

Singapore firm progresses on urinary tract infections drug

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Singapore: Singapore's biopharmaceutical company, MerLion Pharmaceuticals, has received positive results from a phase 2 trial with finafloxacin, conducted in Europe, for complicated urinary tract infections (cUTI), including a high proportion with pyelonephritis.

Finafloxacin is a fluoroquinolone antibiotic that demonstrates a substantially improved therapeutic profile over the existing gold standard and greater utility in treating many severe infections, including those caused by a number of resistant Gram-negative pathogens. This superior profile is a result of finafloxacin's unique chemical structure: in the hostile acidic conditions found at the sites of nearly all infections there is a substantially higher take-up and accumulation of finafloxacin in bacterial cells, as well as superior binding of the molecule to the two fluoroquinolone targets. Most other antibiotics, including other fluoroquinolones, have decreased activity in these acidic conditions where their effectiveness is most needed.

MerLion has developed IV and oral formulations of finafloxacin with equivalent bioavailability, offering physicians the choice of initially treating infections in hospital or at out-patient infusion centres for one to three days with the IV regimen, then allowing patients to complete their treatment at home; reducing the risk of complications and/or secondary infections.

Mr David Dally, CEO, MerLion, commented, "The data from this trial support the clear differentiation of finafloxacin from existing fluoroquinolones and from other antibiotics (including those in development): The safety and tolerability profile allows high once-daily dosing that, when added to the drug's excellent PK profile and bioavailability, results in finafloxacin's very rapid and sustained bactericidal effects, as well as having a low propensity for development of resistance. These results are in line with those found by our major industry partner, which has successfully developed a topical formulation of finafloxacin for treating ear infections."