Improvements in Output Consistency of Thermally-generated Aerosol Delivery System

Description

A company in the UK seeks to identify emerging and alternative applications that improve consistency in the output of the next-generation, thermally generated aerosol delivery system. Such a system has applications in regulated markets such as drug delivery and non-regulated markets such as fragrance delivery. The solution provider should be research group or company that has experience with optimizing manufacturing processes associated with aerosol generation using heat and controlled delivery of the resulting aerosol streams. A spectrum of potential solutions are required to efficiently stabilize active components in the consumable and control unwanted, excess water production as well.

Desired technical features

Potential solutions should improve output consistency and could include:

- Stabilization of the active components as solids or deposited liquids in situ until they are 'triggered' to generate aerosol streams (encapsulation, timed-release, temperature protection, etc.)
- Controlled delivery technologies that ‘store’ and selectively release the aerosol streams generated on demand or over a period of time (excess aerosol created initially should be managed, while enabling quick and consistent doses)
- Innovative small heating technologies that are efficient and ensure aerosol consistency (multiple zone control and heating pulsed heating, moving zone heating, etc.)
- Technologies that control the level of moisture during shelf-life and/or in-use life and prevent formation of unwanted steam or excess water (active packaging, buffer systems for moisture, methods to prevent generation of steam, steam traps, cooling mechanisms, etc.)

Business model

- R&D Collaboration
- Licensing
- IP Acquisition
- Business Collaboration (Joint Venture, Distribution)
- Others