

New approach to treating cystic fibrosis lung infection shows promise

September 22 2008

Researchers at the University of Calgary have found a new method of fighting severe lung infections in people with cystic fibrosis (CF). These findings are published in *Proceedings of the National Academy of Science USA*, this week.

Communities of bacteria grow in the lungs of people with CF. *Pseudomonas aeruginosa* is a common bacterium found in these communities and is often associated with severe lung infections. *Pseudomonas* represents a constant and ever present threat to the health of people with CF.

Dr. Michael Surette, Professor of Medicine at the University of Calgary, and his team, working with Dr. Harvey Rabin and the Calgary Adult CF Clinic have found that a group of previously overlooked and often undetected bacteria in these communities, the *Streptococcus milleri* group (SMG), compounds the danger of *Pseudomonas aeruginosa*.

Currently, doctors have treated *Pseudomonas* with antibiotics, however, the *Pseudomonas* family of bacteria is increasingly becoming resistant to treatment. Dr. Surette's research shows clinical benefit simply by treating SMG, and thereby disrupting the bacterial community.

Doctors at the Calgary Adult CF Clinic (Foothills Hospital) have already tested this new approach successfully, with patients admitted to hospital with severe lung infections. People treated with SMG-targeted therapies quickly returned to a stable state.

"This is important new information," said Dr. Michael Surette. "In our small patient group, the laboratory findings have been used to guide treatment, with positive results."

The research project, funded by the Canadian Cystic Fibrosis Foundation, has led to a real alternative to combating severe lung infections in persons with CF. Early study results show that it may also be a treatment option for individuals with chronic lung infections unrelated to CF.

"These findings underline the importance of supporting CF research," said Cathleen Morrison, Chief Executive Officer of the Canadian Cystic Fibrosis Foundation. "In this case, laboratory research has been translated rapidly into actual treatment, helping people with cystic fibrosis fight back against aggressive infections."

Source: Canadian Cystic Fibrosis Foundation

Citation: New approach to treating cystic fibrosis lung infection shows promise (2008, September 22) retrieved 6 May 2024 from <https://medicalxpress.com/news/2008-09-approach-cystic-fibrosis-lung-infection.html>

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