

PREDICTION OF CHRONIC STRESS AND STROKE

Scientifically proven risk predictor for chronic stress related stroke in preventive medicine

Problem / Market Need

Stroke remains a leading cause of death for both men and women worldwide. Yet, little recognition is given to the link between chronic stress and stroke, mainly because of the difficulty to quantify chronic stress levels. Early warning signals therefore go undetected, resulting in potentially devastating health consequences for patients and significant costs to health systems.

Description of Solution / Technology

We have developed a method to clinically measure and predict chronic stress and stroke risk by interpreting three blood test results and a blood pressure reading in a specific relation to one another.

Key Benefits / Advantages

- Accurate prediction of chronic stress and stroke risk allows for preventative treatment.
- Preventative treatment saves lives and costs.
- This method uses clinical biomarker levels instead of self-reported symptoms as basis of its prognosis.
- This method provides a more accurate health risk assessment of patients.

Stage of Development

The method has been developed after three decades of scientifically proven results in South Africa. Hence the method has been embodied in an algorithm with a user interface to submit biomarker data and retrieve a status report. The algorithm was ultimately tested and verified in a Swedish longitudinal cohort.

Applications / Relevant Industries

A timeous, accurate prediction of stress and stroke risk benefits various stakeholders:

- Patients can undergo preventative treatment;
- Risk prediction at preoperative stage can save lives;
- Health insurers and medical aids can save significant costs in the long run by alerting members and encouraging preventative treatment and behavioural changes.
- Life and disability insurers can more accurately determine the true health risks of a policy holder, calculate premiums more accurately and encourage preventative treatment and behavioural changes to delay or avoid payment triggers; and
- Public health systems can save significant costs by testing and activating preventative treatment.

Intellectual Property Status

As at September 2025, patents have been granted in SA and Australia, and are pending in the US, Canada and Europe.

WO 2021/019511 A1

PCT/IB2020/057269

Opportunity

We are seeking industry players interested in licensing the technology.



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Revision date: 17 September 2025

Reference Number: T2019-015