hLH beta core as a urinary diagnostic marker for detection of menopause

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Technology description

Problem or Unmet Need:
Menopause, the condition when ovulation ceases and disruption of the neurohormonal axis has occurred, affects all women and can be associated with significant medical symptoms such as insomnia, depression, osteoporosis, etc. Indeed, the market for hormone replacement therapy (HRT) for treatment of menopause-associated conditions reached $5 billion in 2003 and continues to grow at an estimated CAGR of 5.3%. Currently the condition of menopause is diagnosed using clinical criteria using patient age and symptoms. However, diagnostic markers are needed in cases where potential other diseases may be present and the cause of symptoms.
This technology demonstrates a method by which the measurement of hLH beta core fragment in the urine can be used to diagnose the condition of menopause. Using 10 serial morning urine measurements from a patient, the pattern of cycling of hLH beta core levels can be used to determine either a pre-menopausal or post-menopausal type pattern. The inventors have already established a database of patient measurements to which these patterns can be compared. Additionally, for peri-menopausal women, the hLH beta core pattern can be used to estimate how close the patient is to menopause.

Application area

Laboratory diagnosis of menopause
Estimation of menopause onset for perimenopausal women

Advantages

Novel diagnostic marker for menopause
Easy detection using urine, no invasive blood draw needed
Quantification of menopause onset in perimenopausal women

Institution

Columbia University

Inventors

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