

# CHANG-YU CHANG 張昌祐

My research interest lies in the intersection of systems biology and microbial community ecology and evolution. I combine theory and experiment to study how microbial communities assemble and evolve.

## EDUCATION

now  
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2017

- **Ph.D. Candidate, Ecology and Evolutionary Biology**  
Yale University 📍 New Haven, CT
  - Thesis: Engineering emergent properties of microbial communities
  - Advisor: Dr. Alvaro Sanchez

2015  
|  
2011

- **B.S., Life Science**  
National Taiwan University 📍 Taipei, Taiwan
  - Math and computational courses oriented
  - Presidential and Dean's Award (ranking top 5% in the class)

## SELECTED PUBLICATIONS

2021

- **Engineering complex communities by directed evolution (2021). Nature Ecology & Evolution**  
<https://doi.org/10.1038/s41559-021-01457-5>
  - Chang-Yu Chang\*, Jean C C Vila\*, Madeline Bender, Richard Li, Madeleine C Mankowski, Molly Bassette, Julia Borden, Stefan Golfier, Paul Gerald L Sanchez, Rachel Waymack, Xinwen Zhu, Juan Diaz-Colunga, Sylvie Estrela, Maria Rebolleda-Gomez, Alvaro Sanchez
  - \* contributed equally.
  - Coauthors include students from courses PBoC2019 and E&EB 729

2021

- **Directed Evolution of Microbial Communities (2021). Annu. Rev. Biophys.**  
<https://doi.org/10.1146/annurev-biophys-101220-072829>
  - Alvaro Sanchez, Jean C C Vila, Chang-Yu Chang, Juan Diaz-Colunga, Sylvie Estrela, Maria Rebolleda-Gomez

2020

- **Artificially selecting bacterial communities using propagule strategies (2020). Evolution**  
<https://doi.org/10.1111/evo.14092>
  - Chang-Yu Chang\*, Melisa L Osborne\*, Djordje Bajic, Alvaro Sanchez.
  - \* contributed equally.

## FELLOWSHIP

2020  
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2017

- **Government Fellowship for Oversea Study**  
Taiwan Ministry of Education
  - \$126,000



View this CV online with links at [changyuchang.name](http://changyuchang.name)

## CONTACT INFO

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🐦 [changyu\\_chang](https://twitter.com/changyu_chang)  
📁 [github](https://github.com)  
🔍 [google scholar](https://scholar.google.com)  
🔗 [changyuchang.name](http://changyuchang.name)

For more information, please contact me via email.

## SKILLS





R	
Python	
Bash	

This resume was made with the R package [pagedown](https://cran.r-project.org/web/packages/pagedown/index.html).

The source code is available at [github.com/Chang-Yu-Chang/cv](https://github.com/Chang-Yu-Chang/cv).

Last updated on 2022-01-18.

## REFERENCES

- **Dr. Alvaro Sanchez**  
Ph.D. advisor  [alvaro.sanchez@yale.edu](mailto:alvaro.sanchez@yale.edu)  
· Associate Professor, Yale University
- **Dr. Maria Rebolledo-Gomez**  
Ph.D. lab colleague  [mreboll1@uci.edu](mailto:mreboll1@uci.edu)  
· Assistant Professor, University of California, Irvine
- **Dr. David Vasseur**  
Dissertation committee  [david.vasseur@yale.edu](mailto:david.vasseur@yale.edu)  
· Professor, Yale University
- **Dr. Sheng-Feng Shen**  
M.S. advisor  [shensf@sinica.edu.tw](mailto:shensf@sinica.edu.tw)  
· Research Fellow (Professor), Academia Sinica in Taiwan