

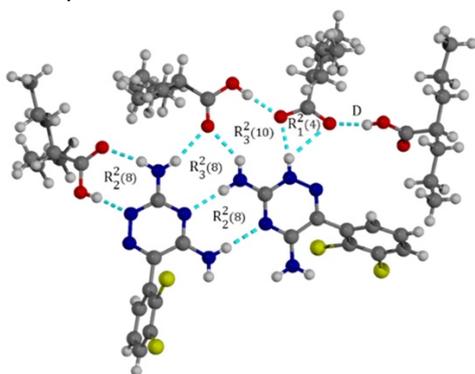


Licensing Opportunity

Crystal Formulations LAMVAL

Overview

- Multidrug formulations, by combining multiple drugs into one formulation can increase compliance and efficacy through the synergistic action of two or more components.
- This is particularly important in treatment of epilepsy where failure to adhere to a dosage regimen which maintains therapeutic levels of antiepileptic drugs could lead to a fatal seizure
- Crystal engineering has enabled the combination of two blockbuster antiepileptic agents, Lamotrigine and Valproic acid in a cocrystal (LAMVAL).
- LAMVAL enables the synergistic release of the antiepileptic agents which should enable pharmacokinetic synergy.
- LAMVAL overcomes the intrinsic mechanical difficulties of Lamotrigine which can be directly compacted to make tablets without the need for additives.
- LAMVAL also presents a new solid form of valproic acid. Valproic acid and its salts are extremely hygroscopic at room temperature.



Technology

In the manufacture of solid dosage forms the mechanical properties of powders determine the ease of manufacture and ultimately the quality of the final product. More often than not, pharmaceutical powders have

undesirable properties. Mechanical properties can be altered by excipients, but they are of limited utility for high-drug load dosage forms; a common problem in the manufacture of multidrug formulations. In this context, solid form optimisation has been demonstrated to overcome the intrinsically poor tableting properties of Lamotrigine enabling tablets of sufficient strength to be formed at low compaction pressures.

The cocrystallization of lamotrigine and valproic acid affords an ionic cocrystal with improved mechanical properties. The multidrug crystal has a stoichiometry that is known to positively impact the pharmacokinetics of the parent compounds. As such, the new form is a suitable neurological treatment.

This technology is subject to a European patent application **PCT application no. PCT/EP2020/059463, Multicomponent Crystal Formulations**

Commercial Opportunity

The University of Limerick is interested in seeking partners to exploit the commercial potential of these technologies by entering into licensing agreements.

Who may be interested in this technology?

Proprietary and generic pharmaceutical companies which manufacture Lamotrigine or Valproic acid.

Contact

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