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Celebrating the October Born Scientists

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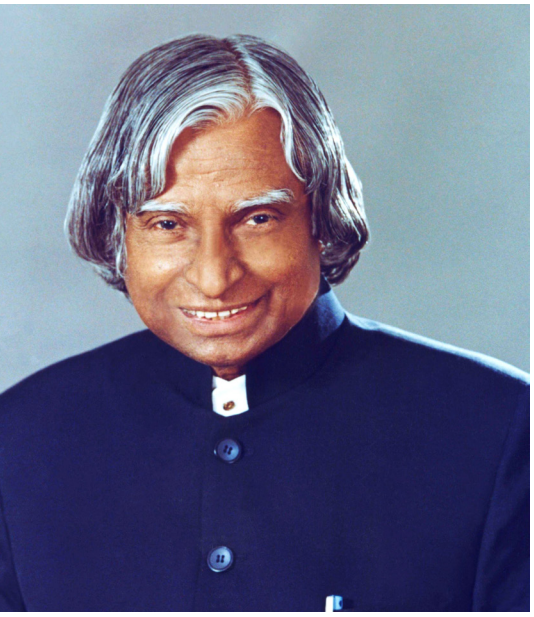
These luminaries, born in the month of October, have each illuminated the path of human progress in their own right. Their discoveries have transcended the bounds of their respective fields, shaping the world as we know it. As we reflect on their lives and legacies, we are reminded of the boundless potential of the human spirit to inquire, innovate, and inspire. Through their work, these scientists have left an enduring legacy, a testament to the power of curiosity and the relentless pursuit of knowledge.

Meghnad Saha was born on 6 October 1893 and was a distinguished Indian astrophysicist and politician, best known for formulating the Saha ionisation equation, a foundational concept in astrophysics. This equation allows scientists to determine the temperature and ionisation states of elements in stars by analyzing their spectral lines, helping to link the spectral classification of stars with their physical properties. Saha's work on thermal ionisation revolutionized the study of stellar atmospheres and remains a key tool in modern astrophysics. He served as a professor at Allahabad University from 1923 to 1938, and later as Professor and Dean of the Faculty of Science at the University of Calcutta, a position he held until his death in 1956. He was elected a Fellow of the Royal Society in 1927 and served as President of the Indian Science Congress in 1934. In addition to his scientific achievements, Saha was deeply involved in nation-building, acting as the chief architect of river planning in India, including drafting the original plan for the Damodar Valley Project.



Dr. A.P.J. Abdul Kalam was born on 15 October 1931 and was a prominent Indian aerospace scientist, visionary educator, and the 11th President of India (2002–2007). Revered as the "Missile Man of India", he played a crucial role in advancing India's missile and space technology. After studying physics and aerospace engineering, Kalam began his career at the Defence Research and Development Organisation (DRDO) and later joined ISRO, where he served as the Project Director of India's first Satellite Launch Vehicle (SLV), which successfully deployed the Rohini satellite into orbit in 1980. In the 1980s, Kalam led the Integrated Guided Missile Development Programme (IGMDP), overseeing the creation of key missiles such as Agni and Prithvi. He was also a central figure in the Pokhran-II nuclear tests of 1998, which elevated India's strategic capabilities and brought Kalam national recognition. Outside defense, he co-developed the Kalam-Raju stent, a low-cost cardiac device, and the Kalam-Raju tablet for rural healthcare. Known for his simplicity and deep commitment to education, he inspired millions, especially youth, with his books, lectures, and vision for a developed India. Dr. Kalam's legacy lives on as a symbol of scientific excellence, integrity, and inspirational leadership in service of the nation.

Salimuzzaman Siddiqui was born on 19 October 1897 and was a Pakistani organic chemist specialising in natural products, and a professor of chemistry at the University of Karachi. Siddiqui studied philosophy at Aligarh Muslim University and later studied chemistry at Frankfurt University, where he received his PhD in 1927. On return to British India, he worked at the Tibbia College Delhi and the Indian Council for Scientific and Industrial Research. He later moved to Pakistan and worked in the Pakistan Council of Scientific and Industrial Research. He went on to establish the Pakistan National Science Council and was appointed its first chairman in 1961. In the same year he became a Fellow of the Royal Society. He later co-founded the Pakistan Academy of Sciences, and after retirement from the government, he founded the Hussain Ebrahim Jamal Research Institute of Chemistry. Siddiqui is credited with pioneering the isolation of unique chemical compounds from the Neem (*Azadirachta indica*), Rauvolfia, and various other flora. As the founder director of H.E.J. Research Institute of Chemistry, he revolutionised research of the pharmacology of various domestic plants found in South Asia to extract novel chemical substances of medicinal importance. During his career, Siddiqui published more than 300 research papers and obtained 40 patents mainly from the field of natural product chemistry. In addition to his scientific talents, Siddiqui was also an avid painter, poet, and a great connoisseur of Western music. His paintings were exhibited in the United States, Germany, India, and Pakistan.

Saleemul Huq was born on 2 October 1952 and was a renowned Bangladeshi-British climate scientist, internationally recognized for his groundbreaking work in climate change adaptation, particularly from the perspective of least developed countries (LDCs). He was the Director of the International Centre for Climate Change and Development (ICCCAD) in Bangladesh and a professor at Independent University, Bangladesh (IUB). Huq was selected as one of Nature's Top 10 scientists of 2022 for his influential role in global climate negotiations. He contributed significantly to the Intergovernmental Panel on Climate Change (IPCC), serving as a lead author and coordinating lead author in key chapters on adaptation and sustainable development across the Third, Fourth, and Fifth Assessment Reports. He was a key adviser to the LDC Group at the UNFCCC, engaging in every Conference of the Parties (COP) and shaping global discussions on adaptation, loss and damage, and climate finance. Huq also served as a Senior Adviser on Locally Led Adaptation at the Global Centre on Adaptation (GCA). Huq published reports and articles on climate change, particularly on adaptation to climate change. He was the lead author of the chapter on Adaptation and Sustainable Development in the third assessment report of the Intergovernmental Panel on Climate Change (IPCC). He was a Senior Fellow in the Climate Change Group at the International Institute for Environment and Development (IIED) and the director of the International Centre for Climate Change and Development. His contributions supported the UN Sustainable Development Goals, particularly Goal 13 (Climate Action) and Goal 17 (Partnerships). Through research, advocacy, and policy engagement, Huq became a leading voice for climate justice, leaving behind a lasting legacy of global impact.

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