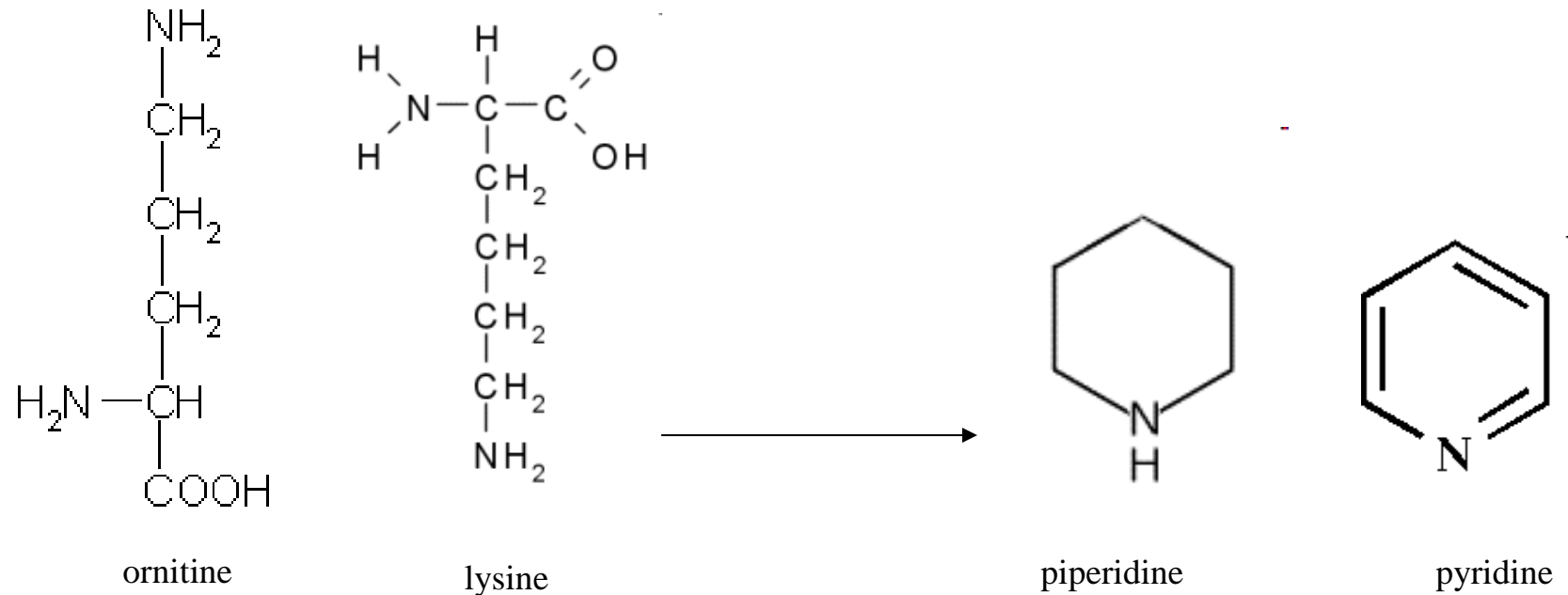


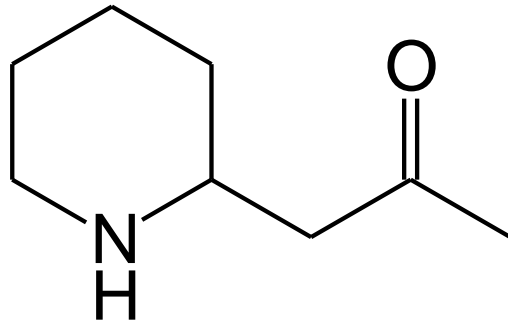
# Lysine derivatives Alkaloids

- Drugs containing secondary metabolites with pyridine and piperidine rings are *Herba Lobelia* and *Cortex Granati*
- *Lycopodium* alkaloids are also derivatized from lysine.



## *Cortex Radicis Granati* (Nar Kök Kabuğu)

- *Punica granatum* (Punicaceae), cortex and roots and branches. Inner side of barks is smooth and yellow.
- Plant contains volatile liquid alkaloids 0.5-0.9%.
- Major alkaloids are pelletierine and pseudopelletierine.



Pelletierin

- Pelletierine and pseudopelletierine are antihelminthic. 22% of the bark consist of tannins.
- Barks are used to obtain pelletierine sulphate.
- Because of the toxic effects, plant and obtained salts are not used anymore for medicinal purposes.

