



FOR RELEASE

***London's A.B. Lucas student Dan Alferov garners major awards at Science Fair;
Named Manning Young Canadian Innovator for research on emotional disorders***

FREDERICTON, NB (May 15, 2015) – Dan Alferov, 17, a Grade 12 student at London's A.B. Lucas Secondary School is all about faces. He's been studying facial expressions for several years, as part of the Canadian and international network of Science Fairs, and today was named a Manning Young Canadian Innovator by the Ernest C. Manning Awards Foundation for his work to better understand how facial emotions can help diagnose mood disorders, especially in young people.

Alferov received the honour this week at the 54th Canada Wide Science Fair (CWSF) held at the University of New Brunswick campus. He was one of the 468 competitors at this year's event, representing the top one percent of science fair projects conducted across Canada this year. As a Manning Young Canadian Innovator, he receives a cash award of \$7,500, an October trip to Saskatoon for the Foundation's National Awards Gala, and membership in a network of nationally recognized innovators.

He also received the CWSF Challenge award for the Discovery category.

Judges considered Alferov's project "*Using the Perception of Facial Emotions To Aid in Diagnosis of Mood Disorders*" a novel approach for the better definition and diagnosis of emotional disorders.

"I have been doing research as a volunteer at the Brain and Mind Institute at Western University for four years. I've always been interested in cognitive psychology and the opportunity to do high level research so early in my career has been amazing! This year my project was inspired by the anxiety and minor depression faced by my peers in a challenging final year. Doing research on the diagnosis of mental illness opened my eyes to the challenges faced by clinicians. As a result, I was inspired to use my knowledge of visual perception to try to create a supplementary test which could help to confirm a diagnosis. In the future, I would like to continue testing patients with a variety of mood disorders, in an attempt to investigate disorder specific results," said Alferov.

“My advice to anyone pursuing science fair would be to follow your passion. To me science fair is much more than a competition. It represents my curiosity, fuels my passion and sustains my drive,” he added. The graduating student will be heading off to the University of Toronto this Fall.

“Mental illness affects 1.8 billion people globally, and mood disorders are the hardest to diagnose and most frequently misdiagnosed,” explained Alferov. “Currently, standard clinical practices, such as written tests used to diagnose mood disorders such as Autism Spectrum Disorder (ASD), Bipolar Disorder, Obsessive Compulsive Disorder (OCD) and schizophrenia are time consuming, subjective and sometimes inconclusive.” His goal was to create an objective and efficient diagnostic method for mood disorders based around disorder-specific facial emotion perception deficits.

He said a universal trend in the perception of facial emotions within binocular rivalry for healthy participants was discovered, which can aid in differential diagnosis. This differential diagnosis plays on the fact that many individuals with mood disorders are unable to perceive or are late to perceive certain emotions. He explained that individuals suffering from certain mood disorders could be able to be diagnosed based on which emotion is not well perceived compared to the base line of healthy individuals through his binocular rivalry test, “For instance, an ASD specific ranking would show suppression of fearful faces due to impairments of early and late processing of fearful expressions”.

Frontiers in Psychology recently published some of his research work, co-authored with colleagues at the Brain and Mind Institute, and he was recognized last year with the International Honor Society in Psychology award at the 2014 Intel International Science and Engineering Fair held in Los Angeles. He also had attended the same international science fair in 2013.

“The caliber and ingenuity of Alferov’s project is proof that age is no barrier to innovation,” said Jennifer Diakiw, president, Ernest C. Manning Awards Foundation. “For the past 23 years, the Foundation has been celebrating outstanding young Canadians competing at the Canada Wide Science Fair. The 2015 winners are passionate and creative visionaries and we and our sponsors believe supporting them is critical to creating a culture of Canadian innovation.”

The Ernest C. Manning Awards Foundation introduced its Young Canadian Program in 1992 to recognize outstanding high-school students at the Canada-Wide Science Fair. Each year, the Manning judging team selects eight winning projects, to receive a \$500 Manning Innovation Achievement Award. From the eight, four are honoured with the Manning Young Canadian Innovation Award, which includes a further \$7,000 prize. More information about the Manning Awards is available at www.manningawards.ca, Twitter @ManningAwardsCA Facebook/ManningAwards.

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