

# Is Depression Even More Biological Than We Think?

For a long time, mental illness was widely misunderstood and stigmatized. What was actually epilepsy was believed to manifest demonic possession; women who were really schizophrenics were cast out as witches. And the many people who were mired in what was once called “melancholy,” and is now called “clinical depression,” were often believed to be committing the deadly sin of “sloth” (which can roughly be defined as “not caring about what one ought to care about”).

That belief survives to this day, and it’s probably true of some depressives. But evidence mounts that clinical depression is largely a biological condition; accordingly, the condition is more likely to manifest itself in people possessing certain biological traits.

(Depression should not be confused with sadness, the feeling experienced during and after major life events, particularly those that accompany great loss. Depression is the condition that persists apart from or beyond these external “stressors.”)

The latest bit of evidence was reported at [New Scientist](#) last week in an article titled, “[Having an overactive immune system may prime you for depression.](#)”

One of the great problems with clinical depression is that scientists have long had great difficulty predicting when it will occur, says Carmine Pariante of King’s College London.

“If you could predict the course of depression, you could tailor treatment,” says Pariante. “The problem is that you only realize when it’s too late.”

That could be changing, however. Scientists believe they are

closing in on identifying a key biological trigger for depression, which they believe can be identified with a blood test.

Scientists made the discovery while studying people on interferon, a drug used to treat hepatitis by boosting the immune system.

*One side effect of the drug is that between 30 and 40 percent of those who take it go on to develop depression. The drug can have an effect similar to experiencing a stressful life event, says Pariente – some who take it will develop depression, while others will be resilient.*

*Pariente's team monitored 58 people who took the drug for six months for hepatitis C. The researchers took blood samples before and after this period, and assessed the participants' mental health using questionnaires. By the end of the period, 20 of them had experienced a major depressive episode, with symptoms such as persistent fatigue, sadness, hopelessness, and loss of appetite. When Pariente's team looked at the blood samples, they found that these individuals had altered patterns of gene expression before they even started taking the drug. These people seemed naturally to make more proteins that are involved in inflammation, oxidative stress and the death of neurons, and fewer proteins involved in brain cell growth...*

The article goes on to describe how such a result can be used to predict the onset of clinical depression and thus tailor treatment more effectively. The discovery is not just medically significant; it also could weaken the stigma still attached to clinical depression.

What do you think? Are humans getting closer to eradicating depression? Or are scientists underestimating other non-biological factors that often precipitate or accompany the

condition?