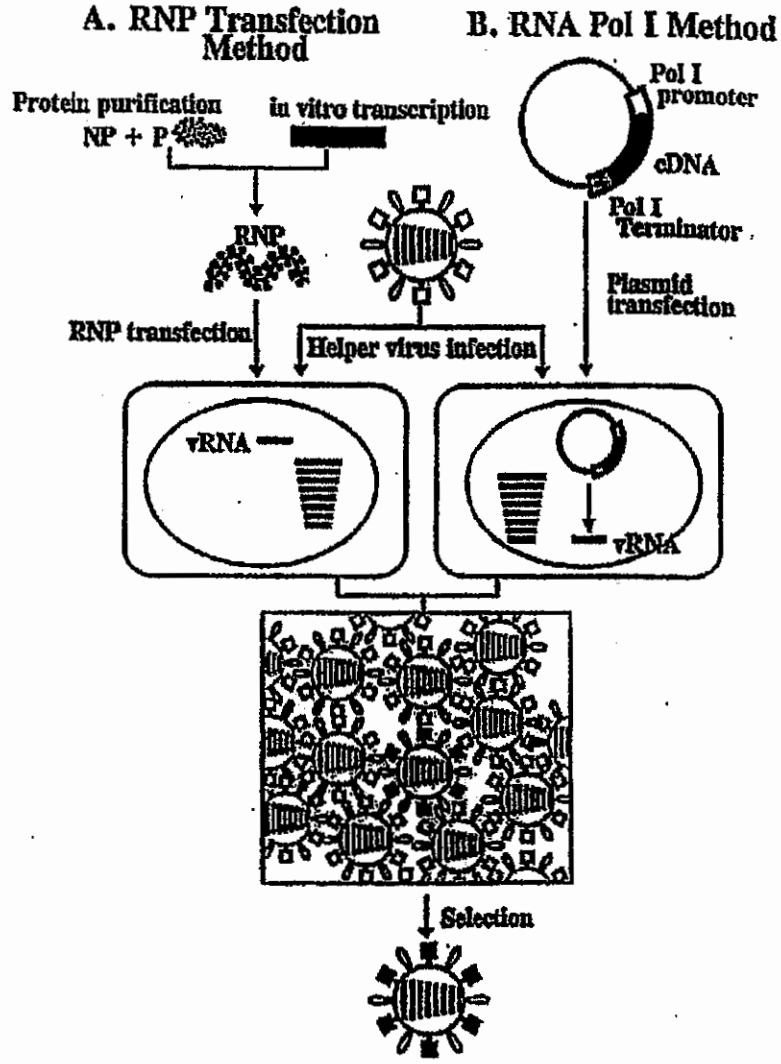

A. RNP Transfection Method
B. RNA Pol I Method
Protein purification
NP + P
in vitro transcription
Pol I promoter
cDNA
Pol I Terminator
Plasmid transfection
RNP
RNP transfection
Helper virus infection
vRNA
vRNA
Selection

