

HISTORY OF HISTORY: HOW IT ALL BEGINS

Science of **Evolution** explains the astounding diversity of life, but its origin holds the story which is perhaps the **Best Ever** being told

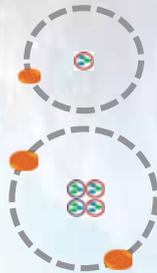
Evolution of Universe

Around **13.7 billion** years ago, an event referred to as **BIG BANG** happened that resulted in the formation of universe as we know it



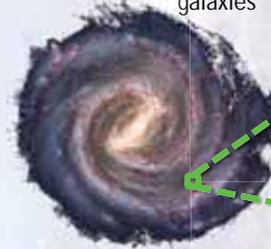
In fraction of a second, subatomic particles like **electrons** and **quarks** are formed

Just before a second past to **BIG BANG**, quarks combined to form **protons** and **neutrons**

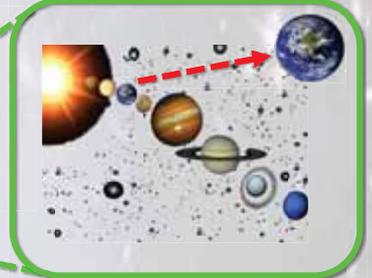


After about **300,000** years, subatomic particles combined to form **atoms** of Hydrogen and Helium, and from there **light** came into existence

Nearly 1 Billion years after **BIG BANG**, gravitational pull combined H and He in the form of gas clouds that will form **galaxies**



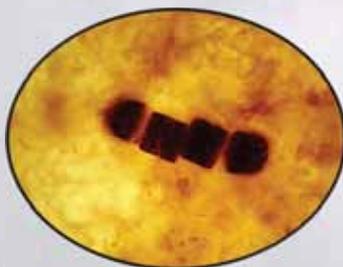
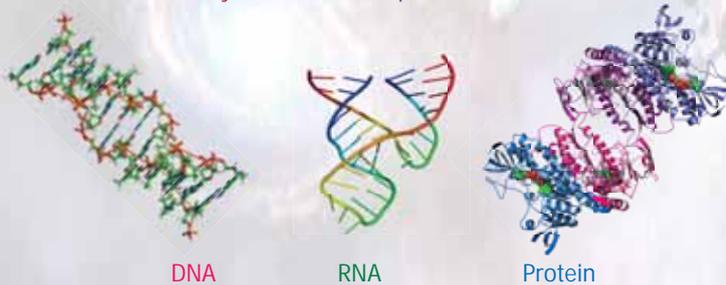
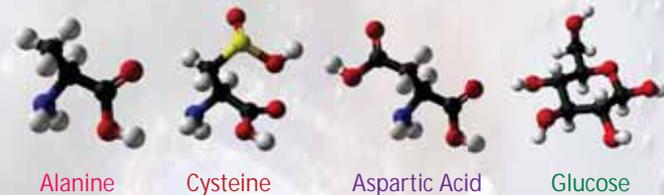
Our **solar system** is a tiny part of one of the **billion galaxies** present in the present day universe



From that view our existence seems **pointless** in the vastness of the universe. At the same time we should be **proud** that we are one species that understands it

Origin of Life

Scientists have thought and formulated **several theories** to explain the **origin of life** on this planet. None of them has been proven the way other theories including **evolution** have. Collectively some logical inference could be made out of these theories



Finally once all the basic molecular machinery is formed, a rare random accident may have led to the formation of the **first primitive cell**. Fossil evidence suggests that it may have happened around **3.6 billion years ago**. Once the simple self-propagating life originated, from there, **evolution by natural selection** took its course to create both extinct and extant diversity of life

Thinking Out of the Box



It has also been conceived that **origin of life** may be **extraterrestrial** and may have been transmitted to earth from the outer space objects such as asteroid or meteor. This notion is referred to as **Panspermia**



Some **recent experiments** have proven that **bacterial endospores** can survive high velocity collisions such as asteroid and meteor impact

