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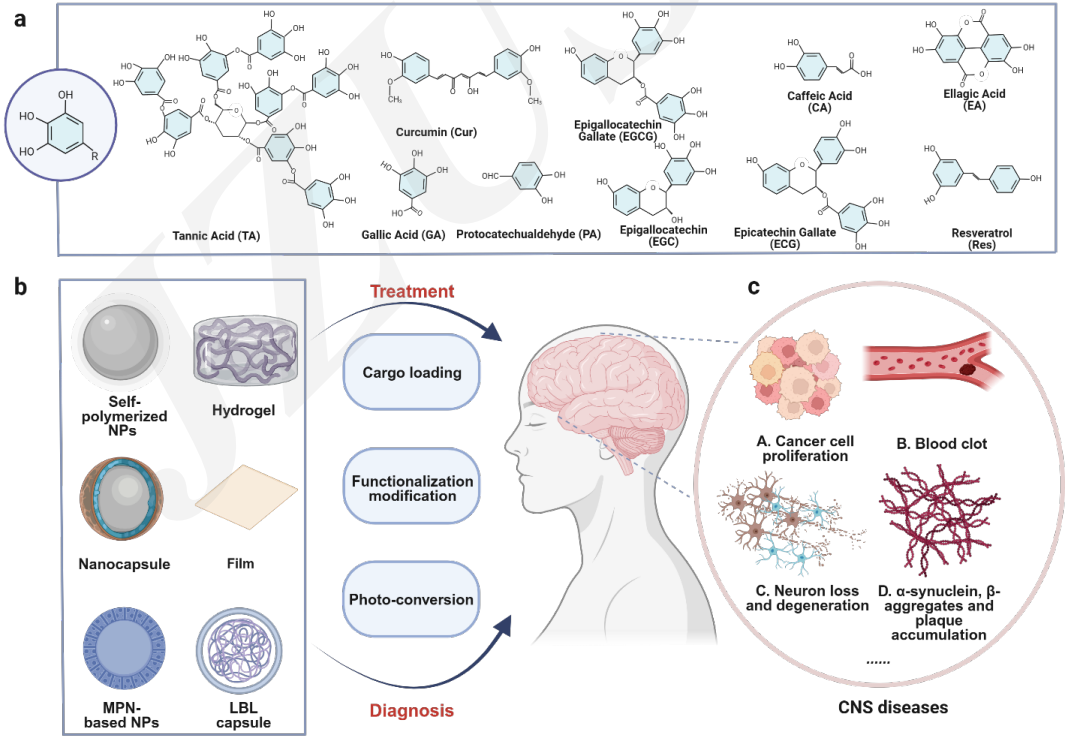
Phenolic-enabled nanotechnology: a new strategy for central nervous system disease therapy

Key words: **Phenolic-enabled nanotechnology; Metal-phenolic network; Polydopamine: Central nervous system; Drug delivery system**

Research Summary

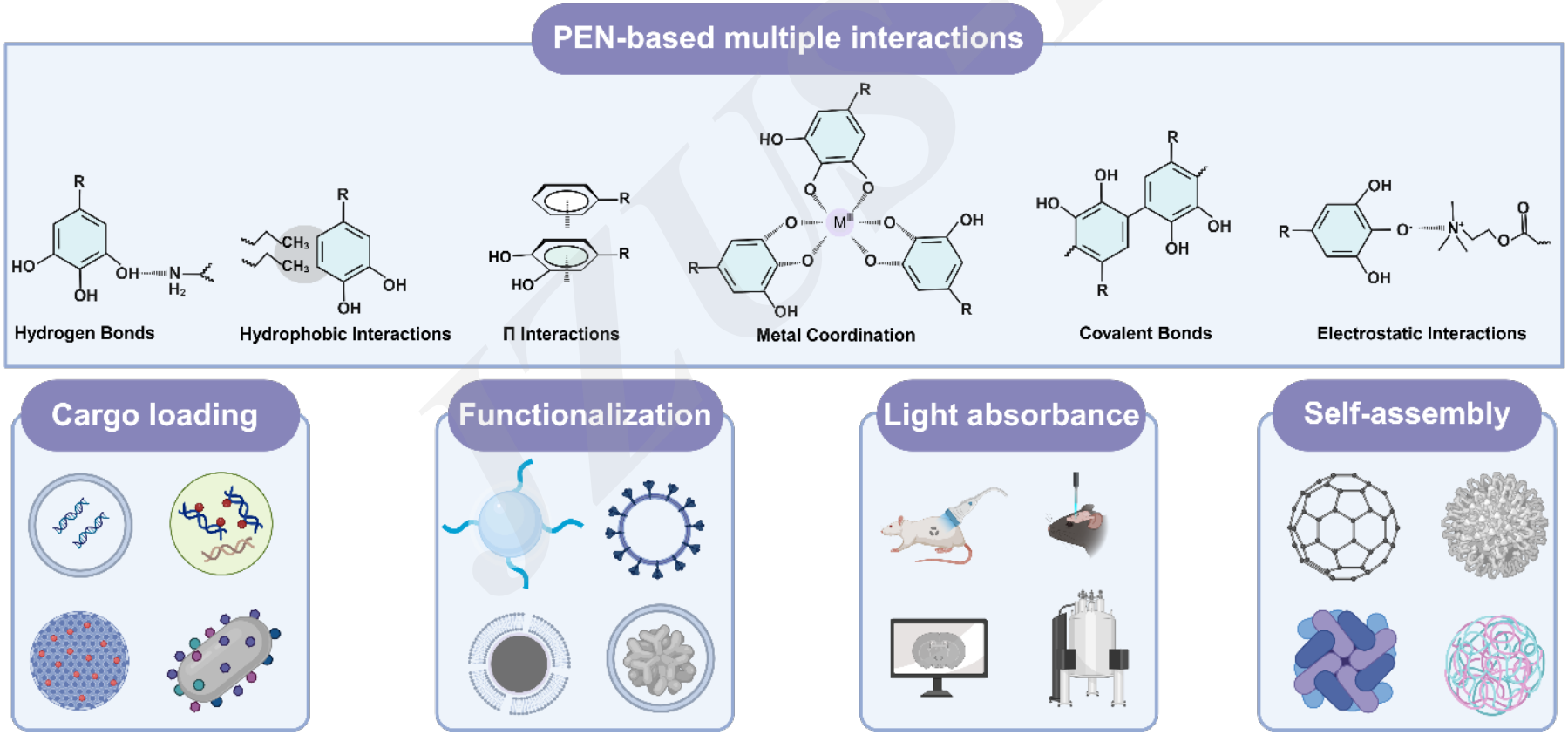
This review is systematically introduce the fundamental physicochemical properties of PEN materials and its applications in the treatment of CNS. It mainly includes the following aspects:

