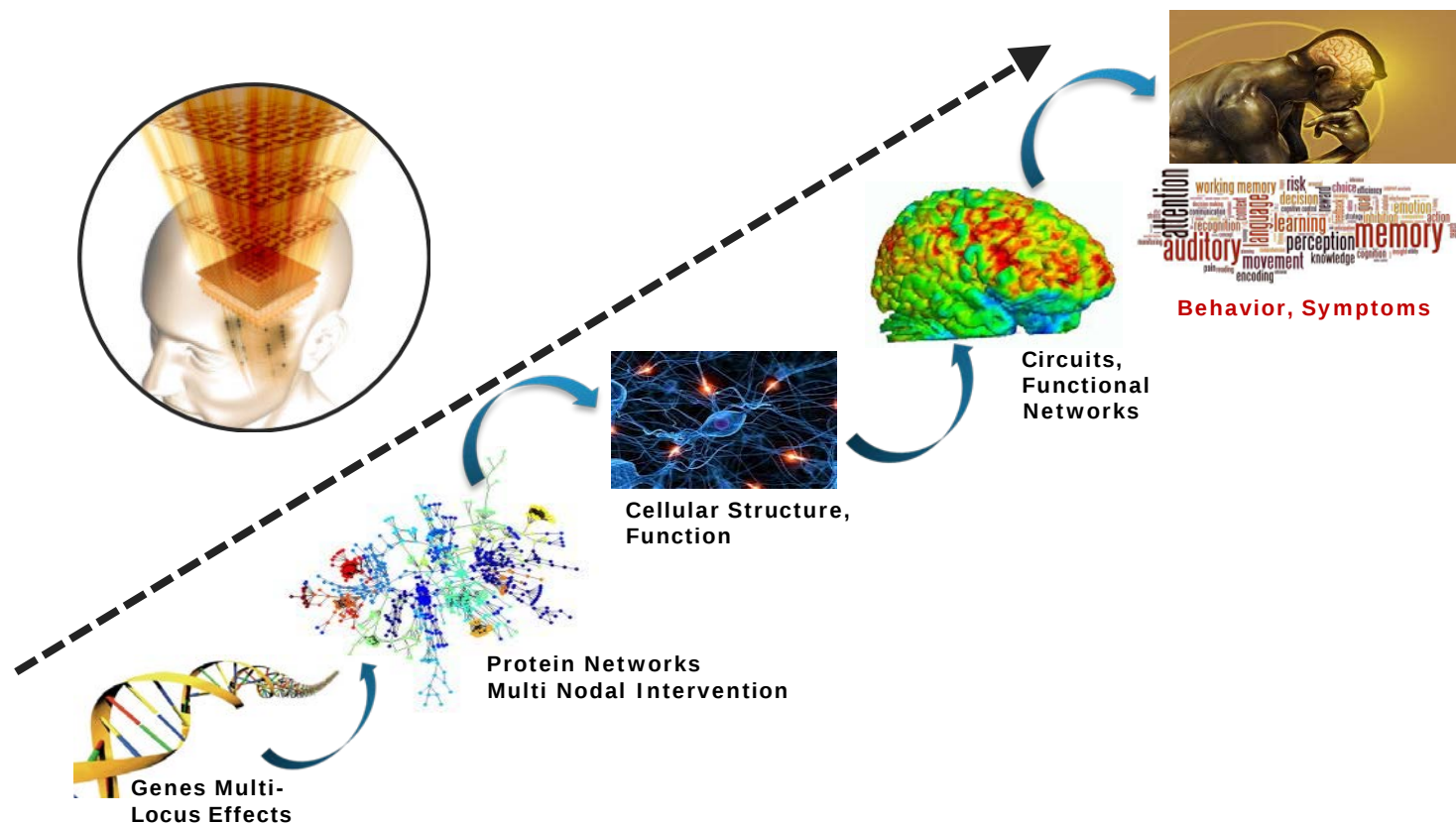


Understanding the Brain – Unprecedented Span From Molecules to Behavior

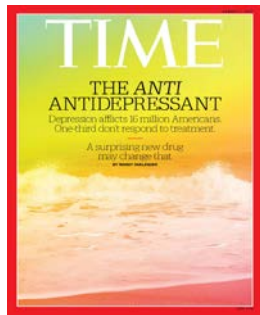


We are making progress at the level of Biology.....

