

Lifestyle Change Automation:

Using Neuroscience and Personal Big Data to Enable Antidepressant Lifestyle Habits

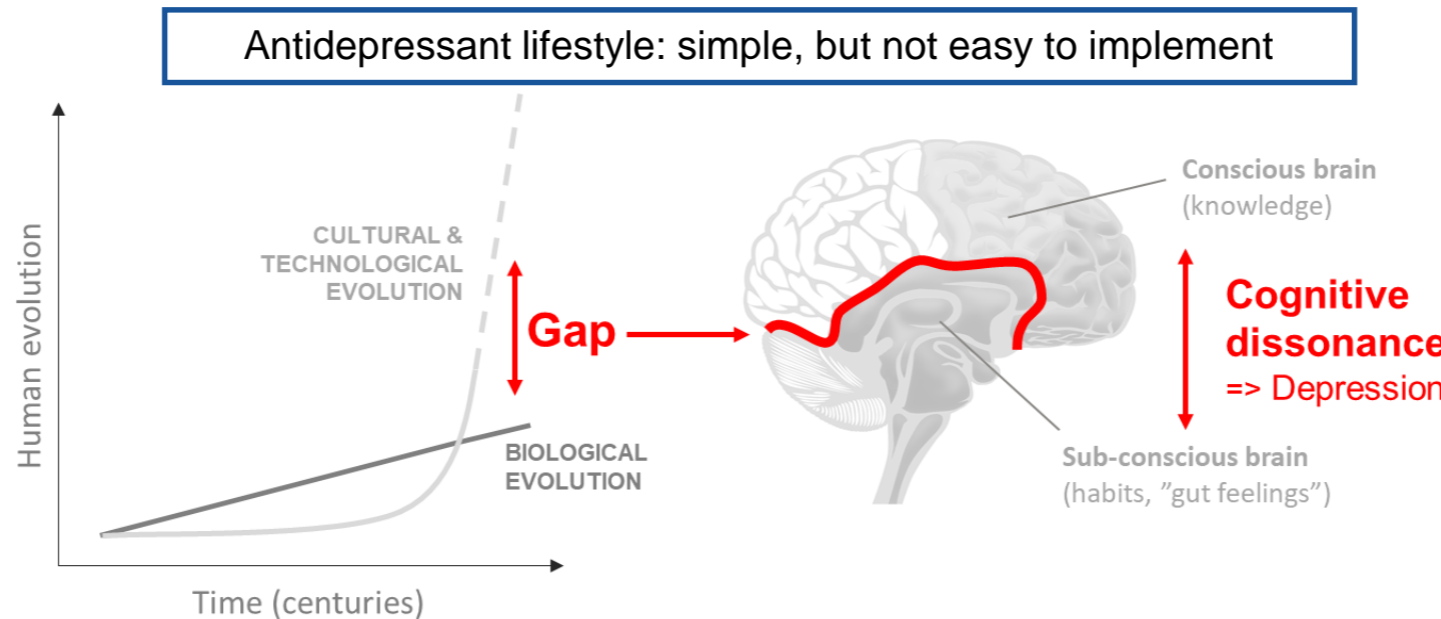
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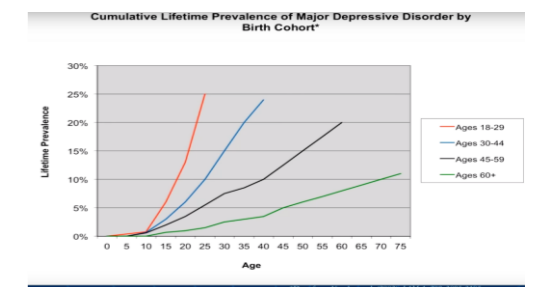
“We were never designed for the sedentary, indoor, sleep-deprived, socially-isolated, fast-food-laden, frenetic pace of modern life.”

– Stephen Ilardi, PhD

professor of clinical psychology, author of “The Depression Cure: The 6-Step Program to Beat Depression Without Drugs.”



Depression onset age is decreasing



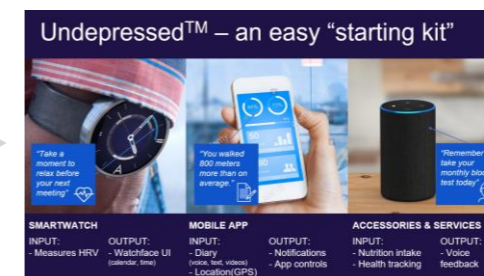
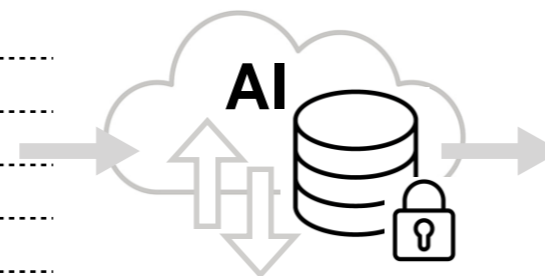
Therapeutic Lifestyle Change (TLC) and Cognitive Behavioral Therapy (TBC)

Strong evidence* that depression can be both prevented and treated through a set of straightforward changes in lifestyle:

Nutrition Exercise Light amount Sleep Community Meaningful activity

1.	Nutrition	Pill dispensary, blood tests
2.	Exercise	HRV, location
3.	Light amount	Luminosity, metadata
4.	Sleep	HRV, EEG
5.	Community	Calendar, diary
6.	Meaningful activity	Calendar, diary
7+...	Personal wearables	Medical, physiological, contextual data

* more than 70% of patients remained undepressed long-term



Advice generation for patients with Undepressed™ app available 2020

- Antidepressant pills only work short-term, long-term pills are not more effective than placebo (24% versus 23% after 6 months post-treatment)
- Psychotherapy is marginally effective, costly and reliant on humans (non-scalable)
- The only proven long-term cure is lifestyle (through a therapeutic lifestyle change).

References:

1. Lang et al. (2015) Nutritional aspects of depression. Cell Physiol Biochem
2. Pearsall et al. (2014) Exercise therapy in adults with serious mental illness: a systematic review and meta-analysis. BMC Psychiatry
3. Geoffroy et al. (2019) Efficacy of light therapy versus antidepressant drugs: A systematic review and meta-analysis. Sleep Med Rev