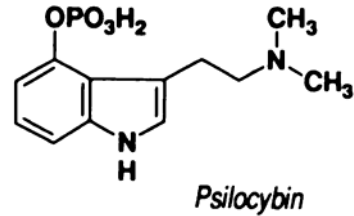
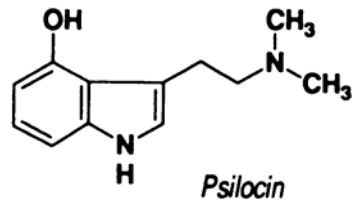


2.8.4 Alkaloidy vycházející z metabolismu tryptofanu

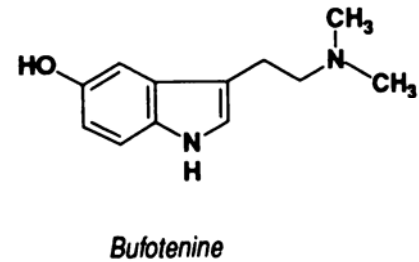
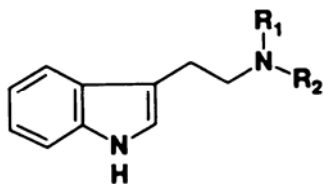
Široká skupina alkaloidních struktur

2.8.4.1 β -Karbolinové alkaloidy (tryptaminy): „halucinogenní indolové alkaloidy“; výrazně rozšířeny v houbách čeledi Agaricaceae

☞ Agaricaceae – *Conocybe* sp., *Panaeolus* sp., *Psilocybe* sp., *Stropharia* sp.



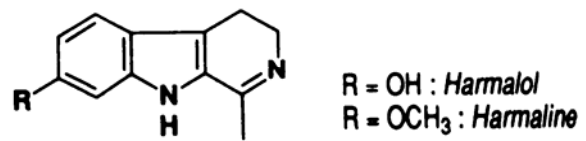
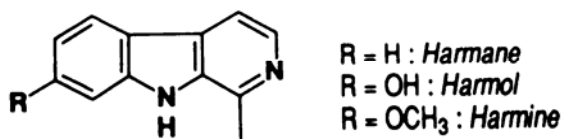
☞ Myristicaceae - *Viola calophylloidea*



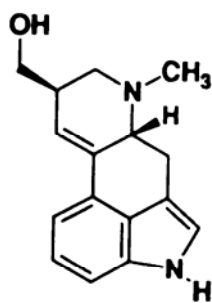
☞ Mimosaceae - *Piptadenia peregrina*

☞ Malpighiaceae - *Banisteriopsis caapi*, *B. inebrians*

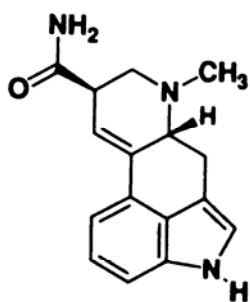
☞ Zygophyllaceae - *Peganum harmala*



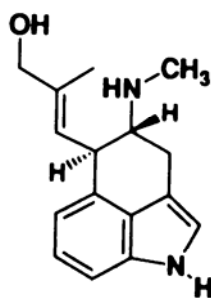
☞ Convolvulaceae - *Ipomea violacea*



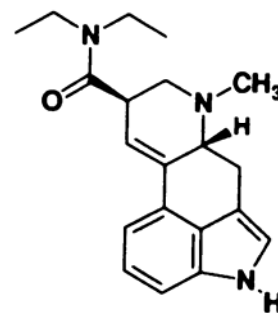
Lysergol



Lysergamide = ergine



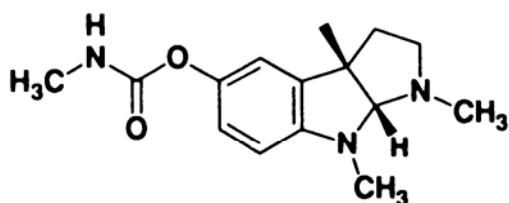
Chanoclavine I



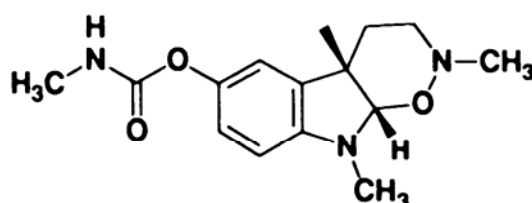
LSD

2.8.4.2 Alkaloidy kalabarských bobů

☞ Fabaceae - *Physostigma venenosum*



Physostigmine (eserine)