Twin Revolutions in Neuroscience and

Digi
Wil
Neur

Biology
Op



www.nature.com/nature

A decade for psychiatric disorders

There are many ways in which the understanding and treatment of conditions such as schizophrenia are ripe for a revolution.

MENTAL HEALTH
A JAMA THEME ISSUE

Rethinking Mental Illness



Method of the year, 2010

The Future of Psychiatric Research: Genomes and Neural Circuits

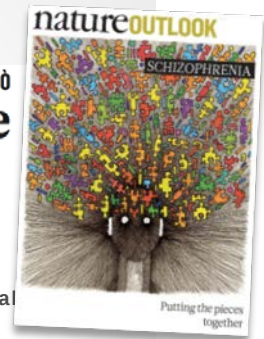


Genesis of a complex disease Biological insights from 108 schizophrenia-associated genetic loci

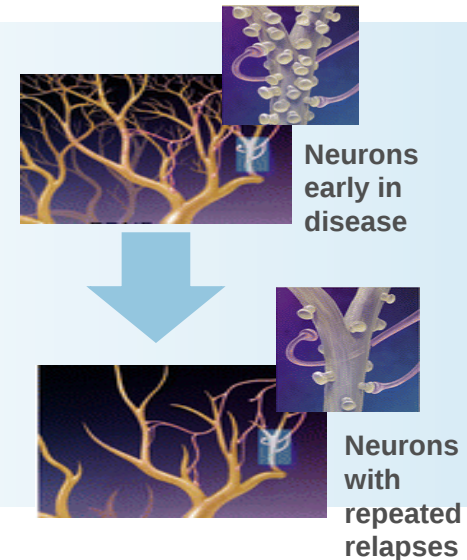
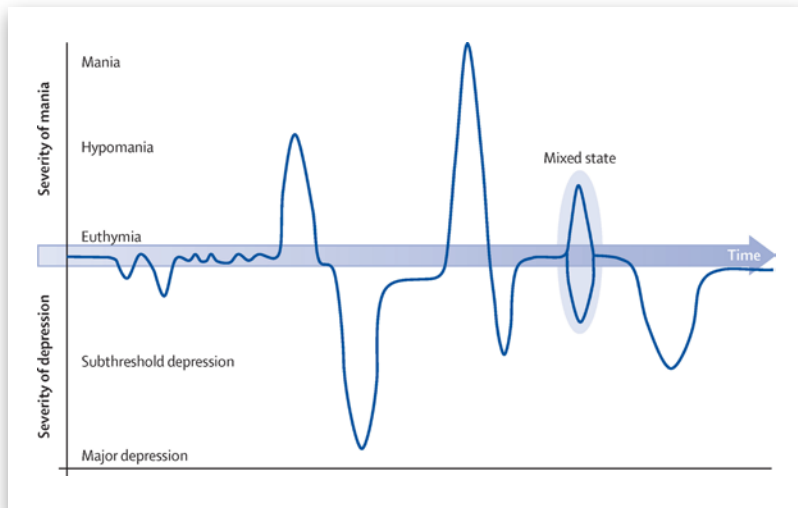
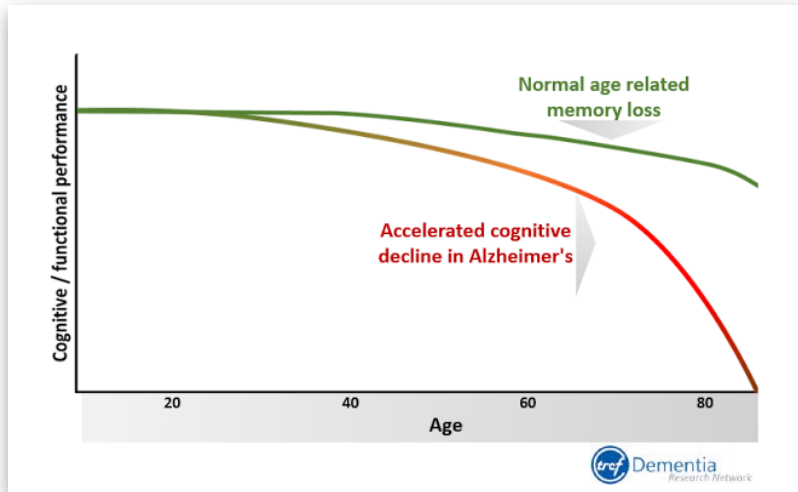
Schizophrenia Working Group of the Psychiatric Genomics Consortium*

