The role of medicinal chemistry in curing PD

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EFMC represents the European medicinal chemistry community
Independent association founded in 1970, representing 26 national societies from 24 countries, and over 7500 academic and industrial medicinal chemists.

• promoting scientific exchange
• rewarding scientific excellence
• facilitating communication and networking
• providing training and mentoring
An extraordinary burden to the society

- Parkinson’s disease, Alzheimer’s disease, polyneuropathies, prion diseases, motor neuron diseases, Huntington's disease, spinal muscular atrophy...

How can medicinal chemistry help?

- Provide pharmacological tools for biologists
- Optimize drug candidates for safety and efficacy.
- Provide imaging agents for diagnosis and disease monitoring
• **A therapeutic target**

• **Predictive animal models of the cause of disease**
  - not a model of symptoms

• **High quality medicinal chemistry teams**
  - Extreme complexity of parameters to optimize.
  - No compromise on safety.
  - Profile adapted to patients needs and requirements.
Medicinal chemistry is enabling

**Medicinal chemistry**
- Tools for validation
- Discovery & Optimisation
- Imaging & diagnostic agents

**Therapeutic target** ➔ **Drug candidate** ➔ **Clinical development** ➔ **Parkinson's diagnosis** ➔ **Treatment and cure**
• PD and all neurodegenerative diseases are highly complex.
• Both academia and industry struggle with the long-term investments required - the risks are very high.
• The discovery and development of new drugs is challenging and expensive; medicinal chemistry is part of the solution.

• Public initiatives need to include medicinal chemistry in their scope. No medicinal chemistry, no drugs.