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I, Fatima Beattie, the Commissioner of Patents, certify that the following are the particulars of this patent appearing in the Register of Patents:

Name and Address of Patentee(s):

Institut National De La Sante Et De La Recherche Medicale (INSERM)
101, rue de Tolbiac, F-75654 Paris Cedex 13, France
Institut Pasteur de Lille
1, rue du Professeur Calmette, Boîte Postale 245, F-59019 Lille Cedex, France

Name of Actual Inventor(s):

Raze, Dominique; Mielcarek, Nathalie; Debrie, Anne-Sophie; Loch, Camille and Bertout, Julie.

Title of Invention:

Live attenuated Bordetella strains as a single dose vaccine against whooping cough

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Fatima Beattie
Commissioner of Patents