# METHOD AND SYSTEM FOR IN VIVO DETECTION OF ADIPOSE TISSUE BROWNING

## ABSTRACT

There is provided a system for in vivo detection of adipose tissue browning. The system includes a fiber probe configured to illuminate light on an adipose tissue site; a spectrometer configured to obtain diffuse reflectance spectrum information based on diffuse reflected light from the adipose tissue site in response to the light illuminated thereon; a chromophore measure determining module configured to determine a quantitative measure of a first type of chromophore at the adipose tissue site based on spectrally unmixing the diffuse reflectance spectrum information; and a browning detector module configured to detect adipose tissue browning at the adipose tissue site based on the quantitative measure of the first type of chromophore determined. There is also provide a corresponding method of in vivo detection of adipose tissue browning, and a method of detecting adipose tissue based on diffuse reflectance spectrum information.

**FIG. 3**