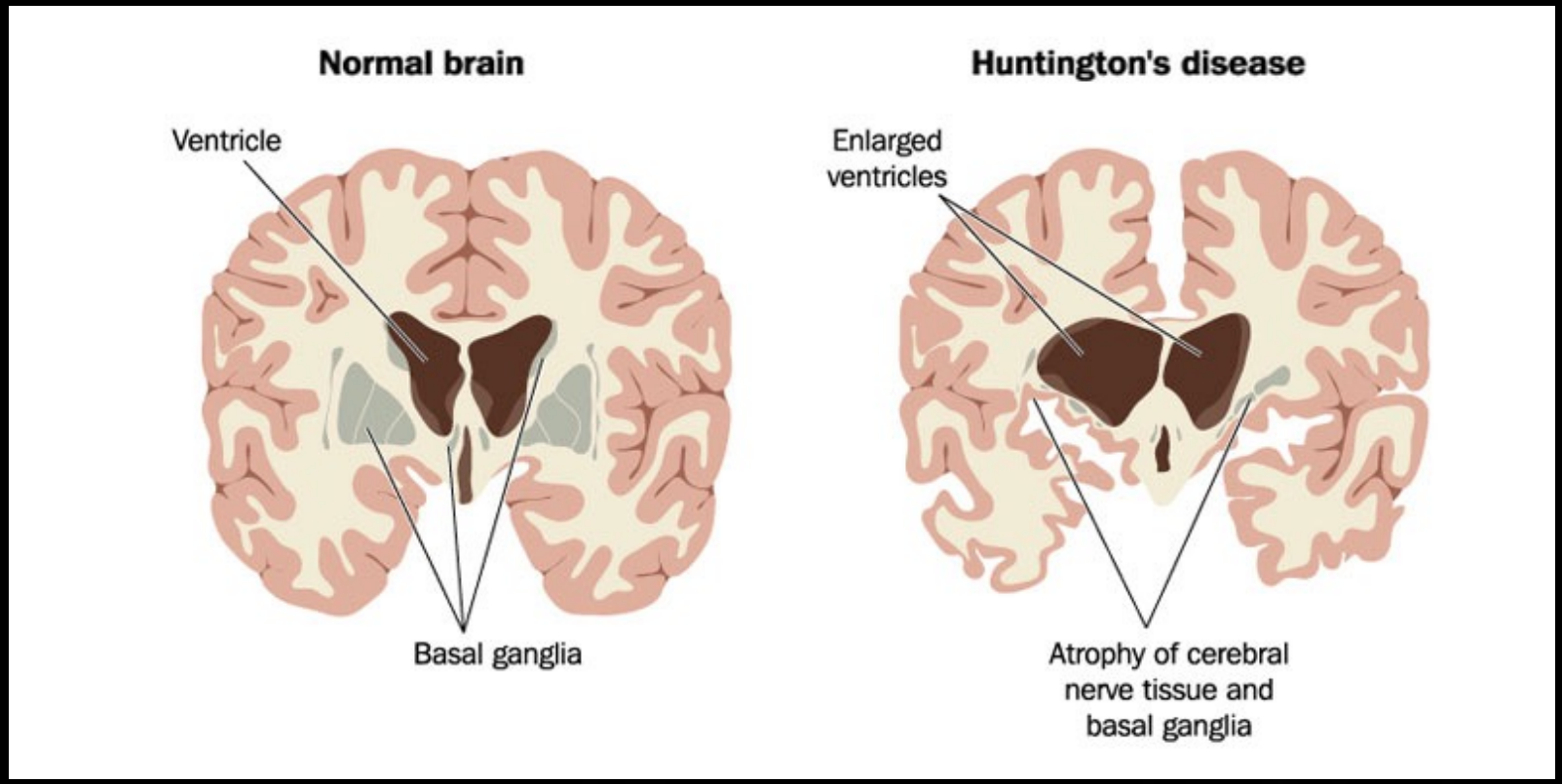
Huntington's Disease (HD)

