

An Update on the Treatment of Bipolar Depression

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3 Acts...

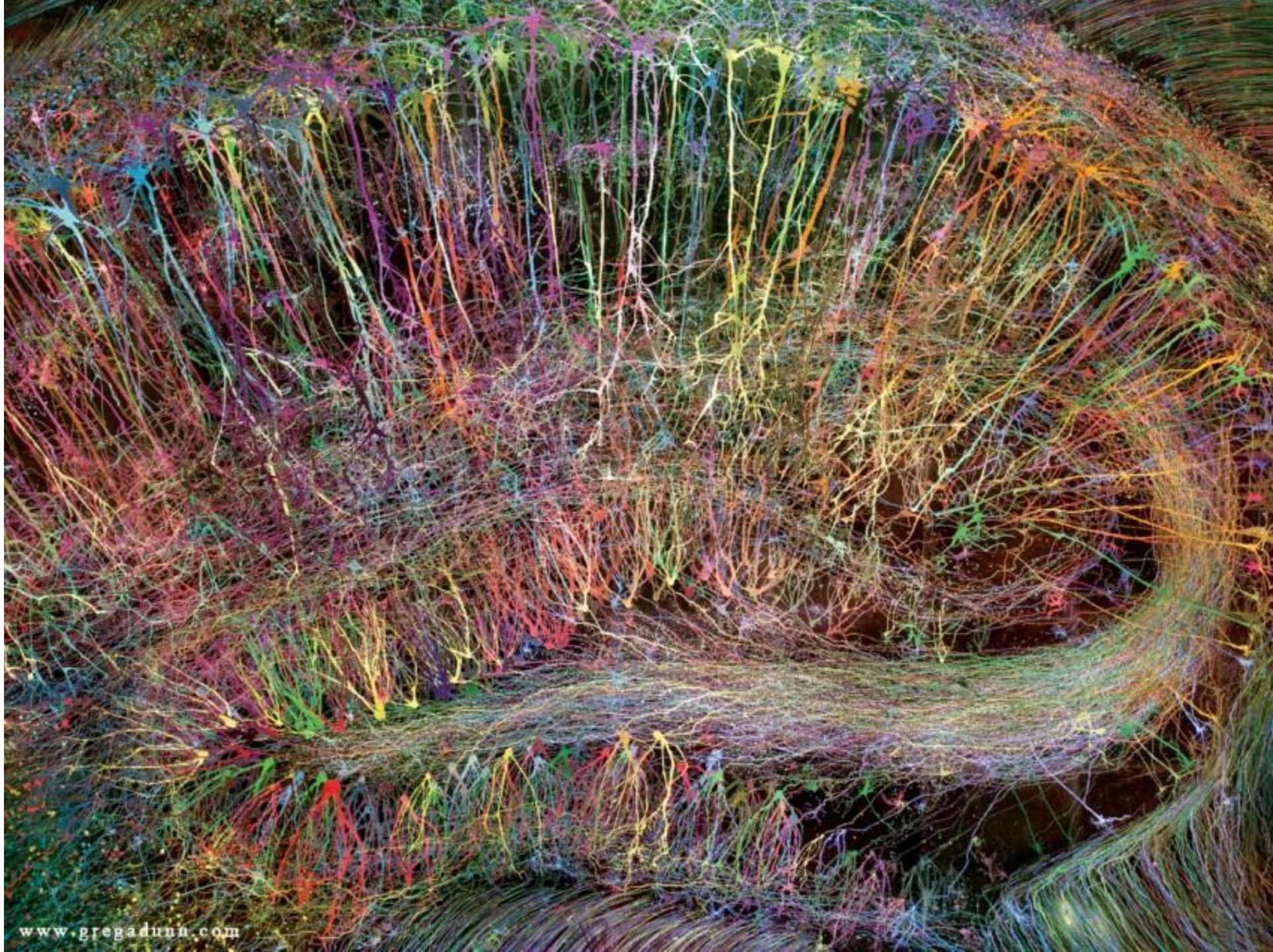
- Brain
- Bipolar disorder
- Treatments