1. **Physicochemical properties of PEN**
2. **Application of polyphenol-based nanomaterials for CNS diseases**



Research Summary

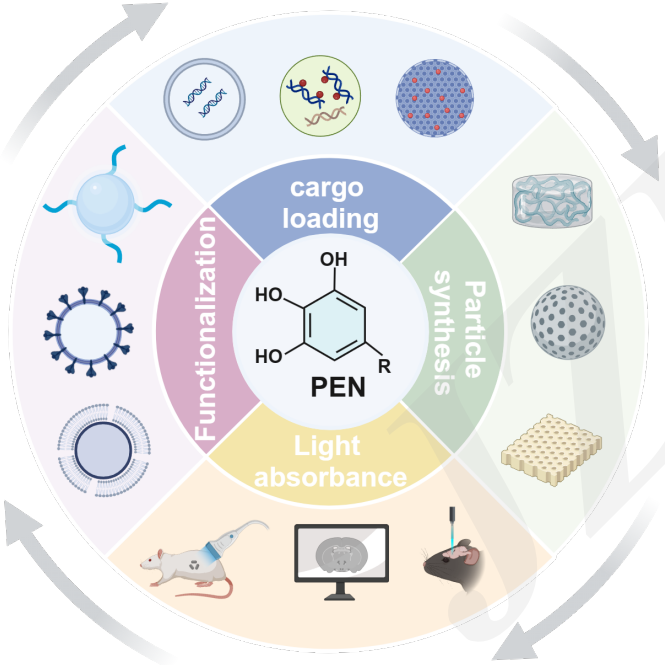
Here we focus on some basic properties of PEN, mainly including cargo loading, functionalizations, light absorbance and self-assembly, and present the therapeutic potential of PEN in CNS diseases.

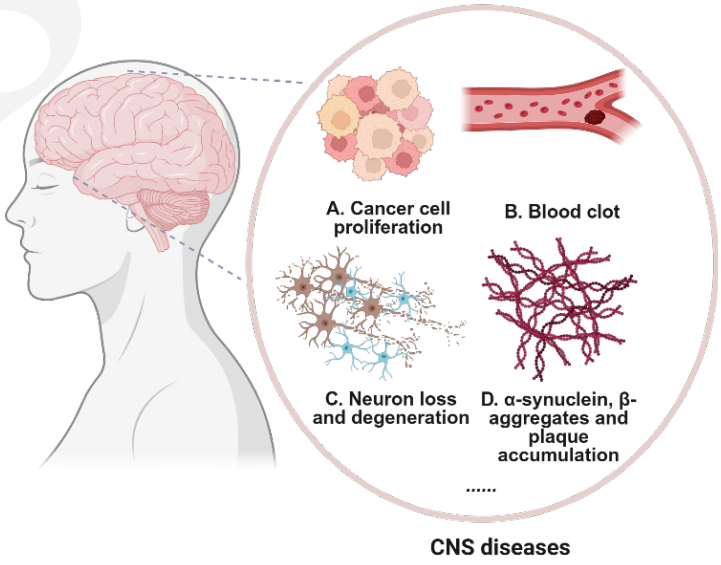


Innovation points

- **Introduction** the fundamental physicochemical properties of PEN materials

- **Summarizes** the role of different PEN materials in the treatment of CNS diseases, and their prospects for development





Innovation points

A series of comprehensive tables or figures were generated to summarize the latest knowledge about CBX proteins.

Figure 1. The development of PEN for CNS diseases applications.

Figure 2. Physicochemical properties of PEN

Figure 3. PEN-based multiple interactions.

Figure 4. PEN-based functionalization and photo-conversion

Figure 5. Application of PEN in the treatment of central nervous system diseases

Figure 6. Application of PEN in the treatment of central nervous system diseases

Tables 1. In vivo application of PEN in CNS diseases.