

*Your Holiness
The XVII Gyalwang Karmapa
Ogyen Trinley Dorje*

Pisa, February 16 2012

This is a recommendation letter supporting the study that will be performed by Dr. Renato Mazzonetto on behalf of Centre EXTREME of Scuola Superiore Sant'Anna (Pisa), National Council of Research and University of Pisa.

From a psychological and psychophysiological standpoint, the study is aimed at identifying some state and trait features tied to meditation.

The psychometric tests package, validated in astronauts simulating the human flight to Mars (project MARS 500), will allow exploring some specific cognitive and emotional functions. The study also includes the evaluation of cardiac and respiratory rhythms in order to identify a cardio-respiratory synchronization yielded by the meditation practice as well as, for the first time in the meditation domain, the measure of the complexity of human language by exploring its fractal dimension. The study of language fractality will allow identifying a synthetic and non-invasive index of a “neural network mimesis” or “global work space by-product”.

As far as psychological and medical aspects are concerned, the proposed study is novel both for meditation and medicine. Furthermore, for the first time the language fractality study will be used to infer on neural network complexity.

Best regards



Angelo Gemignani, MD, PhD

Department of Physiological Sciences, University of Pisa, Italy
Extreme Centre, Scuola Superiore Sant'Anna & IFC-CNR, Pisa
fax +39 050 2213 527 - tel +39 050 315 2699
email gemignan@dfb.unipi.it