Let’s look at bipolar disorder as an example: Although the prevalence of bipolar disorder is more than 2% and could be as much as 4.5% of the population, it has achieved de facto status of an orphan disease. Thus, compared to schizophrenia or major depressive disorder, bipolar disorder has received a disproportionately small amount of research funding. Also, except for lithium, which was first studied in the modern era by John Cade in 1948, no drug development has focused specifically on bipolar disorder; instead, most treatments come from repurposed dopamine-blocking agents (antipsychotics), anticonvulsants (divalproex or lamotrigine), or psychotherapies such as cognitive-behavioral therapy.

Meanwhile, outcomes for people with bipolar disorder continue to be suboptimal, with long-term studies revealing that, at best, 25% to 30% of people with bipolar disorder achieve remission from an acute episode and then remain well for 1 year. Beyond remission, the classic studies by Judd et al. showed that bipolar depression is the major disease burden, with people with bipolar I disorder spending about one-third of their lives with depressive symptoms or episodes and those with bipolar II disorder spending more than 50% of their lives in this state. And yet, the US Food and Drug Administration has approved only three treatments for bipolar depression: olanzapine/fluoxetine combination, quetiapine, and lurasidone (with lamotrigine used as an off-label treatment for acute bipolar depression). We need innovation.

Innovation can come from a better understanding of the pathophysiology of bipolar disorder and large groups such as the Psychiatric Genomics Consortium (http://www.med.unc.edu/pgc/) and ENIGMA (http://enigma.ini.usc.edu/ongoing/enigma-bipolar-working-group/) are driving the field forward by changing the culture of science toward large-scale collaborations. But another source of innovation will come from collaborations that can lead from the clinic to the bench and from the bench to the clinic and back again. To the best of our knowledge, few such collaborations exist that can quickly test new treatments based on sound hypotheses and pathophysiology. Yet another source of innovation comes from clinicians at the front lines along with people who are experts by experience. Eric Von Hippel from MIT has studied how innovation arises from “users” and then spreads, frequently arising from chance observations or crossing two previously unrelated disciplines to solve a problem. It is time for researchers, clinicians, and patients to figure out how to work together to innovate treatment innovation to get better outcomes.

REFERENCES