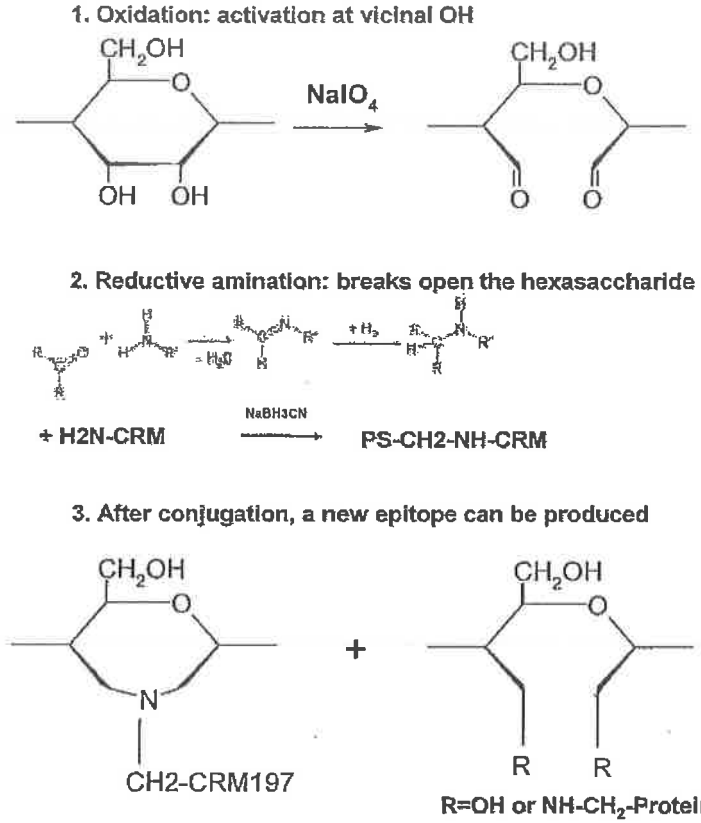
Figure 1.

A


1. Oxidation: activation at vicinal OH
CH2OH
O
NaIO4
OH OH
CH2OH
O
O O
2. Reductive amination: breaks open the hexasaccharide ring
+ H2N-CRM
NaBH3CN
PS-CH2-NH-CRM
3. After conjugation, a new epitope can be produced
CH2OH
O
N
CH2-CRM197
+
CH2OH
O
R R
R=OH or NH-CH2-Protein

B)

