

Novel systems for the preparation of oral dosage forms for poorly water soluble curcuminoids co-formulated with water soluble peptides and proteins

Gregory Russell-Jones

Mentor Pharmaceutical Consulting, Australia

The oral delivery of many drugs is often restricted due to poor water solubility and a slow rate of dissolution in the intestine. Whilst this problem can be partially over-come by milling the drug to a very small diameter, thus increasing the surface area for dissolution, other factors such as particle agglomeration, the unstirred boundary layer effect, slow rates of diffusion, and the need for special milling machinery can all lead to poor oral availability of the drug. We have for some time now been examining new methods for dissolution of poorly soluble curcuminoids, which normally require DMSO, acetone or ethanol as a solvent. Our studies have lead to the identification of a novel formulation that can co-deliver curcuminoids, various oil soluble actives and aqueous solutions of peptides and proteins. These formulations have potential application in the treatment of inflammatory conditions such as multiple sclerosis, Crohn's disease, Parkinson's disease, and rheumatoid arthritis.. These types of formulations are currently under development at Transgene Biotek Ltd, Hyderabad, for a range of applications.

Biography

Dr Russell-Jones completed his Ph.D at the University of Adelaide and postdoctoral studies at the Rockefeller University NY. He has published more than 50 papers in reputed journals, has presented at over 40 international meetings, and has over 50 filed provisional patents, the majority of which have proceeded to grant. Dr Russell-Jones is a preeminent scientist in the fields of oral and transdermal delivery of peptides and proteins. In addition he has worked extensively on the development of vitamin mediated targeting systems for the detection and treatment of tumours. He is the co-inventor on several ongoing projects in collaboration with Transgene Biotek Ltd.

grj@mentorconsulting.net