

ToxElegans

Indoor air diagnostics with fluorescent *C. elegans* nematodes

Indoor air problems are far too common in schools and other public buildings, increasing the risks for respiratory and other diseases. However, there are currently no well-accepted methods to evaluate health hazards associated with bad indoor air quality. We have transgenic *C. elegans* strains, which produce green fluorescence upon exposure to stressful conditions. Our data suggest that they can be utilized to biomonitor sublethal effects of environmental agents, including also indoor air chemicals and microbial toxins. Therefore, our aim is to develop an easy, efficient and reliable *C. elegans*-based diagnostic test, with which we could distinguish between healthy and harmful buildings also under field conditions. With the unbiased information to be obtained, we wish to be able to minimize human exposure to hazardous indoor air agents.

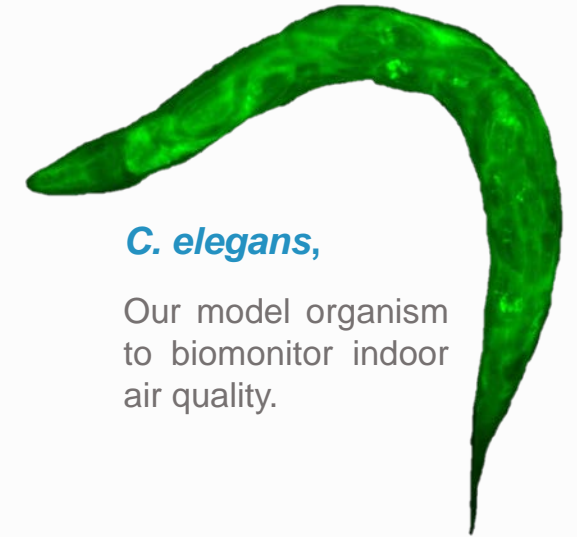
SPARK VALUE: We expect that the expertise, encouragement and inspiration provided by SPARK training, mentoring and networking will help us to find the most suitable practical and financial solutions to foster and facilitate the development of our ideas towards a commercially competitive diagnostic application.



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The Koskinen group has expertise in Cancer Biology and Environmental Toxicology, and collaborates with indoor air experts from the fields of Aerobiology, Occupational Health and Civil Engineering.



***C. elegans*,**

Our model organism to biomonitor indoor air quality.