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(Towards Education)

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## **TOWARDS EDUCATION IN THE HISTORY OF NEUROPSYCHOPHARMACOLOGY**

### **Part 3**

#### **Chronological List of Essential Publications**

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Development of neuropsychopharmacology began in the mid 1950s with detection of monoamine neurotransmitters in the brain and the introduction of the first set of therapeutically effective psychotropic drugs and the spectrophotofluorimeter. The capability to measure changes induced by these drugs on monoamine concentrations in the brain led to the extension of behavioral pharmacology to neuropharmacology and the birth of neuropsychopharmacology, a new discipline, for studying the relationship between mental and neuronal events.

Early research in neuropsychopharmacology raised hopes that studying the mode of action of therapeutically effective drugs would provide information on the biochemistry of the disease treated. It was also envisaged that this information would guide research to develop rational pharmacological treatments. But this did not happen. Research centered on the monoamines, norepinephrine, serotonin and dopamine, drove psychotropic drug development in circles. To-date we have no single clinically more selective or effective drug available for the treatment of psychiatric disorders than the ones introduced in the 1950s.

While psychotropic drug development was side tracked, with the recognition that the primary targets of psychotropic drugs in the brain were encoded by genes that were identified, a molecular genetic era was replacing the neurotransmitter era in neuropsychopharmacology in the 1990s. Similar to the early years of the neurotransmitter era when the perspective for the detection of the biochemical underpinning of psychiatric disease stimulated biochemical research in mental illness, the perspective in the new era for the detection of the genetic underpinning of psychiatric disease stimulated genetic research in mental illness. But again, expectations were

not fulfilled. Similar to the findings in biochemical studies, in the 1960s, 70s and '80s, findings in genetic studies in the 1990s and in the first decade of the 21<sup>st</sup> century, were inconsistent (Ban 2013).

To generate information that would provide a foundation for education in the history of neuropsychopharmacology, in this project, the prehistory and development of the field will be traced through essential publications, presented in chronology. As no such a list was prepared to date, an extract of 330 publications, from the over 1500 publications referred to in Thomas A. Ban's Overview and Prefaces to the 10 volumes *An Oral History of Neuropsychopharmacology* series will be used as a starting point (Ban 2011). The project will be coordinated by Carlos Morra, Director of INHN's Cordoba Unit and carried out in collaboration with INHNs membership.

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Ban TA, editor. *An Oral History of Neuropsychopharmacology. The First Fifty Years. Peer Interviews. Volumes 1 -10.* Brentwood: American College of Neuropsychopharmacology; 2011.

Ban TA. Concluding Remarks. In: KatzMM, editor. *An Overview of the First Fifty Years. Oral History of Neuropsychopharmacology. Synopses by the 10 Volume Editors with concluding Remarks by the Series Editor.* INHN.E-Books.12.5.2012 (pp. 77-80).

## Chronological List of Publications

1. Sertürner FW. Darstellung der reinen Mohnsäure (Opiumsäure) nebst einer Chemischen Untersuchung des Opiums mit vorzüglicher Hinsicht auf einen darin neu entdeckten Stoff und dahin gehörigen Bemerkungen. *Journal der Pharmacie für Ärzte und Apotheken* (Leipzig) 1806; 14: 47–93.
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