**Biological explanations of schizophrenia: Homework 2**

**Task 1: Genetics**

**Use the Powerpoint and your schizophrenia pack to answer these questions:**

1. According to the general genetic hypothesis what increases your chance of developing the disorder?
2. What is the likelihood of developing the disorder in the general population?
3. According to Gottesman (1991), what is the percentage concordance rate of developing the disorder if one parent has the disorder?
4. What 4 research methods are used to determine the genetic influence on schizophrenia?
5. What does concordance rate mean?
6. What were the findings of Gottesman’s study of MZ and DZ twins? What does this suggest about a genetic link in schizophrenia?
7. What were the results of Kety’s adoption study?
8. Why does it help our understanding of genetics to look at children brought up away from their biological parents?
9. Gene mapping (The Genome project) has identified a number of candidate genes for schizophrenia and the disorder could be described as polygenic. What does polygenic mean?
10. What is a candidate gene? Can you give an example of one candidate gene that has been identified in schizophrenia?
11. There is strong evidence that shows schizophrenia is the result of multiple factors (genes + environment). This is also known as the diathesis stress model. How does the diathesis stress model explain schizophrenia?

HELP: If you are still not sure about genetic explanations this video will help to explain the basic genetic explanations: <https://www.youtube.com/watch?v=1utzV5Pi2SY>

**Task 2:**

**Watch this short video** and based on what Dr. Pearce discusses, **write summarised notes** on genetic influences on the development of schizophrenia. <https://www.youtube.com/watch?v=HT6gB9VLRRk> (only watch up to 2 min 7secs)

**Task 3: Dopamine hypothesis**

**Watch this short video and write brief notes on the topics below:**

<https://www.youtube.com/watch?v=V1kSIfxBVfU>

* What neurotransmitters are identified as playing a role in the disorder?
* How did they find out that dopamine was involved in schizophrenia? (extra information about this on the biological explanation PowerPoint used earlier)
* What may be the reason why we see differences in dopamine levels?
* What role does glutamate have in the disorder?

**Make brief notes from your information pack on which areas of the brain are affected by increased/decreased levels of dopamine.**

**Task 4: Neural correlates (areas of the brain associated with schizophrenia)**

**Using the Powerpoint and the information booklet make bullet point notes under the following headings**:

* How the brain of schizophrenics are investigated
* Enlarged ventricles
* superior temporal gyrus and anterior cingulate gyrus