

**MARK FRYE:** Hello, my name is Dr. Mark Frye. And I'm a psychiatrist and Chair of the Department of Psychiatry and Psychology at Mayo Clinic. We are very excited to review the opportunity and resources we've taken to develop a Bipolar Disorder Biobank here at Mayo Clinic.

Bipolar disorder is a serious mental illness that has a prevalence rate in the United States about 1%. Oftentimes the diagnosis can be challenging. And many times clinicians are struggling with what is the best treatment option to provide the patient who's having symptoms of mania and/or depression.

Our hope is that this resource-- this Biobank-- for patients with bipolar disorder will one day provide an opportunity to facilitate or help make a diagnosis in patients with symptoms, help make a diagnosis in children of parents with bipolar disorder, or help guide treatment selection. And I actually think this is where this Biobank at Mayo Clinic will deliver in a very clinically meaningful way.

An example would be, how do we try to best treat the depressive phase of bipolar disorder? We know from a number of clinical studies that when bipolar patients are symptomatic of their illness, they are far more likely to be depressed than manic. If we look at the evidence-based treatments that we use to treat bipolar disorder, the majority of them-- perhaps one is an exception-- are far more effective in treating the manic phase of illness than the depressive phase of illness.

If we look at evidence-based treatments, the majority of the medicines used to treat bipolar disorder are far more effective in treating the manic phase than they are treating the depressive phase. So invariably, clinicians working with patients every day are using antidepressants. Now the challenge here-- and this has been published in a recent review article by our group-- is that antidepressants really don't have the evidence base we would like to see to really justify how commonly used they are in treating patients with bipolar depression.

Not only is there not an evidence base to support their use, what we worry about-- although not frequent-- is something called antidepressants induced mania. And we know that that can have potentially devastating consequences for patients and certainly their families. This is where genomic medicine, or the resource research that we're doing here Mayo Clinic, could be quite helpful in the future.

Can we actually draw a sample of blood in a patient with bipolar disorder who we know is having difficulties with depression? But we want to make sure we don't cause undue risk of mania when prescribing an antidepressant. If we can find a genotype, or a DNA fingerprint, if you will, that's associated with a bad outcome with antidepressants, this is really where genomic medicine can make positive impact in the clinical practice, where we would think of alternative treatments or other therapies to address the depressive phase of illness.

So this Bipolar Biobank at Mayo Clinic is now about two years old. We see this as a research resource for clinicians and investigators throughout the world with the sole purpose of providing an opportunity to better understand their genetic risk factors of developing disease and to aid clinicians in the future to individualize treatment selection for the right mood stabilizer for the right patient at the right time.