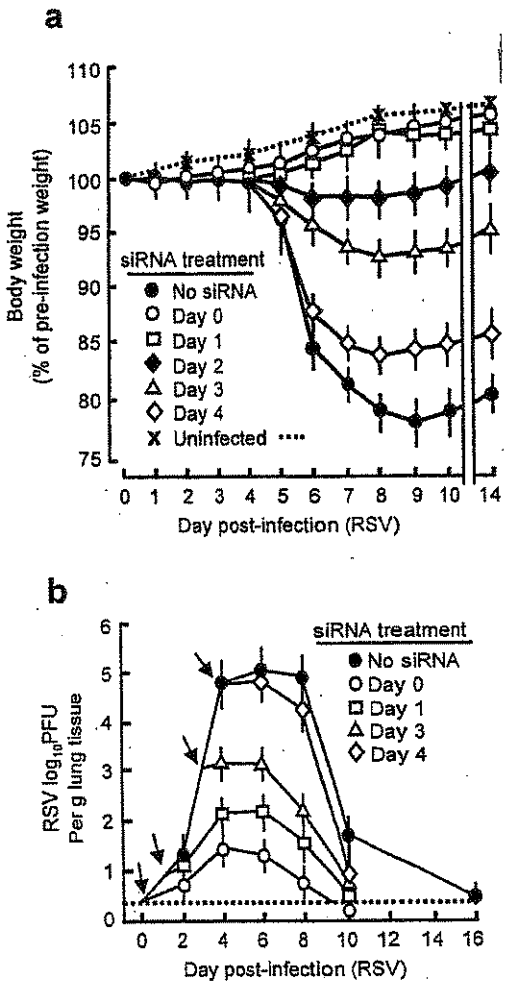

a
Body weight
(% of pre-infection weight)
110
105
100
95
90
85
80
75
siRNA treatment
No siRNA
Day 0
Day 1
Day 2
Day 3
Day 4
Uninfected
0 1 2 3 4 5 6 7 8 9 10 14
Day post-infection (RSV)
b
RSV log10PFU
Per g lung tissue
6
5
4
3
2
1
0
siRNA treatment
No siRNA
Day 0
Day 1
Day 3
Day 4
0 2 4 6 8 10 12 14 16
Day post-infection (RSV)

Fig. 5

SEQUENCE LISTING

<110> University of South Alabama College of Medicine

<120> RNAI MODULATION OF RSV, PIV AND OTHER
RESPIRATORY VIRUSES AND USES THEREOF

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