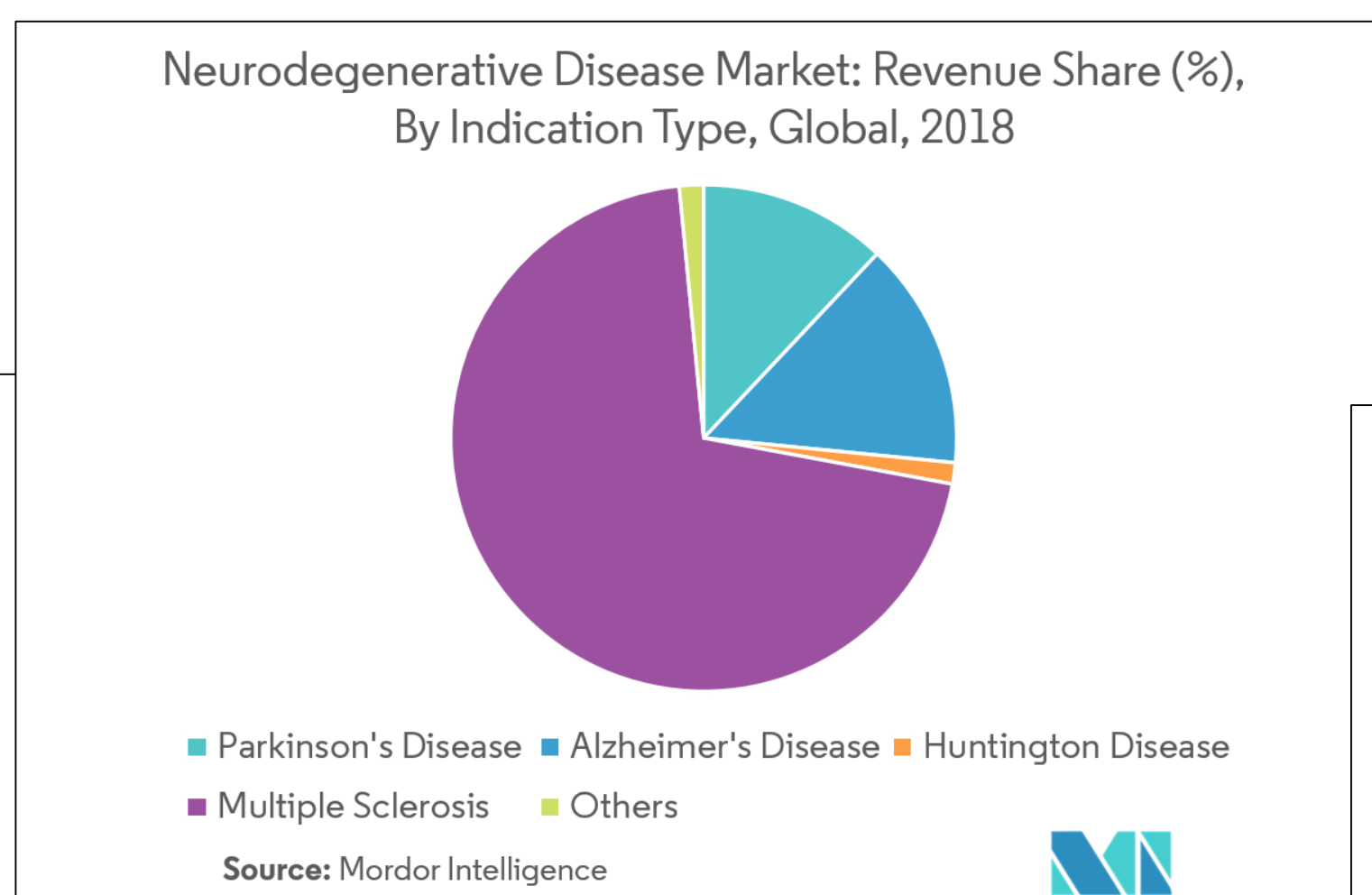
