

# Tsukaya Lab. Our keywords are leaf morphogenesis and diversity

Reveals how and why  
leaves have diversified so much  
-Elucidation of its basic mechanisms  
and alterations during evolution-

We aim to understand plants using leaf morphogenesis  
as a keyword and take two approaches to our research.  
The first is developmental molecular genetics using  
*Arabidopsis thaliana* and the second is evo-devo studies  
using plants showing diverse morphology.

Publications (2022):

11 original research articles  
2 reviews  
1 book

We collaborate closely with the following  
researchers, specifically:

Prof. Gorou Horiguchi (Rikkyo Univ.)  
Assoc. Prof. Ali Ferjani (Tokyo Gakugei Univ.)  
Assoc. Prof. Keiko Sakakibara (Rikkyo Univ.)

Lab members

Professor: Hirokazu Tsukaya

Asst. Prof: Hiroyuki Koga

Asst. Prof: Hokuto Nakayama

1 Postdoc

1 Doctor course student

3 Master course students

Many students have joined the Tsukaya Lab  
from a variety of Universities and countries:  
UTokyo, ICU, Tsukuba Univ., Chubu Univ.,  
Hokkaido Univ., Tohoku Univ., Chiba Univ.,  
Tokyo Metropolitan Univ., The University of Prince  
Edward Island, The University of Manchester,  
Zhejiang University

Many alumni are active in a variety of fields:

Rikkyo Univ. (as a Prof.), Tokyo Gakugei Univ (as an  
Assoc. Prof.), Saitama Univ (as an Assoc. Prof.),  
Kanazawa Univ. (as an Assoc. Prof.), JSPS (chief),  
UC Davis (as a postdoc), and son on.

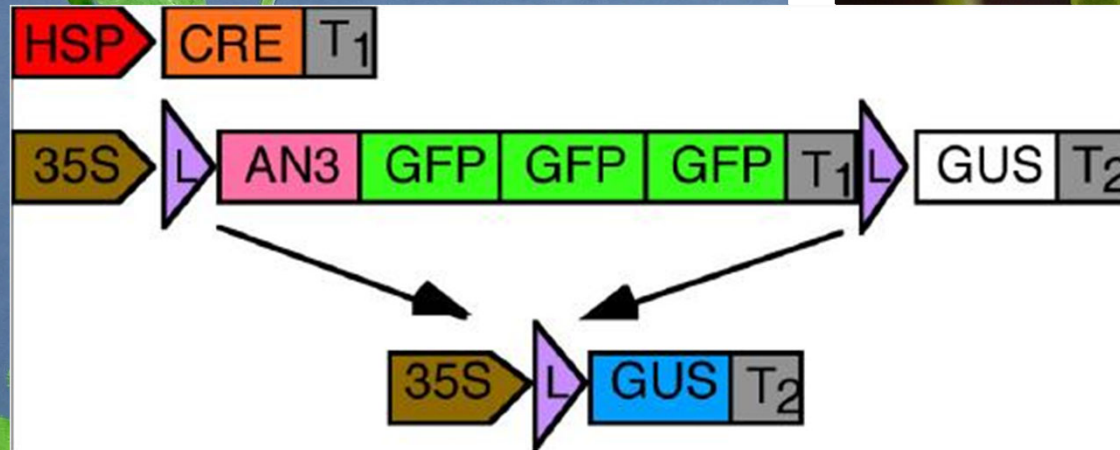
More to know:

<https://www.toshin.com/mirai/sekai/interview/04/>

<https://www.chuko.co.jp/shinsho/portal/101812.html>

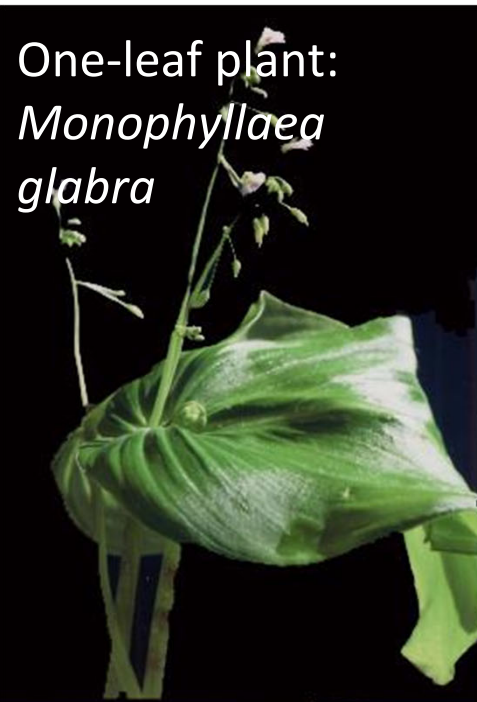
We are using  
Arabidopsis and....