Point of Need **Biochemistry**
(CRP, Cortisol, Cytokines)

and behavioral

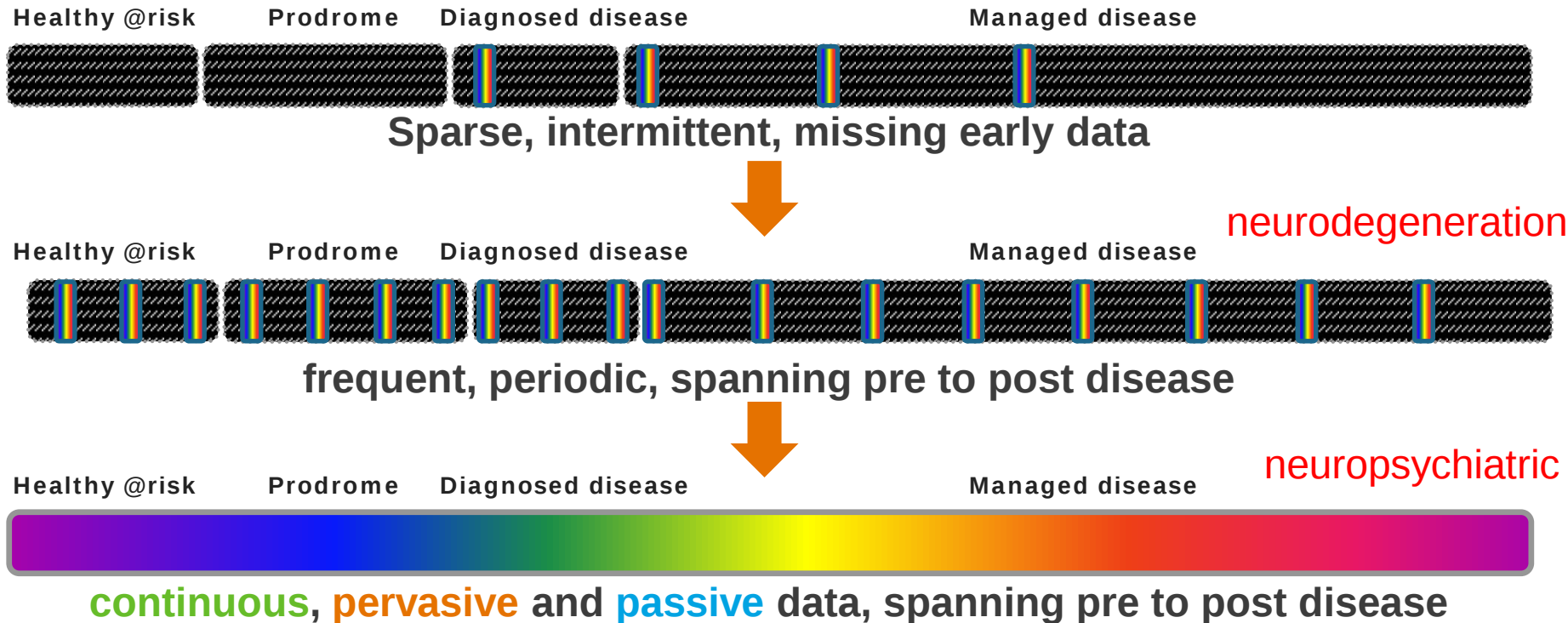


Neurodegenerative and Neuropsychiatric Changes: Generally Different Time Scales



Digital Technologies can change assessments:

Sparse & Episodic > Periodic > Continuous



Narayan, Vaibhav A., and Hussein K. Manji. "Moving from 'diagnose and treat' to 'predict and pre-empt' in neuropsychiatric disorders." *Nature Reviews Drug Discovery* (2015).

A LOT OF EXCITEMENT, BUT ALSO MANY KEY CONSIDERATIONS AND CHALLENGES TO ADDRESS

Evidence
Based

Actionable
(dynamic
risk)

Patient
Centric/
Controlled
(privacy and
ethics)

Regulatory
Acceptance

Fit with
Clinical Care
Pathways

Open
Architecture

The Data Driven **LEARNING** Engine

