# OUTLINE: THE SYMPATHETIC INNERVATION OF THE HEART

*Central purpose: Sympathetic outflow to the heart regulates normal responses to stress, but leads to pathology in disease states*

Paragraph ideas

* MI laterality (e.g. right = vagal and brady, left = sympathetic and tachy)
* BB protect form acute ischemia
* Psych/stress decrease VFT (BB are protective)
* Myocardial scar leads to focus for VF/VT
  + SNS heterogeneity
* SNS leads to microvascular coronary vasoconstriction
  + Coronary artery innervation
* Catecholamine excess causes Wellen’s (?)
* Stellectomy protects VT/VF
* Catecholamines lead to hypertrophy, neuron edema, vagal withdrawal
* Psychological stress leads to VF/VT…
  + Spinal cord contains sympathetic afferent/efferent neurons
* Accentuated antagonism / vagal-sympathetic interaction using local neurotransmitters
  + NE, epi, galanin, NPY, Ach
* Coronary blood flow in response to sympathetic flow, e.g. adenosine
* Chronotropy, inotropy, dromotropy, lusitropy of SA node, myocardium innervation

Word stack

Historically, psych/stress lead to SCD

Historical story of emotional triggers of SCD

Bernard Lown research

VFT is affected by sympathetic and vagal influences

VFT changes in response to BB

Acute ischemia affects threshold (protected by BB)