

Table 1.1 Historical Development and Evolution of Pharmacognosy in the West (continued)

Date	Author/Organization	Description of Pharmacognosy
1950	Egon Stahl, professor of pharmacognosy, University of Saarbrücken	Invents thin-layer chromatography (TLC); widely applied to crude plant drugs in Germany, not widely used in the United States (Tyler 1996)
1950	<i>U.S. Pharmacopeia</i>	Reduction of plant drugs to approximately 50
1955	Goodman and Gilman	“Pharmacognosy is that branch of pharmacology which deals with the physical characteristics of crude drugs. It is purely a descriptive science. Inasmuch as most crude drugs are of plant origin, pharmacognosy deals largely with the botanical sources of drugs and the characteristics of the plants from which they are obtained.”
1956	Thomas Wallis (1853–1973), professor of pharmacognosy (UK) in a letter to E. J. Shellard, London (1956)	“Pharmacognosy is the most liberal and humanistic of all pharmaceutical studies and should be preserved at all costs. Emphasis is changing but that does not mean that the subject is disappearing.”
1960–1970	Beal, Fairbairn, Hörhammer, Ramstad, Schwarting, Shellard, Shibata, Sticher, Tsunematsu, Tokushima, Tyler, Wagner	In Japan, the United States, and United Kingdom, these pharmacognosists spearhead the transition of pharmacognosy from a descriptive botanical discipline to one having a more chemical focus (Tyler and Tyler 1992).
1970	<i>U.S. Pharmacopeia</i>	By 1970 the total number of botanical substances in the USP had fallen from 636 to 68.
1979	Miller and Murray (1997)	Average year when pharmacognosy was removed from pharmacy curriculum in the United States due to integration of pharmacognosy into medicinal chemistry and retirement of pharmacognosy faculty. Approximately half of schools express interest in reinstating pharmacognosy.
1980	Goodman and Gilman (term “pharmacognosy” not even mentioned in 1985 edition)	“Pharmacognosy embraces the knowledge of the history, source, physical and chemical properties, compounding, biochemical and physiological effects, mechanism of action, absorption, distribution, biotransformation and excretion, and therapeutic and other uses of drugs.”
1984	Ann De Pasquale	“Pharmacognosy is still alive and vital and has its own place in the future of man.”
1987	Geoffrey Cordell, professor of pharmacognosy, University of Illinois, Chicago	“Pharmacognosy is far from dead. It has survived a long, cold winter and presently is awakening as the most high-tech pharmaceutical science.”
1998	FDA	Holds workshops on botanical microscopy. Herbal product manufacturers and independent analytical laboratories reintroduce botanical microscopy as a quality assessment tool.
2000	Douglas Kinghorn, professor of pharmacognosy, University of Illinois, Chicago	“As we enter the new millennium, worldwide interest in pharmacognosy and natural products is at an all time high...Pharmacognosy remains a major part of the pharmacy curriculum in many countries, and it should be.” Reports pharmacognosy to be most well represented in Japan where there is a long tradition of using natural products, and resurgence in pharmacognosy in the United States and UK due to increased interest in herbal medicine (Barnes 2000)
2004	Webster’s dictionary	Pharmacognosy—“The branch of pharmacology that deals with drugs in their crude or natural state and with medicinal herbs or other plants.”
2004	Norman Farnsworth	“Pharmacognosy, at least the aspects of crude drug identification and analysis, has disappeared from the professional curriculum of virtually all Colleges of Pharmacy in the United States—probably never to return!”