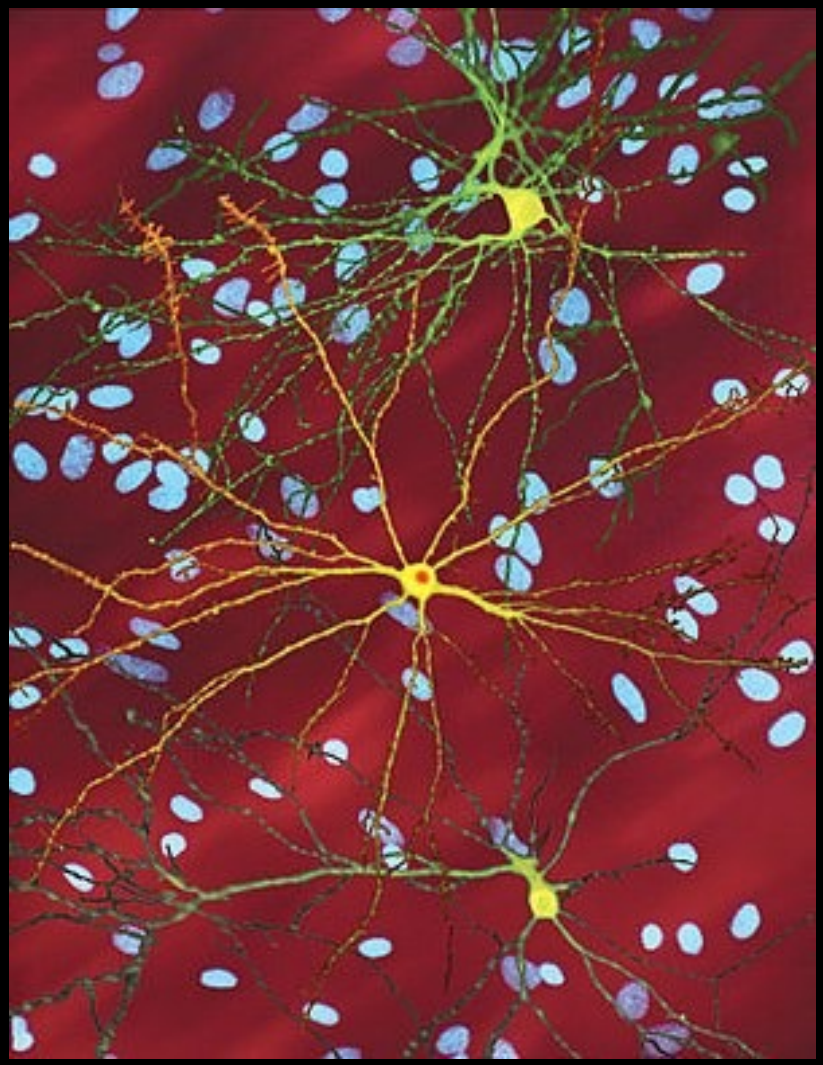
Manika Bansal



Brain scans courtesy of the Feinstein Institute

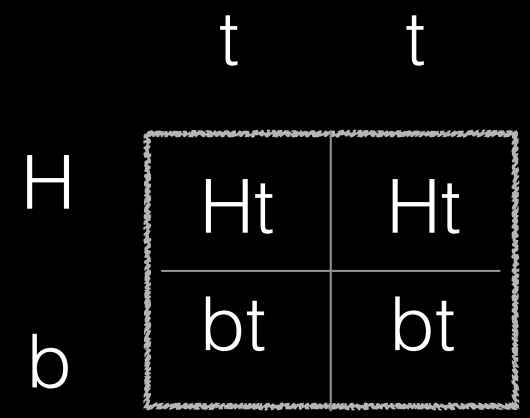
What is it ?

