

Guangzhou RNA club

病毒RNA的构象动力学以及对翻译机制的操纵

Time (GMT+8): 2023-09-27 09:00 AM

Time (GMT-4): 2023-09-26 09:00 PM

Meeting ID: 623 8851 5658

Passcode: 666666

Zoom meeting link:

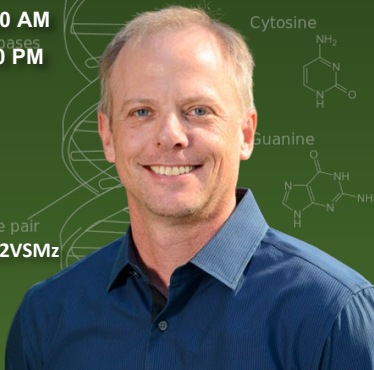
[https://ucph-](https://ucph-ku.zoom.us/j/62388515658?pwd=K2VSMzgzRkpUS3h2Q09qbjVFQUFsZz09)

[ku.zoom.us/j/62388515658?pwd=K2VSMz](https://ucph-ku.zoom.us/j/62388515658?pwd=K2VSMzgzRkpUS3h2Q09qbjVFQUFsZz09)

[hzRkpUS3h2Q09qbjVFQUFsZz09](https://ucph-ku.zoom.us/j/62388515658?pwd=K2VSMzgzRkpUS3h2Q09qbjVFQUFsZz09)

Bilibili:

<https://live.bilibili.com/26427894>



Prof. Jeffrey Kieft

纽约结构生物学中心执行主任



摘要:

RNA的功能多样性是由其折叠成的丰富多样的三维结构提供的，这些结构的构象通常是动态的。因此，了解这些RNA如何发挥其生物学功能需要了解它们在不同分辨率下的结构和运动。我们对病毒RNA特别感兴趣，它可以与细胞机器相互作用并操纵细胞机器。

在本次研讨会上，我将介绍我们的工作，以了解病毒RNA是如何结合核糖体并实现非规范的“翻译重新启动”事件。结合来自冷冻电镜的生物信息学、功能和结构数据，我们提出了一个模型，用于说明这种相对较小的RNA是如何在令人惊讶的简单机制中使用这种编程化的分子运动的。

HOST & PANELISTS



主持人：苗智超

广州实验室
广州医科大学



黄林

中山大学



杨建华

中山大学



王金凯

中山大学

Sponsors



Guangzhou RNA club

Conformational dynamics and manipulation of the translation machinery by a viral RNA

Time (GMT+8): 2023-09-27 09:00 AM

Time (GMT-4): 2023-09-26 09:00 PM

Meeting ID: 623 8851 5658

Passcode: 666666

Zoom meeting link:

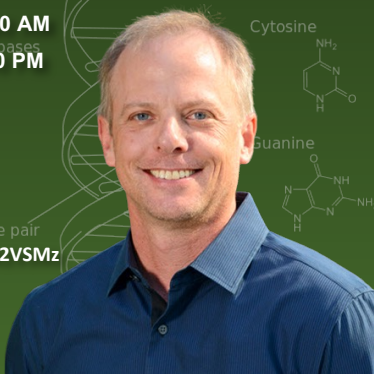
[https://ucph-](https://ucph-ku.zoom.us/j/62388515658?pwd=K2VSMzgzRkpUS3h2Q09qbVVFQUFsZz09)

[ku.zoom.us/j/62388515658?pwd=K2VSMz](https://ucph-ku.zoom.us/j/62388515658?pwd=K2VSMzgzRkpUS3h2Q09qbVVFQUFsZz09)

[hzRkpUS3h2Q09qbVVFQUFsZz09](https://ucph-ku.zoom.us/j/62388515658?pwd=K2VSMzgzRkpUS3h2Q09qbVVFQUFsZz09)

Bilibili :

<https://live.bilibili.com/26427894>



Prof. Jeffrey Kieft

Executive Director of the New York Structural Biology Center



Abstract:

RNA's functional diversity is provided by a rich variety of folded three-dimensional structures that are often conformationally dynamic. Understanding how these RNAs perform their biological function thus requires an understand of their structure and motions at different resolutions. We are particularly interested in viral RNAs, which can interact with and manipulate the cellular machinery.

In this seminar, I will present our work towards understanding how a viral RNA binds the ribosome and enables a noncanonical "translation reinitiation" event. Combining bioinformatic, functional, and structural data from cryoEM, we propose a model for how this relatively small RNA uses programmed molecular motions within a surprisingly simple mechanism.

HOST & PANELISTS



Host : Zhichao Miao

Guangzhou Laboratory
Guangzhou Medical University



Lin Huang

Sun Yat-sen University



Jianhua Yang

Sun Yat-sen University



Jinkai Wang

Sun Yat-sen University

Sponsors

