

Cooperating Faculty Member (CFM) outside CNAS

DEPARTMENT OF BIOENGINEERING (requesting department)

Cooperating Faculty Appointment/Reappointment


Instructions: Please complete the following.

1. Attach a current CV of potential CFM.
2. Statement of Anticipated or Past Involvement in the department referenced above.


Please provide or attach a statement that describes your anticipated or past involvement as a CFM in the department referenced above.

Please see the attached form.

3. My signature below (or attached emailed approval) indicates my willingness to accept an appointment as a CFM in the department referenced above.

Printed Name: Tingting Xiang	Signature: 	Date: 2023.11.17
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4. Approval by Cooperating Faculty Member's Home Department Chair
As Chair of the Department of Bioengineering , my signature below (or attached emailed approval) indicates my approval of Tingting Xiang participating as a CFM in the department referenced above.

Printed Name: Xiaoping Hu	Signature: 	Date: 11/17/2023
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HOST DEPARTMENT VOTE:	FOR,	AGAINST,	UNAVAILABLE
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DATES OF APPOINTMENT: 12/01/23 TO 11/30/25

5. Approval by CFM's Host Department Chair
As Chair of the Department referenced above, my signature below (or attached emailed approval) indicates my approval of Tingting Xiang participating in the department referenced above.

Printed Name: Patricia Springer	Signature:	Date:
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CNAS DEAN'S APPROVAL:

	Date:
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DEAN'S APPROVAL:

Printed Name:	Signature:	Date:
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Appointments/reappointments are for 2 years for Asst. and Assoc. Professors, and 3 years for full Professors

- To add electronic signatures, unprotect the document.

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- Once approved, please send a copy of the host department's appointment letter to the appropriate analyst in the CNAS Dean's office, to the other College's analyst and to Amanda Wong in the Graduate Division.

TINGTING XIANG

Assistant Professor • Dept. of Bioengineering • University of California, Riverside
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EDUCATION

- 2015 – 2019 *Postdoctoral Researcher*, Carnegie Institution for Science, Stanford
2011 – 2014 *Postdoctoral Research Associate*, Stanford University
2005 – 2010 *Ph.D.*, National Institute of Biological Sciences; China Agricultural University
2001 – 2005 *B.S.*, Biology, China Agricultural University

RESEARCH AND PROFESSIONAL POSITIONS

- 2023 – present Assistant Professor, Department of Bioengineering, University of California, Riverside
2019 – 2022 Assistant Professor, Department of Biological Sciences, University of North Carolina, Charlotte
2015 – 2019 Postdoctoral Researcher, Department of Plant Biology, Carnegie Institution for Science
2011 – 2014 Postdoctoral Research Associate, Department of Genetics, School of Medicine, Stanford University
2005 – 2010 Graduate student researcher, Host-microbe interaction program, National Institute of Biological Sciences, Beijing, China
2005 Undergraduate Researcher, Structural Biology & Biochemistry, National Institute of Biological Sciences, Beijing, China
2004 – 2005 Genetics Summer Internship Program Trainee, Chinese Academy of Sciences, Beijing, China
2003 – 2004 Undergraduate Research Program Trainee in Plant Genetics, Department of Biology, China Agricultural University

HONORS AND AWARDS

- 2023 Regents Faculty Fellowship
2022 ASPB Women's Young Investigator Travel Award
2019 Carnegie Institution for Science Postdoc P² Award
2014 Best Poster award, Department of Plant Biology, Carnegie Institution for Science
2013 International Phycological Congress Travel Award
2010 Outstanding Young Scholar for attending the 60th Lindau Nobel Laureate Meeting, Germany, NSFC-DFG Center
2009 May Fourth Youth Pacesetter, China Agricultural University
2008 Baosteel Outstanding Student Scholarship
2008 Graduate Student Excellence Award, National Institute of Biological Sciences
2002 National Scholarship, China Agricultural University
2004 First prize of outstanding student, China Agricultural University

2003 First prize of outstanding student, China Agricultural University
2002 Second prize of outstanding student, China Agricultural University

PEER-REVIEWED PUBLICATIONS († CORRESPONDING AUTHOR; XIANG LAB MEMBERS UNDERLINED)

Google Scholar Profile (Citations: 2289, h-index: 15):

<https://scholar.google.com/citations?hl=en&authuser=1&user=MgNKIV8AAAAJ>

Russo JA, **Xiang T**[†], Jinkerson RE (2023) Protocol for the generation of Symbiodiniaceae mutants using UV mutagenesis. *STAR protocols*, 4 (4), 102627.

