

The Neurobiology of Suicidal Behavior

Suicidal Behavior

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Suicidal Behavior



Magnitude of the Problem

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Demographics

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Relationship to Psychiatric Illness

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Vulnerability or Diathesis for Suicidal Behavior

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Vulnerability or Diathesis for Suicidal Behavior

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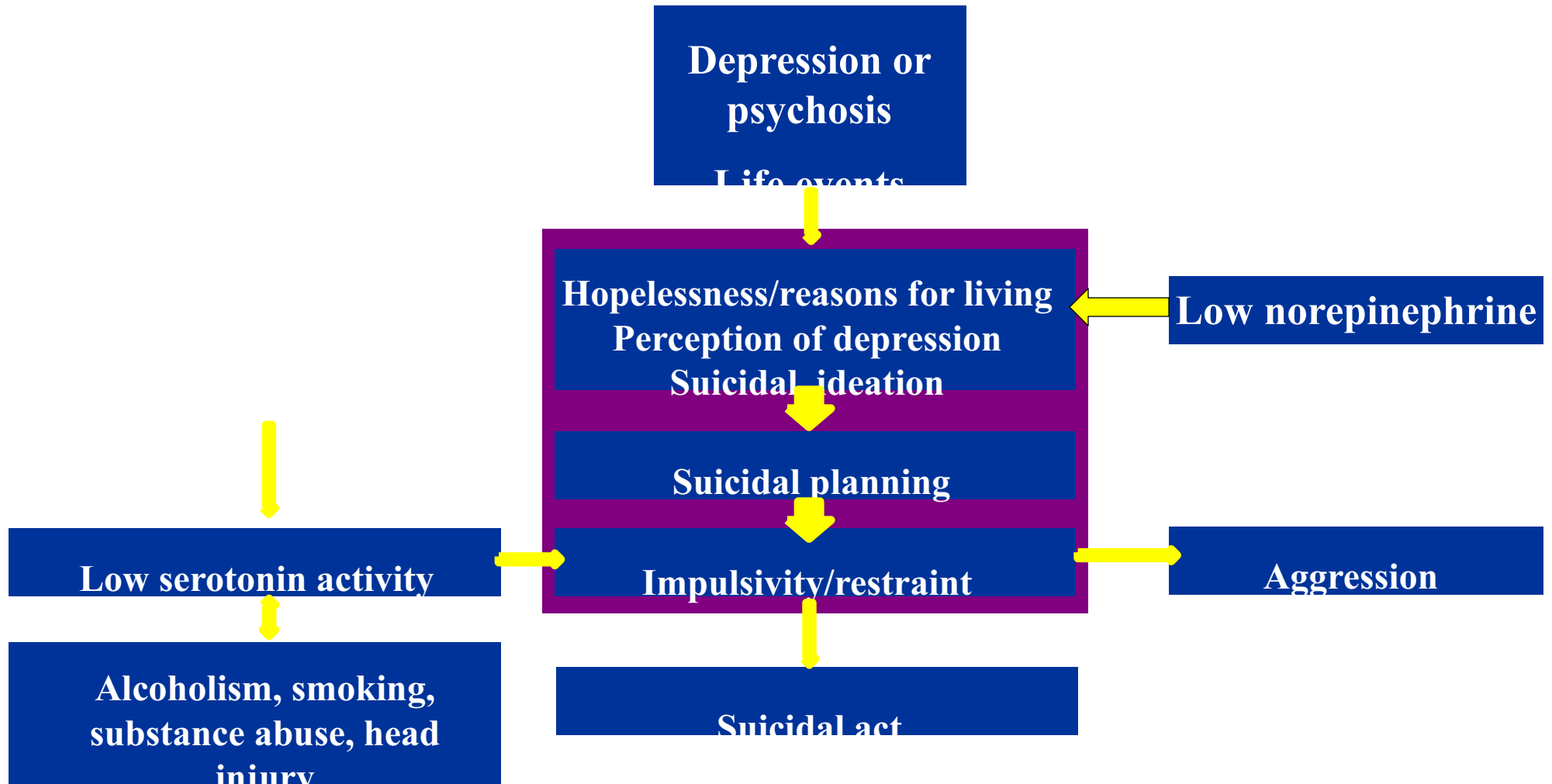
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A Stress Diathesis Model



A Model of Suicidal Behavior



Where Does Neurobiology Fit In?

