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# 演題：Born from scratch: the origin and evolution of de novo genes and proteins


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日 時 ： 令和 8 年 12 月 4 日（金）午後 4 時 30 分～午後 6 時 00 分

場 所 ：千葉県がんセンター事務研修棟 2 階大会議室

要 旨 ：


**Where do new genes and the proteins they encode come from? Many new genes arise through duplication and divergence of existing genes, but some emerge de novo from DNA that was previously non-genic. These genes offer a rare opportunity to observe biological innovation at its earliest stages, yet how they originate, come under transcriptional and translational control, acquire function, and persist or are lost in populations and across species remains poorly understood. We combine population genetics, comparative genomics, computational protein-structure prediction, machine learning, and functional experiments in *Drosophila* to investigate the birth and evolution of lineage-specific de novo genes. I will present a multidimensional view of how these genes originate, become integrated into the molecular and cellular systems of the organism, and what they reveal about how genomes generate new molecular functions.**


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