Geneserine

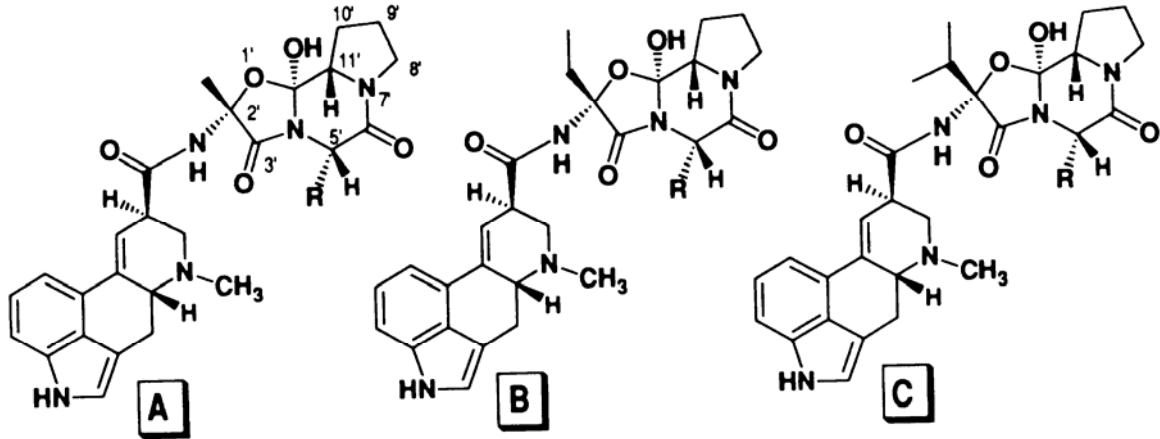
2.8.4.3 Ergolinové alkaloidy

užší strukturní typy:

☞ Clavicipitaceae - *Claviceps purpurea* (*Secale cereale*); *Claviceps paspali* (*Paspalum* sp.); *Claviceps fusiformis* (*Pennisetum* sp.)

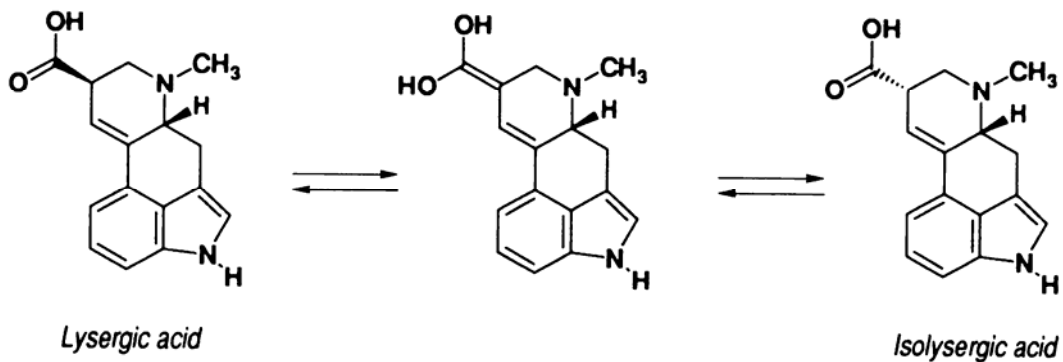
☞ Eurtotiaceae - *Aspergillus clavatus*, *Penicillium fumigatum*

☞ Convolvulaceae – *Argyreia* sp., *Ipomea* sp., *Rivea* sp. aj.



	A : Ergotamines	B : Ergoxines	C : Ergotoxines
R = CH ₂ Ph	<i>Ergotamine</i>	<i>Ergostine</i>	<i>Ergocristine</i>
R = CH ₂ CH(CH ₃) ₂	<i>α-Ergosine</i>	<i>α-Ergoptine</i>	<i>α-Ergocryptine</i>
R = CH(CH ₃)CH ₂ CH ₃	*	*	<i>β-Ergocryptine</i>
R = CH(CH ₃) ₂	<i>Ergovaline</i>	<i>Ergonine</i>	<i>Ergocornine</i>
R = CH ₂ CH ₃	<i>Ergobine</i>	<i>Ergobutine</i>	<i>Ergobutyryne</i>

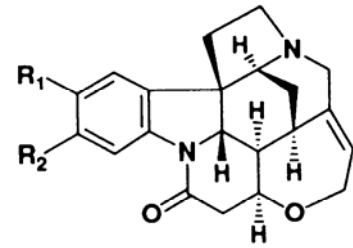
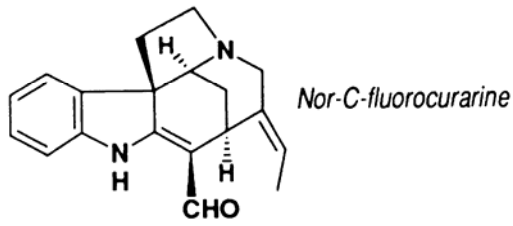
* not known



