

Natural asthma treatment project wins SciFest 2016!

~ **The project could change the way asthma is treated in Ireland** ~

~ **Caolann will represent Ireland in Los Angeles, California at the Intel International Science and Engineering Fair 2017** ~

Friday 11th November – Caolann Brady, a sixth year student from St. Wolstan's Community School, Celbridge, Kildare was this afternoon named the overall winner of SciFest 2016, for her project '**Hum your way to better health**' – a project which focussed on the natural treatment of asthma through humming and breathing techniques as opposed to using inhalers and nebulisers. She is the first female student to take the overall prize at the SciFest national final. Of the 58 students who exhibited their 31 Science, Technology, Engineering and Maths (STEM) projects at the national final 65% (35) were female. SciFest is an all-island STEM initiative which fosters active, collaborative and inquiry-based learning among second level students. This year saw a record number of over 8,000 students exhibiting their projects in local and regional science fairs across the country.

Caolann was born with asthma and has suffered many asthma attacks which were treated by nebulisers. This sparked her interest in the area and led to her award winning project 'Hum your way to better health'. Research has shown that the ventilation of the paranasal sinuses (inhaling and exhaling) increases greatly when a person practiced specifically defined humming techniques. Caolann set about exploring whether this was true or not. Conducting experiments with 175 participants, she asked them to hum into a paper bag at a precise pitch for a specified length of time, 45 seconds, which yielded significant post, peak expiratory flow readings. Test result analysis from this project has shown that the prescribed humming technique improves lung function across the range of ages, genders and breathing capabilities by an average of 10% with 99.9% statistical confidence. This positive impact on the respiratory system also lasts on average for 45 minute duration.

Humming combined with nasal breathing improves the general lung function of sufferers and non-sufferers alike, providing an alternative solution to commercial, pharma-intervention treatments for breathing disorders

Ruth Freeman, Director of Strategy and Communications at Science Foundation Ireland, presented Caolann Brady with her prize – the SciFest 2016 Science Foundation Ireland Grand Award. The final was also attended by Richard Bruton T.D., Minister for Education and Skills.

The prize includes the opportunity to represent Ireland at the Intel International Science and Engineering Fair (ISEF) 2017 in Los Angeles, California.

SciFest is funded primarily by Science Foundation Ireland, Intel Ireland and Boston Scientific.

Sheila Porter, SciFest CEO, said: *"The standard at SciFest is always extremely high and this year is no exception. All the students put in such a phenomenal amount of work and it is very difficult to pick a winner. The range of projects, and the creativity and innovation on display this year is really heartening and demonstrates that the students of today will be tomorrow's leaders in the area of STEM. The aim of SciFest is to foster and develop a love of STEM, and to imbue every student with the skills of self-directed learning. In that regard, this year has been a huge success. I look forward to seeing the winning project go forward to Intel ISEF 2017, where I am sure it will do very well."*

Congratulating the students on their achievements Richard Bruton T.D., Minister for Education and Skills said: *"My department is committed to increasing the take-up of gateway subjects to STEM in schools and to encourage a passion for STEM among students. This is one of the aims the Government has in its Action Plan for Education. Events like SciFest are invaluable in this regard as they give all students an independent love of STEM, outside the classroom. I had the opportunity to view the projects on display today and all the young scientists here today are a credit to their families and supporters. The future of STEM in Ireland is clearly very bright. The standard was incredibly high and I wish hearty congratulations to the winning entry on the success achieved."*

Ruth Freeman, Director of Strategy and Communications at Science Foundation Ireland said: *"SciFest is a marvellous event for promoting STEM among students in an inclusive and rigorous way. It is inspiring to see all the work on display today. I wish to congratulate all the students as well as their families and friends. Ireland is a global leader in many aspects of STEM and if we wish to build on this success in the future, we must encourage a love of STEM among our young people. Thankfully, with initiatives such as SciFest, the future is bright for Irish STEM and I am sure that some of the students here today will be the leading scientists, technology experts, engineers, and mathematicians of the future."*

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For further information

Luke McDonnell / Michael Ward

Drury|Porter Novelli

01 2605000/ 085 7127243 (LMD)/ 087 2130445 (MW)

luke.mcdonnell@drurypn.ie / michael.ward@drurypn.ie