

CLAIMS

1. A method of diagnosing a stroke in a human or non-human primate subject, comprising:
 - 5 i) determining a signature in a sample obtained from the subject by measuring the expression levels of at least three biomarkers selected from the group consisting of *PTGS2*, *HMOX1*, *LDLR*, *HSPA1B*, *G0S2*, *BAG3*, *TM4SF1*, *DUSP1* and *ADM*, wherein the sample is a blood sample, a plasma sample, a serum sample or a saliva sample;
 - 10 ii) comparing the signature determined in step i) with a reference signature; wherein the reference signature is obtained by measuring the expression levels of the biomarkers in a reference population of substantially healthy subjects, and
 - 15 iii) diagnosing the subject as being affected with a stroke when the expression levels of the at least three biomarkers in the signature are higher than the expression levels of the same at least three biomarkers in the reference signature.
2. The method according to claim 1, wherein step i) comprises measuring the expression levels of *PTGS2*, *HMOX1*, *LDLR*, *HSPA1B*, *G0S2*, *BAG3*, *TM4SF1*, *DUSP1* and *ADM*.
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3. The method according to any one of claims 1 to 2, for distinguishing a stroke from a stroke mimic.
4. A method of determining whether a human or non-human primate subject suffering from a stroke will achieve a response with a therapy, comprising:
 - 25 i) determining a signature in a sample obtained from the subject by measuring the expression levels of at least three biomarkers selected from the group consisting of *PTGS2*, *HMOX1*, *LDLR*, *HSPA1B*, *G0S2*, *BAG3*, *TM4SF1*, *DUSP1* and *ADM*, wherein the sample is a blood sample, a plasma sample, a serum sample or a saliva sample;

- ii) comparing the signature determined in step i) with a reference signature; wherein the reference signature is obtained by measuring the expression levels of the biomarkers in a sample obtained from the same subject before the start of said therapy and
 - 5 iii) concluding that the subject achieves a response when the expression levels of the at least three biomarkers in the signature are lower than the expression levels of the same at least three biomarkers in the reference signature.

- 5. The method according to claim 4, wherein step i) comprises measuring the expression levels of *PTGS2*, *HMOX1*, *LDLR*, *HSPA1B*, *G0S2*, *BAG3*, *TM4SF1*,
10 *DUSP1* and *ADM*.

- 6. A method of determining whether a human or non-human primate subject is at risk of having a stroke, comprising:
 - i) determining a signature in a sample obtained from the subject by measuring the expression levels of at least three biomarkers selected from the group
15 consisting of *PTGS2*, *HMOX1*, *LDLR*, *HSPA1B*, *G0S2*, *BAG3*, *TM4SF1*, *DUSP1* and *ADM*, wherein the sample is a blood sample, a plasma sample, a serum sample or a saliva sample;
 - ii) comparing the signature determined in step i) with a reference signature; wherein the reference signature is obtained by measuring the expression
20 levels of the biomarkers in a reference population of substantially healthy subjects, and
 - iii) concluding that the subject is at risk of having stroke when the expression levels of the at least three biomarkers in the signature are higher than the expression levels of the same at least three biomarkers in the reference
25 signature.

- 7. The method according to claim 6, wherein step i) comprises measuring the expression levels of *PTGS2*, *HMOX1*, *LDLR*, *HSPA1B*, *G0S2*, *BAG3*, *TM4SF1*, *DUSP1* and *ADM*.

8. The method according to any one of claims 6 to 7, wherein the subject has experienced a stroke and the method is for determining if the subject is at risk of having a recurrent stroke.
9. The method according to any one of the preceding claims, wherein the stroke is
5 ischemic stroke, transient ischemic attack or a haemorrhagic stroke.