



# **What is special about regulating nanomedicines?**

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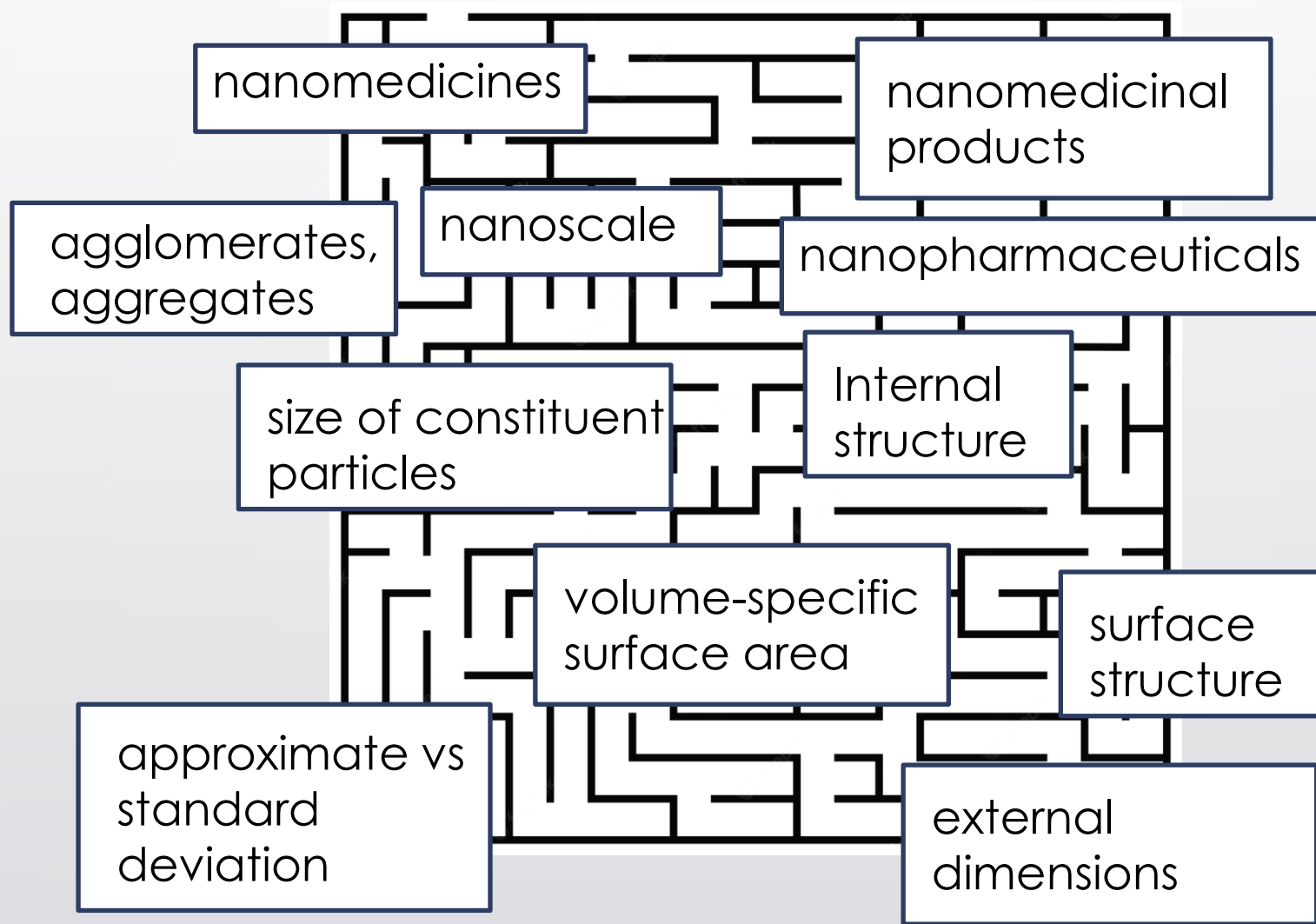
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# Objective

**Navigating through the maze of  
nanomedicines: Avoiding pitfalls**

# A maze of terms



# Meeting patients needs for nanomedicines

- **Transparency**
- **Clarity on safety/risk**
- **Variability between nanosimilars**

- **Information on special characteristics of nanomedicines**
- **Addressing unmet needs**

# Technical challenges

**Robust  
methodology**

**Critical  
product  
attributes**

**Interfaces**

**Stability**

**Beyond  
conventional  
bioequivalence  
testing**

# Strategy

**Corporate  
responsibility**

**Transition from  
research to clinical use**

**Professionalisation:  
resources and support**

**Political and strategic leap forward**

**Role of the Regulator**

# Regulation specific to nanomedicines

- **Impact on relationship between healthcare professionals and patients**
- **Relating towards personalised medicine**
- **Special requirements for pharmacovigilance**
- **Nanomaterials-nanomedicines-medical devices**
- **Consensus living document**

# Key messages

1. A nano-medicinal product is a medicine which **satisfies** quality, safety and efficacy norms and takes into consideration also environmental and accessibility aspects.

2. A **nanosimilar** and its reference originator are expected to have a similar safety and efficacy. Nanosimilars need to be authorised for all or selected indications of the reference medicinal product.



## Key messages

**3. The definition for nano-medicinal products includes a factor of dimension, approximately 1 nanometer -100 nanometers.**

**In order to establish a comprehensive and harmonised regulatory process, the definition must be refined without becoming too exclusive.**

## Key messages

4. Standards of EU Good Manufacturing Process (GMP) must apply to nanomedicines with special reference to the possible effect of the GMP process on **toxicity**.

5. Nanomedicines present an opportunity to make available **innovative** medicines of significant benefits to patients.

## Key messages

6. Attempts should be made to ensure that the process of making nanomedicines produced and/or available in the European market is **competitive**.

Nanomedicines bring to medical sciences new treatment options which should be financially **sustainable** in the EU healthcare systems.

## Key messages

**7. A decision needs to be made whether all nanomedicines should be centrally authorised in the EU in order to gain a marketing authorisation.**

**8. The controversies met with interchangeability, substitution or switching between biosimilars should be avoided through regulation in the case of nanosimilars.**

**Thank You**