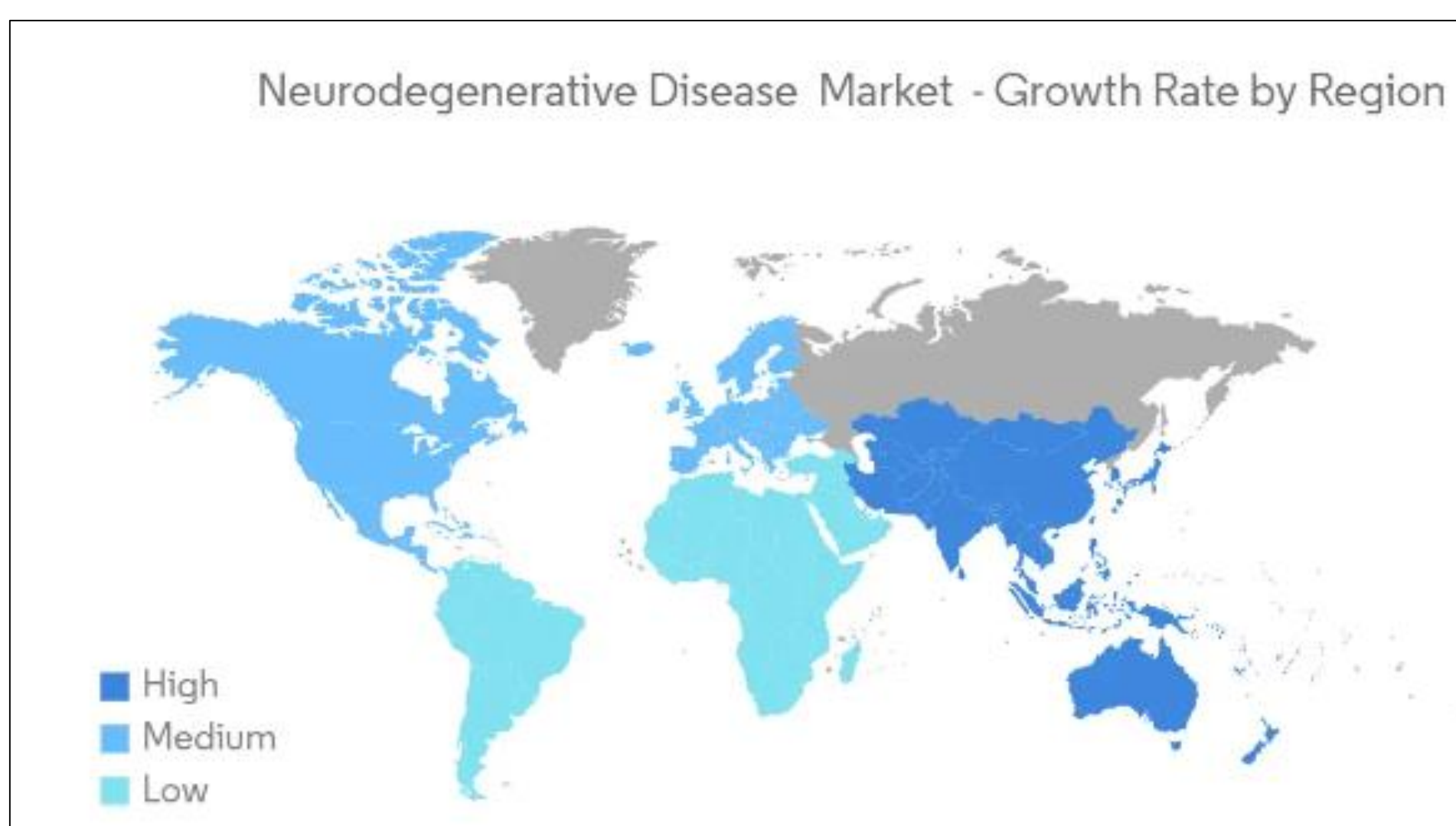


