

Table 1.1 Historical Development and Evolution of Pharmacognosy in the West		
Date	Author/Organization	Description of Pharmacognosy
AD first century	Dioscorides	<i>De Materia Medica</i> ; describes and catalogues ~600 medicinal plants
First to eighteenth centuries	Fuchs, Gerard, Mattioli, Parkinsons, Salmon, Bigelow	Myriad herbals continue in the tradition of Dioscorides
1667	Robert Hooke	<i>Micrographia</i> ; credited with the invention of the two-lens microscope; describes various cells and units of cells as “tissue cells”
1805	Friedrich Wilhelm Sertürner	Isolates morphine from the opium poppy <i>Papaver somniferum</i> ; search is on for chemical compounds
1808–1820	Massachusetts and U.S. pharmacopeias	List approximately 200 plant drugs
1811	Johann Adam Schmidt, Vienna, Austria	<i>Lehrbuch der Materia Medica</i> (posthumously published); coins the term <i>pharmacognosia</i>
1815	Christianus Aenotheus Seydler, Halle an der Saale, Germany	“Analecta Pharmacognostica”; formally uses the term <i>pharmacognosy</i> in his doctoral thesis
1821	Philadelphia College of Pharmacy	Begins formally teaching pharmacognosy for the first time
1821–1940	Pharmacy schools in Europe and North America	Pharmacognosy becomes an integral part of nearly all pharmacy curricula, addressing the history, commerce, collection, selection, identification, evaluation, and preservation of crude drugs and other raw materials of vegetable and animal origin
1825	Theodor Martius	<i>Grundriss der Pharmakognosie des Pflanzenreiches</i> ; introduces the first formal course on pharmacognosy (De Pasquale 1984)
1838	Mathias Jacob Schleiden	Announces that the cell is the fundamental unit in plants and that all tissues are made up of a combination of cells. Criticizes what he views as the inexactness of grosser morphological evaluation and, due to what he perceives as the exacting character of botanical microscopy, refers to pharmacognosy as “the mother of all disciplines of the natural sciences” (Kraemer 1920)
1846	Jonathan Pereira	First use of “pharmacognosy” in the United Kingdom.
1862	Friedrich August Flückiger, professor of pharmacognosy, Strasbourg, and Daniel Hanbury	Begins teaching pharmacognosy at University of Bern in 1862. Describes pharmacognosy as “the simultaneous application of various scientific disciplines with the object of acquiring a knowledge of drugs from every point of view.” “The study of drugs must not be limited only to the morphological study, but it must follow the history, geographical origin, place of origin and commercial varieties, the characteristics and chemical composition.” (De Pasquale 1984)
1885	William Stephen Disbrow	Refers to pharmacognosy as the “child of the microscope”
1886	Professor Hillhouse	Pleads for acceptance of the term pharmacognosy and writes in the <i>Pharmaceutical Journal</i> , “Has not the time arrived when the term <i>materia medica</i> may very well be discarded and that of pharmacognosy be adopted in its stead?”
1888	Josef Moeller, professor of pharmacognosy, Innsbruck	“Pharmacognosy has—fallen asleep”
1908	Kraemer and Sindall	“The microscope furnishes the surest means of determining the identity of a powdered drug at our command.”
1910	Henry Kraemer, professor of botany and pharmacognosy	Pharmacognosy generally considered a “division of botany”
1939	Alexander Tschirch	Considers herbalists (rhizomatists) as the first “pharmacognosists” (Sayre 1917)