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Kim Lab Seminar Announcement

“Functional Expansion of Ancient Protein Synthesis Enzymes:
A New Code of Life?”



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Abstract:

Genetic information is translated to protein via (the 1st) genetic code that matches 64 of triplet bases with 20 amino acids. Since aminoacyl-tRNA synthetases (ARSs) and tRNAs are the two main players in decoding genetic information to proteins, the accurate recognition between these two gene decoders is crucial for the fidelity of translation process. For this reason, the specific way how ARSs recognize their cognate tRNAs is called “the 2nd genetic code”. More recently, unexpected new functions of ARSs and tRNAs are rapidly being unveiled outside of protein synthesis. These new functions are more diverse and significant in higher order organisms such as human. Besides, these functions appear to be finely regulated through multiple mechanisms. This lecture would address the functional expansion and regulation of ARSs beyond protein synthesis and their implications in understanding and treating human diseases.

Friday, November 3, 2017 | 11:00 am

Donnelly Centre James D. Friesen | Cecil C. Yip Red Seminar Room

Host: Philip M. Kim