Ancestral: *pgm3 iga2 opaB92 opaD131 tbpB1*

IS*1106*A10 ← → IS*1106*A4

1 China 1966 (2)
-- 1966 (2): *iga1*
-- 1966 (2): *opaD108, tbpB42*
-- 1966 (1): *pgm11*

opaB140
tbpB38

2 Moscow 1969-71 (14)
-- 1970 (1): *opaB113*
-- 1977 (1): *opaD109,* IS*1106*A99
-- 1977 (1): *opaD110*

3 N. W. Europe 1969-85 (35)
Brazil 1973-76 (5)
-- 1971 Norway (1): *tbpB10*
-- 1972 Norway (1): *tbpB50*
-- 1974 Denmark (1): *opaB116*
-- 1974-75 Sweden (3): *tbpB66*
-- 1978 Sweden (1): IS*1106*A8
-- 1978 Sweden (1): *tbpB48, opaB93*
-- 1973-75 Finland (2): *opaB131*
-- --1971 Norway (1): *opaB131, tbpB54,*
-- --1975 Finland (1): *opaB131,* IS*1106*A5
-- 1976 Sweden (1): *tbpB43,* IS*1106*A11
-- --1976 Sweden (1): *tbpB43,* IS*1106*A5
-- --1978 Sweden (3): *tbpB43, opaB5202*
-- --1980 Sweden (1): *tbpB45, opaB5202*
-- 1979 Finland (1): *tbpB47*
-- 1983 Sweden (1): *tbpB41*
-- 1980 France (1): *tbpB11*

opaB115
tbpB58

1st pandemic
·····························
2nd pandemic

4 China 1984-87 (26)
-- 1984 (1): *opaB139*
-- 1984 (1): *opaB102*
-- 1984 (2): *opaB1131*
-- 1985 (1): *opaB114*

China 1984 (3)
-- 1983 Nepal (1): *tbpB51*
-- 1983 Nepal (1): *tbpB52*
-- 1983 Nepal (1): *tbpB53*
-- 1983 Nepal (1): *tbpB61*
-- 1983 Nepal (1): *tbpB65*
-- 1984 China (1): *opaD111, tbpB59*
-- 1987-88 Israel, USA (4): *tbpB63*

opaD100
iga3

1987 UK, USA (2)

pgm19

1984 China (1)
-- 1984 China (2): IS*1106*A9

opaB94

tbpB55
IS*1106*A6

5

pilgrims UK, USA, France, Israel, Sweden 1987-88 (59)
-- UK (1): *opaD112*
-- UK (1): *opaB100*

1992 China (4)

IS*1106*A7

East & West Africa 1988-98 (177)
-- 1991 Niger (2): *tbpB46*   -- 1997 Gambia (1): *tbpB101*
-- 1994 Mali (1): *tbpB60*   -- 1997 Gambia (1): *tbpB64*
-- 1998 Ghana (1): *tbpB62*

3rd pandemic

opaD94   *opaD101*   *tbpB39*

8 1993 China (4)
1994-95 Mongolia (10)
1994-97 Moscow (21)
1996 Nigeria (1)
1997-99 Cameroon (3)
1997-99 Chad (5)
1997-00 UK (4)
1998 Zaire (1)
1999 Sudan (11)
1999 Niger (6)
-- 1995 Algeria (1): *opaB142*
-- 1998 Zaire (1): *opaB141*
-- 1999 Niger (1): *opaD1101*

6
1991-93
C.A.R. (21)
Guinea (5)
Niger (1)

7
1991-93
Zambia (8)
Niger (4)
Burundi (1)
Rwanda (1)
Sudan (1)
-- 1988 UK (1): *tbpB44*

9
1997
Gambia (8)