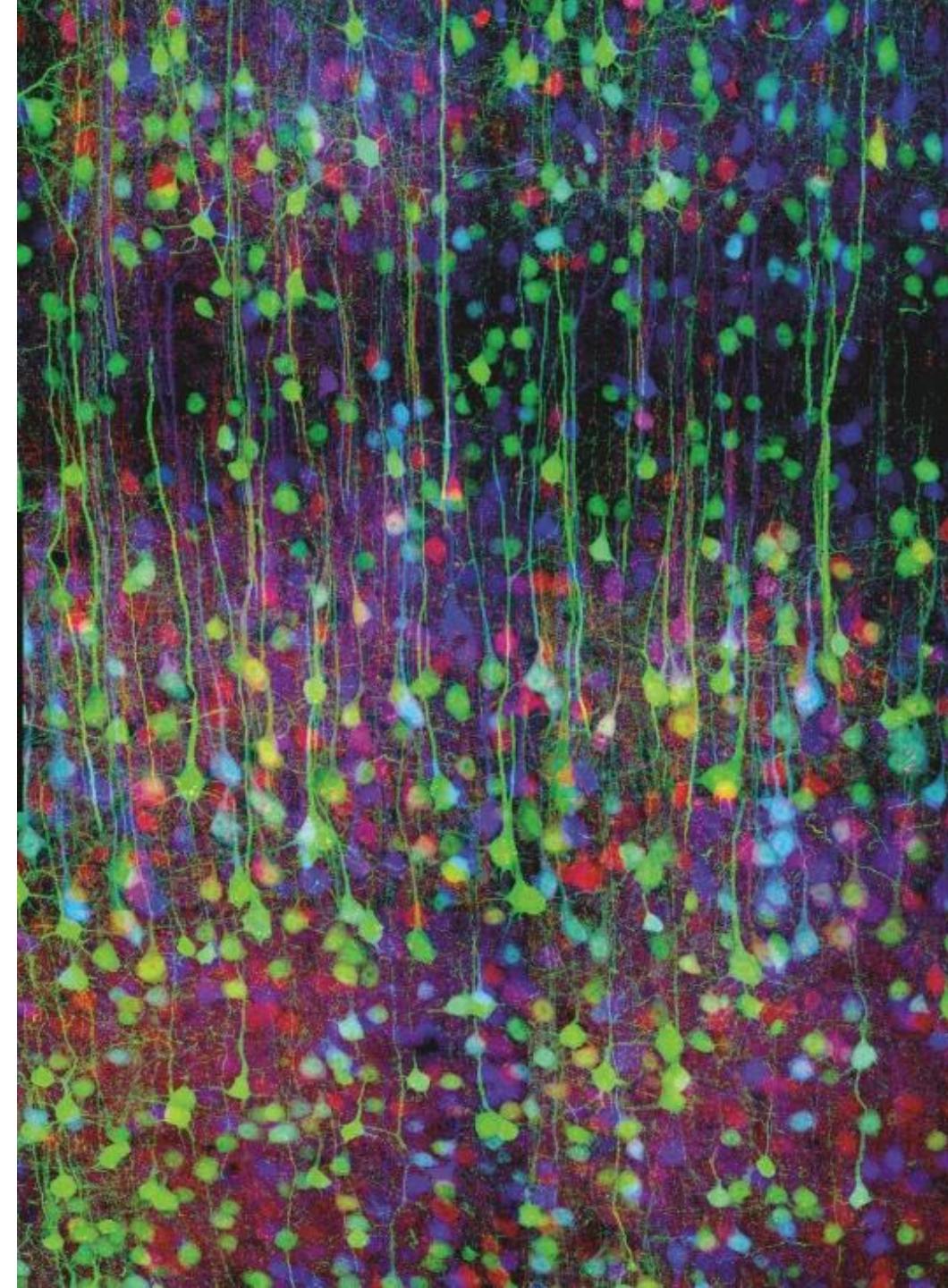
Act 1: The Brain

“...from the brain, and from the brain only, arise our pleasures, joy, laughter and jests, as well as our sorrows, pains, griefs, and tears.”

