

GENETIC MARKER FOR RAPID AND EARLY DETECTION OF UV-INDUCED PREMATURE SKIN AGING

PI2017702626

1 patent filed
2 refereed publications



INTRODUCTION OF TECHNOLOGY

Sunlight is the most prevalent environmental irritant affecting the human skin, such that it has been labelled carcinogen. Exposure of human skin to UV radiations alters both the epidermis and dermis by damaging the DNA. The advent of any disease begins either with induction or repression of gene expression and these genes serve as a good candidate for diagnostic biomarkers.

INVENTION

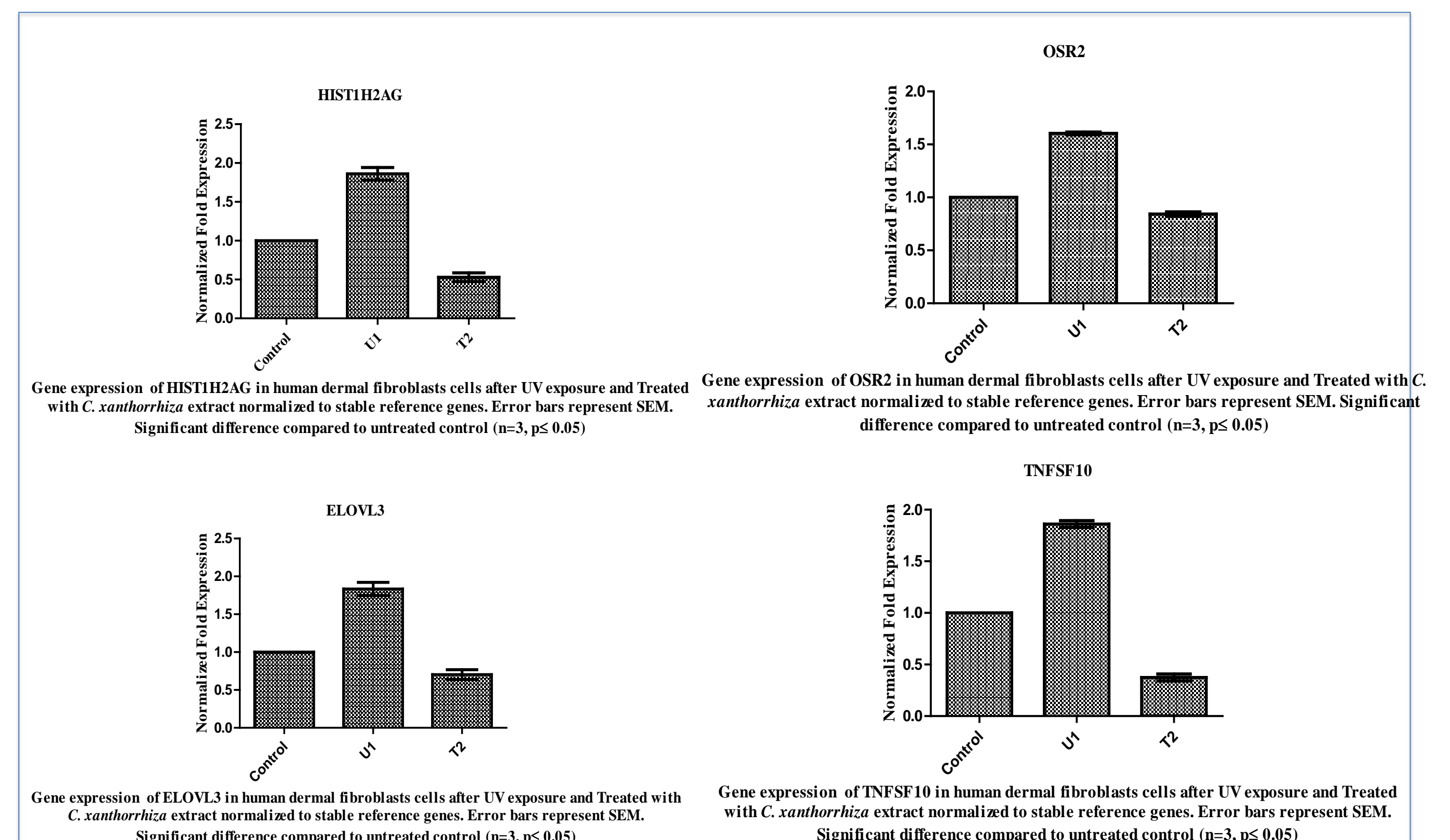
This current invention describes a method for diagnosing and treating UV induce premature skin aging. The method employs a unique set of genetic markers whose expression was newly found to be altered following the exposure of human dermal fibroblast cells to UV radiations, transcriptome sequenced and validated with RT-qPCR. These set of authenticated genes are good candidates for diagnostic biomarker for detecting and management of ultraviolet induced premature skin aging

ADVANTAGES

- Low cost
- Rapid detection of premature aged skin cause by solar UV exposure
- Precision and personalized diagnosis of early skin wrinkles
- Reagents are readily available for large scale production

Consumer/End User

- Dermatologists
- Cosmetologists
- Beauticians



MARKET POTENTIAL

- ❑ Malaysians spent about \$407 million annually on cosmetics products (Malaysia Dept. of Statistics)
- ❑ Global anti-aging market is estimated to worth USD \$191.7 billion by 2019 (Transparency Market Research, 2014)
- ❑ Annual growth rate of 7.8% from 2013 - 2019 (TMR 2014).
- ❑ Asia-Pacific Market is estimated to be above USD \$ 70 billion.
- ❑ Americans spend nearly \$7 billion a year on cosmetics and \$10.1 billion on cosmetics procedures

Industry

- Cosmetics
- Pharmaceutical
- Biotechnology
- Health and Wellness



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