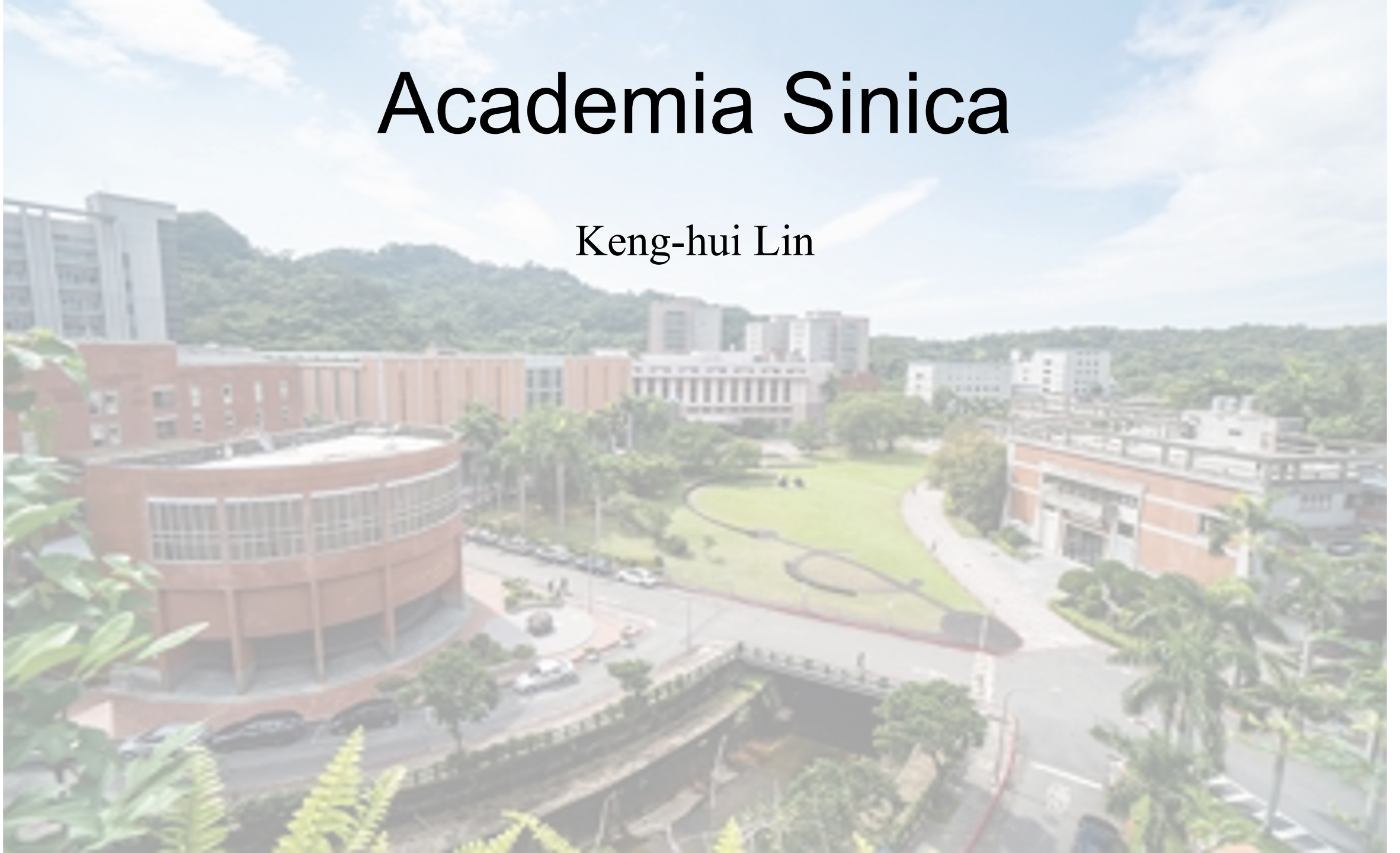


# Academia Sinica

Keng-hui Lin





# Academia Sinica

- The national research institute directly under president hall in the government hierarchy
- Located at the east corner of Taipei (Shuttle bus between NTU and AS)
- Both external and intramural funding
- 24 institutes and 8 research centers including physical science, life science, and social science
- Y.-T. Lee,, who was a Nobel Chemistry Laureate and once a faculty member at U. of Chicago, was the past director



# State-of-art core facilities



# We also have an international summer intern program

<https://tigp.sinica.edu.tw/pages/3127>

## Taiwan International Internship Program (1st May - 31st August)

Share to:    

The Taiwan International Internship Program is an intensive pre-doctoral research training program for overseas students that provides [hands-on training](#) and [scientific experience](#) at Academia Sinica and our partner universities.