Hippocrates Circa 400 BCE



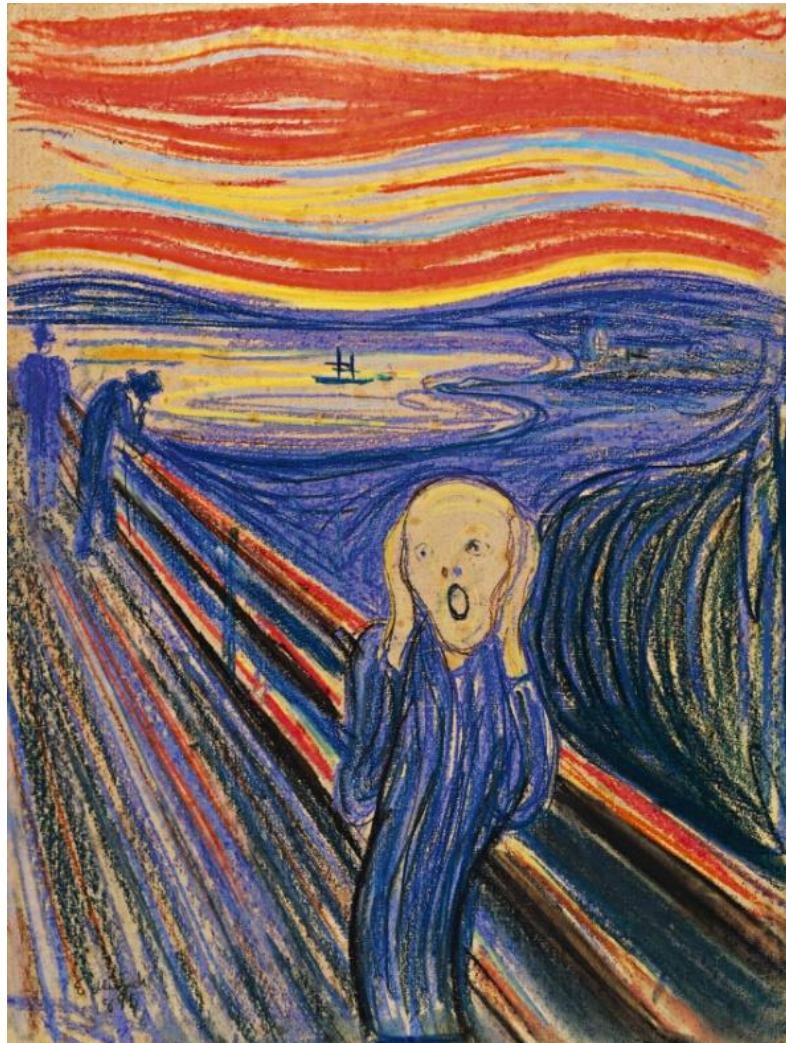




<https://where.ca/british-columbia/vancouver/the-beautiful-brain-art-by-a-nobel-prize-winning-neuroscientist/>