Davies SW, Gamache MH, ..., **Xiang T**, Yamashita H, Ziegler M, Correa AM, Parkinson JE (2023) Building consensus around the assessment and interpretation of Symbiodiniaceae diversity. *PeerJ*, 11, e15023.

Kirk AL, **Xiang T**[†] (2022) Single-cell dissociation of the model cnidarian sea anemone *Exaiptasia diaphana*. *STAR protocols*, 3 (4), 101897.

Newkirk C, Vadlapudi S, Sadula M, Arbello C, **Xiang T** (2022) Reproducible propagation technique for the symbiotic cnidarian model system *Cassiopea xamachana*. *Biology open*, 11 (9), bio059413.

Jinkerson RE, Rosso JA, Newkirk CR, Kirk AL, Chi RJ, Martindale MQ, Grossman AR, Hatta M, **Xiang T**[†] (2022) Cnidarian–Symbiodiniaceae symbiosis establishment is independent of photosynthesis. *Current Biology*, 32, 2402-2415.

Marinov GK*, Trevino AE*, **Xiang T***, Kundaje A, Grossman AR, Greenleaf WJ (2021) Transcription dependent domain-scale three-dimensional genome organization in the dinoflagellate *Breviolum minutum*. *Nature Genetics*, 53, 613-617. (* equal contribution)

Plant Cell Atlas Consortium. Vision, challenges and opportunities for a Plant Cell Atlas. (2021) *eLife* 10:e66877 DOI: 10.7554/eLife.66877.

Kirk AL, Clowez S, Lin F, Grossman AR, **Xiang T**[†] (2020) Transcriptome reprogramming of Symbiodiniaceae *Breviolum minutum* in response to casein amino acids supplementation. *Frontiers in Physiology*, 11:574654.

Xiang T[†], Lehnert E, Jinkerson RE, Clowez S, Kim R, DeNofrio JC, Pringle JR and Grossman AR (2020) Symbiont population control by host–symbiont metabolic interaction in Symbiodiniaceae–cnidarian associations. *Nature Communications*, 11:108. doi:10.1038/s41467-019-13963-z.

Xiang T[†], Jinkerson RE, Clowez S, Tran C, Krediet CJ, Onishi M, Pringle JR and Grossman AR (2018) Glucose-induced trophic shift in an endosymbiont dinoflagellate with physiological and molecular consequences. *Plant Physiology*, 176, 1793-1807.

Xiang T[†] (2018) Total RNA extraction from dinoflagellate *Symbiodinium* cells. *Bio-protocol*, doi: 10.21769/BioProtoc.2866.

Bieri T, Onishi M, **Xiang T**, Grossman AR, Pringle JR (2016) Relative contributions of various cellular mechanisms to loss of algae during cnidarian bleaching. *PLoS ONE*, 11(4): e0152693. doi:10.1371/journal.pone.0152693.

Xiang T[†], Nelson W, Rodriguez J, Tolleter D and Grossman AR (2015) *Symbiodinium* transcriptome and global responses of cells to immediate changes in light intensity when grown under autotrophic or mixotrophic conditions. *The Plant Journal*, 82, 67-80.

Xiang T, Hambleton EA, DeNofrio JC, Pringle JR, Grossman AR (2013) Isolation of clonal, axenic strains of the symbiotic dinoflagellate *Symbiodinium* and their growth and host specificity. *Journal of Phycology*, 49, 447-458.

