The Scentronome™

Wearable Therapeutic Mood Monitoring Tools for Bipolar Affective Disorder

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Wearable Technology + Scent Creates Protective ‘Scent Bubble’ To Help Manage Lifestyle Reduce Stress / Insomnia

[Sensitively + Sustainably]
Originates from PhD at RCA 1997:
A ‘Living Textile’ Smart Second Skin

Target Emotional State with Colour Therapeutic Scent Delivery
Wearable Technology and Wellbeing
Thierry Mugler: Fashion + Wellbeing

“Fashion will change dramatically in the coming years
It will be more human . . . .
Closer to the needs of the people in terms of their wellbeing, not "well showing"

1980

International Fragrance Association (IFRA) reports increase in Health & Wellbeing trends
Design Mood-Enhancing Clothing: Emotional Support System

The “Smell of Death”
- HIV & Aids
- Fear of living and fear of dying

Bipolar Affective Disorder
- Biological illness / Mood spectrum
- Extreme emotions / hyper sensitive
- Requires treatment
  - mood stabilisers / self care
  - TRIGGERS: STRESS / INSOMNIA
- STIGMA attached
Motivation: Bipolar I + Bipolar II + 3 kids!
Manage Life: Scent for Stress + Sleep

- IFRA International Federation Association reports increase in health & wellbeing trends
- Evidence-based essential oils - proven to REDUCE STRESS AND IMPROVE SLEEP
- ½ world estimated mental health problem
- 1 in 4 will experience mental disorder (UK)
- Bipolar Disorder - 254 million worldwide
- WHO - Depression escalating by 2020
- MIND – Increased STRESS in workplace
- SLEEP problem – 45% of the world
- 40 million Britons suffer from STRESS + anxiety
- STRESS + SLEEP are key bipolar triggers
Scentsory Design® Projects

SmartSecondSkin  eScent®  patent 046382.8

‘Wearable system and method for dispensing fluid in response to a sensed property such as biometric data from an individual or various ambient sounds’. 
• Smell: ancient primitive sense
  ➤ food, danger, survival, pleasure, sex

• Evokes memories

• Access to feelings, likes, dislikes . . .

• Experience **EMOTIONS**
  ➤ positive = love / security
  ➤ negative = anger / fear

• Mood-enhancing effects:
  ➢ Wellbeing
  ➢ Performance
  ➢ Behaviour
  ➢ Learning / Creativity
AROMACHOLOGY
The Science of Fragrance // Regulates Mood

Reduce:
- performance related stress
- startle reflex
- confusion
- insomnia
- heart rate
- fear

Balance:
- Nervous system
- Adrenal cortex
- Muscle stiffness

Stimulate
Soothe
“Fashion is the recognition that nature has supplied us with one skin too few – that a fully

S[C]ENTIENT BEING should wear its nervous system externally”

J.G. Ballard 1994

SmartSecondSkin:
a ‘living textile’ scent symphony

electronic nervous system ‘sensitive skin’ that changes with emotion
Reacts to physiological response of the wearer to reflect MOOD
Sci-Fi Inspiration: “Scent Bubble”  
[ reality-in-a-can ]  

- ‘UBIK’ (Philip K. Dick) mystical substance sprayed to stabilise a nightmare  
-  **Star Trek** TNG - ‘Encounter At Farpoint’ – ‘Q’ mood enhancing clothes
eScent® Personalised Time/Controlled Targeted Fragrance Delivery to Reduce Stress + Improve Sleep

Emerging Technology
Bio/Nano/MEMS

AromaChology
“The Science of Fragrances”

‘Emotional Fashion’
Help Manage Life Stress
Scent By A Wireless Web

microfluidics replicate transport mechanism of ‘firing chamber’ in beetles
Stimuli + Scent = Response!

Sleep + Stress are key triggers for a bipolar episode
Scent triggers an emotional response to enhance WELLBEING
“Scent Bubble” aura worn as a protective layer to reduce stress, relax + sleep

Measure response
Biometric Sensor
Timer

Therapeutic essential oils:
lavender, citrus etc

Psychological Physiological Emotional
[Emotional] Clothes That Make Scents!

- Targeted, controlled, non invasive
- Less is more
- Kinder to skin
- Life enhancing ‘scent bubble’
Therapeutic Rainbow

Colour Therapy combined with the therapeutic effects of healing essential oils

Wellbeing scents validated by Professor Tim Jacob, School of Biosciences Cardiff University

Colour and scent; a unique slant on the physiological & psychological manifestations of mood by Kim Lahiri

Lavender 1 = relax / sedative / antixolytic
Lavender 2 = anti-nociceptive (pain relief)
Lemon = stimulatory anti-depressant
Vanilla = anxiolytic / positive effects on mood
Rosemary = stimulating (sympathetic NS)
Sandalwood = mood changing properties
Peppermint = stimulating (trigeminal nerve)
Frankincense = activate TRPV3 receptors
Smell The Colour Of The Rainbow
AHRC Knowledge Transfer Fellowship

PHILIPS
sense and simplicity

Create “meaningful” wearable products and ideas
Explore opportunities resulting from academic work on eScent in areas of interest to Philips: Sleep & Stress businesses: AVENT / therapy / mood lighting
Colour Therapy combined with the therapeutic effects of healing essential oils to create a personal bubble that is responsive to your individual needs.
The mood swings from positive to negative and negative to positive until finally a state of balance is achieved.

Jenny Tillotson & Kim Lahiri 2011
Scentronome™

Self track moods levels

"Scent bubble" on demand

energise

refresh

balance
eScent ® Deep Sleep
eScent® WRAP (prevent relapse)

Personalised ‘wellness’ qualities in mood-enhancing clothes & jewellery

Complements orthodox treatments (mood stabilisers / anti-depressants)
Complements *self-tracking patient driven monitoring tools* pioneered by the QUANTIFIED SELF movement
Scentsory *Personalised Clock*

Tailored to fit the individual
Delivers a ‘*Wardrobe of Fragrances*’ in a controllable manner - depending on mood or time of the day
mood | boom enhancement

- New form of Communication
  - Olfactory Self Tracking sensors:
    - Hypomania / Mania
    - Depression
  - Self Care Relapse Protection
    - prevent bipolar triggers (sleep / stress)
  - Digital WRAP therapeutic tool
    - wellness - recovery - action - plan
    - Complement cybertherapy
    - olfactory CBT - change behaviour?
Thank you!

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