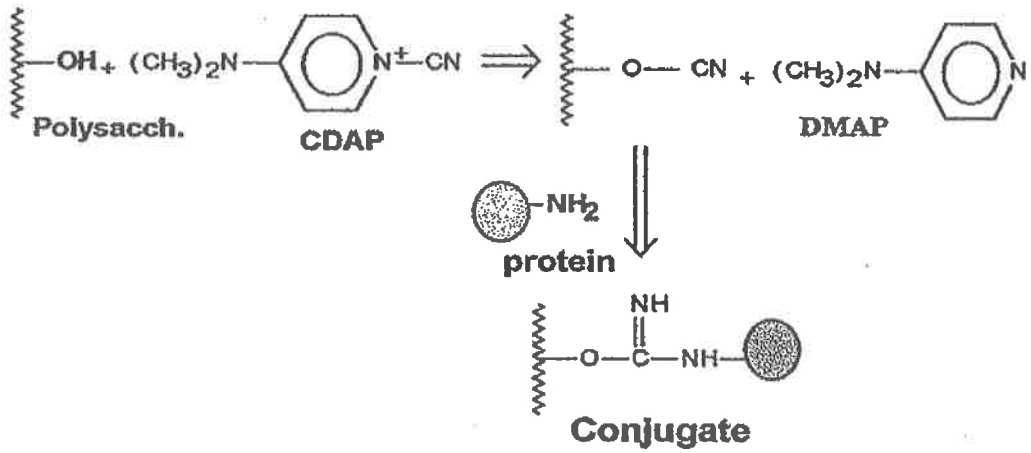
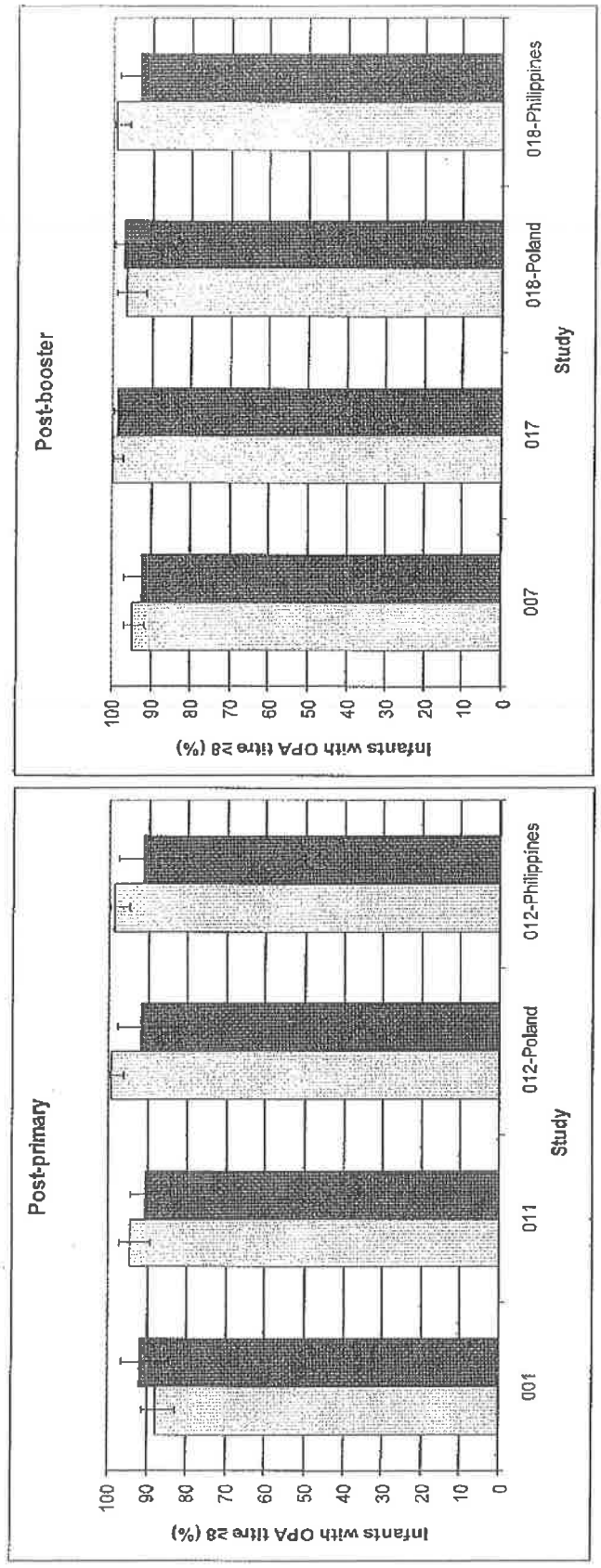

OH + (CH3)2N
N±CN
Polysacch.
CDAP
O CN + (CH3)2N
N
DMAP
NH2
protein
NH
O C NH
Conjugate

Figure 2


Post-primary
Infants with OPA titre ≥8 (%)
100
90
80
70
60
50
40
30
20
10
0
001
011
012-Poland
012-Philippines
Study
Post-booster
Infants with OPA titre ≥8 (%)
007
017
018-Poland
018-Philippines
Study
PHiD-CV
7vCRM