### Financial support:

- NTD 30,000/month stipend (before tax) and half of the cheapest route round-trip airfare of an economy class from the intern's hometown to Taipei.

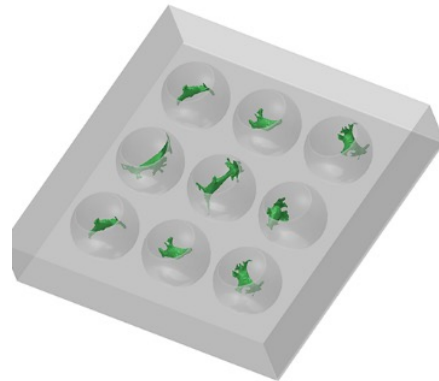
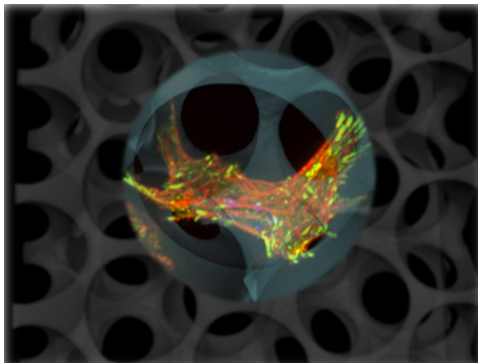
Note: If the interns are from the same location in the same batch, the reimbursement will be based on the lowest price (Max. NTD 15,000).

- On-campus accommodation will be arranged with affordable price.
- Opportunity to acquire scientific education, receive hands-on training, and learn the Chinese language.

