

# ANECDOTES ABOUT SOME GREAT SCIENTISTS

BY

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I have selected scientists from eleven countries who have contributed in the field of chemistry, bio-chemistry, Physics and medicine. The representative countries are:

➤ America	➤ Hungary
➤ Argentina	➤ India
➤ Australia	➤ Russia
➤ England	➤ Sweden
➤ France	➤ Switzerland
➤ Germany	

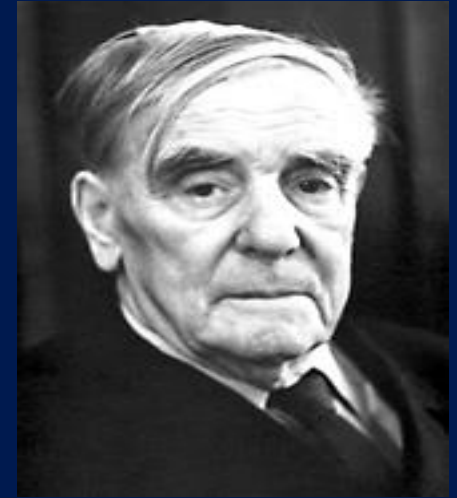
The lecture highlights some interesting anecdotes about some brilliant achievers in the field of science. They have been titled under the following headings:

- Ingenuity : Kapitsa, Leloir, Hevesy
- Physically handicapped: Cornforth, Hawking & Pasteur
- Experimented on their own body: Forssman, Marshall, Hoffman & Domagk's daughter .
- Extreme faith on experimental & theoretical deductions: Arrhenius, Folkman & Bose.
- Strongly motivated : Faraday

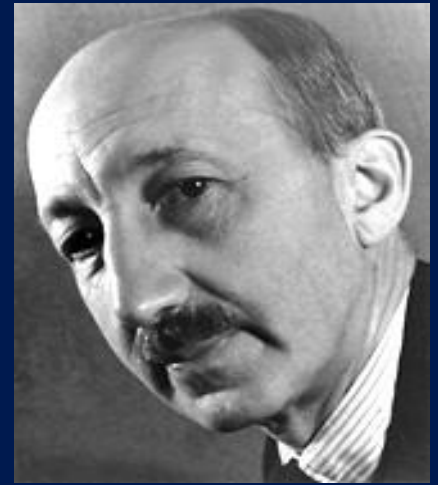
# INGUINITY

## ➤ Peter Kapitsa

- Russian
- Nobel prize, Physics , 1978
- House arrest for 10 years
- Solitary confinement – no. access to equipment
- Made a theoretical study of the hydrodynamic flow in films and discovered capillary wave generation akin to water drops sliding on window glass
- Example of brilliant mind, produced excellent piece of research in spite of difficult circumstances.

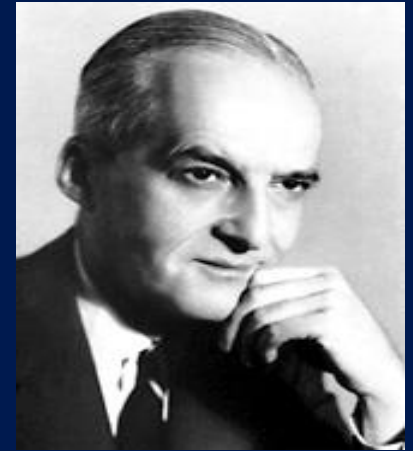


## ➤ George de Hevesy



- Hungarian
- Physical chemist, Nobel prize 1943
- Strategy to save two gold medals of his colleagues from being plundered by Nazi army.
- Dissolved medals (gold) in aqua regia, left the solutions in the obscure corner of Neils Bohr's laboratory in Denmark.
- After the army left Denmark, Hevesy extracted gold from its solution by the addition of Zinc powder.

## ➤ Luis F. Leloir



- Argentinean
- Bio-chemistry Nobel prize, 1970
- Great innovator: devised make shift contrivances
- Costly refrigerated Centrifuge for cell research replaced by spinning rubber tyre containing crushed ice and powdered common salt.
- Water- proof card boards- used as make shift gutters to protect laboratory's library from rain.