Our diverse  
plant materials

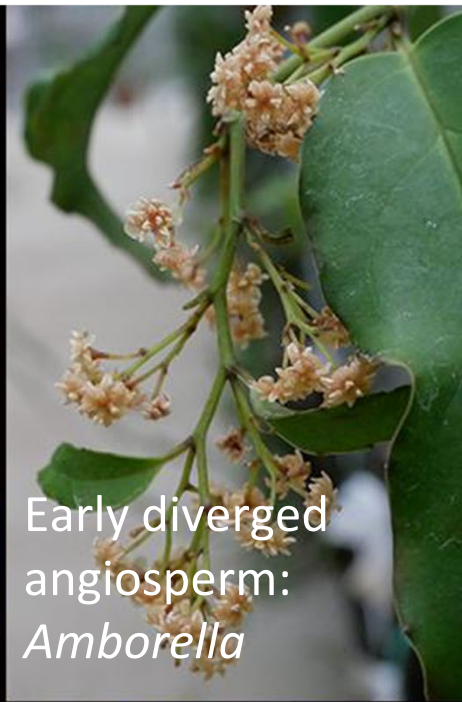


# Our diverse plant materials

## And other various plants



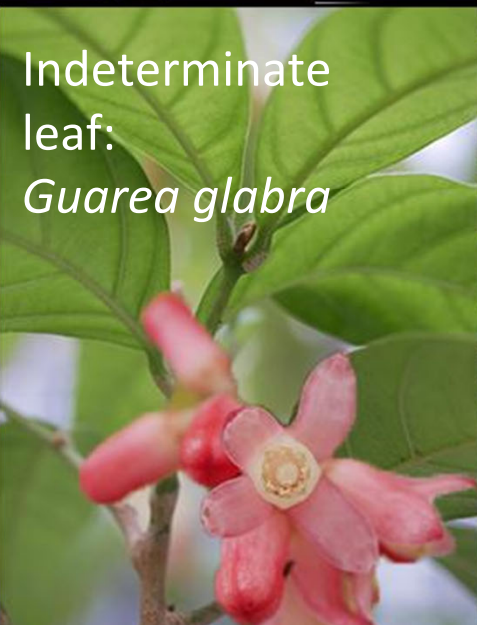
One-leaf plant:  
*Monophyllaea  
glabra*



Early diverged  
angiosperm:  
*Amborella*



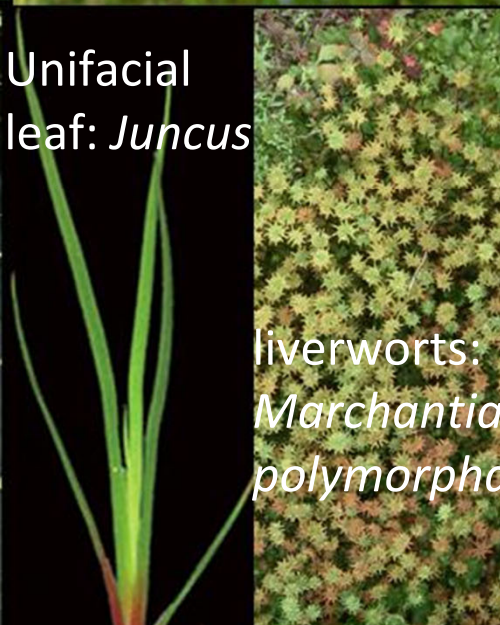
Fan-shaped  
leaf:  
*Ginkgo*



Indeterminate  
leaf:  
*Guarea glabra*



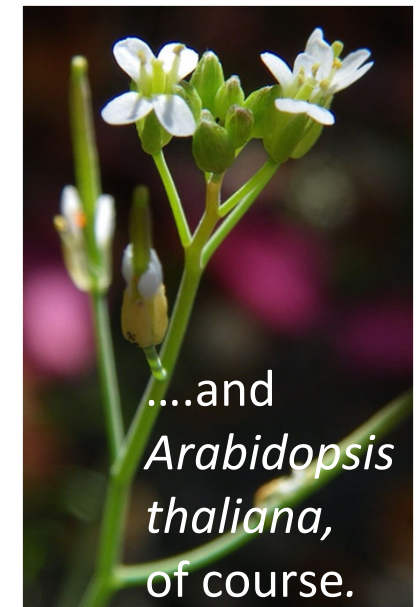
Amphibious plant,  
Heterophylly;  
*Callitriche*



Unifacial  
leaf: *Juncus*



liverworts:  
*Marchantia  
polymorpha*



....and  
*Arabidopsis  
thaliana*,  
of course.