Seed Oil

Increases the skin elasticity.  
Topically anticancer activity  
occurs.

Punica preparations

Seed Extract, Hull Extract

## Pelletierine tannate

Pelletierine tannate; yellowish, odourless, amorphous powder with astringent effect.

Effective specifically against tapeworms, taenias.  
Used only for adults (too toxic).

## *Herba Lobelia*

*Lobelia inflata* (Campanulaceae),  
Herba collected in the end of flowering period.  
Naturally grows in USA and Canada. Also cultivated in  
Netherlands.

Firstly used by American natives. (Indian Tobacco). In  
1813 suggested to use in asthma.

Alkaloid ratio 0.2-0.4%.

*L. nicotianaefolia* is the official lobelia in India. Alkaloid  
amount is high in the flowering period.

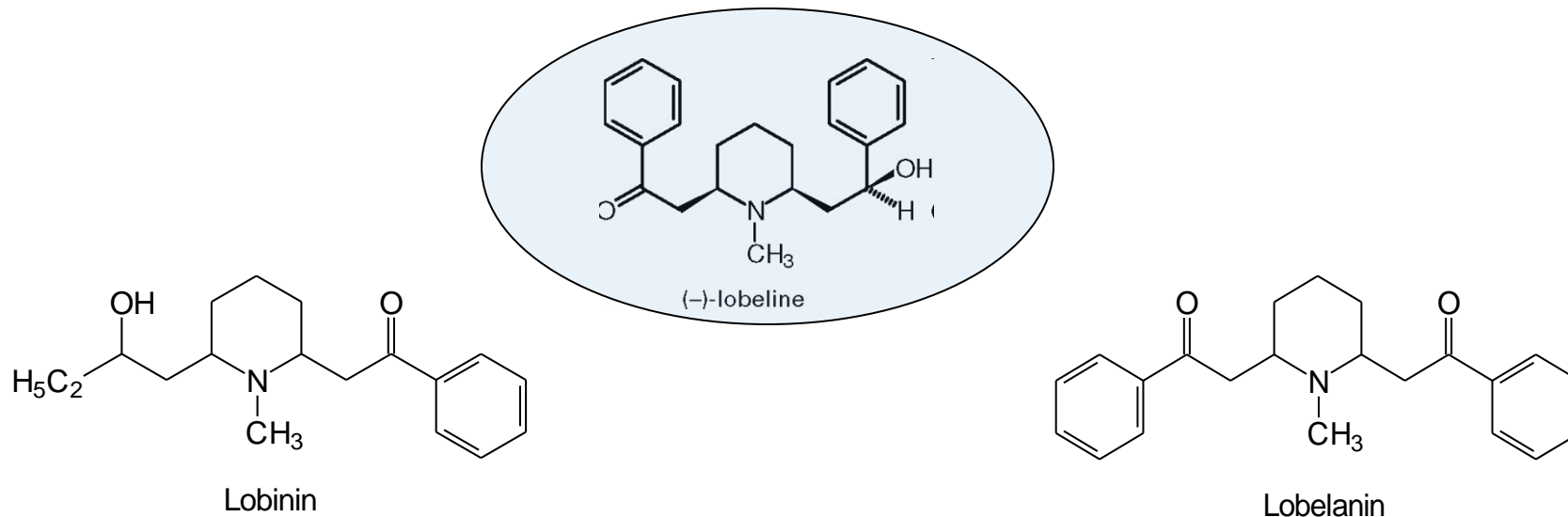
Not less than 0.25-0.3 % alkaloid amount. (BP 1988)

In this type of alkaloids there are substituents in 2. and 6. C.

The structure can be symmetrical or not.

Symmetric Lobelidol (alkol grubu), Lobelidion (keton grubu)

Non symmetric Lobeline. 3 asymmetric c atoms which means the optically activity.



*Herba Lobelia* preparations;

Spasmodic

Used for asthma and chronic bronchitis

Takes place in the preparations used to give up smoking.

Controlled studies indicate that herba lobelia preparations are ineffective to give up smoking.



## Lobeline HCl; (-) Lobeline

Lobeline slightly soluble in water, good soluble in alcohol.

Lobeline is a respiratory stimulant.

Lobeline HCl; injectable preparations (IM or SC) are used for respiratory stimulant. Used in respiratory problems in surgeries and especially for new born babies.