Central nervous system (CNS) disorders are a broad category of medical conditions (more than 600 human disorders) characterized by brain dysfunction limiting normal activities (Parkinson's Disease, Alzheimer's Disease, Multiple Sclerosis, Huntington Disease, and Others....).

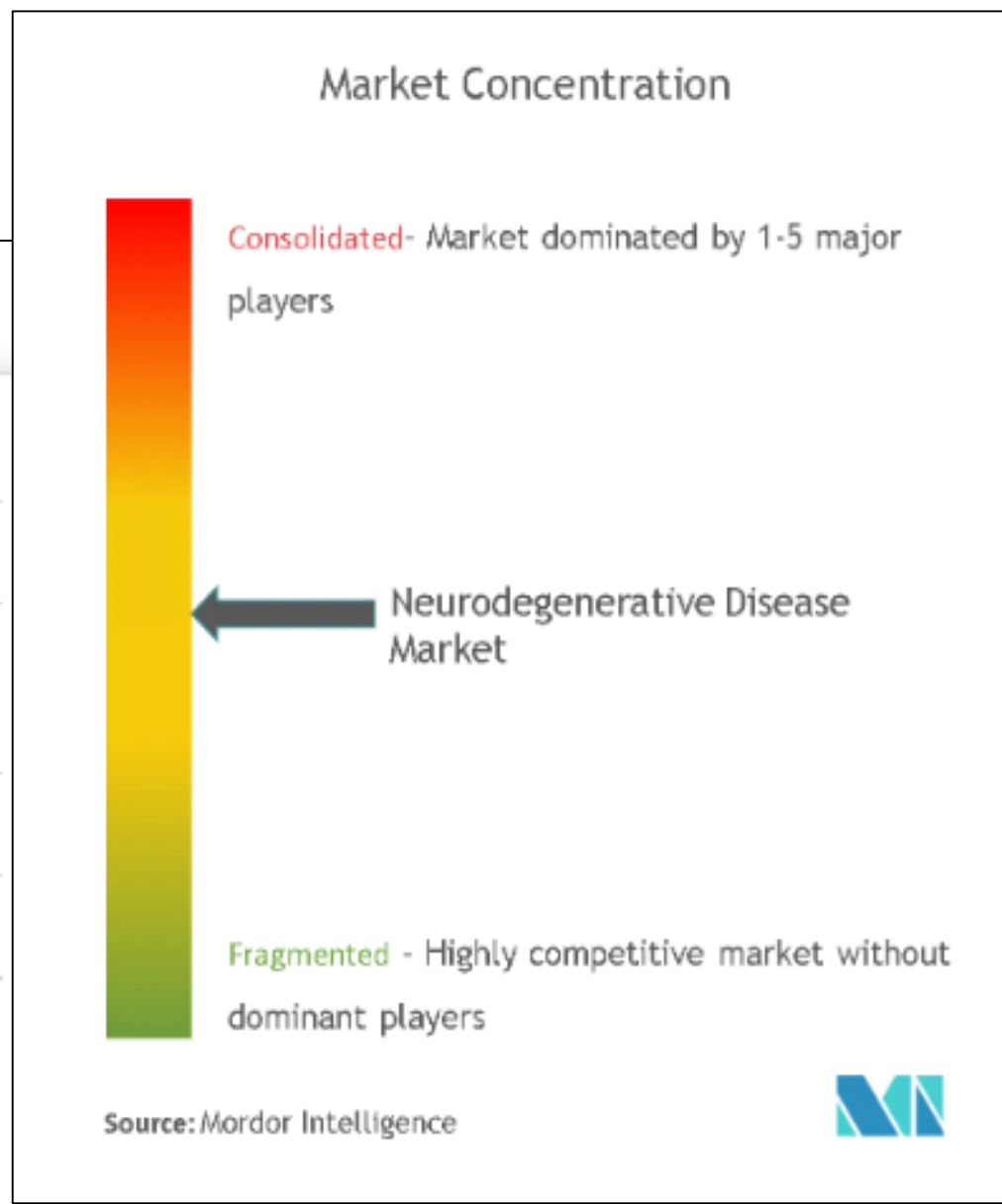
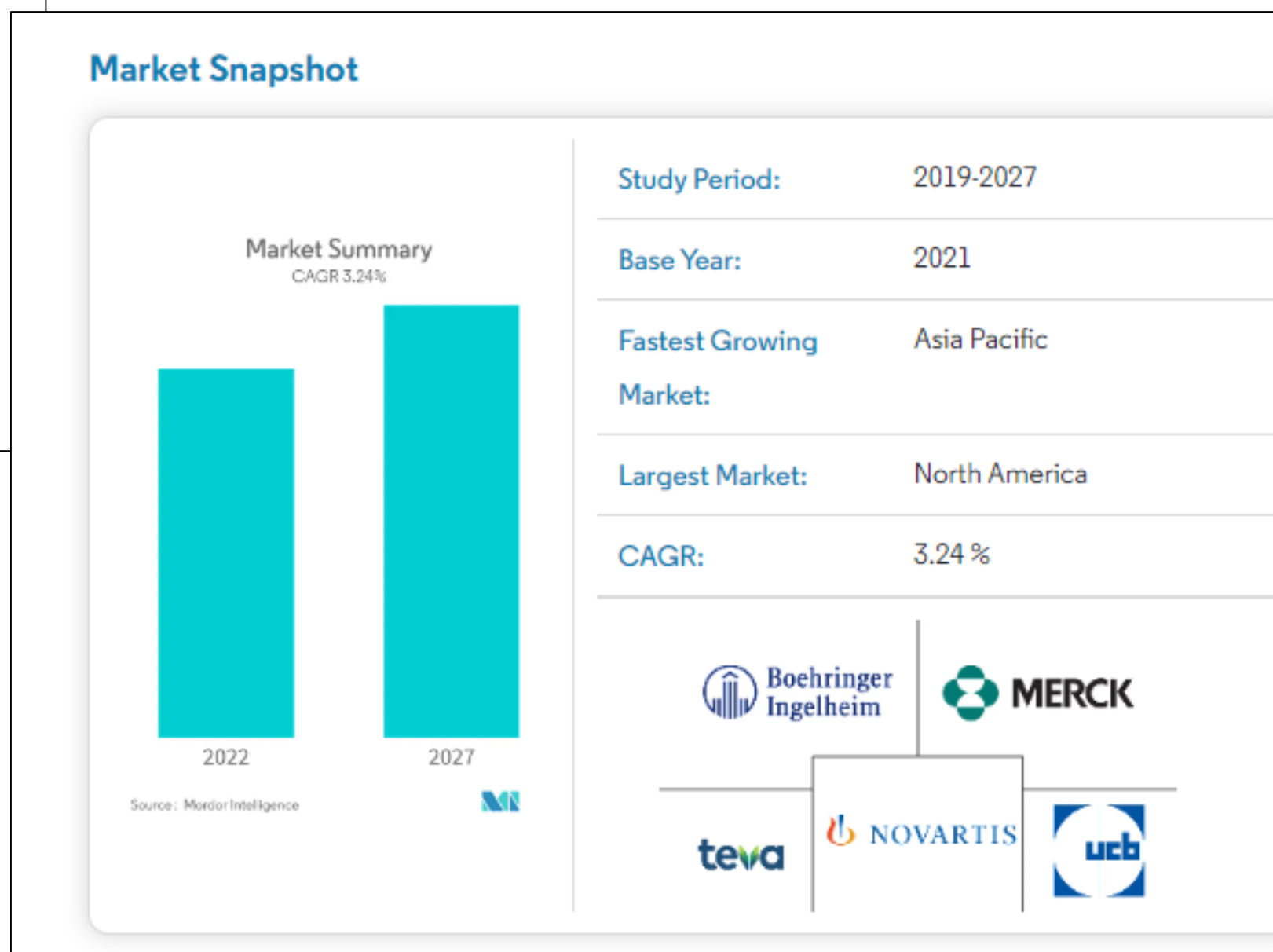
## Neurodegenerative disease market – growth and trends

