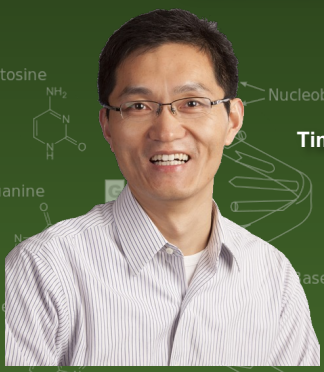
Guangzhou RNA club

RNA Editing: Innate Immunity and Autoinflammatory Disease



Time (China): 2024-8-29 10:00-11:00 AM

Tencent meeting ID: 668 512 359

Bilibili: https://live.bilibili.com/26427894

李进 (Jin Billy Li)
美国斯坦福大学教授

摘要:

1997年本科毕业于清华大学，2005年获得圣路易斯华盛顿大学生物学博士学位。

2005至2010年师从哈佛医学院George Church教授从事博士后研究。

2010年起加入斯坦福大学建立实验室。实验室研究重点是ADAR酶介导的RNA编辑。实验室发现RNA编辑在避免双链RNA介导的自身免疫中的重要生物学作用。这一发现为癌症和自身免疫性疾病治疗的创新方法铺平了道路。

实验室的另一个主要方向是利用内源性ADAR酶开发定点RNA碱基编辑技术。该方法克服了CRISPR/Cas DNA编辑相关的挑战，为解决罕见和常见疾病带来了新的希望。近年来在Nature, Science, Nature Biotechnology、Nature Methods等期刊发表了多篇高水平论文。

主持人＆嘉宾

主持人：张锐
中山大学

陈炜
南方科技大学

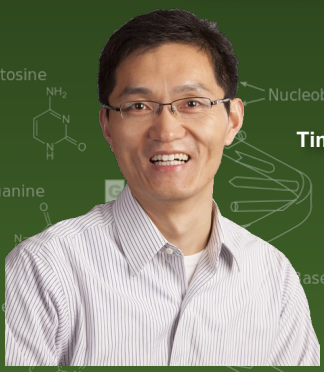
陆剑
北京大学

王金凯
中山大学

赞助商

Guangzhou RNA club

RNA Editing: Innate Immunity and Autoinflammatory Disease



Time (China): 2024-8-29 10:00-11:00 AM

Tencent meeting ID: 668 512 359

Bilibili: https://live.bilibili.com/26427894

Prof. Jin Billy Li

Stanford University, USA

Abstract:

Adenosine-to-Inosine (A-to-I) RNA editing, catalyzed by ADAR enzymes, is prevalent in metazoans. Previous research, including our own, has revealed that the primary function of RNA editing by ADAR1 is to ensure sufficient editing of cellular double-stranded RNA (dsRNA), thereby preventing erroneous cytosolic MDA5-mediated dsRNA sensing. Mice lacking RNA editing by ADAR1 experience embryonic lethality but can live their full lifespan upon removal of MDA5. In humans, loss-of-function mutations in ADAR1 and gain-of-function mutations in MDA5 result in rare autoimmune diseases. Our recent work, through human genetics studies, reveals that RNA editing plays a central role in common autoimmune and immune-related diseases. This well-established ADAR1-dsRNA-MDA5 axis serves as the foundation for therapeutic development in the treatment of cancer and autoinflammatory diseases.

HOST & PANELISTS

Host：Rui Zhang

Sun Yat-sen University

Wei Chen

Southern University of Science and Technology

Jian Lu

Peking University

Jinkai Wang

Sun Yat-sen University

赞助商