

# Pharmaceutical Developments by hot melt extrusion (HME)

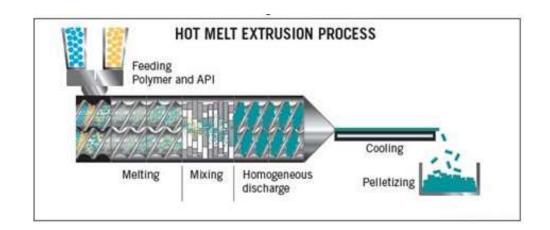
Raquel Llorens-Chiralt Health Group

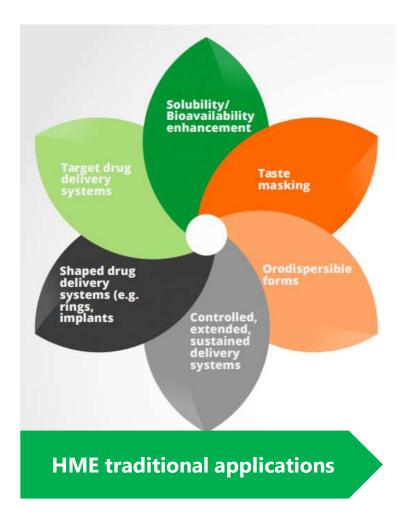
rllorens@aimplas.es · October 2020

#### Hot Melt Extrusion advantages

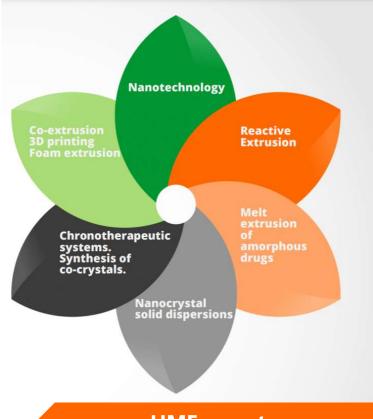
Hot melt extrusion, has several advantages over other established formulation approaches:

- the absence of solvents
- few processing steps
- improved bioavailability as compared to existing dosage forms.
- It is a continuous process





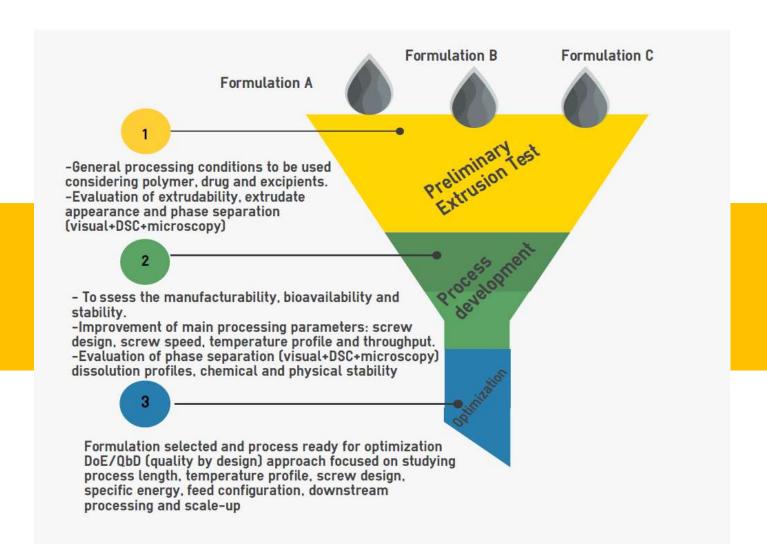
### HME Applications





HME recent applications/innovations





# AIMPLAS working protocol

#### AIMPLAS'developments using HME

#### **Nutraceutical products**



Vitamins/Antioxidants
(Phenolics/flavonoids (e.g. tocopherols and tocotrienols/ Resveratrol and quercetin)



Osteoarticular (minerals combined with vitamins)



#### **3D printing developments**

- Rods for bone regeneration
- Rods with APIs

#### **Pharmaceutical products**



- Painkillers (e.g combination of paracetamol, aspirin or ibuprofen, plus an opioid).
- Pain relief (e.g. Tapentadol, Hydromorphone).
- Insomnia (e.g. zolpidem)
- Antifungal (e.g posaconazole).
- Dyslipidemia (e.g. fenofibrate)
- .....

## How can we work together?

- We maintain confidentiality but to make you feel safe, we sign an NDA.
- 2. Share with us your ideas, we will look for the best solution.
- Once's accepted our proposal we will start the development, keeping you informed in all project phases.
- 4. Analyses with us project results to ensure we have fulfilled all objectives.



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