- Death of brain cells

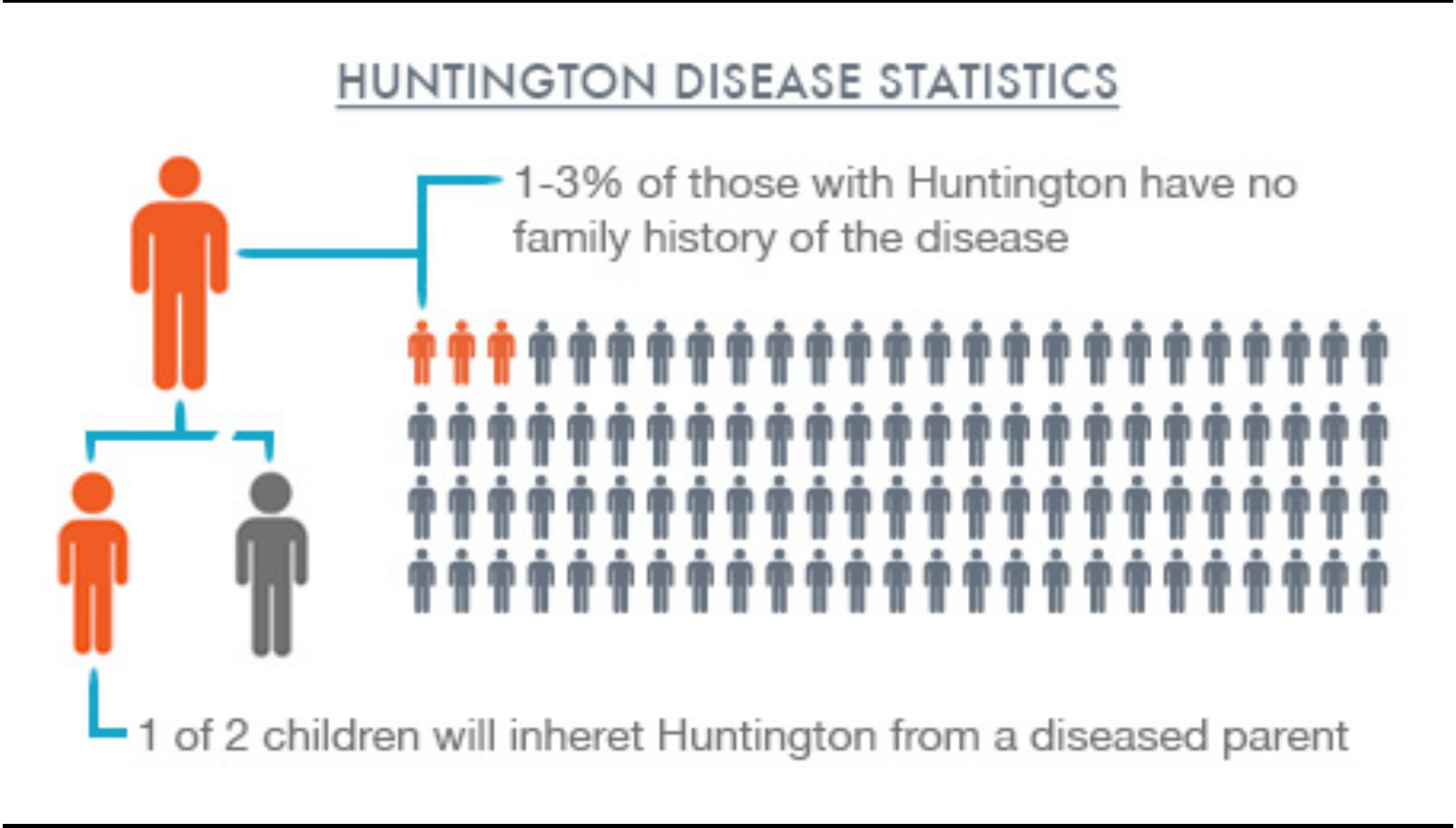


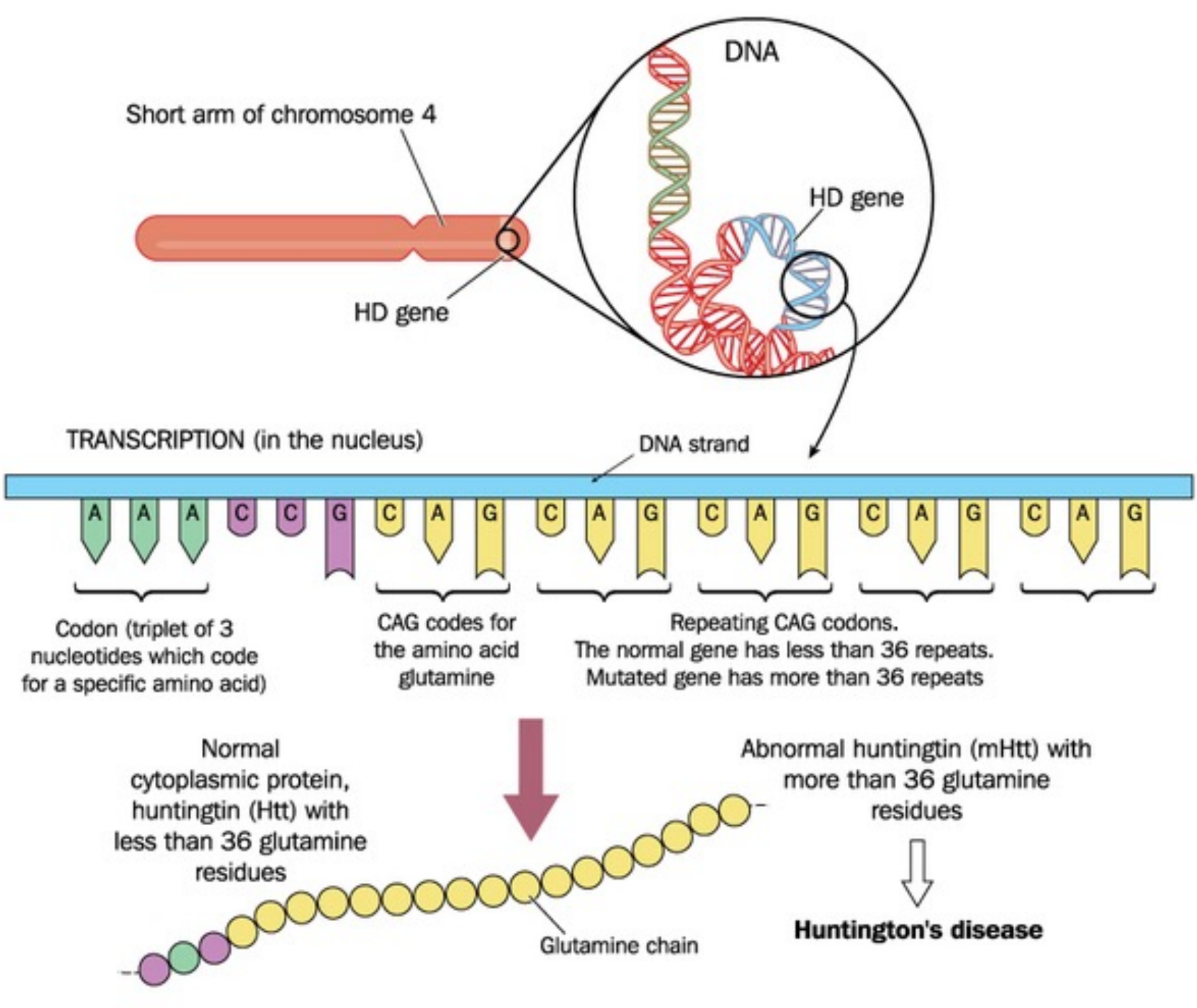
Cause

- Genetic
  - Inheritance
  - New mutation



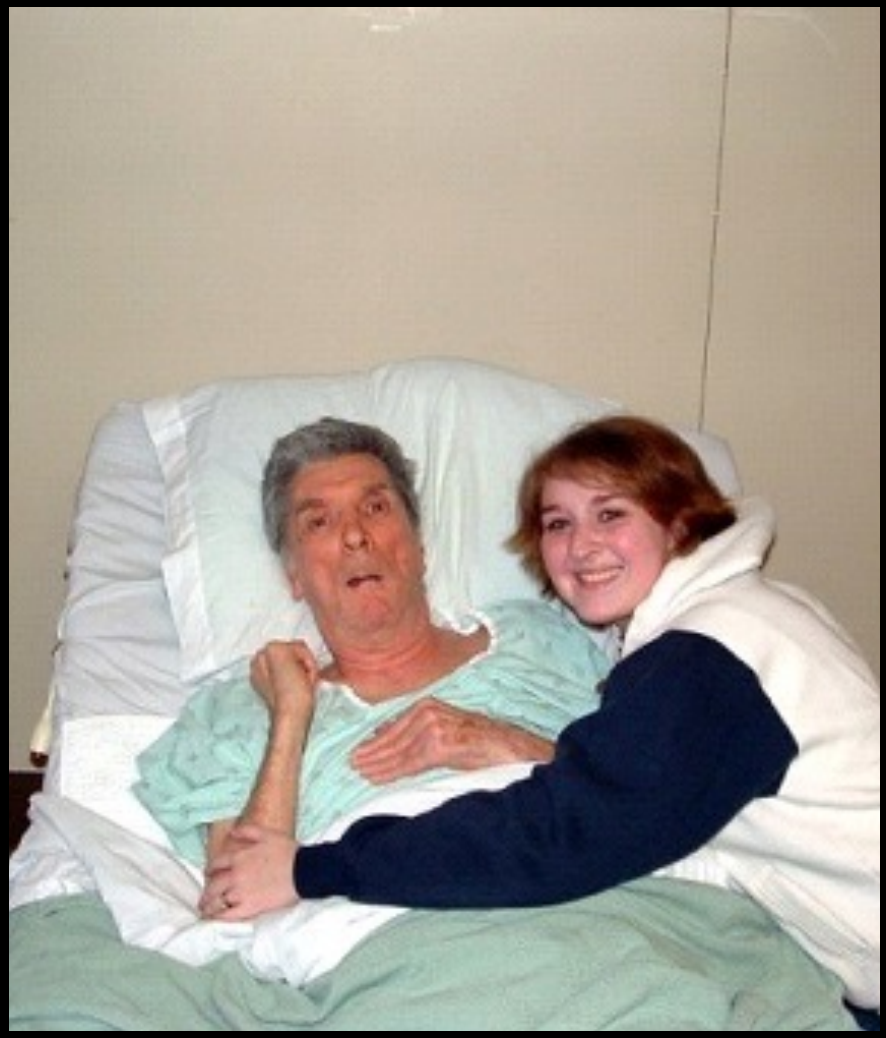
50%


HUNTINGTON DISEASE STATISTICS
1-3% of those with Huntington have no family history of the disease
1 of 2 children will inheret Huntington from a diseased parent


DNA
Short arm of chromosome 4
HD gene
HD gene
TRANSCRIPTION (in the nucleus)
DNA strand
A A A C C G C A G C A G C A G C A G C A G
Codon (triplet of 3 nucleotides which code for a specific amino acid)
CAG codes for the amino acid glutamine
Repeating CAG codons.
The normal gene has less than 36 repeats.
Mutated gene has more than 36 repeats
Normal cytoplasmic protein, huntingtin (Htt) with less than 36 glutamine residues
Abnormal huntingtin (mHtt) with more than 36 glutamine residues
Glutamine chain
Huntington's disease

