Marie Antoinette syndrome: Hair turning gray night before beheading

Why stress causes gray hair?

Hyperactivation of sympathetic nerves drives depletion of melanocyte stem cells

Noradrenaline drives MeSCs out of quiescence.
Why would brain signal MeSc stem cells to differentiate en masse under acute stress?

Several stunningly original ideas here... I am very impressed with you guys. Ideas on phylogenetic inertia (Joshua, Rick) and stress recognition (Saleh) are particularly interesting to develop.

Life

Faithfull self-replication

Faithfull self-replication
Vs
Uninterrupted unstoppable evolutionary change

How to reconcile?

View 1 (Zane): Self-replication as a rule, but mistakes happen and are channeled into diversity by complexity of development

View 2 (Joshua): Constant change as a rule, but robustness of development often produces similar outcomes that we interpret as self-replication

Evolution

Development

Inheritance

“The Greatest of all Wonders in the Universe: ...So stunning that we may fairly ask what hope there is to ever discover its solution, its hidden laws and causes.”

William Keith Brooks, 1883
Two questions:
Fertilized Egg $\rightarrow$ Adult phenotype; Adult Phenotype $\rightarrow$ Adult Phenotype

Environment 1  Environment 2

Genes 1  Genes 2

Generation 1  Generation 2