

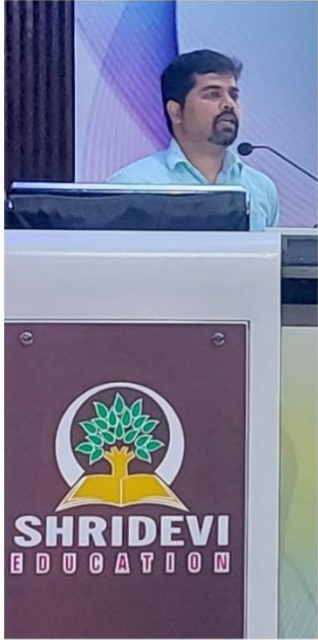


**SHRIDEVI INSTITUTE OF MEDICAL SCIENCES & RESEARCH HOSPITAL,
TUMKUR**

DEPARTMENT OF PHARMACOLOGY

National Pharmacovigilance Week – 17th – 23rd Sept 2023





National Pharmacologist Day – 17/08/2023



METHOTREXATE

History of Methotrexate

- 1. It is a potent anti-folate agent.
- 2. It is used in the treatment of various types of cancer.
- 3. It is used in the treatment of rheumatoid arthritis.
- 4. It is used in the treatment of psoriasis.

Mode of Action

Methotrexate inhibits the enzyme dihydrofolate reductase (DHFR), which is responsible for the synthesis of tetrahydrofolate (THF). THF is a cofactor for the synthesis of purine and pyrimidine nucleotides, which are essential for DNA synthesis and cell division.

Chemical Structure

Cc1nc2c(nc(=O)n2C(=O)N1)C(=O)N

CONTRIBUTIONS OF SIR RAMNATH CHOPRA

Father of Indian Pharmacology

1. He founded the Indian Pharmacopoeia in 1913, bringing many Indian and Western drugs under the control of the Indian Pharmacopoeia.

2. He was the first Indian to introduce the concept of 'Pharmaceutical Chemistry' in India.

3. He was the first Indian to introduce the concept of 'Pharmaceutical Microbiology' in India.

4. He was the first Indian to introduce the concept of 'Pharmaceutical Botany' in India.

5. He was the first Indian to introduce the concept of 'Pharmaceutical Zoology' in India.

6. He was the first Indian to introduce the concept of 'Pharmaceutical Chemistry' in India.

METHOTREXATE

History of Methotrexate

Methotrexate was first synthesized in 1948 by the British chemist, Sir James Dowling. It was initially used in the treatment of cancer, but later found to be effective in the treatment of rheumatoid arthritis and psoriasis.

Chemical Structure

Cc1nc2c(nc(=O)n2C(=O)N1)C(=O)N

HISTORY OF GENERAL ANAESTHESIA

1842 - James Clark Maxwell

1846 - William Morton

1847 - Crawford Long

1852 - John Snow

1854 - Charles Darwin

1859 - Robert Liston

1864 - Joseph Lister

1874 - James Watson

1883 - John Snow

1884 - William Morton

1885 - Crawford Long

1886 - John Snow

1887 - Charles Darwin

1888 - Robert Liston

1889 - Joseph Lister

1890 - James Watson

1891 - John Snow

1892 - William Morton

1893 - Crawford Long

1894 - John Snow

1895 - Charles Darwin

1896 - Robert Liston

1897 - Joseph Lister

1898 - James Watson

1899 - John Snow

1900 - William Morton

1901 - Crawford Long

1902 - John Snow

1903 - Charles Darwin

1904 - Robert Liston

1905 - Joseph Lister

1906 - James Watson

1907 - John Snow

1908 - William Morton

1909 - Crawford Long

1910 - John Snow

1911 - Charles Darwin

1912 - Robert Liston

1913 - Joseph Lister

1914 - James Watson

1915 - John Snow

1916 - William Morton

1917 - Crawford Long

1918 - John Snow

1919 - Charles Darwin

1920 - Robert Liston

1921 - Joseph Lister

1922 - James Watson

1923 - John Snow

1924 - William Morton

1925 - Crawford Long

1926 - John Snow

1927 - Charles Darwin

1928 - Robert Liston

1929 - Joseph Lister

1930 - James Watson

PENICILLIN DISCOVERY

Penicillin Antibiotic

My only wish is that I did not forget the discovery

1928 - Alexander Fleming

1941 - Howard Florey and Ernst Chain

1945 - Norman Heatley

1946 - Dorothy Hodgkin

1947 - Robert Robinson

1948 - Howard Florey and Ernst Chain

1949 - Norman Heatley

1950 - Dorothy Hodgkin

1951 - Robert Robinson

1952 - Howard Florey and Ernst Chain

1953 - Norman Heatley

1954 - Dorothy Hodgkin

1955 - Robert Robinson

1956 - Howard Florey and Ernst Chain

1957 - Norman Heatley

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2001 - Norman Heatley

2002 - Dorothy Hodgkin

2003 - Robert Robinson

2004 - Howard Florey and Ernst Chain

2005 - Norman Heatley

2006 - Dorothy Hodgkin

2007 - Robert Robinson

2008 - Howard Florey and Ernst Chain

2009 - Norman Heatley

2010 - Dorothy Hodgkin

2011 - Robert Robinson

2012 - Howard Florey and Ernst Chain

2013 - Norman Heatley

2014 - Dorothy Hodgkin

2015 - Robert Robinson

2016 - Howard Florey and Ernst Chain

2017 - Norman Heatley

2018 - Dorothy Hodgkin

2019 - Robert Robinson

2020 - Howard Florey and Ernst Chain

2021 - Norman Heatley

2022 - Dorothy Hodgkin

2023 - Robert Robinson

2024 - Howard Florey and Ernst Chain

2025 - Norman Heatley

2026 - Dorothy Hodgkin

2027 - Robert Robinson

2028 - Howard Florey and Ernst Chain

2029 - Norman Heatley

2030 - Dorothy Hodgkin

2031 - Robert Robinson

2032 - Howard Florey and Ernst Chain

2033 - Norman Heatley

2034 - Dorothy Hodgkin

2035 - Robert Robinson

2036 - Howard Florey and Ernst Chain

2037 - Norman Heatley

2038 - Dorothy Hodgkin

2039 - Robert Robinson

2040 - Howard Florey and Ernst Chain

2041 - Norman Heatley

2042 - Dorothy Hodgkin

2043 - Robert Robinson

2044 - Howard Florey and Ernst Chain

2045 - Norman Heatley

2046 - Dorothy Hodgkin

2047 - Robert Robinson

2048 - Howard Florey and Ernst Chain

2049 - Norman Heatley

2050 - Dorothy Hodgkin