



## Biosafety in Research – a 10 year journey

by Ms Cindy Goh, Assistant Director, SingHealth Office of Biosafety

When one thinks about responsible conduct of research, compliance to institutional review board and animal ethics comes to mind. However, Principal Investigators are also reminded that they must take responsibility in assessing the risk of his/her research work where infectious agents or any genetically modified organisms are handled. This third compliance is biological safety (biosafety) compliance.

In SingHealth, an overarching Institutional Biosafety Committee (IBC) provides biosafety oversight for all research premises in SingHealth through a standardized research protocol review process. We now have a mature IBC structure with a network of 8 biosafety committees for respective SingHealth institutions, and a review panel of about 30 subject experts ranging from microbiologists and viral vector experts to infectious disease physician and veterinary professionals.

SingHealth IBC is supported by the SingHealth Office of Biosafety (OoB) which was set up in 2009 under the leadership of Dr Ling Ai Ee, first and former Chairman of IBC, to ensure research compliance to the Biological Agents and Toxins Act and the Guidelines for Research using Genetically Modified Organisms. OoB consist of a centralized team of biosafety officers and workplace safety and health officers. The main role of a Biosafety Officer is to help facilitate the safe conduct of research laboratory activities through a microbiological risk assessment and the implementation of safe work practices. I will always remember Dr Ling's candid advice that biosafety and risk management is "*basically about practicing common sense*".

I initially joined SGH research labs as an administrator, with the role of managing the day to day operations of a department that supports young clinician scientists with laboratory infrastructure and seed funding for basic and clinical research. In the course of fulfilling this duty, I learned about the organization of the hospital and was given opportunities to contribute to ISO/OHSAS and JCI accreditation processes, functioned as an internal auditor, got interested in occupational safety and health systems, and was ultimately led into biosafety. Trained in Science and having worked in quality control laboratories, I subsequently developed interest in biosafety review processes and assisting our researchers to, not only meet legal requirements, but also to work safely in the laboratories. The varied research work across SingHealth institutions and the different procedures used in our research laboratories makes work challenging in OoB, as it requires the team to continuously learn from our researchers and come up with alternative solutions to solve safety issues and provide the most reasonably practicable risk control measures for effective implementation. The new knowledge and bonds forged through this process had brought the OoB team closer, and continuously draw me deeper into biosafety compliance.



2019 is special as it is the 10<sup>th</sup> anniversary of our formation. Throughout the past 10 years in OoB, we have improved many of our work processes to make the IBC application a pleasant experience for researchers. We have also embarked on our eLearning journey, harmonized safety training with local universities and made safety training mandatory for all researchers in SingHealth. **Work should not be stagnant, it is within our control to find satisfaction and fun in what we do.** To do all of these, it really requires a team of people who has the passion

for safety and a keen interest to interpret relevant legislations, safety standards and to read and compare safety guidelines. However, we must bear in mind that everyone is responsible for safety at the workplace and the laboratories. One should also remember that there are many other aspects of Research Administration that supports a research. The joy and sense of fulfilment from training and education continually fuels my passion in biosafety as I move on to focus more on training biosafety professionals in SingHealth.

If you have the passion for safety, come join the bandwagon.

### About the Author



Cindy has been working in SingHealth for almost 25 years. She started her career managing research operations in SGH Department of Clinical Research for 15 years before moving on to focus on biosafety in research laboratories. Cindy is appointed as Secretary of the SingHealth Institutional Biosafety Committee since the formation of the Committee and manages the SingHealth Biosafety Office since 2009. She is actively involved in several national level safety workgroups and committees for laboratory related guidelines and safety standards.

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