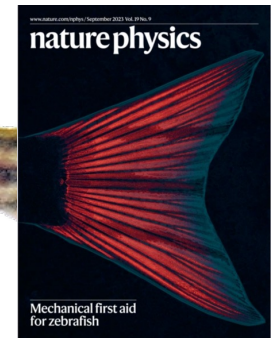
# My lab research interests

<http://www.phys.sinica.edu.tw/~softlab>

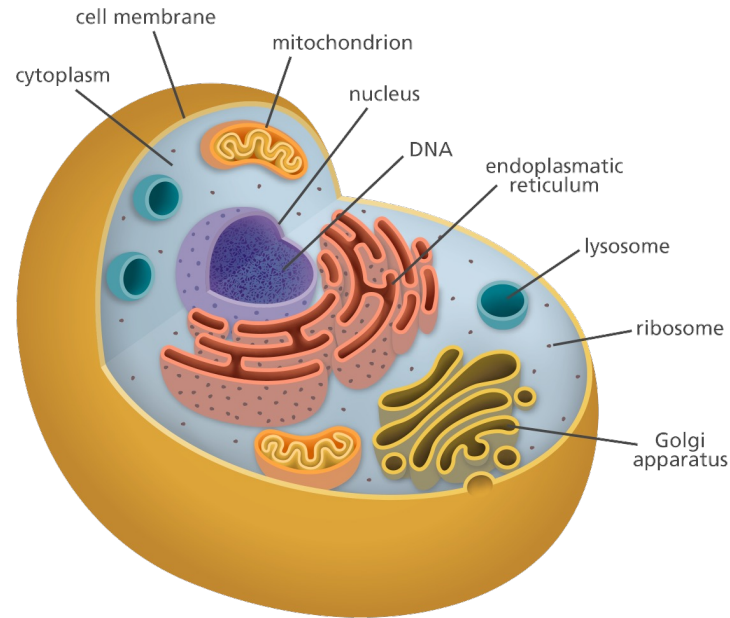
## Mechanobiology in 3D



## Mechanobiology in vivo



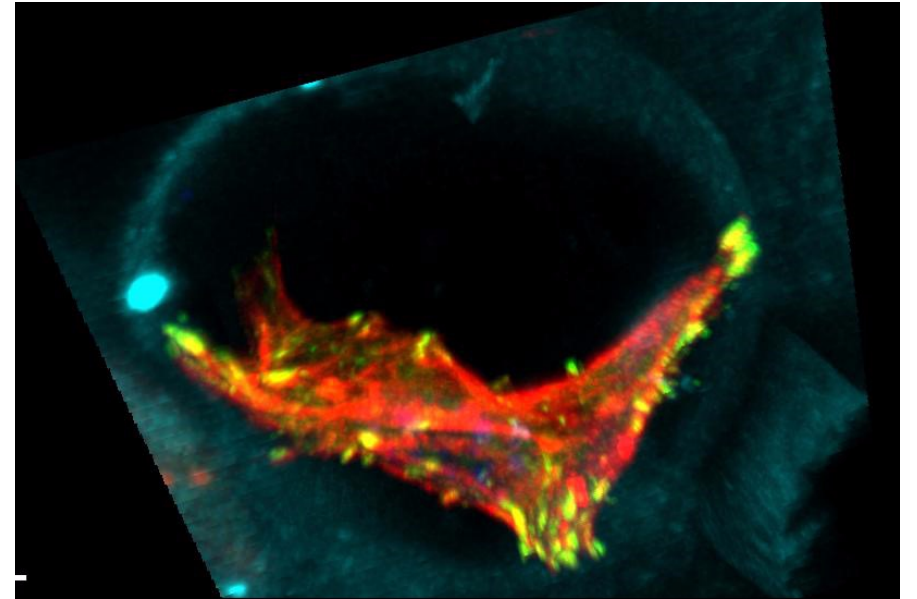
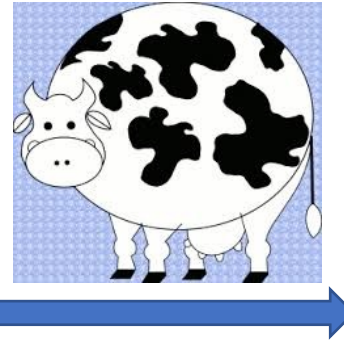
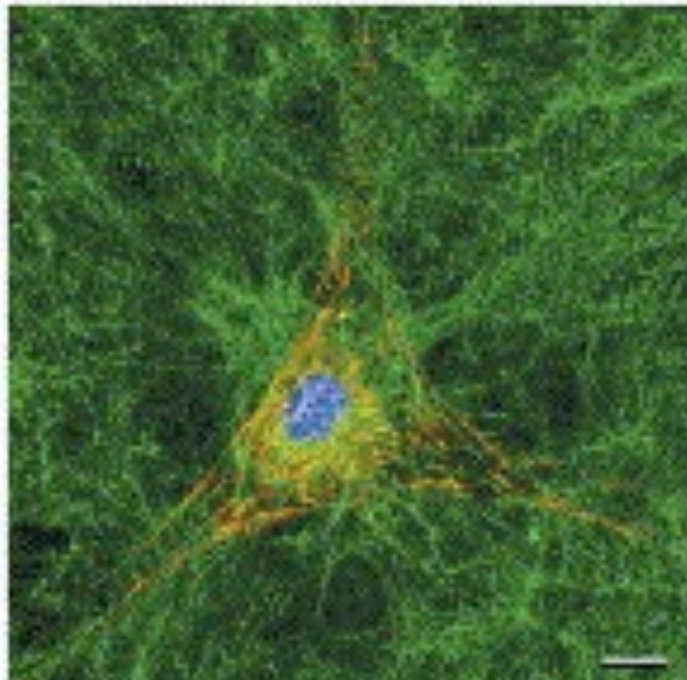
# How cell senses the world?



Mechanobiology: how cells "touch" the external world and respond and perform mechanical actions such as maintaining their shape and migration.