Act II: Bipolar Disorder

Bipolar Disorder Fast Facts

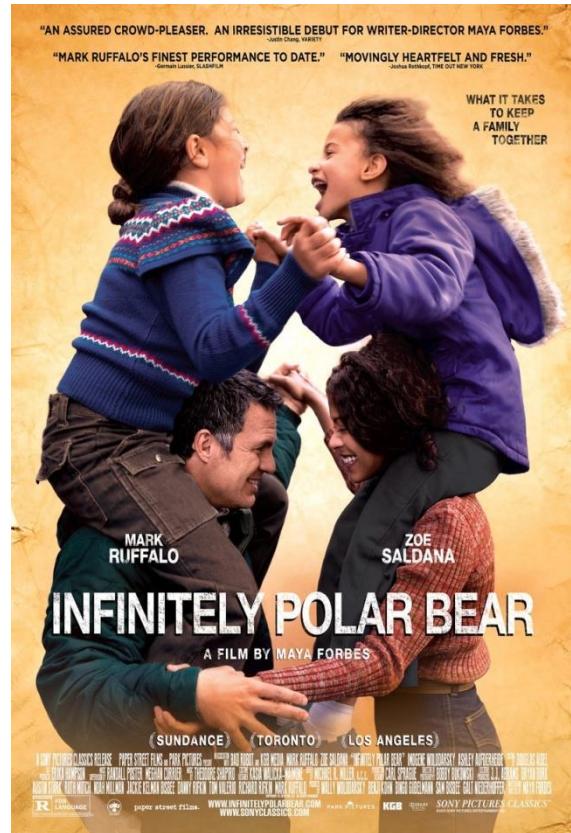
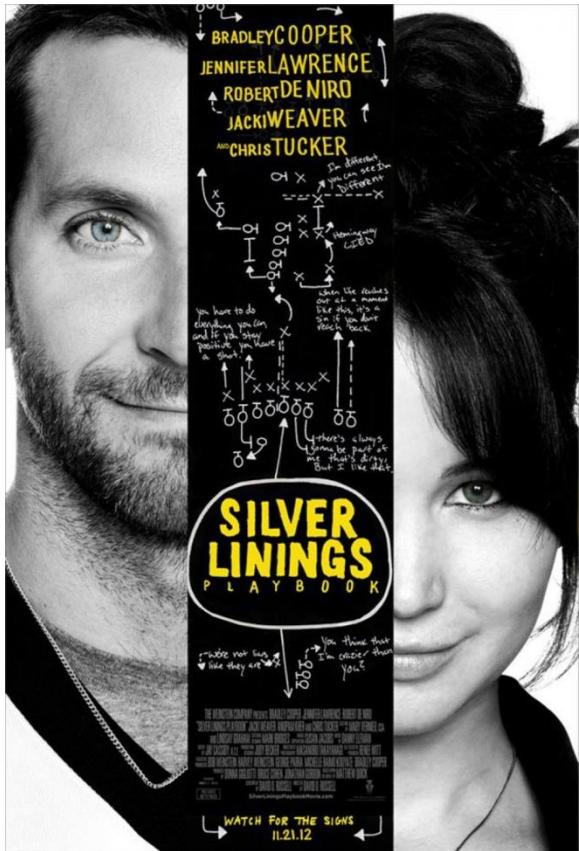


- Types
 - **Type I** with manic episodes
 - **Type II** with hypomanic episodes
- 90% have other problems
 - *Substance use disorders*
 - *Anxiety disorders*
- 1.5 to 2.1 times more likely to have chronic physical conditions

