

## Editorial

## Why the Muslim World Turned away from Science and What are the Solutions to Improve the Situation

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The question of the century is Why scientists are not born among Muslims? It is not at all that scientists are not born among Muslims; Rather, if it is said that the foundation of science was planted by Muslims, then it will not be wrong. Imame Jafer Sadiq, (A), Jabir bi Hayan, Al-Kindi, Al-Khwarizmi, Ibn Sina, Ibn Al-Haytham, Abdul Qadeer Khan, and many other names are the jewels shining in Muslim history. Muslims raised the light of learning and enlighten the world for so many centuries. Muslims scientists invented Chemistry, medicine, Calligraphy, metrology, mathematics, algebra, astronomy, philosophy etc. The Europe develop the understanding how the disease spread and how can be treated, new magnetic compass and tools of navigation, mastery of pens and printing from the books of Muslim scholars, The Arab world's era of scientific achievement. Due to which the Muslim world today can be immensely proud of its wonderful scientific and academic heritage and their role in understanding the world today cannot be forgotten.

### What went wrong? Reasons for the decline of science among Muslims:

In the past, the role of science during the rise of Islam was not properly understood and appreciated. The Muslim scientists, who worked in the field of research in the past were not only despised, but they were treated so badly by the Muslim rulers that the people abandoned this field of research because the Muslim rulers did not like science. The humiliation of the great scientists of the past became a lesson for others. Muslims did not value their benefactors, due to which science and the research department could not be given the space to evolve. Apart from this, when I established an advanced diagnostic lab in King Edward Medical University, for research in 2011 and started working on stem cell and many other projects for Ph.D., in consequence, was

humiliated and sent on Extra Ordinary Ex-Pakistan Leave on 01.5.2013. Same humiliation was shown with our renowned Nuclear Scientist. Dr. Abdul Qadeer Khan, who quoted in his narration on 13.4.2012:

گزر تو خیر گئی ہے تیری قدیر  
ستم ظریف مگر کوفیوں میں گزری ہے

Some of the great scientists of the past who were mistreated are as follows:

**Yaqub Al-Kindi:** Whose original name was Abu Yusuf Yaqub Ibn Ishaq Al-Kindi (185 AH/801 AD to 259 AH/873 AD). He was the 1<sup>st</sup> Muslim peripatetic of Aristotle philosopher, and is known as the father of Arab Philosophy. His fields are Philosophy, Astronomy, Physics, Mathematics, cryptography, meteorology, Optics, Medicine, Chemistry, and Music. He was an expert in alchemy and astronomy. He was born in Basra and died in Baghdad.

When the Caliph, who was opposed to Al-Kindi's thought, came to power, he humiliated Al-Kindi to please the scholars. His library was confiscated and burned and, in 873, al-Kindi died "a lonely man", in Baghdad during the reign of Al- Mutamid (870–892)<sup>1</sup>

**Ibn Rushd:** The name of Ibn e Rushd was Abul Waleed Muhammad bin Ahmed bin Muhammad bin Rushd (Averroës by west). He was a Muslims philosopher, physician, astronomer and legislator. Ibn Rushd is the most famous figure in the 11<sup>th</sup> century. He was accused of heresy, interrogated and banned to Lucena, close to Cordova, His library was burnt (with the exception of his works on medicine, arithmetic and elementary astronomy) and he was tied to the pillar of the Jamia Masjid and the worshipers spat on his face, he was weary of the worshipers on it: and spent his last days in humiliation and disgrace.<sup>2</sup>

**Zakaria al-Razi:** Abu Bakr Muhammad Bin Zakaria Razi was a Persian scientist, physicist, theologian and philosopher (Birth 854 - Died 925)<sup>3</sup>

Al-Razi was humiliated by the Caliph, who ordered to hit on the head with his book until either the book or his head broke. Due to this cruelty, he became blind, His optical nerve in the brain was damaged which sends signals from eye to brain. Al-Razi spent his last days in blindness and died in 925 AD at Rey, Samanid Empire in Iran.<sup>4</sup>

**Ibn Sina:** Ali al-Hussein ibn Abdullah ibn al-Hasan ibn Ali ibn Sina (980 to 1037 AD), commonly known in the West as Avicenna. He was a prominent physician and philosopher of the Islamic world and a scholar from Persia. Among his most famous books is "Book of Healing" which is a philosophical and scientific Encyclopedia and "The Canon of Medicine" which was a medical encyclopedia. These books became a standard medical text at many in different European Universities as late as 1650.

Bu Ali Sina, who was the founder of law and medicine, and his writings were taught in the universities of the West for 600 years. He also kept hiding from the rulers of that time and abandoned his homeland.<sup>5</sup>

**Jabir bin Hayyan:** Jabir bin Hayyan, a student of Imam Jafar Al-Sadiq (AS); (founder of alchemy) was from Khorasan (Iran), (Birth: 721AD - Died: 25 December 815 AD), during the reign of Haroon ur Rasheed, who was called the father of modern chemistry who worked on alchemy, medicine and astronomy and Westerners know him as "Geber". His mother was flogged to death and he went into hiding in Basra due to the danger of Abbasi Muslim ruler.

