



## Microbes???... Ewww!!

### The Not-So-Often Told Story of Microbes

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**ABSTRACT:** Cholera, pneumonia, rheumatic heart disease, tuberculosis, amoebiasis, dengue haemorrhagic fever, chicken pox, AIDS, measles, polio, rabies... and so on *ad infinitum*. No wonder microorganisms a.k.a. microbes are a notorious lot, and rightfully so! On the other hand, little is often told about the other side of microbes, they who are also our partners in health and sickness. Consider the trillions of microbes that normally reside in and on our body, our microbiome. Upset the natural balance and we are rendered more susceptible not only to virulent or disease-causing pathogens, but also to opportunistic microbes. This, unfortunately, is commonly due to our own undoing. Consider too the various “friendly” microbes, the probiotics that we find in naturally-fermented foods, or incorporated into consumer products. The 2001 WHO definition of probiotics reads “live microorganisms which, when administered in adequate amounts, confer a health benefit on the host”. These “wonder bugs” have been scientifically proven to have antimicrobial activities, anti-inflammatory activities, and cytotoxicity to cancer cells among others. It should also be mentioned that microbial products are widely used to manage infectious and non-infectious diseases... antibiotics, blood clot-busting enzymes, cholesterol-lowering drugs etc. Perhaps it is high time then, that we take a second look at how we regard the microbes, which are more often our allies, and not foes. Shall we?

#### About the Fellow:



Dr. Esperanza C. Cabrera is a Full Professor 10 and University Fellow of De La Salle University. She earned her BS Medical Technology degree from the University of Santo Tomas, *summa cum laude*, MSPH in Medical Microbiology from the University of the Philippines-College of Public Health, and PhD in Biological Sciences from the University of Santo Tomas. Her research interests are in the area of medical microbiology, notably on the virulence and transferable multiple drug resistance of healthcare-acquired and community-acquired bacterial pathogens. Lately, she has also been working on the beneficial aspect of microbes, involving studies on the bioactivities of probiotics, including their antimicrobial activities and cytotoxicity to cancer cells. She has been recognized for her teaching and research in the area of Microbiology with awards such as the Outstanding Microbiologist Award and the Professor William L. Fernandez Excellence in Microbiology Teaching Award, both given by the Philippine Society for Microbiology Inc., Crisanto G. Almario Memorial Award for Research from the Philippine Association of Medical Technologists, University of Santo Tomas Graduate School Outstanding Alumna award and Outstanding Teacher awards of the DLSU Students’ Search for Outstanding Teachers. She is a Diplomate of the Philippine Academy of Microbiology and is currently the Ambassador to the Philippines of the American Society for Microbiology.