**Geographic distributions:** North America, Europe, Asia-Pacific, Middle East and Africa, and South America.



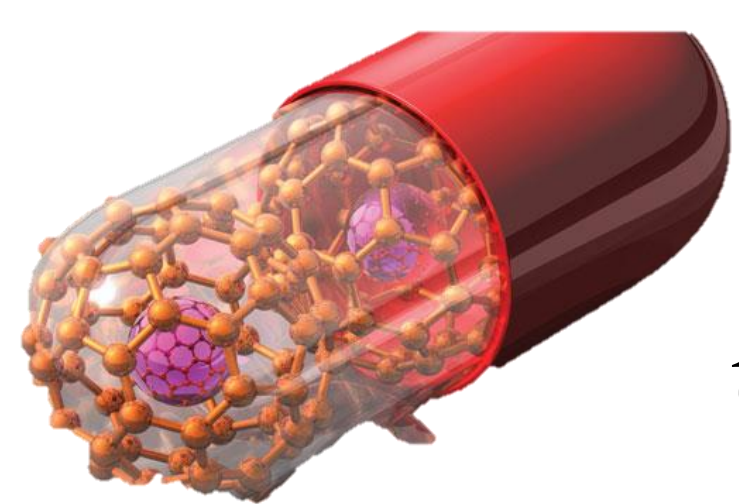
The **market** was evaluated at approximately USD 40,000 million in 2021 and is expected to grow with a CAGR of 3.24% over the forecast period.

**Drug Types:** N-methyl-D-aspartate receptor antagonists, Cholinesterase inhibitors, Dopamine agonists, Immunomodulatory drugs.....



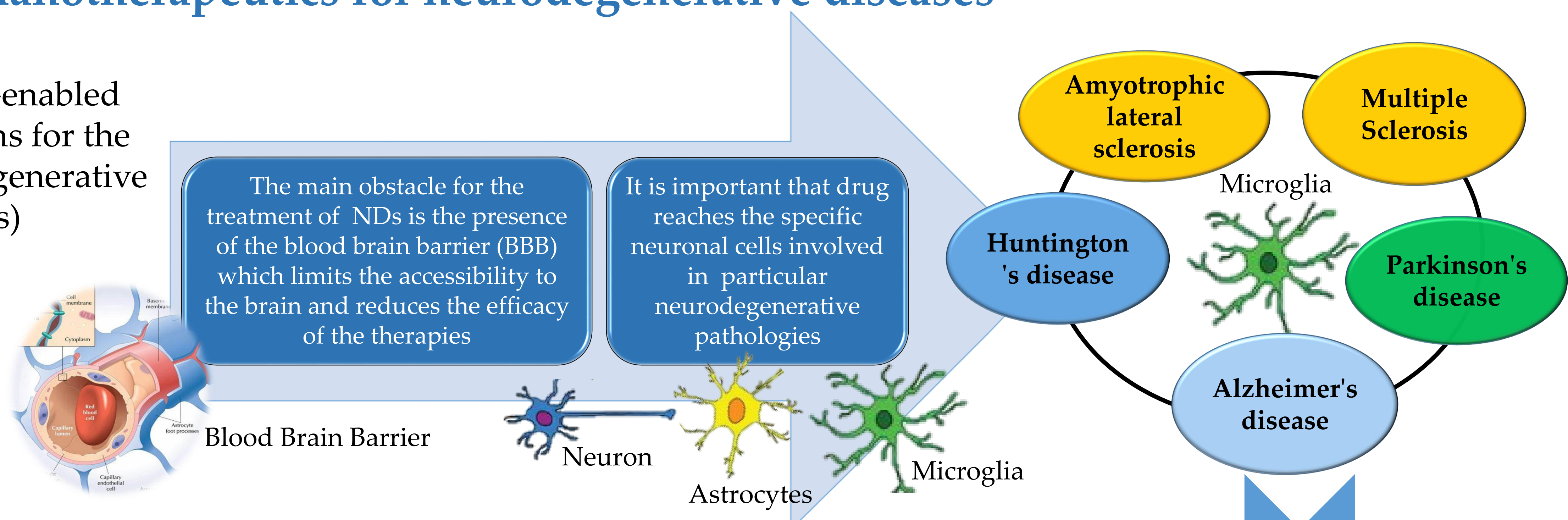
The **market studied is moderately competitive**. Some of the major market players are AbbVie Inc., Amneal Pharmaceuticals Inc., Boehringer Ingelheim International GmbH, F. Hoffmann-La Roche Ltd, Merck & Co. Inc., Pfizer Inc., Teva Pharmaceutical, Novartis AG, and UCB SA.

