

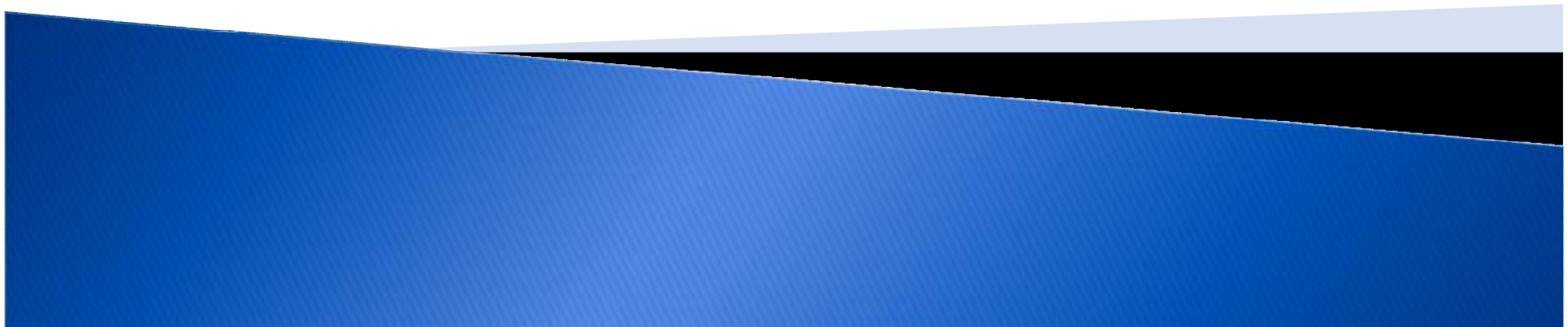


**The International College of
Neuro-Psychopharmacology**

THE EVOLUTION OF NEUROPSYCHOPHARMACOLOGY

Thomas A. Ban and Barry Blackwell

- I. The Discovery of the First Set of Prototype Psychotropic Drugs**
- II. The Birth of Neuropharmacology**
- III. The History of CINP**
- IV. The Year of Neuropsychopharmacology**





PART ONE

THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

Below are listed the first six prototype drugs, the mental disorders in which they are primarily used, the year their effectiveness was demonstrated and the names of the basic scientists and clinicians who contributed to the discoveries.

LITHIUM	Mania	1949 Cade, Schou
CHLORPROMAZINE	Schizophrenia	1952 Laborit, Delay, Deniker, Lehmann
RESERPINE	Mental Disorder	1953 Vakil, Bein, Kline, Noce
MEPROBAMATE	Anxiety	1955 Berger
IMIPRAMINE	Depression	1957 Domenjoz, Kuhn
IPRONIAZID	Depression	1957 Kline





THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

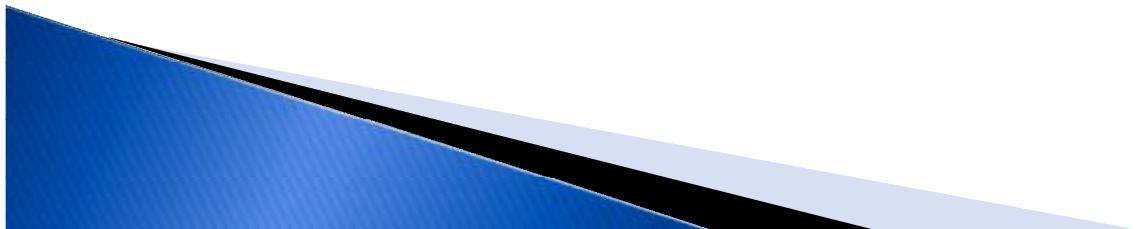
CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

LITHIUM



JOHN F.J.CADE

Australian psychiatrist whose animal and human experiments in 1949 recognized the therapeutic potential of lithium in mania.





THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

LITHIUM



MOGENS SCHOU

CINP Pioneer

Danish psychiatrist who, in collaboration with Juel-Nielson, Strömngren and Voldby in 1954 demonstrated the therapeutic effect of lithium in the treatment of mania.



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CHLOPROMAZINE



HENRI M. LABORIT

CINP Founder

French surgeon, recipient of the *Albert Lasker Award* of the American Public Health Association in 1957 for using chlorpromazine as a therapeutic agent first in pre-anesthesia and recognizing in 1951 its potential for psychiatry. The compound was synthesized in 1950.



THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

CHLOPROMAZINE



JEAN DELAY

CINP Founder and President, 1964-1966

Eminent French psychiatrist, senior author of the six publications, which lead to the introduction of chlorpromazine for the treatment of psychoses, in 1952, in France.



THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

CHLORPROMAZINE



PIERRE DENIKER

CINP Founder, Pioneer and President, 1974-1976

French psychiatrist, an associate of Jean Delay, who was recipient of the *Albert Lasker Award* of the American Public Health Association, in 1957 for his leading role in introducing chlorpromazine and demonstrating its influence on the clinical course of psychosis.



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CHLOPROMAZINE



HEINZ E LEHMANN

CINP Pioneer and President, 1968-1970

German born Canadian psychiatrist, recipient of the *Albert Lasker Award* of the American Public Health Association in 1957, who “in a single scholarly paper in February 1954, with Dr. G. E. Hanrahan, brought the full practical significance of chlorpromazine to the attention of the Western Hemisphere.”



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RESERPINE



RUSTOM JAL VAKIL

Indian cardiologist, recipient of the *Albert Lasker Award* of the American Public Health Association in 1957, whose historical paper, published in 1949, triggered the chain of events that led to the isolation of reserpine and its introduction in the treatment of mental disorders.