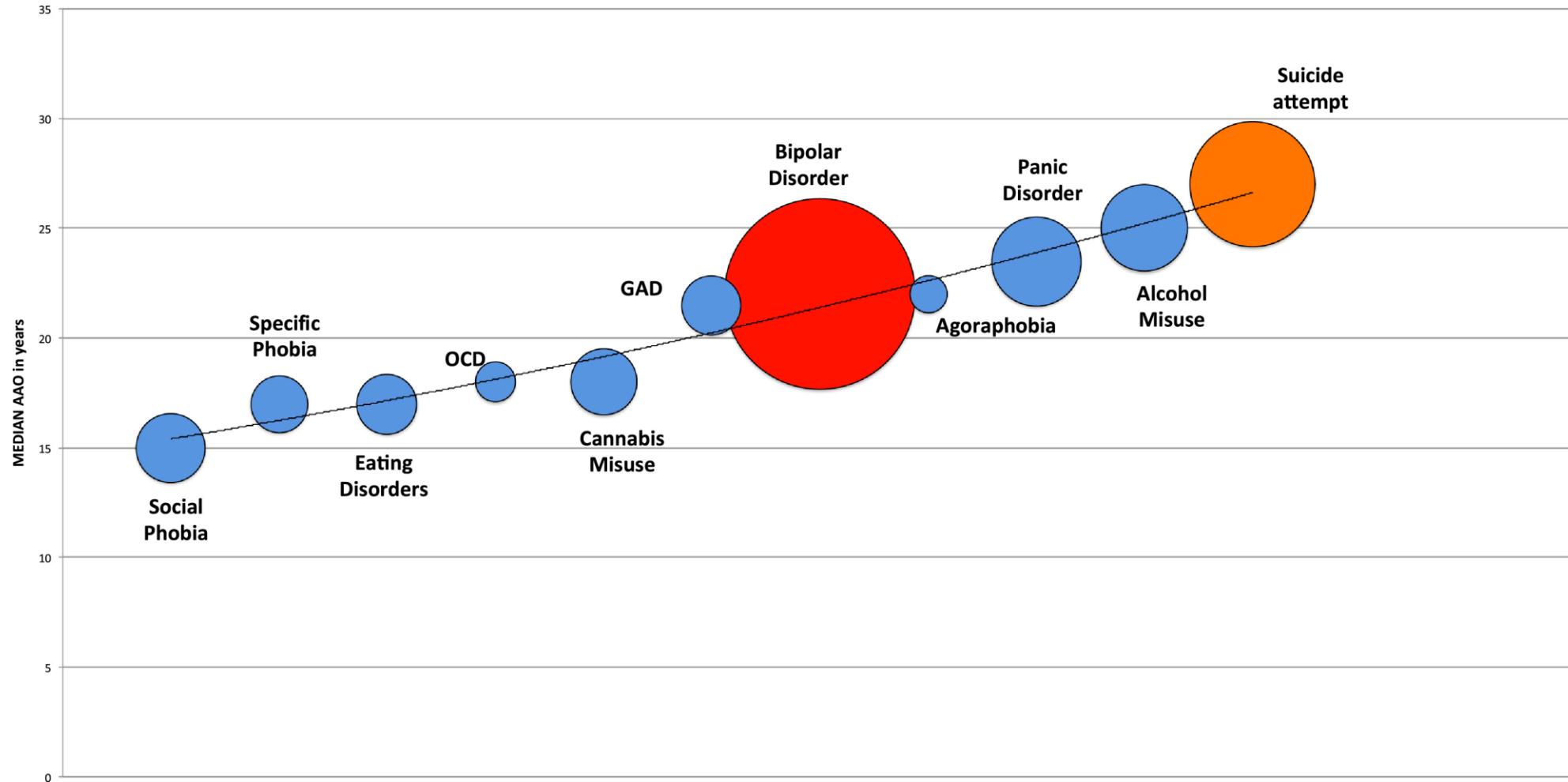
Bipolar Disorder Fast Facts

- Among top 10 causes of disability worldwide
- 50% with onset before the age of 25
- Costs > \$200 billion per year
- Prevalence about 2.5%

