## Strong Roots, Bright Futures: The promise of education and early human development

An interview with Fraser Mustard

Dr. Fraser Mustard was inducted into the Canadian Medical

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brought here to live in the office in Toronto, quite early in life, just after he was weaned. Now the interesting thing is that for three whole weeks this cat couldn't associate with human beings easily. But the ladies here gave him lots of tender loving care, and at this point he is totally addicted to us. But – he's still frightened. If a strange noise occurs, he'll go and hide. He still carries the trauma of his kittenhood. Now, if we hadn't given him the care we did, as early as we did, we would never have been able to help him.

So you are suggesting that something as simple as nurturing sets our trajectory for life.

Yes. Sounds, touch, vision, smell, food – these experiences stimulate the neurons in the brain through sensing pathways and de 5.88ing as simpls2lh1o.c 54rons iv

So children who arrive in the school system at the age of four have already, essentially, pre-determined capacities for learning, as well as for behavior and health.

Exactly. And in that way – and teachers will intuitively know what I'm talking about – education ach2

reports we said that we should set up early childhood and parenting centres. We wanted to allow women who are pregnant to join this network of mothers and others, and continue all the way to the end of school. And we didn't want to fragment that. It needs to be meshed together in a cohesive way.

Of course Ontario is moving in this direction, with the introduction of full-day kindergarten and the proposed *Best Start Child and Family Centres*. Are there precedents for this that can help us predict how these types of programs can change the life trajectories of young children and students? There are many. But the experience of Cuba is perhaps the most instructive. Two studies done by UNESCO demonstrated that, in terms of Grade 3 language scores, Cuba is outperforming not only other Latin American countries but also other developing countries. And the same holds true for numeracy.

What's interesting is that we can plot with some certainty how this came to be. First there was recognition of the importance of health. Medical schools were built, people were trained. And community polyclinics were created to work with women in pregnancy, and with mothers of young children. These clinics provided developmental health, nutritional support, and childcare stimulation. In fact, their care included frequent home visits. So this was a very integrated structure for health and early development. They created family practice doctors who were part of the polyclinics who would work with mothers in terms of healthy development of the child, rather than "what's your problem, here's the treatment".

Now, we were interested in the Grade 3 results, and looking at what was happening back when those children were born. So we wrestled with this, and what we learned made us more confident about