Symptoms

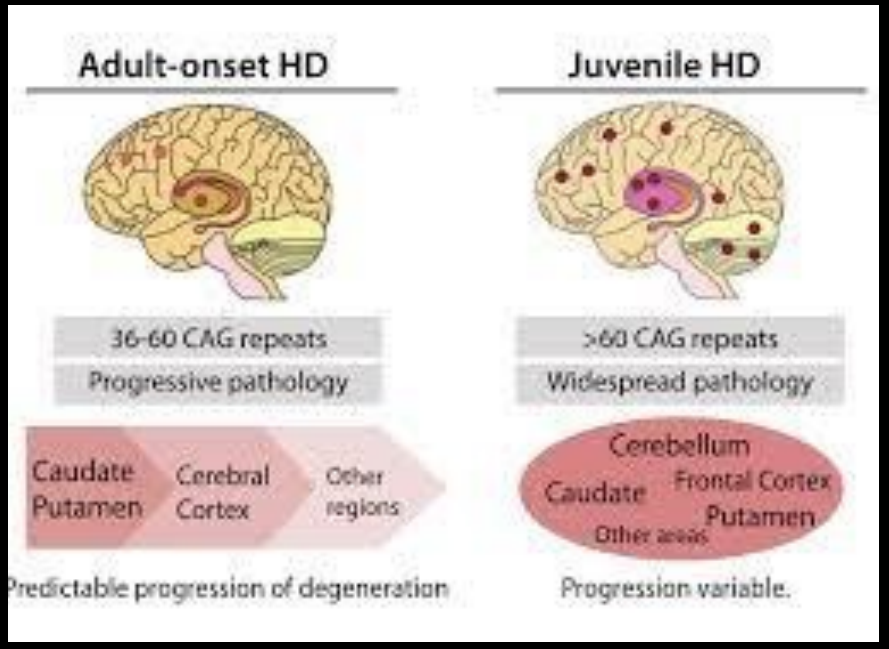
- Mood or mental
- Lack of coordination
- Jerky body movements
- Unable to talk
- Dementia
- More children



Support/Treatment

- No cure
- Tetrabenazine
- Supportive care


TEAM
HOPE


Adult-onset HD
Juvenile HD
36-60 CAG repeats
Progressive pathology
>60 CAG repeats
Widespread pathology
Caudate
Putamen
Cerebral
Cortex
Other
regions
Cerebellum
Caudate
Frontal Cortex
Putamen
Other areas
Predictable progression of degeneration
Progression variable.

THE

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ORIGINAL DEPARTMENT.

Communications.

ON CHOREA.

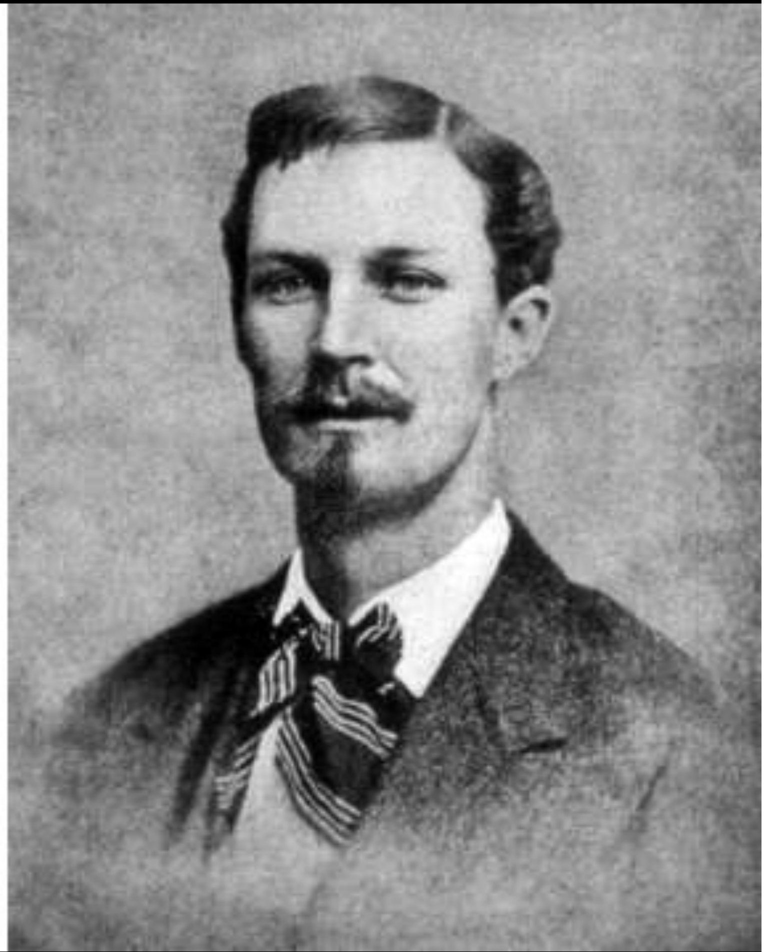
By George Huntington, M. D.,
Of Pomeroy, Ohio.