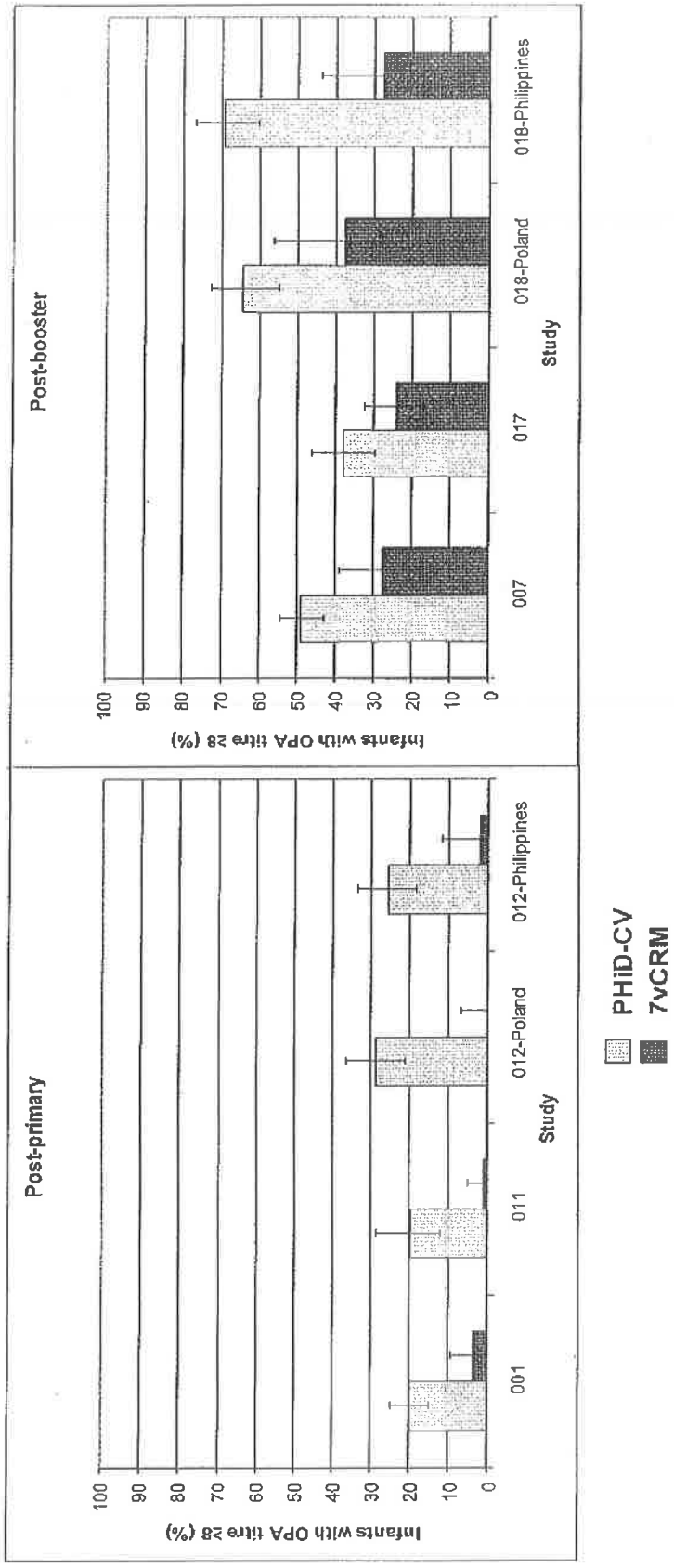

Post-primary
Post-booster
Infants with OPA titre ≥8 (%)
100
90
80
70
60
50
40
30
20
10
0
001
011
012-Poland
012-Philippines
007
017
018-Poland
018-Philippines
Study
PHiD-CV
7vCRM

Figure 3.