#### **Suggestions for promoting science and research among Muslims**

There are 57 Muslim countries on the world map; followers of the religion Islam, with a population of > than 2 billion, making the second-largest religion in the world, after Christianity, hopefully their population will exceed the Christians by the year 2050. There are only 2 Nobel prize winners in Muslims (Dr Ahmed Zewail for Chemistry and Dr Salam for Physics). But if compared to Western countries, the Islamic world is far behind in modern science, which is an alarming situation.

The leaders of the Muslim countries must review their history and make changes to bring them equal to the western and Chinese levels. In a report by one of the Pakistani scientists Dr Pervez Amirali Hoodbhoy, (2011) the situation grimed because in all Muslim countries, the Scientists, Engineers, and Technicians ration is 9/1000 population), as compared to 41/1000 with a world.<sup>7</sup>

#### **1. Establishment of modern research laboratories and libraries.**

- a. Muslim rulers and leaders should establish research laboratories with the view of changing conditions to take the lead from modern science.
- b. Centers and laboratories should be developed especially for the fields of biotechnology, information technology and artificial intelligence technology, and meritorious scientists should be given privileges and benefactors of the past should be valued.
- c. There is a lack of research laboratories and libraries in the universities of Pakistan. It comes as a shock how these heroes have never been acknowledged the way they deserve, in their home country Pakistan. Very few people are aware of their work and their names are used to create controversies instead of being praised.
- d. In Pakistan, a council of scientists with great brains should be constituted to assess the country's needs and plan the future accordingly.

#### **2. Increase research budget and scholarship**

Pakistan and other Muslim governments, leaders, rulers should increase funds for science and technology education in the annual budget. Turkey, Iran, Qatar, Saudi Arabia is working on this level but these richest countries must support the developing Muslim countries.

#### **3. Need to reduce tension between science and religion and Reduction of jurisprudential differences**

- a. There is no doubt that in many parts of the Muslim world there is a conspiracy between science and religion that needs to be resolved and to change unscientific attitudes in Muslim society. The religious scholars must cooperate the innovative ideas of new era like vaccines, organ transplants, test tube babies etc.
- b. The reason for scientific stagnation is simply religious conservatism, so Muslim countries have to remove all their jurisprudential differences and unite on one point and that is the need to separate science from religion. For this, I would like to give an example of Tehran Royal Institute in Iran. Where, research in genetics, organ transplants, artificial intelligence, stem cells and cloning is being done in a free environment. Similarly, every Muslim country should cooperate with each other.

#### **4. Writing of high-quality research papers.**

In a statistic of 2011, in Muslim countries, there are approximately 1,800 universities, but only 312 of those have scholars, who have published high quality research articles. Muslim-majority systems only published 5.15%

of all Web of Science (WoS) papers globally in the last three decades, although their combined population represents 14.16% of the world population.<sup>7</sup>

- a. There is no concept of writing books, manuscripts or editorials. Research papers are written after every research, but there is no such practice in Muslim countries especially in Pakistan.
- b. The research papers written by us are neither of high quality nor in high quantity. But the matter is worse than that, a bigger issue than quantity is quality.
- c. There are standard paper websites, where good papers are being published, but their index is extracted. When the National Science Board made a list of 45 countries in the world, there were only two Muslim countries in it. Iran and Turkey, and their score was also one third compared to Switzerland.
- d. Total research papers from the Muslim world will not make up more than 1% of the world and less than research papers coming out of Harvard University of USA. The contributions to global science of the highest-publishing science systems in 15 Muslim-majority countries (Egypt, Tunisia, Morocco, Algeria, Saudi Arabia, United Arab Emirates, Qatar, Jordan, Lebanon, Bangladesh, Indonesia, Pakistan, Malaysia, Iran and Turkey) are still modest but show an increasing trend in quantity and influence, according to new academic paper notes.

#### 5. Reconstruction of national scientific infrastructure

- a. Muslim countries should rebuild their national scientific infrastructure and strengthen their links with developed countries.
- b. Muslims countries need to take the lead and adapt to modern science as well as their way of thinking a thousand years ago.

#### 6. Restructuring of research culture

- a. The most important thing in science is the culture of research in science and technology, which is very important to create in Muslim countries, without these great scientists and inventions, nothing happens.
- b. It is important to understand academic freedom and the scientific method and to have political consent for it so that they can revive their renaissance.
- c. A culture which is free from prejudice, which has passion for science and technology and research, which has a thirst for knowledge and learning. There should be no restrictions of religion, color and caste in this culture.

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