

Prevention of Fungal Infections of the Hair or Scalp

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The Innovation: A new method of preventing *tinea capitis* has been developed at Children's Mercy Hospital in Kansas City. The invention provides for topical formulation(s) that are applied to the scalp and hair through serums, ointments, shampoos, sprays, or the like to prevent new or recurring infections. The invention also provides for products that can be used to decontaminate objects or surfaces at home or at school to help prevent the spread or re-occurrence of infections.

Background:

Tinea capitis, a fungal infection of the scalp, has become widely integrated into metropolitan communities. Several large-scale studies of over 10,000 children at Children's Mercy demonstrate infection rates as high as 30%. Symptoms generally present as single or multiple patches of hair loss accompanied by inflammation, scaling, pustules and itching. Current oral treatments have challenges such as compliance issues, liver toxicity and/or interactions with other drugs. Importantly long-term follow-up of the children in our studies demonstrate that efficacy rates for existing oral antifungals is unacceptably low.

Applications:

- In communities where *tinea capitis* is known to occur, prophylactic treatment can prevent or decrease the severity of the infection.
- Products for topical applications for prevention of new or recurring *tinea capitis* infections.
- Products for topical treatment of existing *tinea capitis* infections.
- Products to be applied to fomites such as bed sheets, hair-brushes, stuffed toys, or in the classroom, that carry the fungus and provide a means of re-infection.

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Licensing: Children's Mercy, Kansas City seeks to have discussions with companies that are interested in licensing and/or research collaborations.



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