# PHYSICALLY HANDICAPPED SCIENTISTS:

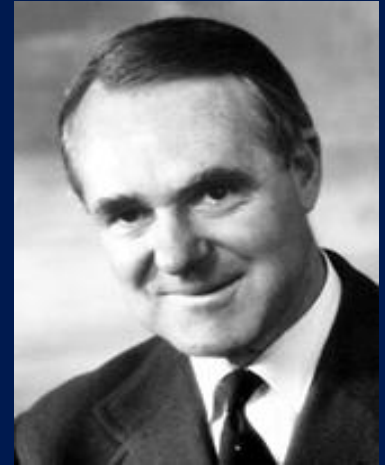
## ➤ John Warcup Cornforth

→ Australian

→ Chemist, Nobel Prize 1975

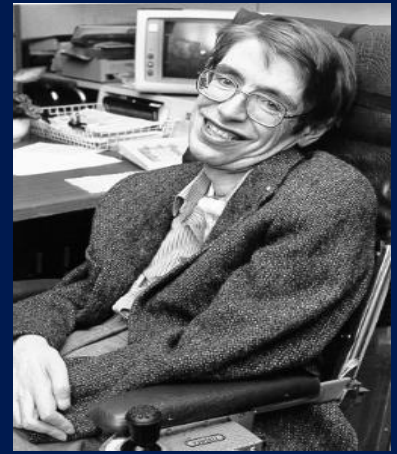
→ Deaf since his early age

→ Handicap was no hindrance to his brilliant researches



## ➤ Stephen Hawking:

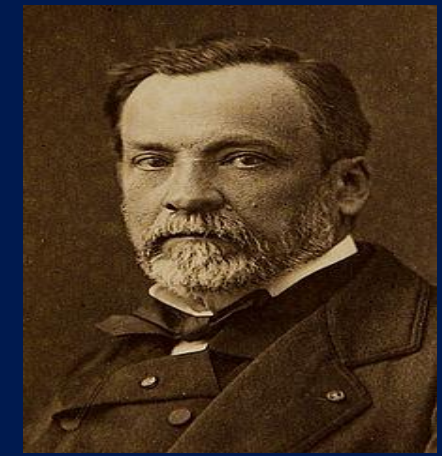
- British
- Theoretical Physicist
- Paralyzed at 21 years age, crippled (Wheel chair),  
loss of speech
- Made Brilliant contributions in theoretical physics





## ➤ L Pasteur:

- French
- Biochemist
- Medically unfit to join the French army
- Studied optical activity
- Submitted a paper for publication – Editor sent it to famous crystallographer, Biot for comments
- Biot disbelieved the work and asked Pasteur to repeat the experiments in his presence
- The results were reproducible
- Biot was happy & became Pasteur's well wisher and life long friend



# EXPERIMENTS CONDUCTED ON ONES OWN BODY

## ➤ Werner Forssman

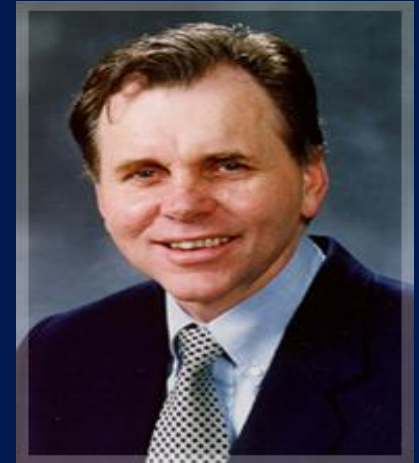
→ German

→ Medical Scientist, Nobel prize 1956.

→ Conceived & developed the idea of Angioplasty- The non-invasive procedure to open up partially clogged blood vessels.



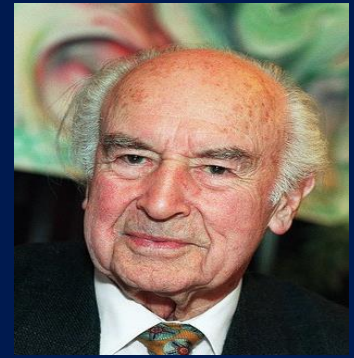
## ➤ Barry Marshall:



- Australian
- Medical Scientist, Nobel prize 2005.
- Dispelled the belief that stomach ulcer develops due to hyperacidity in the stomach but arises due to the attack by bacteria (*Helibacter pylori*).
- Supported his view by conducting the dangerous experiment on himself and was saved by prompt medical attention.

## ➤ Albert Hoffman

- Swiss
- Chemist
- Accidental discovery of LSD
- A small quantity ingested unwittingly-a hallucinogenic effect observed!



## ➤ Gerhard Domagk

- German
- Microbiologist, Nobel prize winner in Medicine, 1939.
- 4 year daughter accidentally pricked her finger containing a virulent strain of pathogenic bacteria.
- She became seriously ill. Father in desperation tried sulpha drug
- It worked and she was cured !



# EXTREME FAITH IN THEIR EXPERIMENTAL RESULTS OR THEORETICAL DEDUCTION

## ➤ Svante August Arrhenius

- Swedish physical chemist
- Nobel prize, 1903
- D.Sc. thesis submitted to Uppsala University
- “Electrolytic Dissociation in solution”
- Arrhenius awarded 4<sup>th</sup> class Degree by the University.
- Worked for 10 additional years & the results confirmed his earlier conclusions.

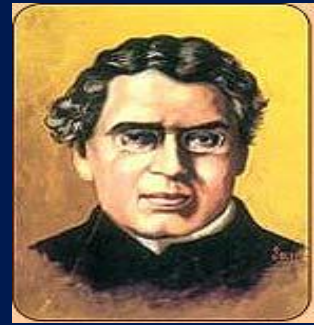


# Judah Folkman

- American
- Oncologist
- Put forward the theory about the development of trans-located cancer cells.
- His views were not received favorably by Folkman's colleagues. They warned his research students to leave Folkman's research group to avert their academic disaster!
- However Folkman's views were accepted by the oncologists- worldwide



## ➤ Jagdish Chandra Bose



→ Indian

→ Physicist- Botanist

→ Research findings: Plants have the same feeling like human beings. The poisons which kill humans also kill plants. Bose was demonstrating his experiment before the fellows of the Royal Society.

→ One fellow challenged Bose, if the sample labeled 'Poison' could kill a plant.

→ Bose experimented with the sample, but it did not harm the plant! Bose announced that if the sample cannot kill the plant, then surely it cannot kill him (Bose) either. Bose consumed the sample 'poison' without any effect. It was later discovered that the fellow had played a crude joke on Bose.

# STRONGLY MOTIVATED TO STUDY NATURAL SCIENCE

## ➤ Michael Faraday

- English
- Chemist/Physicist
- Initial employment, Book-binder shop
- An elderly customer advised him to attend Davy's lecture delivered at Royal Society
- This gave an opportunity to work as laboratory assistant to Davy.
- Faraday quickly grasped the research methodology. He started doing independent research & over a period of time even excelled his mentor
- Davy meets one journalist and states that Faraday was his greatest discovery!





Thank you.