Figure 4

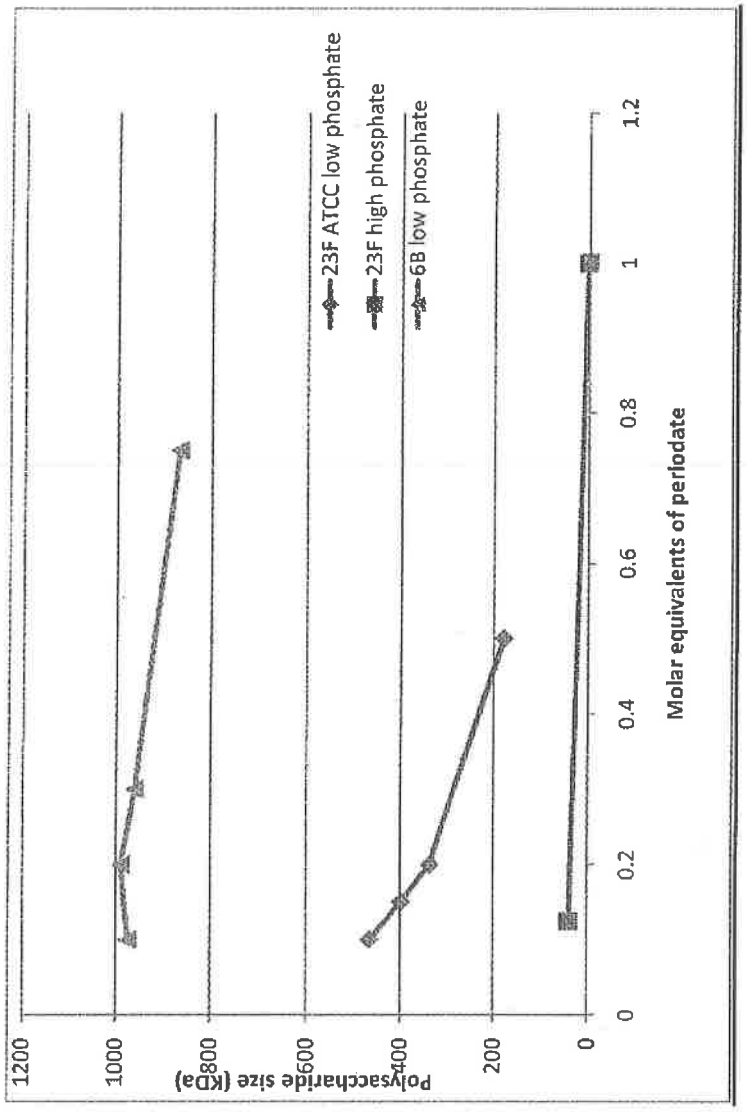

1200
1000
800
600
400
200
0
Polysaccharide size (kDa)
0
0.2
0.4
0.6
0.8
1
1.2
Molar equivalents of periodate
23F ATCC low phosphate
23F high phosphate
6B low phosphate

Figure 5

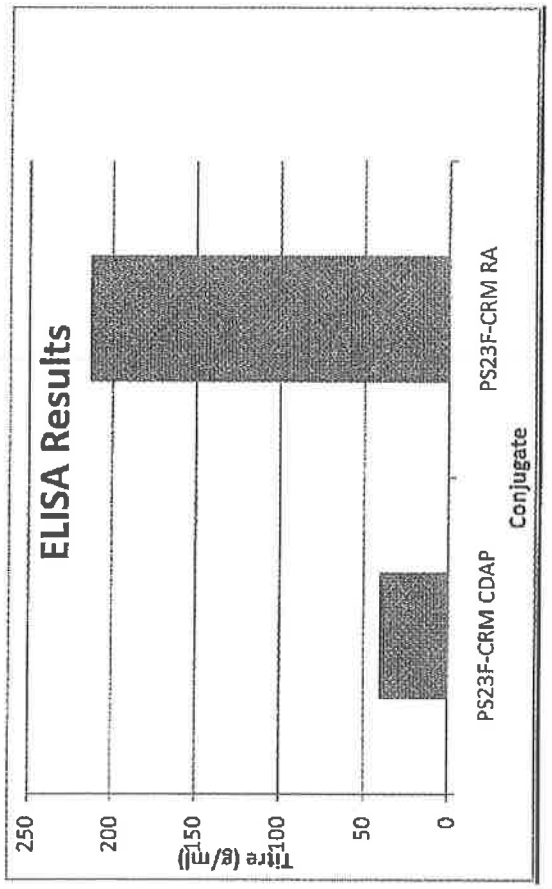

ELISA Results
Titre (g/ml)
250
200
150
100
50
0
PS23F-CRM CDAP
PS23F-CRM RA
Conjugate

