Type: Invited Presentation

Final Abstract Number: 23.004
Session: Intestinal Microbiota in Health and Disease
Date: Friday, March 4, 2016
Time: 15:45-17:45
Room: Hall 1

Beneficial modulation of the gut microbiota

P. Cotter

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Abstract: As the scientific community continues to develop an ever-greater understanding of the composition and function of the human gut microbiota, and the role of specific microbial populations in health and disease, attention has turned to the tools that are at our disposal with respect to altering these microbes in a beneficial way. The options available include the use of diet, probiotics/prebiotics, antimicrobials and, potentially, exercise. Here, our recent investigations of the relationship between protein, bacteriocin producing probiotics and exercise and the gut microbiota and, in turn, health will be described.

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Type: Invited Presentation

Final Abstract Number: 24.001
Session: Pediatric Diarrhea in Low Income Countries: Rotavirus and Beyond
Date: Friday, March 4, 2016
Time: 15:45-17:45
Room: Hall 2

Rotavirus vaccines - A promise kept

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Abstract: Vaccines are now available to combat rotavirus, the most common cause of severe, dehydrating diarrhea among children worldwide. As of January 2016, 80 countries have introduced rotavirus vaccines into their routine immunization programs. High and middle income countries were the early introducers of rotavirus vaccines and in these countries, vaccines have reduced all-cause diarrhea and rotavirus hospitalizations by 17%-55% and 49-92%, respectively, and all-cause diarrhea deaths by 22%-50% in some settings. Additionally, indirect protection of children age-ineligible for rotavirus vaccine has also been observed in some high and middle-income countries. Rotavirus vaccine introductions in low income countries have been increasing in recent years and early data from these settings are promising. Vaccine effectiveness is comparable to the efficacy observed in clinical trials and the impact in high disease burden settings has been dramatic. As rotavirus vaccines continue to rollout in low income countries, the full range of health benefits in these settings can be documented.

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Room: Hall 2

Norovirus infection and vaccine development: Where are we?

M. O'Ryan

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Abstract: Noroviruses are currently recognized as the leading cause of acute gastroenteritis outbreaks associated with contaminated food and/or water consumption in industrialized countries and second to rotavirus as cause of childhood gastroenteritis. Individuals are infected many times throughout their lifetime, most of which are asymptomatic infections with fewer episodes of moderate to severely symptomatic infections which are particularly significant in young children living in resource-deprived countries. Symptomatic norovirus infections are in general less severe than rotavirus infections in children which do not preclude that severe norovirus infections characterized by intense vomiting, watery diarrhea and fever leading to shock and death occur worldwide. Near 200.000 norovirus-associated deaths are estimated to occur every year in children. Norovirus of the genogroup GII.4 have largely predominated throughout the past years and prevention may be possible through vaccination using virus-like particles. A Phase I challenge study using an intramuscular bivalent GI.1/GII.4 vaccine in adults demonstrated significant protection and Phase II trials in children are planned for 2017.

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Room: Hall 2

The outcomes of cryptosporidial infections in Indian children

G. Kang

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Abstract: *Cryptosporidium* is an apicomplexan protozoan parasite that has gained attention in the past two decades as a clinically important human pathogen. The recent Global Enteric Multicenter Study (GEMS) reported *Cryptosporidium* spp. as one of the four top pathogens causing moderate to severe diarrhoea in children. In India alone, we estimated cryptosporidiosis to cause 3.9 to 7.1 million diarrhoeal episodes, 66.4 to 249 thousand hospitalizations and 5.8 to 14.6 thousand deaths in children under the age of two years. A large proportion of children, especially those living in resource-limited settings, are asymptomatically infected.