## Future: Microglia-targeting nanotherapeutics for neurodegenerative diseases

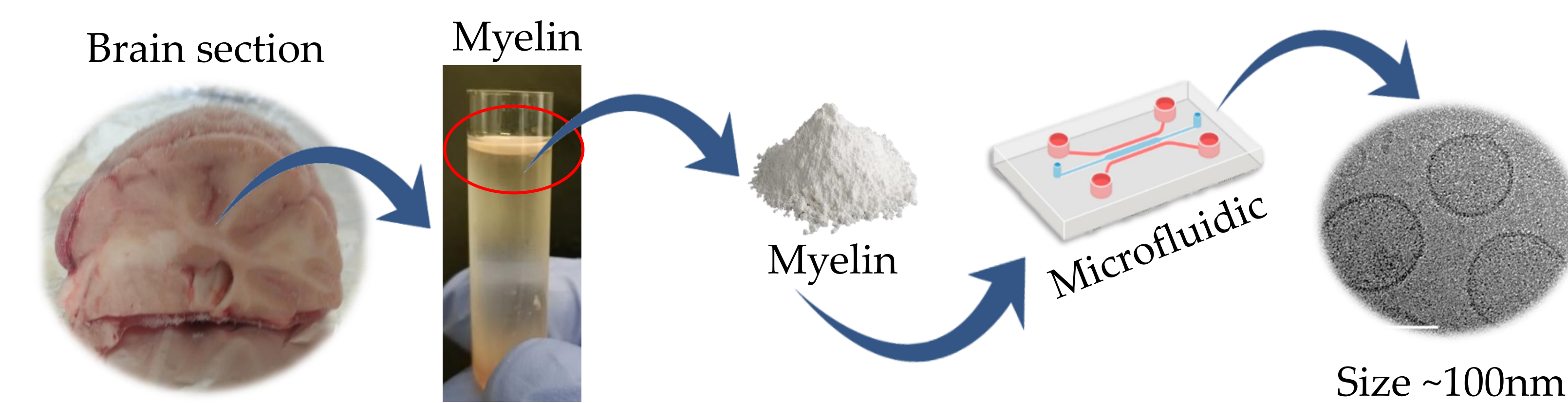


**Future:** use of nano-enabled drug delivery systems for the treatment of neurodegenerative diseases (NDs)

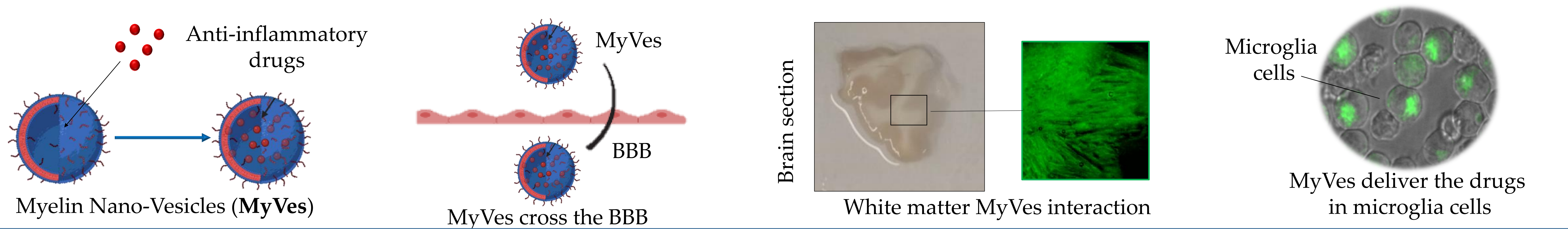
To date there is no innovative nano-technological approach to contrast NDs



## Myelin Nano-Vesicles production and proprieties



**THE QUESTIONS:** How reach the brain and specifically deliver the drug into the microglia cells?  
**THE ANSWER:** Brain extraction of the myelin and bio-fabrication of **Nano-vesicles** to be injected into the body!



Several drug delivery systems are present in the pre-clinical phase, very few in the clinical trials, none used in current therapies. **Differences/advantages:** our system is made up of the same material (myelin) that microglia cells normally recognize and phagocyte, therefore it does not require specific directing agents. Furthermore, the MyVes are cyto-compatible and, being degradable they do not accumulate. **MyVes commercial potentiality:** low production costs, industrial scale production, high economic impact on market.

## Applications:

