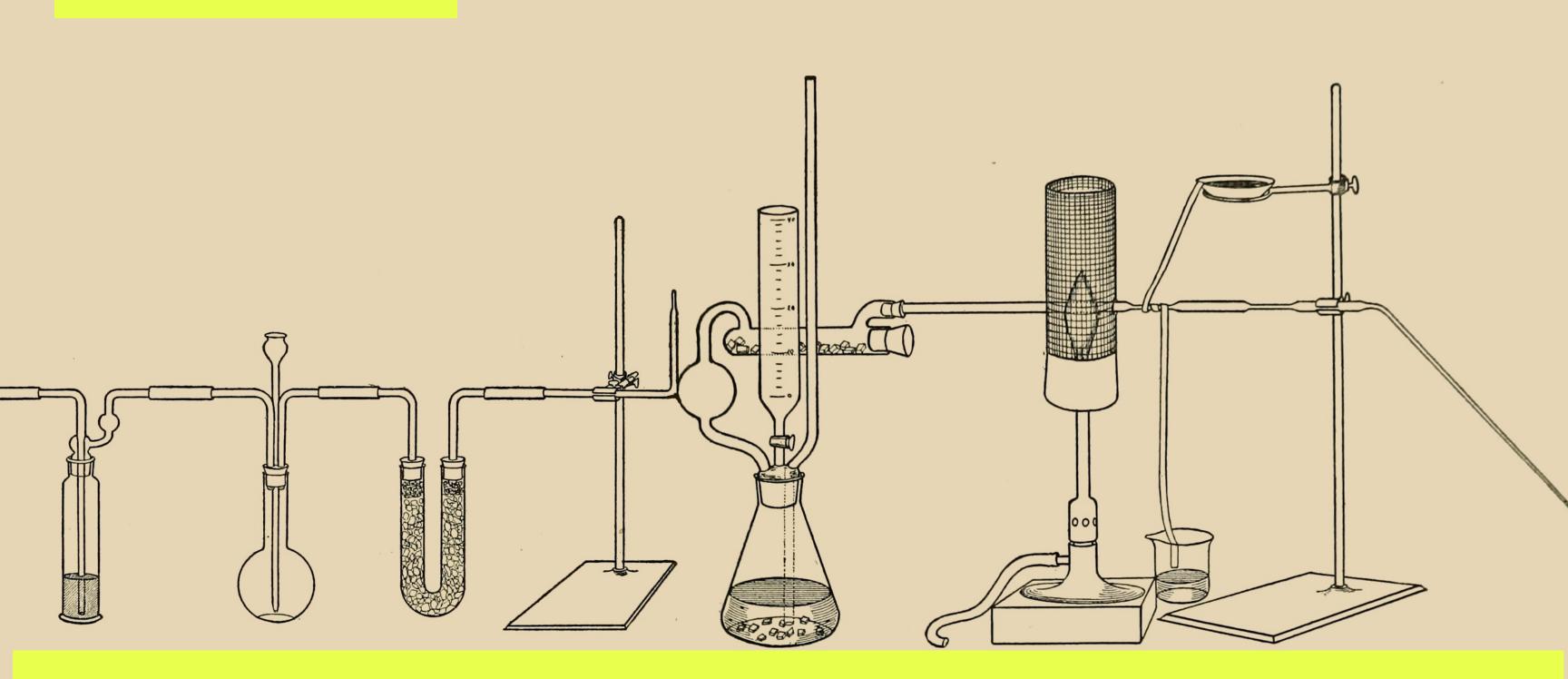




13 INFLUENTIAL CATHOLIC SCIENTISTS

Among the many Catholic scientists who have shaped history, this timeline highlights 13 men and women—from the 13th century onward—who let their faith lead them on a journey to scientific truth.





St. Albert the Great



(1200 - 1280)

A Dominican Friar and teacher of St. Thomas Aquinas; master of biblical theology, metaphysics, logic, botany, astronomy, physics, mathematics and anatomy; championing the cause of universal access to education, the concern for the poor, and the rule of law; emphasized experimental approach; detailed the classification of animals and especially plants in *On Vegetables and Plants*.

Roger Bacon

(1214-1292)



Medieval English philosopher and Franciscan friar; proposed a model of experimental science based on his study of optics; discovered the importance of empirical testing; known as one of the earliest European advocates of the modern scientific method—advocated that the new method should be used to search for new medicines and promote human health.