Essay read before the Meigs and Mason Academy of Medicine at Middleport, Ohio, February 15, 1872

Chorea is essentially a disease of the nervous system. The name "chorea" is given to the disease on account of the *dancing* propensities of those who are affected by it, and it is a very appropriate designation. The disease, as it is commonly seen, is by no means a dangerous or serious affection, however distressing it may be to the one suffering from it, or to his friends. Its most marked and char-

The upper extremities may be the first affected, or both simultaneously. All the voluntary muscles are liable to be affected, those of the face rarely being exempted.

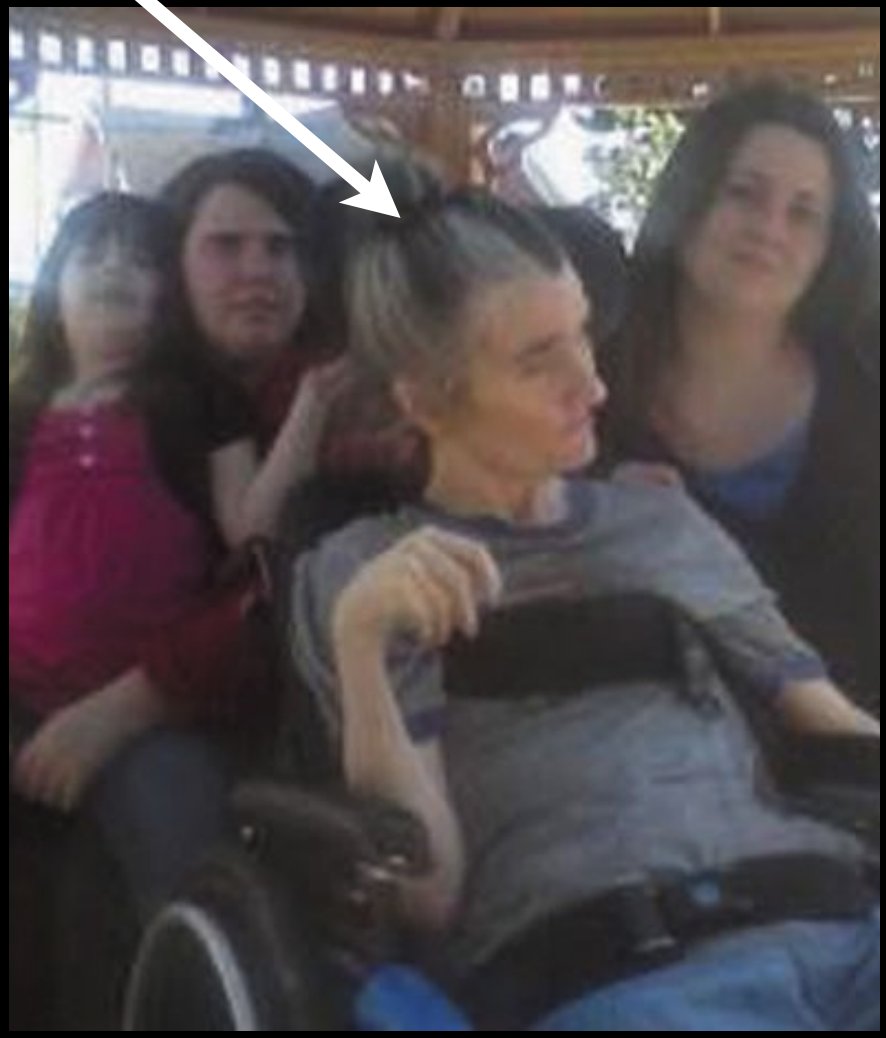
If the patient attempt to protrude the tongue it is accomplished with a great deal of difficulty and uncertainty. The hands are kept rolling—first the palms upward, and then the backs. The shoulders are shrugged, and the feet and legs kept in perpetual motion; the toes are turned in, and then everted; one foot is thrown across the other, and then suddenly withdrawn, and, in short, every conceivable attitude and expression is assumed, and so varied and irregular are the motions gone through with, that a complete description of

