

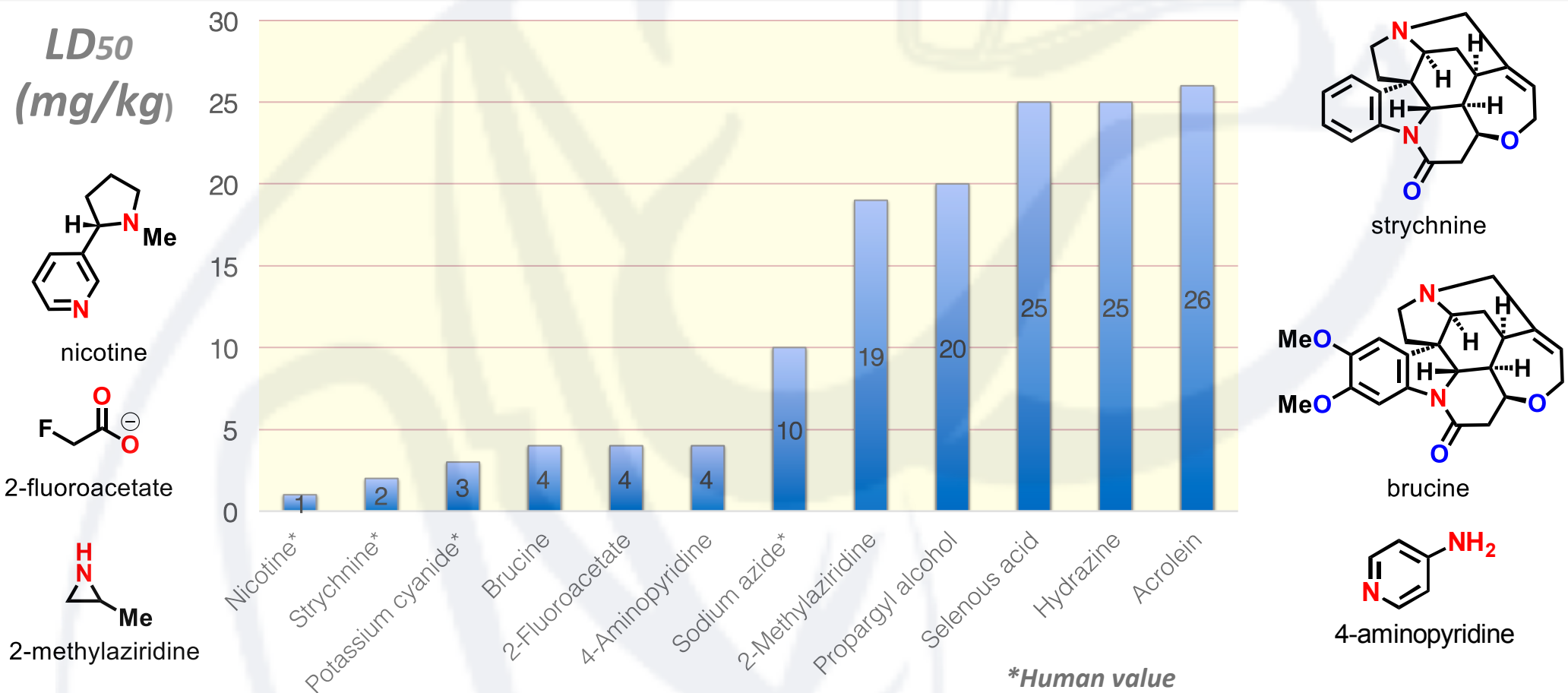
# TOXIC MATERIALS



## WHAT IS LD50?

The median lethal dose is the amount of an ingested substance that **kills 50% of a population**. It is expressed in mg per kg of body weight. **The lower the LD50, the more toxic the material.** This value is determined using rats, mice or other small mammals. Occasionally, human LD50s are reported from poisoning case studies. For a quick conversion, the average graduate student weighs around 70 kg.

## HOW TOXIC IS YOUR MATERIAL?



## TYPES OF TOXIC MATERIALS



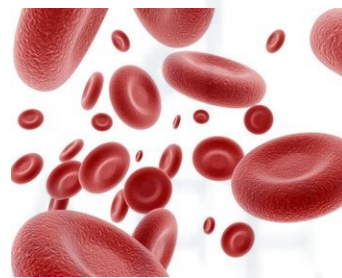
### Neurotoxin

- Brucine
- Strychnine
- Phosphoryl chloride
- Nicotine
- Organo-phosphates



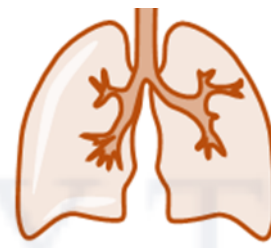
### DNA Alkylator

- Aziridines
- Mustard gases
- Acrolein
- Methyl vinyl ketone



### Inhibit Cellular Respiration

- Cyanogens
- Cyanides
- 4-Aminopyridine
- Azides
- Thiophenol
- Nitriles



### Chemical Asphyxiant

- Phosgene
- Sarin gas
- Phosphorous trichloride
- Hydrazines



### Cardiovascular Toxin

- Selenides
- 2,4-Dinitrophenol
- Epinephrine



Scan this QR code to learn more about storage, handling and disposal of toxic materials!



JOINT SAFETY TEAM