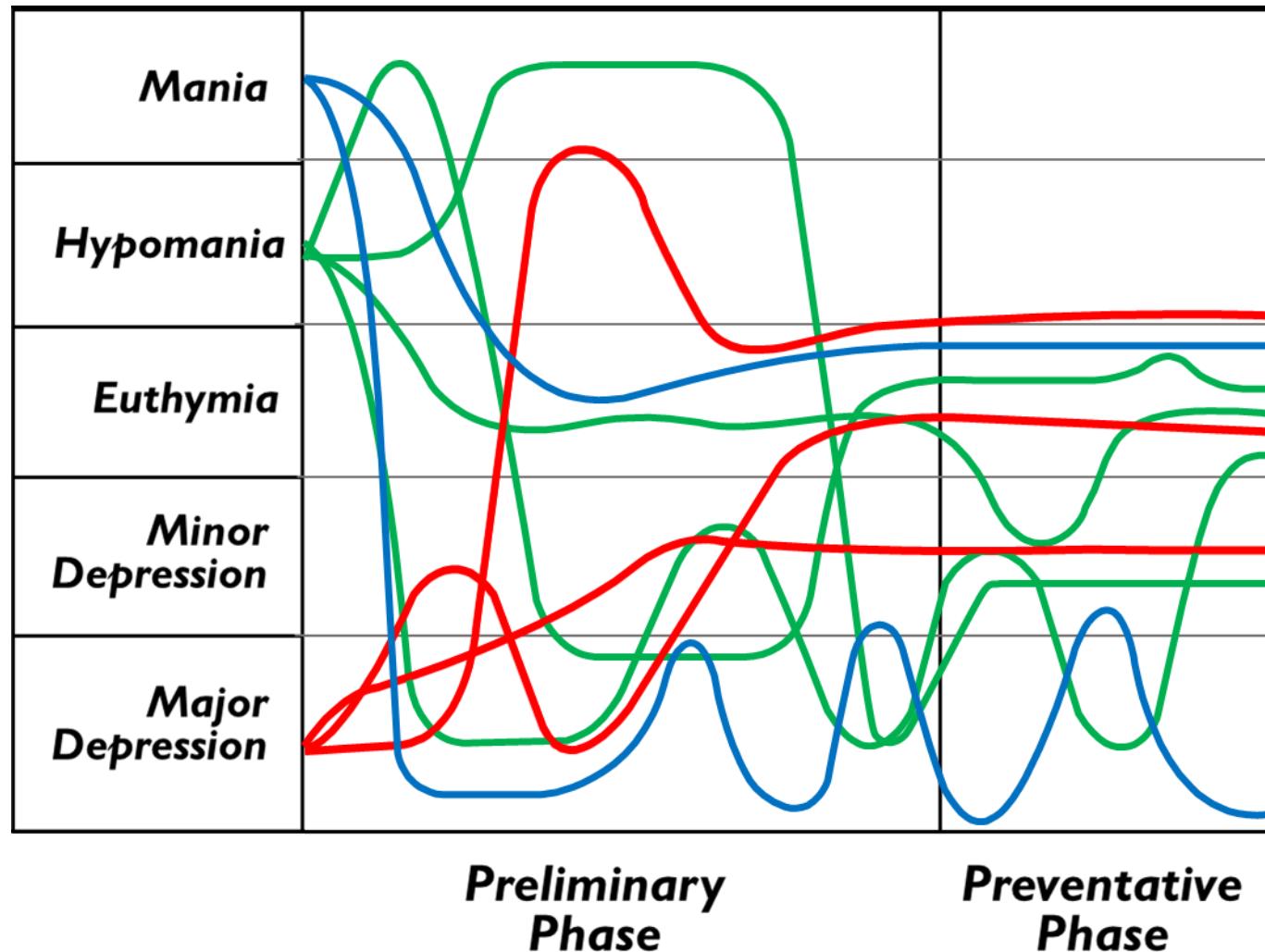




Bipolar and age of onset of comorbid conditions



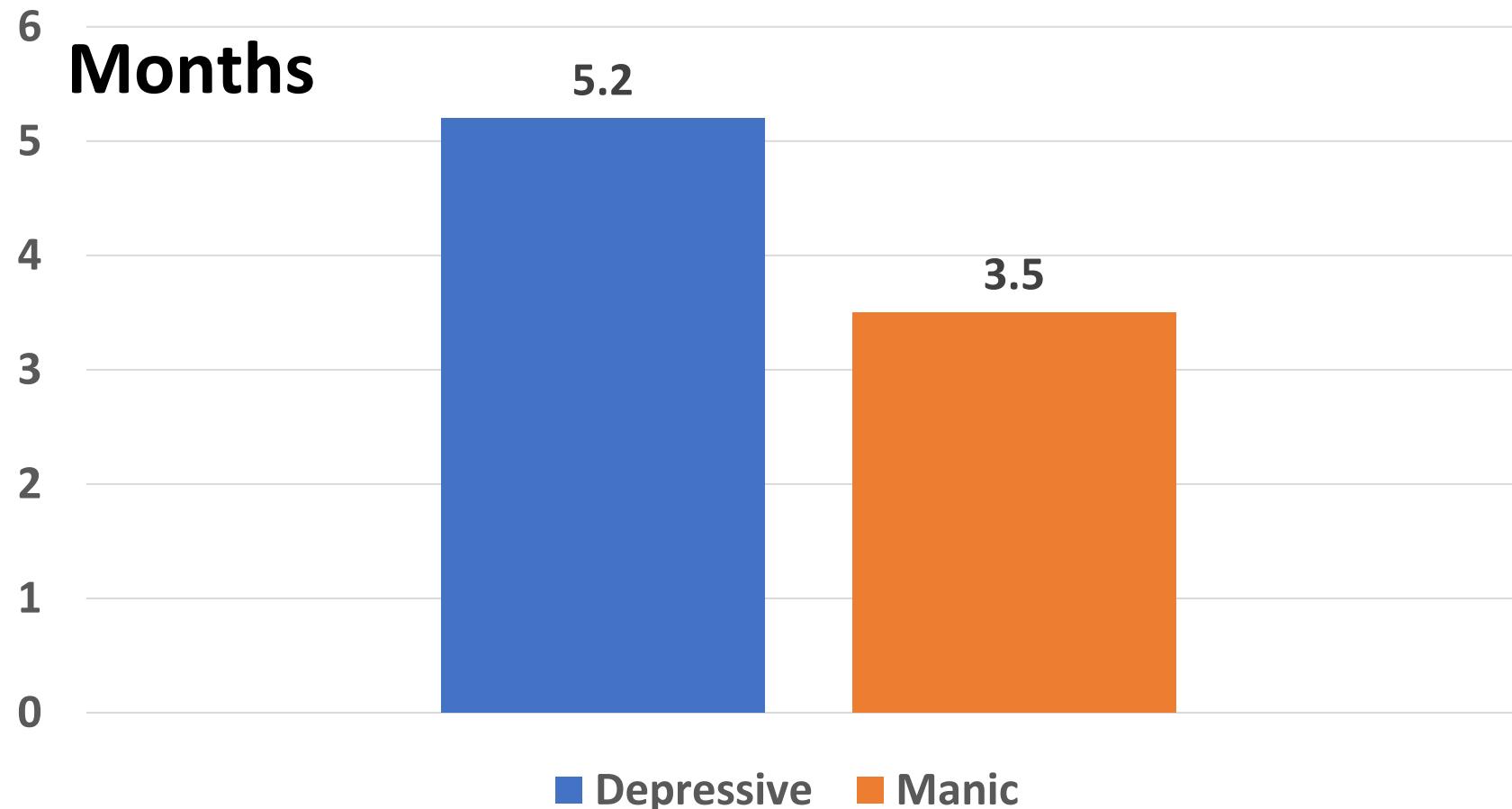
Response, Remission, Recovery, Relapse, Recurrence: Phases of Treatment of Bipolar Disorder





**WARNING
DEPRESSION
AHEAD**

Depression lasts longer than Mania



Act III: Treatments

FDA Approved

- Olanzapine/Fluoxetine Combination (OFC)
 - Zyprexa/Prozac
- Quetiapine - Seroquel
- Lurasidone – Latuda
- Cariprazine – Vraylar