Fig. 1

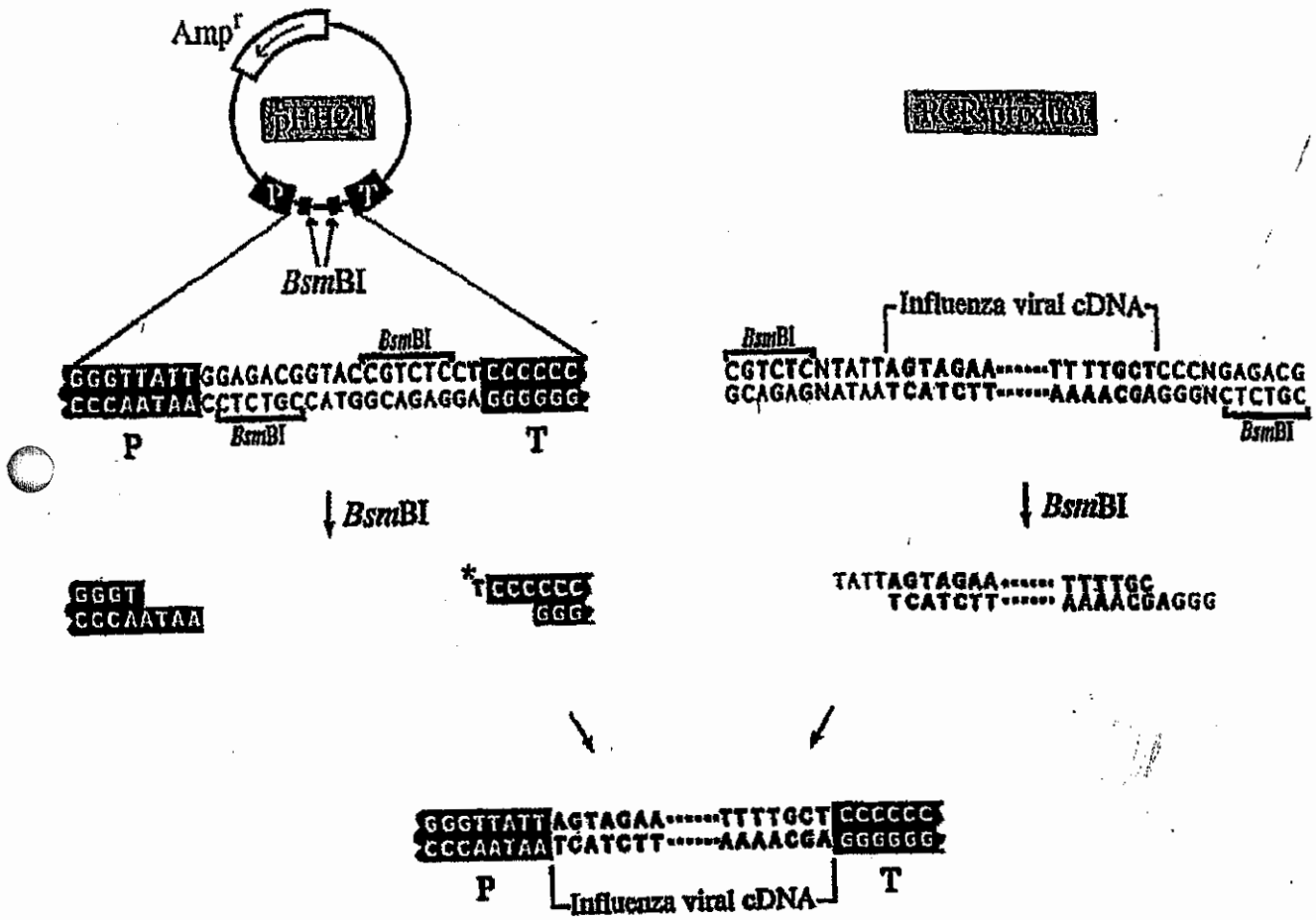

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BsmBI
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P
T
BsmBI
GGGT
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*T CCCCCC
GGG
PCR product
Influenza viral cDNA
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GCAGAGNATAATCATCTT------AAAACGAGGGNCTCTGC
BsmBI
BsmBI
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Influenza viral cDNA
T

