# Three Guttmanns on the banks of the Rivers Thames and Cherwell

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## ABSTRACT

Three Jewish neuro-scientists found refuge from the Nazis in the UK and spent a fruitful scientific period in Oxford at the same time: Eric (Erich) Guttmann, Ernest Gutmann, and Ludwig Guttmann.

Keywords: history of neuroscience, England, refugees, Eric (Erich) Guttmann, Ernest Gutmann, Ludwig Guttmann.

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## INTRODUCTION

("Three coins in the fountain, Each one seeking happiness, Thrown by three hopeful lovers, Which onewill the fountain bless .."? ( Jule Styne, Sammy Cahn, 1954)

The Thames and the Cherwell Rivers, run into Oxford. Oxford's University is the oldest University in the English-speaking World. This is the historical site where three Jewish neuroscientists found refuge from the Nazis [1,2]. Two bore the surname "Guttmann," and one spelled his name "Gutmann". They were all unrelated. Two of them collaborated in their research. This article will focus on their story and their neuro-achievements.

## ERIC (ERICH) GUTTMANN

The neuro-psychiatrist Eric (Erich) Guttmann was born on March 5, 1896, in Gleiwitz, Germany, and died on April 25, 1948, in London. After graduation, Guttmann studied neurology under Richard Cassirer (1868 –1925) in Berlin, and from 1925 to 1931, in the clinical department at the German Research Institute for Psychiatry at the Munich-Schwabing Hospital, under Emil Kraeplin (1856 –1926) [3,4].

From 1929 to 1933 he taught as a private lecturer at the University of Munich (Assistant Klinische Abtlg., Deutsche Forschungsanstalt fur Psychiatrie, Munchen- Schwabing). He collaborated with the Jewish neurologist and sports medicine specialist Dr. Ernst Franz Jokl (1907—1997), who left Germany for South Africa and later to the USA [5].

**Photography 1.** Kindly received from Mr. David Luck, Archivist, Bethlem Royal Hospital, Monks OrchardRoad, Beckenham, Kent BR3 3BX

Just after the rise of the Nazi party, in the spring of 1933, Guttmann left Germany and moved to the UK. He got a research grant from the Rockefeller Foundation in 1934 (through the Nuffield Department of Surgery, Oxford) , and was employed by the Department of Clinical Research at Maudsley Hospital in London, under the Irish- born psychiatrist Edward Mapother (1881–1940). Mapother was the first medical superintendent of the Maudsley Hospital and creator of the Institute of Psychiatry, King's College London, and was perhaps the most influential figure establishing clinical and academic psychiatry in England.

Guttmann and a Scottish psychiatrist, Walter Maclay, researched together and created the "Guttmann-Maclay Collection" of books and pictures about the relationship between art and psychopathology, which is kept in Maudsley Hospital to this day [1]. Then they joined with Professor Wilhelm Mayer-Gross (1889 – 1961), a German-Jewish British psychiatrist, one of the founders of the British school of psychiatry) to examine the psychopathology of the brains of the mentally disabled patients. Guttmann and Maclay researched the effects of mescaline on human perception - also in self-experiments [6-9].

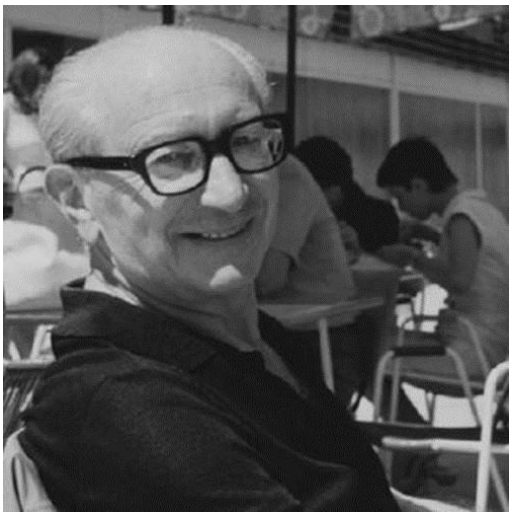
After the outbreak of the Second World War, Guttmann (and many others), was temporarily interned as a "German" but was released in 1941

[10]. From 1941 until the end of the war, he worked at Radcliffe Infirmary in Oxford and at Neurosis Centre, Mill Hill Emergency Hospital. He contributed substantially to the psychological sequelae of organic diseases and head injuries, amphetamine in psychiatry, and social psychiatry. In addition, he was well known as a lecturer and his bedside clinical demonstrations [11-15].

## ERNEST GUTMANN

Prof Ernest Gutmann (1910-1977) (who later co-authored with Ludwig Guttmann) was a Czechoslovakian neuroscientist. He was born in n Ústí and Labem in 1910. He studied Medicine at the German Section of Charles' University in Prague in 1936. He and his wife moved in 1939 to England and worked at the Anatomical Institute of Oxford University under the zoologist Prof. John Zachary Young. He was granted a Ph.D. thesis for his work on the effects of long-term denervation on human muscle and on the mechanisms that regulate the regeneration of injured peripheral nerves [16-18].