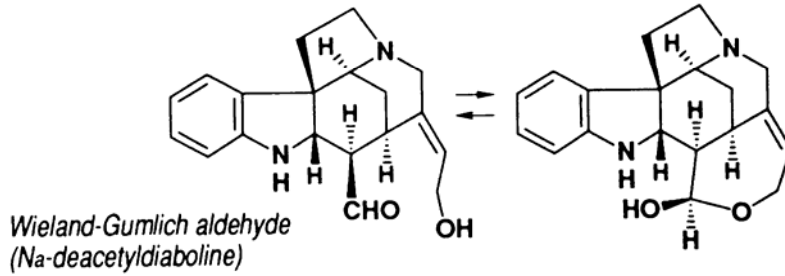
2.8.4.4 Monoterpenické indolové alkaloidy

Indolové alkaloidy sensu stricto:

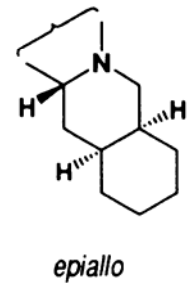
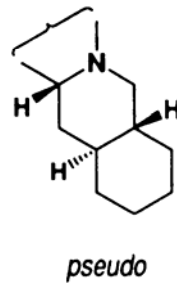
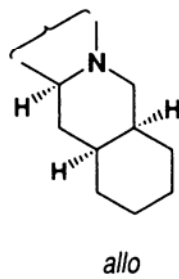
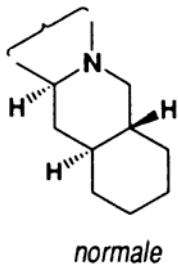
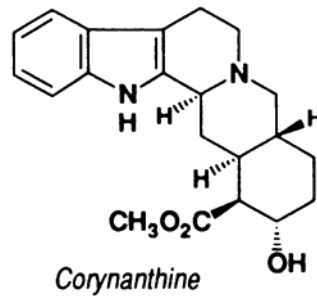
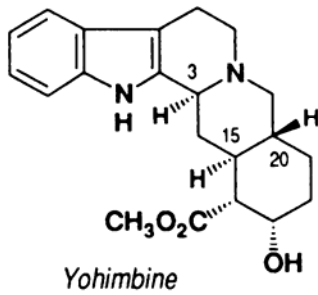
☞ Loganiaceae - *Strychnos nux-vomica*, *Gelsemium sempervirens*



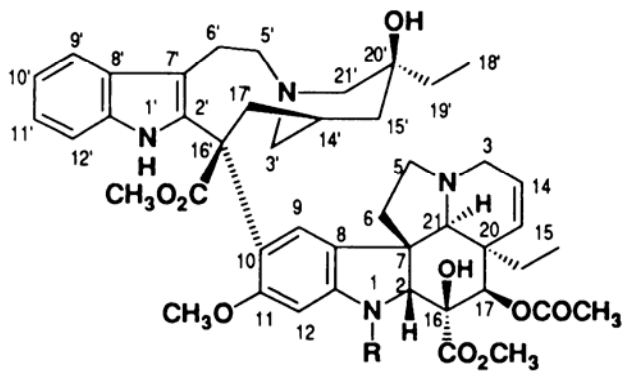
$R_1 = R_2 = H$: Strychnine
 $R_1 = R_2 = OCH_3$: Brucine



☞ Rubiaceae - *Pausinystalia yohimbe*

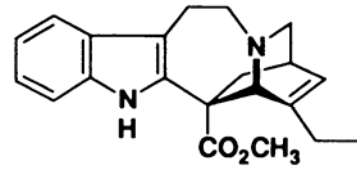


☞ Apocynaceae - *Catharanthus roseus*, *Vinca minor*, *Rauwolfia serpentina*, *Tabernanthe iboga*