Fig. 2

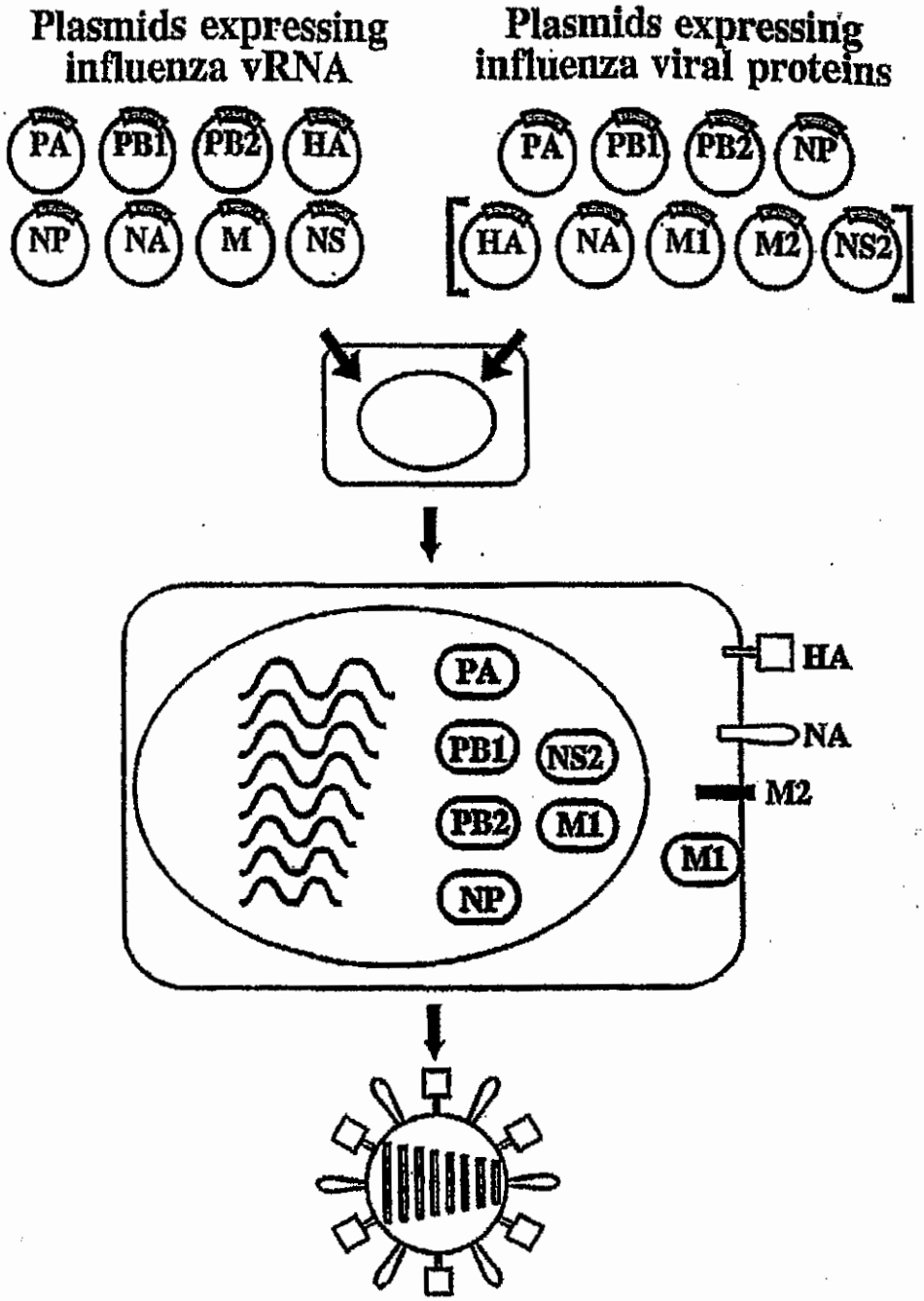

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NP
NA
M
NS
Plasmids expressing influenza viral proteins
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NS2
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PB1
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NS2
M1
HA
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M2
M1

Fig. 3

H5N1-PR8

10^{10} EID_{50}/ml
HA titer: 1:3,200

A/PR/8/34 (H1N1)

10^{10} EID_{50}/ml
HA titer: 1:8,000

SEQUENCE LISTING

<110> Kawaoka, Yoshihiro

<120> High Titer Recombinant Influenza Viruses for Vaccines and Gene Therapy

<130> 800.038WO1

<150> US 60/473,798
<151> 2003-05-28

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