



CONCORDANCE v.2 no.4

the newsletter of

Research into the Causes of Schizophrenia and Bipolar Disorder

Western Psychiatric Institute & Clinic - University of Pittsburgh

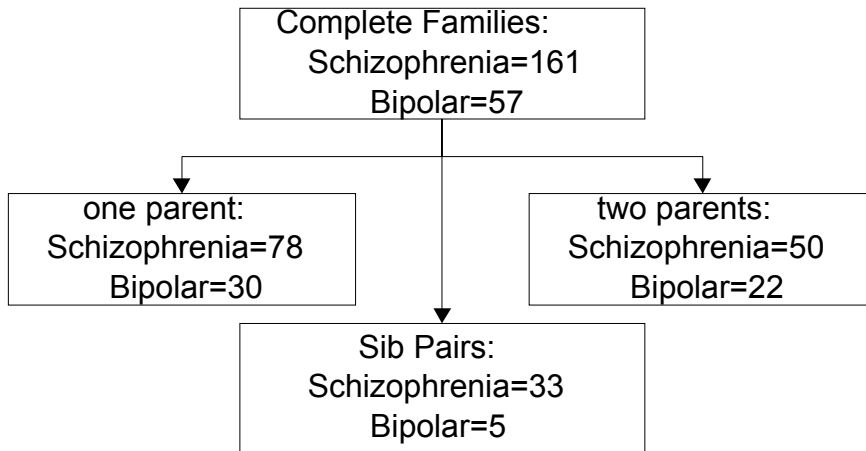
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Two Year Progress Report: Families completed

by Joel Wood, Data Manager

The chart below displays the number of families we have been able to complete and include in the study since its beginning in June, 1997. To date, we have performed interviews, collected blood, and obtained other clinical information on a total of 218 families. **If you can count yourself among these families, we cannot thank you enough!** As the chart indicates, 161 of these families have at least one member diagnosed with schizophrenia or



schizoffective disorder, and an additional 57 have at least one person diagnosed with bipolar disorder. Further breakdowns show the number of families with two or one parents, and the number with two affected siblings. These totals do not reflect the large number of families our team is currently in the process of completing. By late Fall, we hope to complete an additional 40 - 50 families. Additional families not included in these figures are on hold or have been excluded from the study for various reasons.

Our ultimate goal is to obtain participation by 250 families with affected siblings pairs, and 300 families with a single affected person and a parent by the end of the grant period, May 31, 2002. We are always happy to hear from new families interested in participating. **If you would like to participate, or learn more about our study, please call us toll free at 1 - 800 - 994 - 8182. For eligibility details, please see the box below.**

Progress in the Lab: We have begun laboratory analysis of the DNA samples donated by the families who have participated. To date, we have completed investigation of more than 20 genetic (DNA) markers. Once our findings have been critically reviewed by our colleagues, we will discuss them in detail in this newsletter. We hope to have specific information on possible genetic susceptibility factors for the next issue of *Concordance*.

WHO IS ELIGIBLE TO PARTICIPATE IN OUR STUDY?

As a family study, it requires the participation of either one of the following two groups. Participants will be asked to answer questions from a structured interview and donate a small sample of blood.

1. an ill family member diagnosed with Schizophrenia, Schizoffective Disorder, or Bipolar Disorder and one or both parents (note: parents do not need to be ill also).
2. families in which there are two siblings who are both affected by Schizophrenia, Schizoffective Disorder, or Bipolar Disorder are also eligible to participate. If two affected siblings participate, it is desirable, but not necessary, for the parents to participate.

CONTACT US! Toll free: 1 - 800 - 994 - 8182 / e mail nimga+@pitt.edu / Dr. Nimgaonkar's office (412) 624-0823. On the web: <http://www.pitt.edu/~nimga/> (schizophrenia) OR www.wpic.pitt.edu/research/neurogen/ (bipolar disorder)

New Staff Join our Team in Kentucky and Ohio

By Patrick Reitz, Project Coordinator

We are pleased to announce that our team continues to grow. This summer, two new staff have been hired to publicize our study and perform interviews in and around their homes in Ohio and Kentucky. Each of our new Research Associates has more than a decade of clinical experience working with persons with chronic brain disorders. **Cheryl Rounds**, of Springfield, Ohio, is already hard at work covering the southwest region of the state; she is currently focusing her energies in the Dayton area, and will eventually extend to Cincinnati and Columbus. **Kevin**

Boham lives in Corydon, Indiana, just across the river from Louisville, Kentucky. Mr. Boham recently completed his initial training in Pittsburgh, and has now returned to Louisville to begin work. He will also begin covering the area toward Lexington, KY, as **Jamie Breedlove**, our Research Associate in Lexington for the past year, has moved to Evansville, Indiana. Ms. Breedlove is staying with the project, and will begin publicizing the study in western Kentucky and southern Indiana.

Questions & Answers

by Laurie Brar, B.S.N., Research Associate

Q: What is meant by the statement “Schizophrenia and Bipolar Disorder run in families”? If I have relatives who have had these illnesses, how concerned should I be about myself or other family members?

A: “Schizophrenia and Bipolar Disorder run in families” is a statement based on over 50 years of research which shows consistently that the relatives of people with schizophrenia or bipolar disorder are at a slightly higher than average risk for developing the illness themselves. This does not mean that the risk to other family members is extraordinarily high, or that the presence of illness in a family guarantees it will affect others. Indeed, if you examine extended families in which there is one person ill with schizophrenia or bipolar disorder, you will discover that in about 80% of those families, there is no one else among first degree relatives (parents, siblings, or children) reported to have the illness. Also, schizophrenia and bipolar disorder differ from more simple genetic disorders in that there is no identifiable pattern to their occurrence in families. The illness may skip generations, or not recur at all. In this way, psychotic illnesses behave more like other complex disorders, like diabetes, than like illnesses caused by one dominant disease gene, such as Huntington’s disease.

One way to put the issue of risk to relatives in better perspective is to consider the population prevalence for schizophrenia and bipolar disorder. Any one person picked at random from the population has an average chance of 1% of becoming ill with schizophrenia or bipolar disorder provided they have passed middle age. However, the relatives of an ill person have been shown to have *on average*, a risk for illness that is slightly higher. For example, the brother or sister of an ill person has an average risk of illness of about 9%; the nieces and nephews of that same individual have an average risk of 4%. These averages also demonstrate another finding from family studies: the risk for illness among relatives varies with how closely related someone is to the ill person. Immediate (or first degree) relatives, such as parents, siblings, and children, of someone with schizophrenia have a slightly higher average risk of illness compared to relatives outside the nuclear family. The foundation for the belief that schizophrenia and bipolar disorder are caused at least in part by genetic factors has been built on these consistent findings from family studies.

It cannot be stressed enough that these findings from family studies, while supported by sound research, still provide only highly general information. They should not be used in any reliable way to predict whether the illness will strike a particular individual in a given family. Our knowledge of the exact causes of psychotic illnesses is still comparatively limited. To date, we have not yet conclusively identified the genes that predispose a person to the illnesses. Until we and others gain this knowledge, there will be no reliable way to predict the illness through a laboratory or clinical test. If someone in your family is already ill, and you are concerned about yourself or other members of your current family, we strongly advise you to seek the advice of a genetic counselor who will be able to respond directly and in depth to your concerns with more information on how complex genetic disorders are expressed in families.

For an excellent, very readable summary of family studies of schizophrenia, we suggest the following book: *Schizophrenia Genesis: The Origins of Madness*, by Irving Gottesman, PhD, 1990.