Figure 6

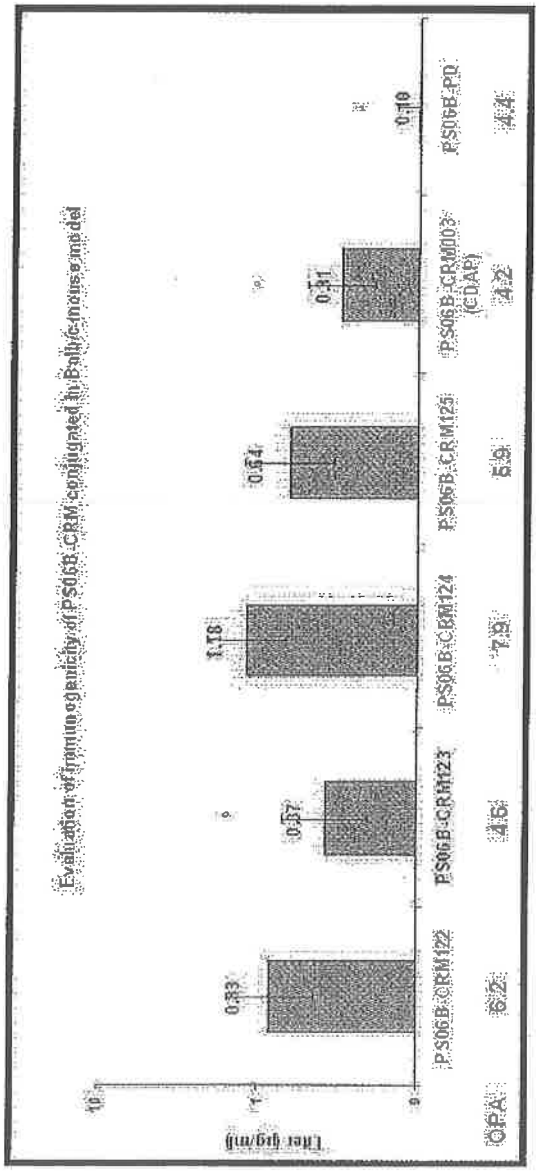
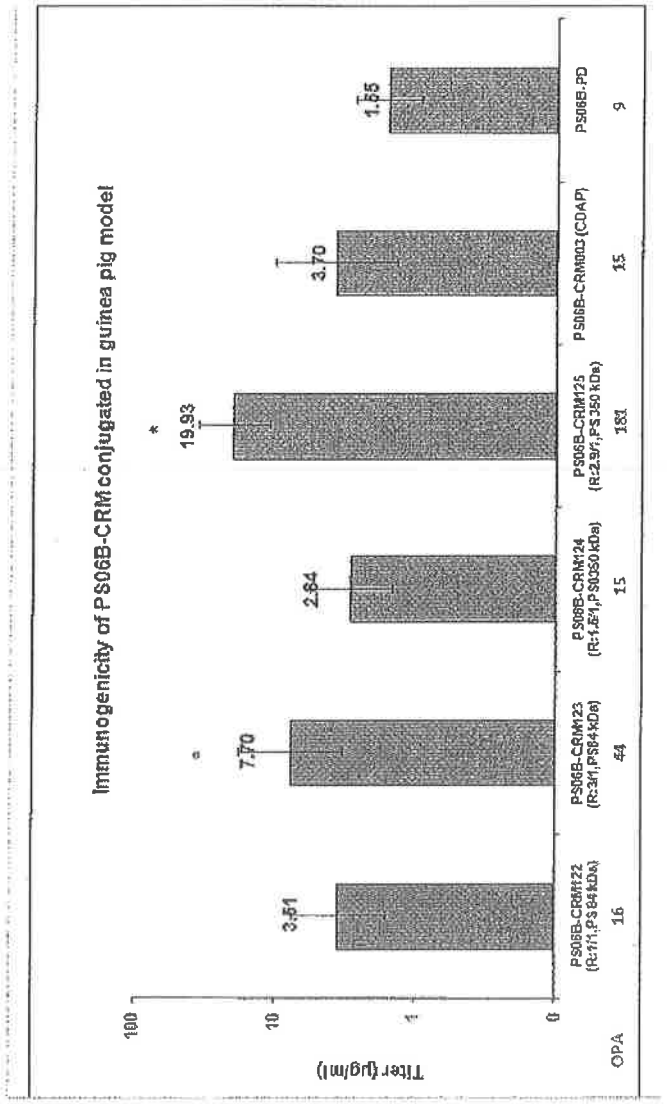

Evaluation of immunogenicity of PS06B-CRM conjugated to Balb/c mouse model
Titer (µg/ml)
10
1
0
0.33
0.67
1.18
0.64
0.11
0.10
PS06B-CRM122
PS06B-CRM123
PS06B-CRM124
PS06B-CRM125
PS06B-CRM003 (CDAP)
PS06B-PD
OPA
6.2
4.6
7.9
5.9
4.2
4.4

Figure 7


Immunogenicity of PS06B-CRM conjugated in guinea pig model
Titer (µg/ml)
100
10
1
0
OPA
3.61
7.70
2.64
19.93
3.70
1.55
PS06B-CRM122 (R:1/1,PS84kDa)
PS06B-CRM123 (R:3/1,PS84kDa)
PS06B-CRM124 (R:1.5/1,PS350kDa)
PS06B-CRM125 (R:2.5/1,PS350kDa)
PS06B-CRM903 (CDAP)
PS06B-PD
16
44
15
181
15
9