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Serotonergic Activity is Related to Aggression/Impulsivity and Suicidal Behavior

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Norepinephrine Relates to Hopelessness

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Mapping the Pathobiology of Depression and Suicide

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Serotonin System Dysfunction: Independent correlations with suicidal behavior and depression

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Markers of Serotonin Input: Presynaptic markers

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Postmortem Cortical Brain Mapping in Suicide and Depression

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PET Measures of PFC Activity and Depression or Suicidal Behavior

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Why are Serotonin Responses Abnormal in that Part of the Brain?

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Factors Influencing Suicide

Diathesis or Predisposition and Serotonin

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Familial Transmission of Suicidal Behavior

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Genetics of Suicide

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Candidate Genes

From the Serotonin System in Suicide

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Life Events or Stress and Suicide

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Childhood adverse experience

Excessive NE release

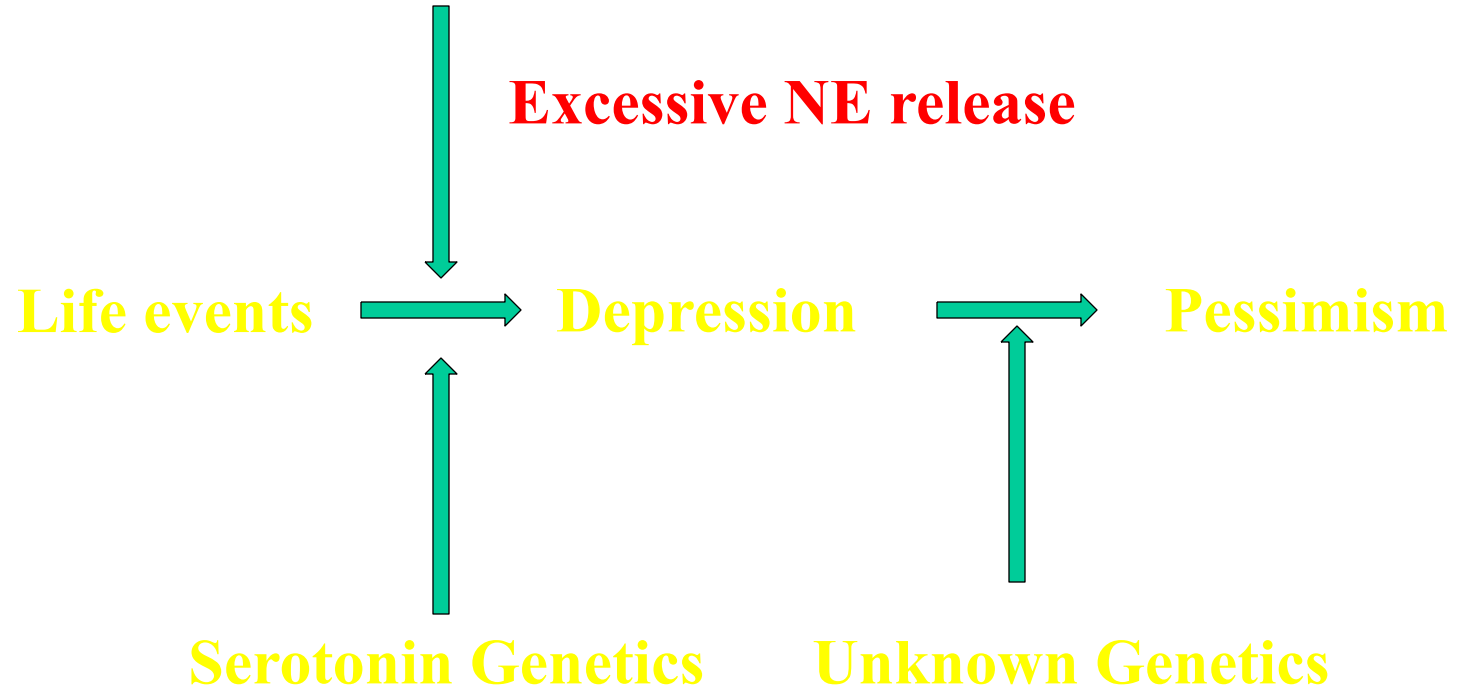
Life events

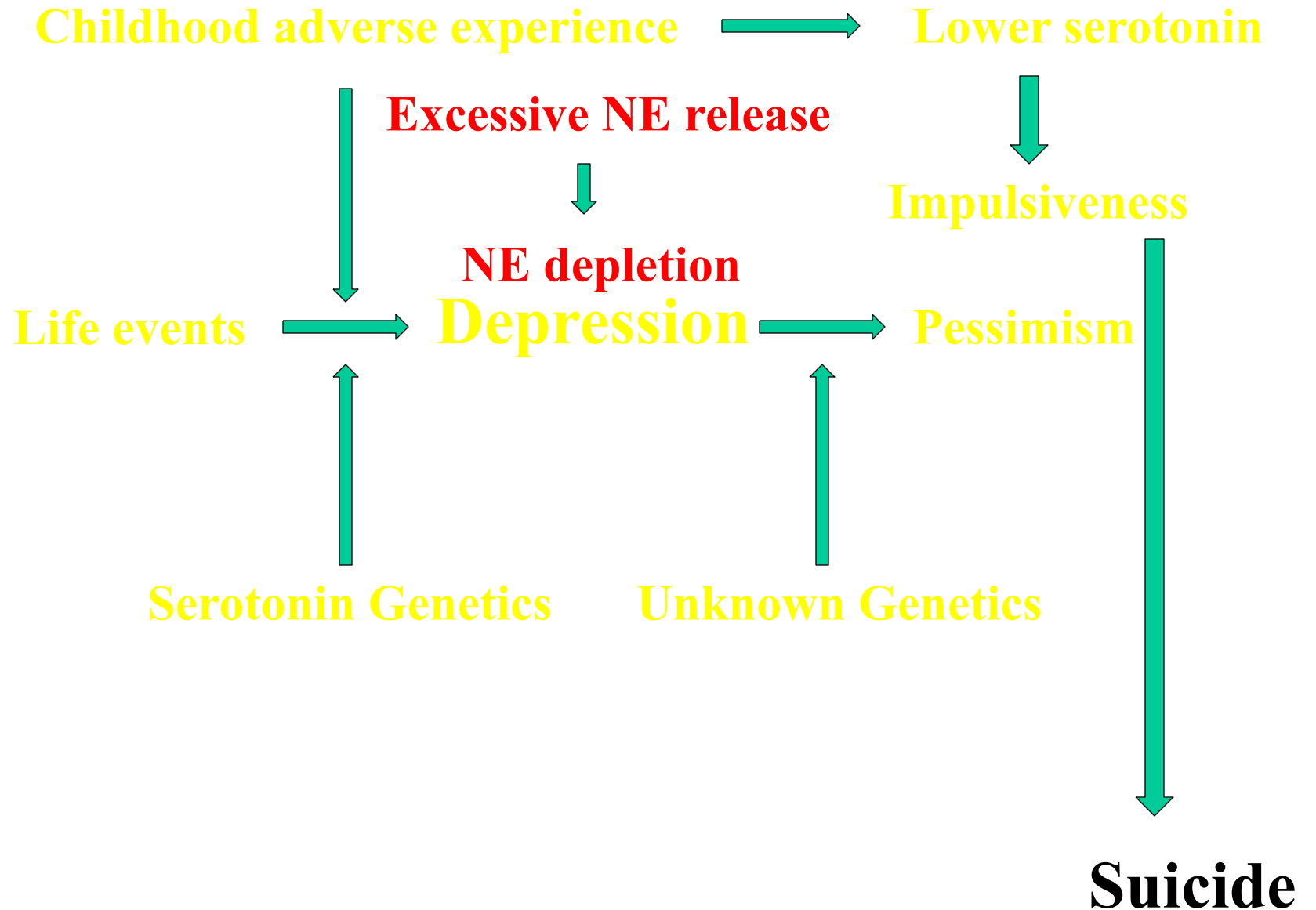
Depression

Pessimism

Serotonin Genetics

Unknown Genetics





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- NE
- NE
- NE depletion pessimism.
- Low norepinephrine

Parenting, Suicide and Psychopathology

- **depression**
less
serotonin
- **depression**
less
serotonin
- **depression**
less
serotonin
impulsive, aggressive

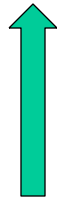
Drug Abuse and Suicide

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Low serotonin function



Drug Use disorders

Suicidal Acts

Summary

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The Future