Ernest's colleagues and friends in Oxford included Peter Medawar, Alan Hodgkin, Ludwig Guttmann [19-22], and Andrew Huxley.



**Photography 2.** Kindly received from Ms. Isabel D. Holowaty, Co-Head of Humanities Libraries, Bodleian History Librarian, Broad Street, OX1 3BG, Oxford.

After the war, he was invited to stay in the UK. However, he returned to his homeland, Czechoslovakia, to work as a physician in the Theresienstadt concentration camp, where the Typhus epidemic took many lives. Only a few relatives of his family survived the Holocaust. His two daughters were born in England and one son later in Prague. Although his scientific achievements in England were remarkable, the new authorities allowed him only to work as a pathologist. Only in later stages, he resumed his research on nerve regeneration at the Institute for Brain Research of the Charles University. Gutmann was one of the founders of the journal Physiologia Bohemoslovaca, later called Physiological Research.

In 1954, when the Institute of Physiology of the Czechoslovak Academy of Sciences was established, Gutmann founded the Department for Neuro-muscular Research [23,24]. After retirement, "There were frequent insinuations that he could not be trusted. He was not allowed to lecture, travel abroad, or accept any invitations and scholarship rewards. Miraculously, even under these conditions, he still produced high-quality experimental work. It was during this time that his work branched out into new avenues and he with his colleagues started to explore changes in skeletal muscles during aging, a topic that is becoming very important at present with the increase in aging population" [25]. Over the years, many obituaries and appreciations were published on Gutmann [26,27].

## PROFESSOR SIR LUDWIG GUTTMANN

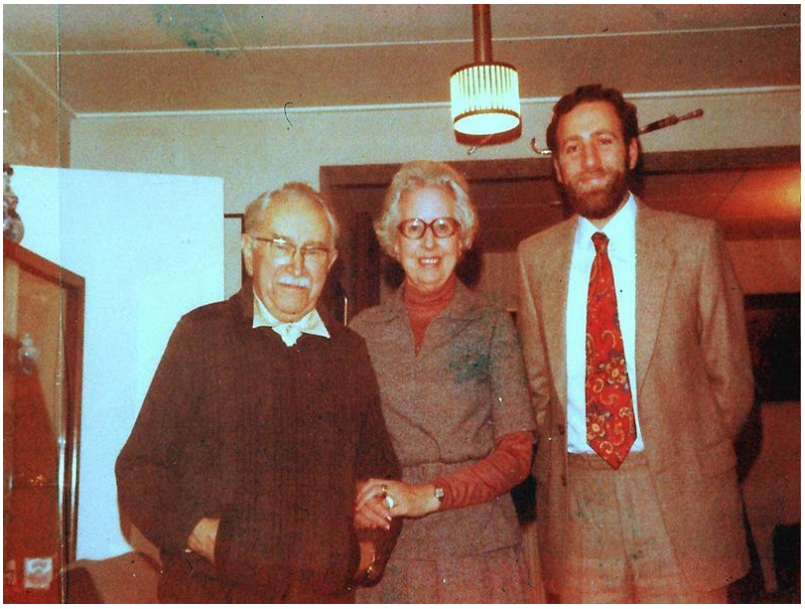
The most famous among these three. Sir Ludwig was knighted in 1964 due to his worldwide known pioneering contributions to the care of the spinal cord injured patients and his creation of the Paralympic, formerly: Stoke Mandeville Games). Sir Ludwig Guttmann, told me on many occasions about his personal history. Unlike many other Jewish-German refugees, he and his family were lucky when they were permitted to stay in the UK. Sir Ludwig

Guttmann CBE FRS (1899 – 1980) was born in Tost,

Upper Silesia, Germany (now Toszek, Poland). Guttmann studied Medicine at the Universities of Breslau (now Wrocław, Poland ) and Freiburg and got his MD degree in 1924. He became a skillful researcher, neuro-surgeon and lecturer, under Otfrid Foerster in Breslau. When in 1933, the Nazis came into power, Guttmann was expelled from his post, and he began to work at the Breslau Jewish Hospital, where he became medical director in 1937. "Guttmann (and his family) fled Germany in 1939. However, German Medicine led the World, and Guttmann applied his training to the treatment of spinal injury patients in the United Kingdom" [28].

Guttmann was offered a research post at the Nuffield Department of Neurosurgery (The Radcliffe Infirmary) under Professor Sir Hugh William Bell Cairns, KBE FRCS(1896 – 1952). He was engaged with experiments on nerves' regeneration at the Zoology and Comparative Anatomy department with JZ Young and Peter Medawar, who later received the Nobel Prize. Guttmann published in Oxford, a few articles on peripheral nerves' research [19-22].

Ludwig Guttmann was the founder of the National Spinal Injury Centre at Stoke Mandeville Hospital, the first successful unit in Europe to treat and rehabilitate paraplegics [29-35]. The Spinal Unit became the Mecca to those who wished to become "spinalists". His novel model of treatment of the spinally injured patients and his creation of the Paralympics inspired the whole World.



**Photography 3.** Sir Ludwig, his secretary Joan Scruton and the author, Stoke Mandeville 1979.

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