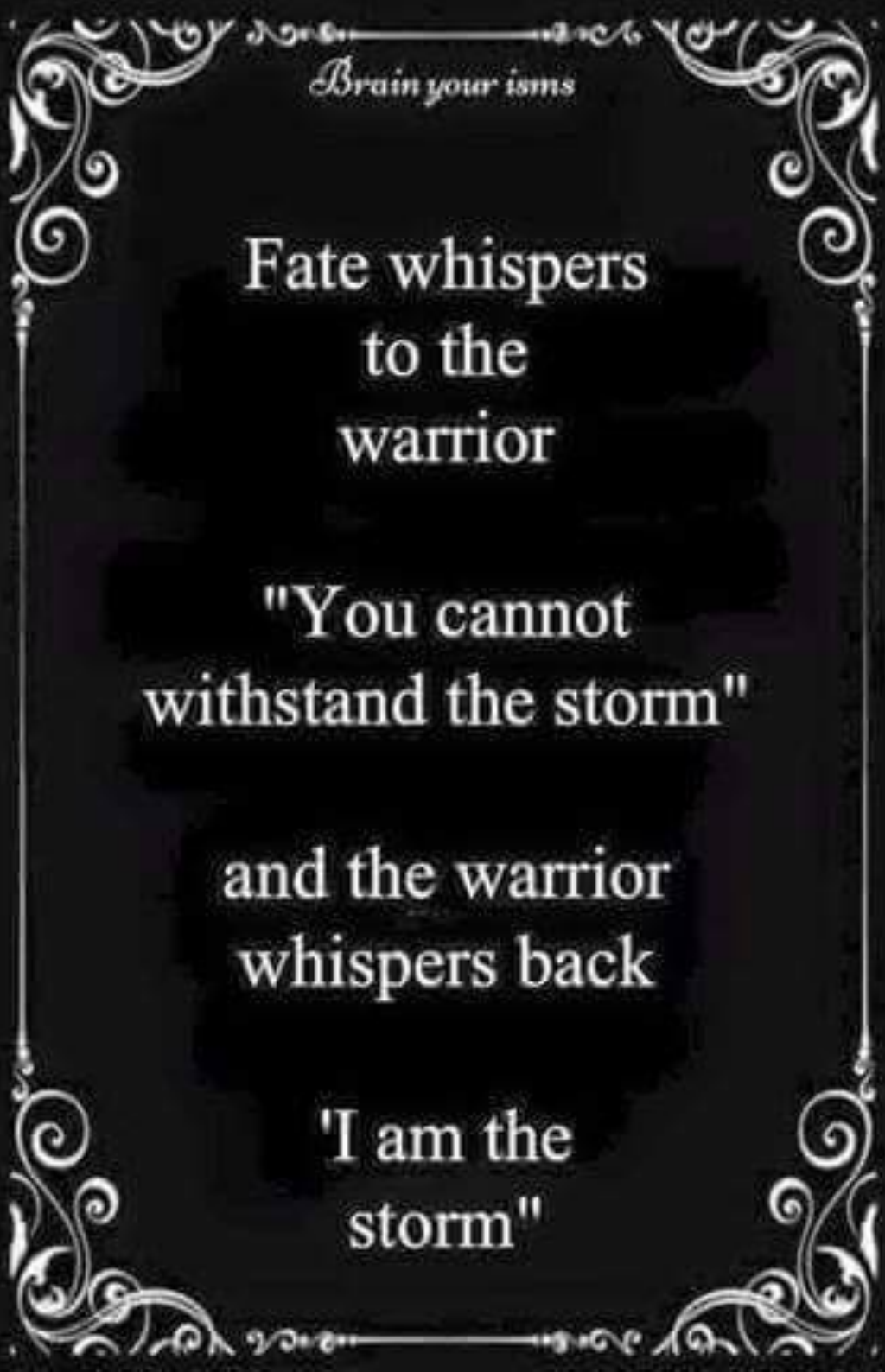


George Huntington

Rebecca Ambrose

- Raise awareness
- “Alive and Well”




Brain your isms
Fate whispers
to the
warrior
"You cannot
withstand the storm"
and the warrior
whispers back
'I am the
storm"