Suicide Presentation: Suicide ideation & behavior, a new hypothesis, and means for mitigation

- What if suicide is something else? What if a suicide is a failure of some mechanism we do not know yet?... “a mysterious disease”

- Suggested use of the term “suicide ideation & behavior” for the suicide phenomena

- Suicide research has many barriers:
  - Dangerous for everyone involved
  - Most clinical trials exclude suicidal subjects
  - Differential diagnosis? A sequence?
    - Non-suicidal self-harm
    - Suicide ideation
    - Suicide attempt
    - Complete suicide
  - No animal model
  - More than one module or “language” (thoughts, feelings, behavior)

- What do we already know?
  - An unknown (or not known well enough) disease, which is common & deadly
  - Research is problematic

- 1st incidental finding: Ketamine for cholecystectomy can elevate mood

  - Ketamine: An anesthesiologic drug
    - Vast clinical usage
    - Anesthesiology: general use & children
    - Trauma
    - Out of hospital medicine
    - Pain medication
    - Veterinary usage
    - Illicit drug use

  - Ketamine’s mechanism of action: Ketamine blocks glutamate (glutamate=major excitatory neurotransmitter) & is a NMDA receptor antagonist. **In depression, there is over activation of the glutamatergic system**

  - Ketamine & depression:
    - In 2000, an article was published about the qualities of ketamine as an antidepressant. This mechanism of action was completely different from other antidepressants- ketamine was rapidly acting (within hours). Many other studies confirm this observation.