Nicolas Copernicus

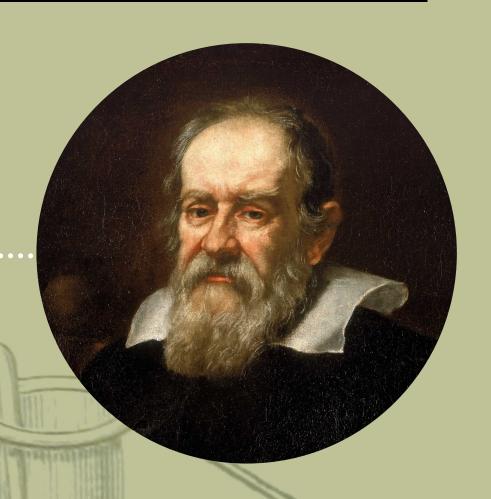


(1473-1543)

Mathematician, astronomer, economist, and Catholic cleric; originator of the heliocentric universe—he formulated a model of the universe that placed the Sun at its center and its mathematical justification; his discovery resulted In the Copernican Revolution and contributed to the Scientific Revolution; derived a quantity theory of money that became a key concept in economics and formulated the economic principle of Gresham's law.

Galileo Galilei





Italian astronomer, physicist, engineer and father of modern astronomy; though he did not invent the telescope, Galileo made it a scientific instrument; his championing of heliocentrism led him to trials with the Church known as the "Galileo Affair;" however, though he met opposition with the Church, he cared about and believed in the Catholic Faith to his death.

Giovanni Battista Riccioli



(1598-1671)

Italian astronomer, physicist, Jesuit priest, and contemporary of Galileo; first to create a map of moon's surface which established the modern system of lunar nomenclature; his experiments are regarded as the first precise measurements of g (acceleration due to gravity).

Blessed Nikolas Steno



(1638-1686)

Father of Modern Geology, he was a Danish scientist, a pioneer in anatomy and geology, and a Catholic bishop; his questioning and subsequent conclusions of accepted knowledge of the natural world, especially on <u>fossils</u> and rock formation, have led to foundational contributions to geology.



Blaise Pascal



Best known for "Pascal's Wager," he was also a brilliant mathematician, philosopher, theologian, inventor, and ounder of the theory of probabilities; invented a "numerical wheel calculator" that some consider the first "computer." In mathematics, he is known for Pascal's triangle, Pascal's theorem, and (with Pierre de Fermat), the probability theory which ultimately gave birth to statistics. A unit of atmospheric pressure, the Pascal (Pa), is named after him as is a computer language, Pascal.

Fr. Angelo Secchi



(1818-1878)

Father of Astrophysics: the first to classify stars by their spectra; also contributed to solar physics, terrestrial magnetism, meteorology, and oceanography; inventor of Secchi's disk, which is still used today to measure the clarity of water.

Louis Pasteur



(1822 - 1895)

French chemist; a founder of medical microbiology; pioneered the study of molecular asymmetry; developed vaccinations against anthrax and rabies; originated the process of pasteurization and discovered microbial fermentation.



<u>Gregor Mendel</u>

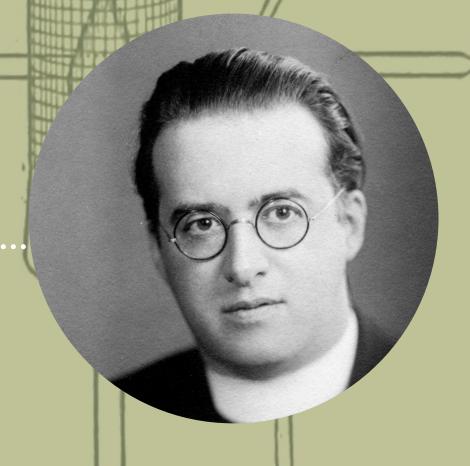
(1822 - 1884)



Father of Genetics; Augustinian monk who carried out his cross-breeding experiments in the monastery garden; his pea plant experiments established many of the rules of heredity, known as the laws of Mendelian inheritance.

Fr. George Lemaitre

(1894-1966)



Father of the Big Bang Theory; Belgian Catholic priest, mathematician, astronomer, and professor of physics; the first person to propose the theory of the expansion of the universe; made the first estimation of what is now known as the Hubble constant.

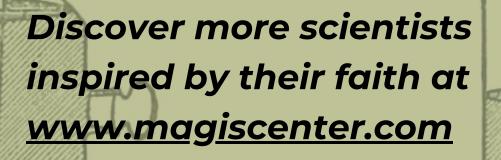


Jerome Lejeune



(1926-1994)

French pediatrician and geneticist' best known for discovering trisomy 21 as cause of Down Syndrome; valiantly defended the dignity and value of all human life, especially "his" Down syndrome children; his work opened up investigations into the genetic sources of disease.



<u>Karin Öberg</u>



(1982-)

A tenured professor of Astronomy at Harvard University; director of The Öberg Astrochemistry Group, which uses astronomical observations to address how astrochemically important molecules form and how their evolution into larger molecules may be associated with the origins of life; she has studied the prevalence of habitable exoplanets with the Trappist 1 system and the Kepler space mission.