The mental disorder Schizophrenia is one of the most terrifying mental disorders known to humanity. About 1% of the world’s population is affected by it. It seems to afflict people of all races and cultures, which may point to a genetic cause for the disease. Schizophrenia is characterized by delusions of reality, hallucinations (both visual and auditory) and paranoia. The affected individual is usually not aware that what he or she is experiencing is not actually real. Schizophrenia in most cases does not express itself until during or after puberty. Many schizophrenic people do not manifest any symptoms until the age of 18 or older making it difficult to diagnose or determine how severe it may be. Since there are many different symptoms of this mental disorder and the severity can vary greatly from person to person it is likely that there are several different genes involved in Schizophrenia. It was generally believed until recently that these genes were fairly common genetic mutations since 1% of the world’s population was affected.

In recent studies researchers took cell samples from 150 people positively diagnosed with Schizophrenia and 268 people who do not suffer from the disease. The researcher’s were
looking for particular mutations called copy number variations (CNV’s). CNV’s are large spaces of DNA that are deleted or repeated over and over again. CNV’s can include multiple genes in their deletions or repetitions and are now implicated in several other diseases some of which are autism and cancer. New CNV’s were present in 20 percent of the participants with early onset Schizophrenia (onset before the age of 18) compared to only 5 percent in healthy participants.

The genes most affected by the CNV’s were genes strongly linked to genes already known to be involved in the communication between nerve cells. One gene that is found in the CNV’s is ERBB4 which codes for a receptor that communicates with a protein called neuregulin 1. This protein has been associated with Schizophrenia for almost 10 years. This new information likely indicates that CNV’s play a significant role in Schizophrenia, but it is not determined that they are the cause or that their presence alone is significant enough to cause the disease. Finding differences in the copied number variations in Schizophrenic people is a large step towards a possible genetic treatment for people who suffer from this mental illness.

I find this particular mental illness quite frightening. One of the most terrifying elements of this disease is that the affected person does not know that what he/she is seeing and hearing isn’t real. The movie industry brought this disease to everyone’s attention with the academy award winning movie *A Beautiful Mind* starring Russell Crow as the math genius John Nash. Mr. Nash won the Nobel Prize for Economic Sciences, proving that Schizophrenia does not affect intellectual ability, but is still debilitating in many ways. Social interaction is a necessity in human society. This disease makes people anti-social, paranoid and disconnected from their family and friends. Another terrifying aspect of this disease is that it typically has a late onset. This article states
that many start exhibiting symptoms around 18, but it is not unusual for the disease to start manifesting itself in a person who is in their mid to late twenties!

I will never forget first learning the facts about this disease in my freshman year of college. My intro psychology teacher scanned the classroom after telling us about the late onset of Schizophrenia and said, “with that said, none of you are in the clear yet.” The thought that I might possibly “go crazy” as they say really made me sit up and pay attention to mental illness and look at it in a new way. If modern medicine can help find a treatment or possible cure for any mental illness, we as people will be one step closer to achieving our full potential.