Patent

**Background**

Due to the ever-increasing applications of liposomes in biophysics, physiology and medicine, many techniques have been developed over recent years to manufacture them. All existing methods for the production of these Liposomes have serious drawbacks, namely rate of production, high production costs, low efficiency, low quality and difficult scale-up procedures. Specifically, for human drug delivery, liposomes (in the order of nano/micro size) are of growing interest as carriers of drugs. These liposome carriers can be targeted in various ways to deliver the encapsulated drug to specific sites within the human body.

Today chemotherapy is still the most common form of medication for the treatment of cancer patients. Through the application of liposomal drug delivery, high overall body dosages (which tend to cause severe side effects) are lowered and significantly higher cancer cell drug concentration can be achieved so as to enhance the therapeutic effects.

Through a new and innovative system (high efficiency, selective sizing, batch/continuous methods for commercial production) for the production of the required liposomes, highly effective liposomal drug delivery can be achieved through the coupling with various known targeting methods such as liposome surface coupling with specific proteins.

**Claims**

1. The creation of micro / nano sized particles through the accumulation of numerous smaller particles or molecules.
2. Through the action of turbulence, particles described in claim 1. form through the sticking together (accumulation) of numerous single smaller particles or molecules which are present in a fluid carrier.
3. Dependant on the specifics of the fluid mixture (of which particles may be biomolecule, ferromagnetic, ions or other particles) various physical methods are employed so as to create a turbulence (such as acoustic, mechanical, optical, electromagnetic or electric field)
4. Specifically, for a biomolecule in liquid suspension, an acoustic method for creating the turbulence in the form of numerous small vortex’s is applied.
5. NOW Mioddrag to expand to 5, 6. 7. etc (MMM, mechanical design, size, wave package etc) just ideas then we create