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RESERPINE



HUGO J. BEIN

Swiss pharmacologist, Director of Biological Research at CIBA, a Swiss pharmaceutical company, who, in 1952, together with Müller and Schlittler isolated reserpine from the Rauwolfia root used for centuries by Indian Ayurvedic practitioners.



THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

RESERPINE



NATHAN S. KLINE

CINP Founder

Prominent American psychiatrist, recipient of the *Albert Lasker Award* of the American Public Health Association in 1957, who drew the attention of American and European psychiatrists to the value of Rauwolfia alkaloids, and especially reserpine, in the treatment of mental disorders.



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RESERPINE



ROBERT H. NOCE

American psychiatrist, recipient of the *Albert Lasker Award* of the American Public Health Association in 1957, for recognizing the potential of reserpine in both the treatment of people with mental illness and the mentally handicapped.



THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

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MEPROBAMATE



FRANK M. BERGER

Director of Research at Wallace Laboratories in the United States, whose research lead to the synthesis, pharmacological characterization in animals, and clinical introduction of meprobamate in 1955.



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IMIPRAMINE



ROBERT DOMENJOZ

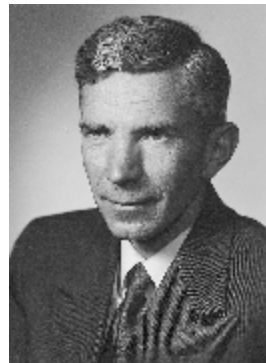
Head of Pharmacology at Geigy, a Swiss pharmaceutical company, who provided imipramine (G 22355), the dibenzazepine analogue of chlorpromazine, to Roland Kuhn for study in schizophrenia.



THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

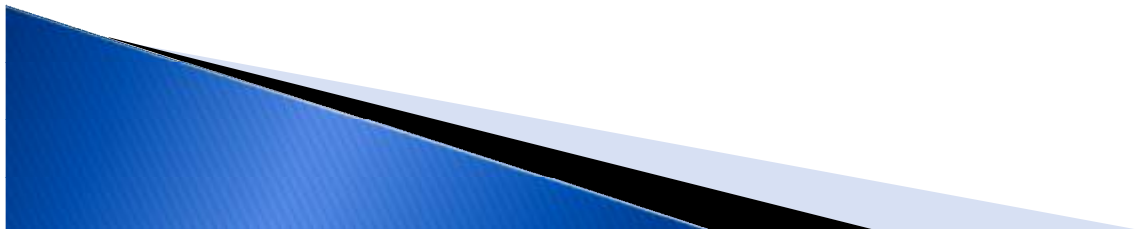
CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

IMIPRAMINE



ROLAND KUHN

Swiss psychiatrist, who, in 1957, discovered, the therapeutic affect of imipramine, in “vital depression”, a form of endogenous (major) depression..





THE DISCOVERY OF THE FIRST SET OF PROTOTYPE PSYCHOTROPIC DRUGS

CHRONOLOGICAL BIOGRAPHY OF THE DISCOVERERS

IPRONIAZID



NATHAN S. KLINE

CINP Founder

Prominent American psychiatrist, who co-authored with Loomer and Saunders the first report on the antidepressant effects of iproniazid. Kline was the recipient of the *Albert Lasker Award* of the American Public Health Association in 1964 for the introduction and use of iproniazid in the treatment of severe depression.



THE DISCOVERY OF PROTOTYPE PSYCHOTROPIC DRUGS

COMMENTARY

The discovery of these six prototype compounds triggered a development that led in 1957 to the birth of *neuropsychopharmacology*.

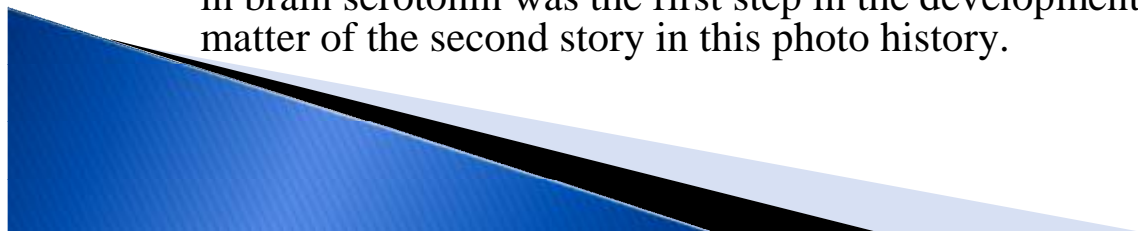
In *lithium* and *meprobamate* preclinical behavioral observations in animals suggested possible therapeutic effects in mania and anxiety patients that were confirmed by clinical research.

In *imipramine* astute clinical observations recognized its therapeutic effect in vital depression.

In *chlorpromazine*, a clinical effect in one area (pre-operative calm) led to the serendipitous discovery of another effect (anti-psychotic action) in a different population.

In *iproniazid* a euphoriant effect detected in one population of patients (tuberculosis) was translated to a therapeutic effect in depression.

The linking of *reserpine's* sedating and *iproniazid's* energizing effect to measurable changes in brain serotonin was the first step in the development of neuropharmacology, the subject matter of the second story in this photo history.





CINP would like to thank Dr Tom Ban and Dr Barry Blackwell for creating this informative set of slides. We hope you have enjoyed this brief overview. For more information on the history of CINP please go to

www.cinp.org



Acknowledgment: We would like to thank Mrs Gill Moore, CINP Executive Secretary, for transforming this photo history into a power point presentation.