FDA Approved Bipolar Depression Treatments

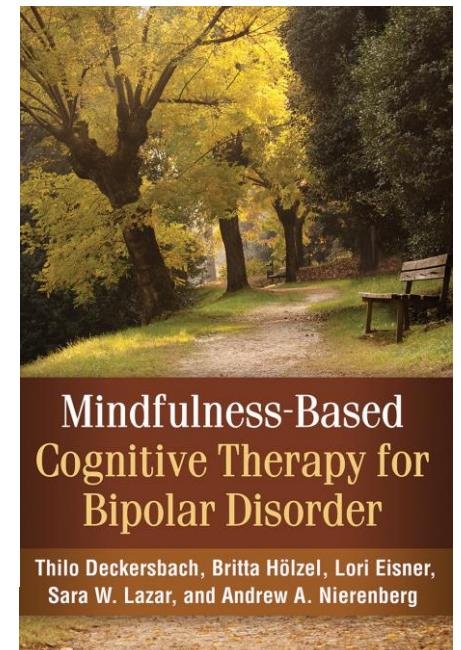
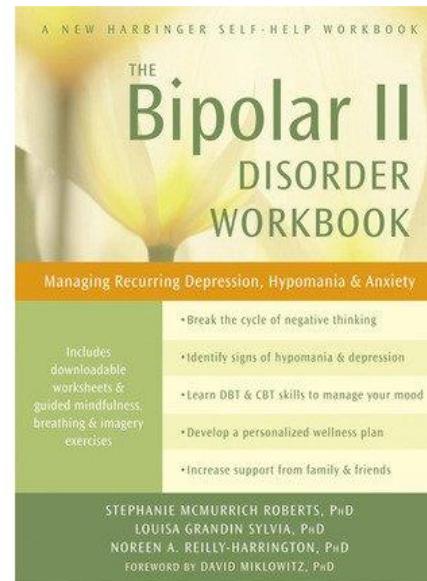
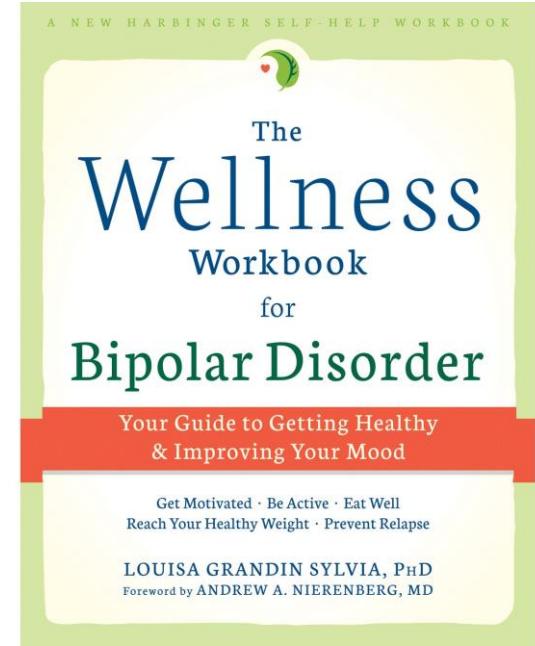
	Response	Weight Gain	Sedation
Olanzapine/Fluoxetine	56%	19%	21%
Quetiapine	59%	8%	56%
Lurasidone	52%	2%	10%
Cariprazine	46%	3%	6%

Not FDA Approved

- Antidepressants with or without antipsychotics
- Lamotrigine
- Electroconvulsive therapy
- Repetitive transcranial magnetic stimulation (rTMS)

Psychotherapy

- Cognitive behavioral therapy (CBT)
- Family focused therapy
- Mindfulness based cognitive therapy (MBCT)
- Unified protocol for emotional regulation
- Dialectical behavioral therapy (DBT)
- Lifestyle interventions



Potential new treatments

- Lumateperone
- Ketamine
- Pramipexole
- Pioglitazone
- Bezafibrate
- Minocycline
- N-acetylcysteine
- Nicotinamide riboside
- Candasartan

Hope

- Better understanding of BD with larger genetic studies
- Neurons and brain organoids made from skin biopsies
- Big data from electronic medical records
- Bipolar Collaborative Care Network
- Philanthropic support