Bettering the Human Condition

A Neurobiological Approach

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Work Like an Ant

Problem:
Sleep is a waste of time and reduces productivity

Potential Applications:
military, college students, etc.

Solution:

- Control sleep cycles
- Long-term alterations (genetic modifications)
- Continuous chemical treatments
Is it all in your head?

Problem:
Anorexia causes a skewed perception of one’s self and can lead to physical self-destruction.

Solutions:
- Alter pathways in the brain
- Seek out potential chemical imbalances (treatments similar to depression)
- Dual approach: social and biological treatments
Forget Me Not

Problem:
Memory loss associated with diseases such as Alzheimer’s and senile dementia.

Solutions:
- Reduce chemical imbalances (change diet)
- Target neurotransmitters and their brain pathways (Ach)
- Genetic screening to prevent/slow the onset of memory loss
- Target proteins in the brain
Hunting For a Cure

Problem:
Huntington’s Disease causes mental and physical deterioration and usually has a late onset.

Solutions:
- Increase genetic testing and counseling
- Genetic manipulation (including epigenetic silencing and control of nucleotide repetition)
Drug Mail

- **Problem:**
  How to target and deliver drugs, enzymes, etc to specific, long-lived cells.

- **Solutions:**
  - Develop a delivery mechanism with the use of receptor-studded vesicles.