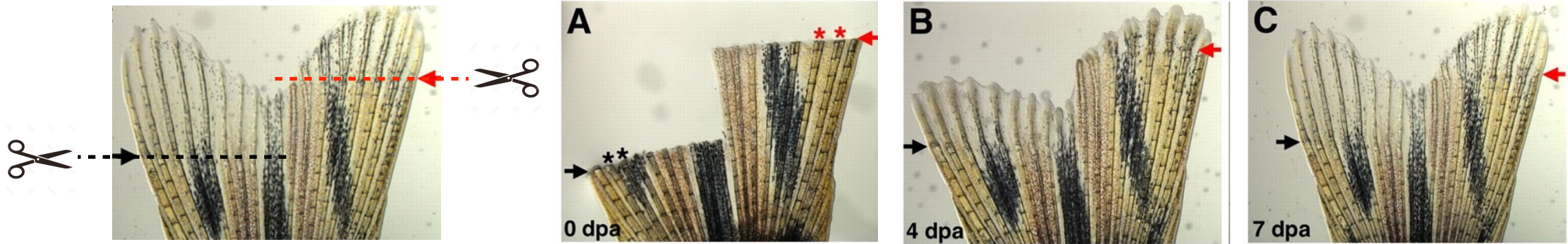
# 3D Culture Matrix Simplified

Common 3D cell culture



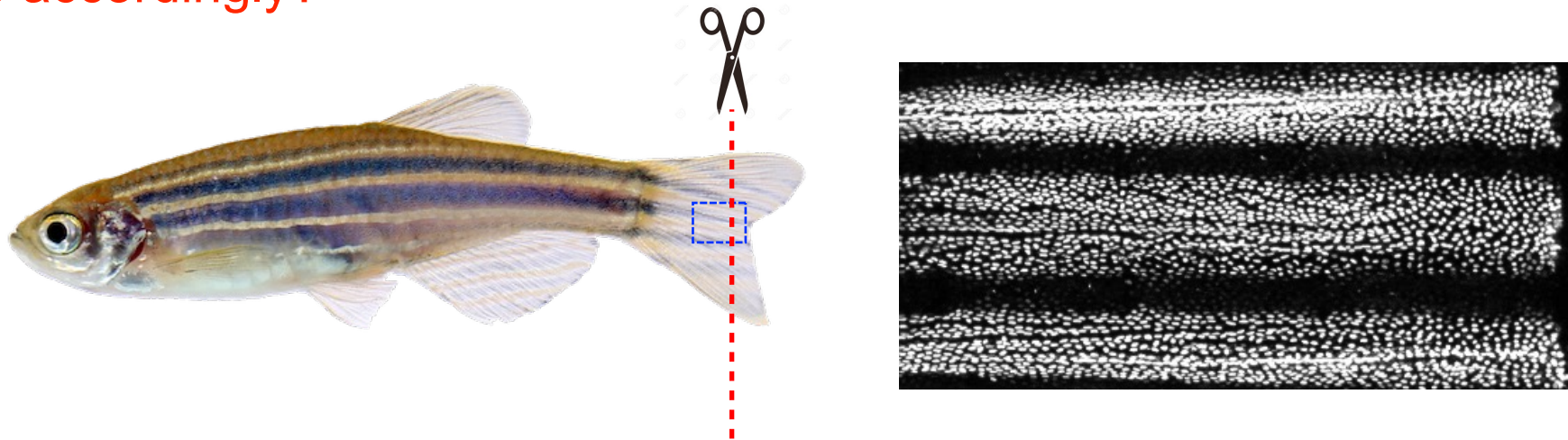
Keep some 2D features and add some 3D features such as adhesions distribution in 3D.

# Mechanical waves in wound healing process of zebrafish tailfin



Lee et al., Development, 2005

How does zebrafish sense the position of amputation and adjust its regeneration rate accordingly?





# Summer project: bridging in vitro and in vivo by studying the same cells in vitro and in vivo

- do primary culture of cells from zebrafish
- Recreate the in-vivo-like tracks
- Recapitulate the mechanical behaviors

Interested to join?

I am affiliated with National Taiwan University and National Central University. So you can apply through the exchange program of these two universities or through TIGP summer intern program.