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| **Research Theme: Cell Biology; Cellular Biochemistry** |
| **PhD Research Project Title:****Unraveling the Role of Liquid-Liquid Phase Separation and Protein Aggregation in ALS Pathogenesis** |
| **Scholarship category (Please indicate the source of funding for this project):****SBS Research Student Scholarship (For SBS Faculty only)** |
| **Principal Investigator/Supervisor: Choe Young-Jun** |
| **Co-supervisor/ Collaborator(s) (if any):** |
| **Project Description****a) Background:** **ALS, also known as Lou Gehrig's disease or motor neuron disease, is characterized by the aggregation of the TDP-43 protein. TDP-43, primarily a nuclear protein involved in various aspects of messenger RNA biogenesis/processing, forms toxic cytosolic aggregates in ALS patients. The mechanisms underlying TDP-43 mislocalization to the cytosol and the triggers for TDP-43 aggregation remain unclear.****b) Proposed work:** **In this project, you will study the interactions of molecular chaperones with TDP-43 during its liquid-like condensation and solid-state aggregation.****c) Preferred skills:** **Prior experience in a molecular biology laboratory would be advantageous.** |
| **Supervisor contact:****If you have questions regarding this project, please email the Principal Investigator:****yjchoe@ntu.edu.sg** |
| **SBS contact and how to apply:**Associate Chair-Biological Sciences (Graduate Studies) : AC-SBS-GS@ntu.edu.sg Please apply at the following: **Application portal:** <https://venus.wis.ntu.edu.sg/GOAL/OnlineApplicationModule/frmOnlineApplication.ASPX> |