

Topic Page: [Purkinje, Jan Evangelista \(1787 - 1869\)](https://search.credoreference.com/content/topic/purkinje_jan_1787_1869)

Summary Article: **Purkinje, Jan Evangelista**

From *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*

Czech physiologist who made pioneering studies of vision, the functioning of the brain and heart, pharmacology, embryology, and cells and tissue. In 1819 Purkinje described the visual phenomenon in which different-coloured objects of equal brightness in certain circumstances appear to the eye to be unequally bright; this is now called the **Purkinje effect**.

Purkinje was born in Libochovice, Bohemia (now in the Czech Republic), and studied at Prague. In 1823 he was appointed professor at Breslau (now Wrocław in Poland) – perhaps through the influence of German poet Wolfgang von Goethe, who had befriended him. In addition to his scientific work, Purkinje also translated the poetry of Goethe and Friedrich von Schiller. At Breslau, Purkinje founded the world's first official physiological institute. In 1850, he returned to Prague University.

In 1832, he was the first to describe what are now known as Purkinje's images: a threefold image of a single object seen by one person reflected in the eye of another person. This effect is caused by the object being reflected by the surface of the cornea and by the anterior and posterior surfaces of the eye lens.

Purkinje cells are large nerve cells with numerous dendrites found in the cortex of the cerebellum; he discovered these 1837, and the Purkinje fibres in the ventricles of the heart 1839. Also in 1839, in describing the contents of animal embryos, Purkinje was the first to use the term 'protoplasm' in the scientific sense.

In 1823 he recognized that fingerprints can be used as a means of identification. He discovered the sweat glands in skin, described ciliary motion, and observed that pancreatic extracts can digest protein. In 1837 he outlined the principal features of the cell theory.

APA

Chicago

Harvard

MLA

Purkinje, Jan Evangelista. (2018). In Helicon (Ed.), *The Hutchinson unabridged encyclopedia with atlas and weather guide*. Abington, UK: Helicon. Retrieved from https://search.credoreference.com/content/topic/purkinje_jan_1787_1869



© RM, 2018. All rights reserved.



© RM, 2018. All rights reserved.

APA

Purkinje, Jan Evangelista. (2018). In Helicon (Ed.), *The Hutchinson unabridged encyclopedia with atlas and weather guide*. Abington, UK: Helicon. Retrieved from https://search.credoreference.com/content/topic/purkinje_jan_1787_1869

Chicago

"Purkinje, Jan Evangelista." In *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*, edited by Helicon. Helicon, 2018. https://search.credoreference.com/content/topic/purkinje_jan_1787_1869

Harvard

Purkinje, Jan Evangelista. (2018). In Helicon (Ed.), *The Hutchinson unabridged encyclopedia with atlas and weather guide*. [Online]. Abington: Helicon. Available from: https://search.credoreference.com/content/topic/purkinje_jan_1787_1869 [Accessed 19 November 2019].

MLA

"Purkinje, Jan Evangelista." *The Hutchinson Unabridged Encyclopedia with Atlas and Weather Guide*, edited by Helicon, 2018. *Credo Reference*, https://search.credoreference.com/content/topic/purkinje_jan_1787_1869. Accessed 19 Nov. 2019.