# Our diverse plant materials and people

We use a variety of techniques in our research:  
Developmental genetics, RNA/DNA sequencing,  
Imaging (Micro CT, confocal LSM)  
Mathematical modeling, etc.

PNAS  
Proceedings of the  
National Academy of Sciences  
of the United States of America

SCIENTIFIC REPORTS

PLOS GENETICS

frontiers  
in Plant Science

New  
Phytologist

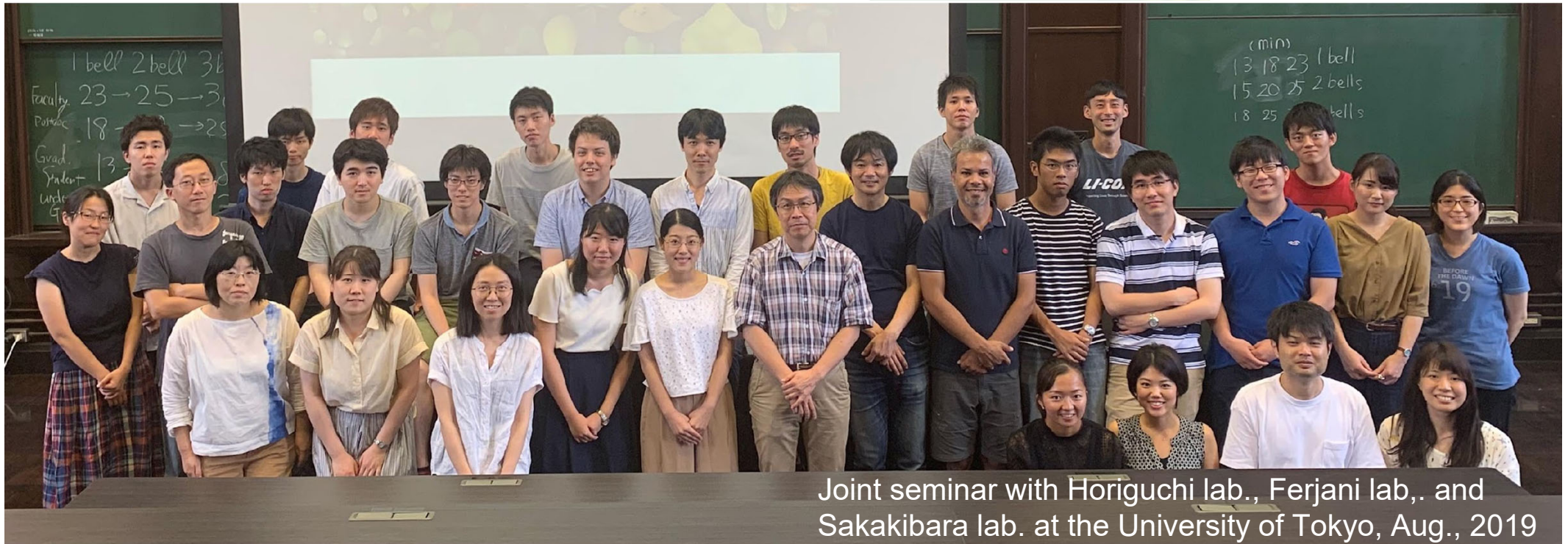
Biophysical *Journal*

*the plant journal*

PCP  
PLANT & CELL PHYSIOLOGY

THE  
PLANT  
CELL

Development  
For advances in developmental biology and stem cells  
ISSN 1179-3155 (print edition)  
PHYTOTAXA  
ISSN 1179-3163 (online edition)



Joint seminar with Horiguchi lab., Ferjani lab., and Sakakibara lab. at the University of Tokyo, Aug., 2019

Researchers, specifically:

Prof. Gorou Horiguchi (Rikkyo Univ.)

Assoc. Prof. Ali Ferjani (Tokyo Gakugei Univ.)

Assoc. Prof. Keiko Sakakibara (Rikkyo Univ.)