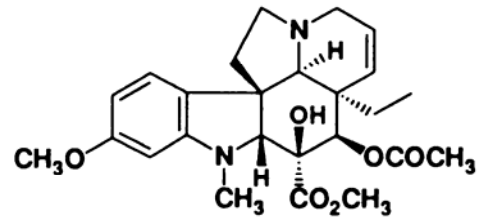


$R = \text{CH}_3$: Vinblastine
 $R = \text{CHO}$: Vincristine

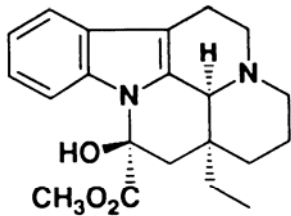
* biogenetic numbering



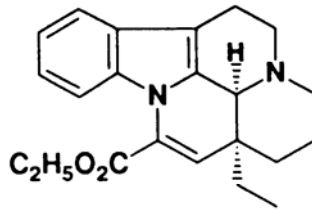
Catharanthine



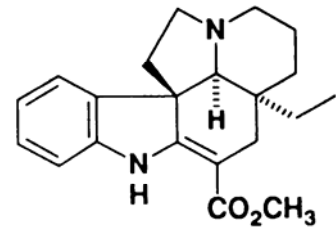
Vindoline



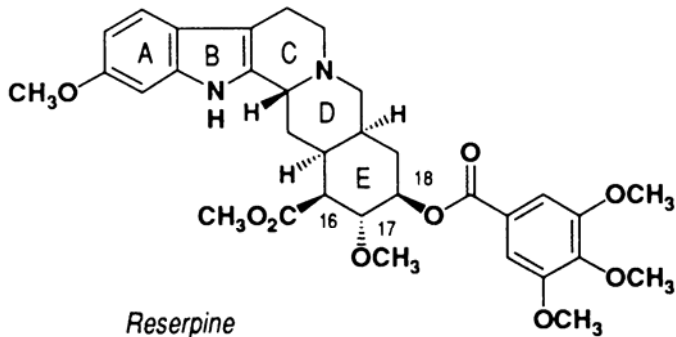
Vincamine



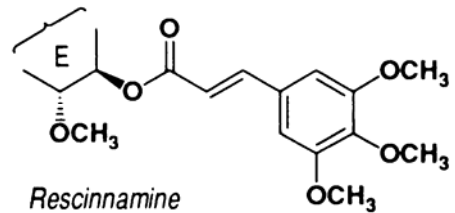
Vinpocetine



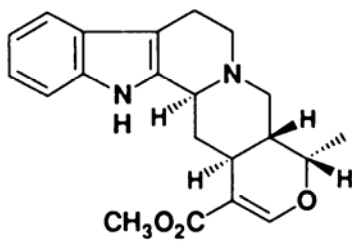
Vincadifformine



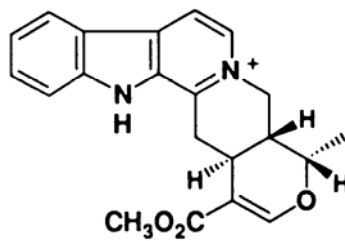
Reserpine



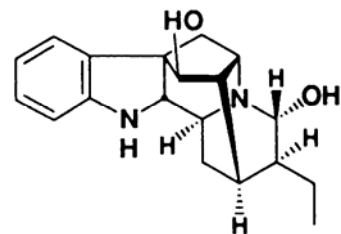
Rescinnamine



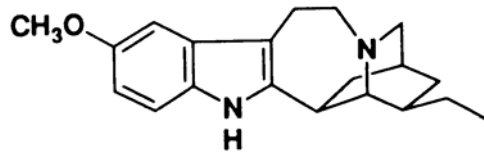
Ajmalicine (raubasine)



Serpentine



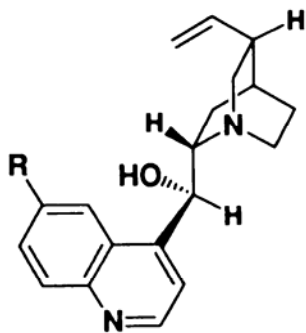
Ajmaline



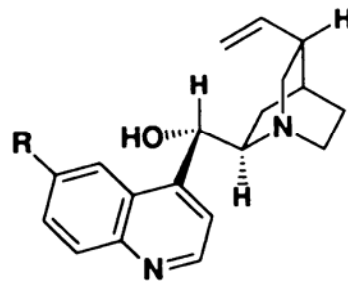
Ibogaine

Chinolinové alkaloidy

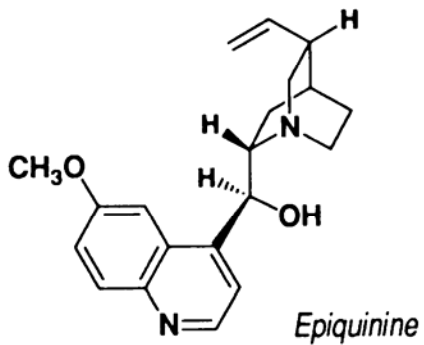
☞ Rubiaceae - *Cinchona* spp.



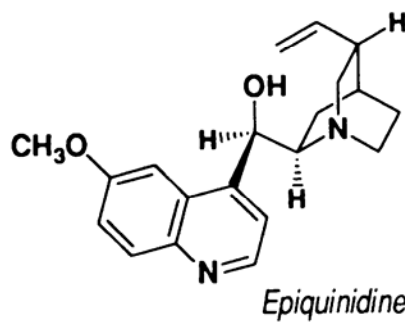
R = OCH₃ : (-)-Quinine (8*S*, 9*R*)
 R = H : (-)-Cinchonidine (8*S*, 9*R*)



R = OCH₃ : (+)-Quinidine (8*R*, 9*S*)
 R = H : (+)-Cinchonine (8*R*, 9*S*)



Epiquinine



Epiquinidine

☞ Nyssaceae (Cornales, Rosidae): *Camptotheca* spp.

