NEUROLOGICAL STAMP

Jan Evangelista Purkinje (1787-1869)

Purkinje was born in Libochovice, Bohemia (now Czechoslovakia) and educated by Piarist monks. He studied philosophy at the University of Prague, was ordained a priest and became Father Salverius. In 1819, aged 32, he graduated in medicine. Purkinje, who had already made significant contributions to physiology, applied unsuccessfully for several University appointments within the Austro-Hungarian Empire. Through friendship with Goethe he was appointed Professor of Physiology at Breslau University in 1823 against the opposition of the Faculty. In 1850 he was invited to the Chair of Physiology in Prague which he held until his death.

His early work included the influence of the head position on the directional component of vertigo, and the maintenance of posture and equilibrium, culminating in Purkinje’s Law of Vertigo. Purkinje explored aspects of vision and discovered in 1825 a phenomenon known as the Purkinje effect (as light intensity decreases, red objects are perceived to fade faster than blue objects).

While examining birds’ eggs he discovered the germinal follicle, sometimes called the Purkinje vesicle. In 1837 he located the Purkinje cells in the cerebellar cortex, and two years later the Purkinje fibres lying beneath the endocardium.

Purkinje also introduced the term protoplasm to describe the living embryonic material of the egg. He made original contributions to the histology of sweat glands, skin, bone, dental structures and was the first to discover the uniqueness of the human fingerprint. He noted that pancreatic extracts digested protein and he made comparative studies of cellular structures of plants and animals. Purkinje was among the first to use a microtome and one of the first to teach microscopy as part of a university course. He also studied digitalis toxicity (on himself) and the effects of belladonna and opium. Purkinje translated poetry from German, Russian, and Polish and wrote some of his own. At age 80, he learned Hungarian so that he could translate a libretto.

He was honoured by Czechoslovakia in 1937 (Stanley Gibbons 371 and 372, Scott 232 and 233) on the 150th anniversary of his birth.

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