Xiang T, Zong N, Zhang J, Chen J, Chen M, Zhou JM (2011) BAK1 is not a target of the *Pseudomonas syringae* effector AvrPto. *Mol. Plant Microbe Interact.*, 24, 100-107.

Zhang J, Li W, **Xiang T**, Liu Z, Laluk K, Ding X, Zou Y, Gao M, Zhang X, Chen S, Mengiste T, Zhang Y, and Zhou JM (2010) Receptor-like cytoplasmic kinases integrate signaling from multiple immune receptors. *Cell Host & Microbe*, 7, 290-301.

Haitao Cui, **Xiang T** and Zhou JM (2009) Plant immunity: a lesson from pathogenic bacterial effector proteins. *Cellular Microbiology*, 10, 1453-61.

Zong N, **Xiang T**, Zou Y, Chai J, and Zhou JM (2008) Blocking and triggering of plant immunity by *Pseudomonas syringae* effector AvrPto. *Plant Signaling & Behavior*, 3: 583-585.

Xiang T, Zong N, Zou Y, Wu Y, Zhang J, Xing W, Li Y, Tang X, Zhu L, Chai J, and Zhou JM (2008) *Pseudomonas syringae* effector AvrPto blocks innate immunity by targeting receptor kinases. *Current Biology*, 18, 74-80.

Zheng B, Deng Y, Mu J, Ji Z, **Xiang T**, Niu QW, Chua NH and Zuo J (2006) Cytokinin affect circadian-clock oscillation in a phytochrome B- and Arabidopsis Response Regulator4-dependent manner. *Physiologia Plantarum*, 127: 277-292.

MANUSCRIPTS IN PREPARATION AND PREPRINTS

Marinov GK, Chen X, Swaffer MP, **Xiang T**, Grossman AR, Greenleaf WJ (2023) Genome-wide distribution of 5-hydroxymethyluracil and chromatin accessibility in the *Breviolum minutum* genome. *bioRxiv*, 2023.09. 18.558303

Vilarrasa-Blasi J, Vellosillo T, Jinkerson RE, Fauser F, **Xiang T**, Minkoff BB, Wang L, Kniazev K, Guzman M, Osaki J, Sussman MR, Jonikas MC, Dinneny JR (2022) Identification of green lineage osmotic stress pathways. *bioRxiv*, <http://doi.org/10.1101/2021.07.19.453009>

Kirk AL, Rosso JA, **Xiang T**. Elucidating the mechanisms of *Breviolum minutum* proliferation with *Aiptasia* using accessory pigment mutant. *In preparation*.

Borowsky A, **Xiang T**, Jinkerson RE. Symbiodiniaceae transcriptome network under various environmental conditions. *In preparation*.

Xiang T, Grossman AR. Divergent transcriptional responses of heat sensitive and resistant Symbiodiniaceae to elevated temperature. *In preparation*.

Esherick L, DeNofrio JC, Kediet CJ, Tolleter D, **Xiang T**, Grossman AR, Pringle JR. Relative contribution of host and algal genotypes to bleaching susceptibility in a cnidarian–dinoflagellate symbiosis. *In preparation*.

FUNDING

Current

Regents Faculty Fellowship, 2023 – 2024; Role: PI (\$7,500)

NSF EDGE: Collaborative Research: EDGE CMT: Discovery and functional characterization of genes that govern ciliate–algal symbiosis, 2022 – 2026; Role: PI (\$1,370,777)

The NC Biotechnology Center Flash Grant, 2022-2024; Role: PI (\$20,000)

UNCC Faculty Research Grant, 2022 – 2023; Role: PI (\$8,000)

Moore Aquatic Symbiosis Genomics Project at The Wellcome Sanger Institute, jointly funded by the Gordon and Betty Moore Foundation and the Wellcome Sanger Institute, 2021 – 2024;
Role: Co-PI (PI: Patrick Keeling; Total \$4,638,969 for genome and transcriptome sequencing)

Pending

NIH/NIGMS MIRA R35: Animal cell response to individual dysfunctional organelles, 2024 – 2029;
Role: PI (\$ 1,894,509)

Expired

ASPB Women's Young Investigator Travel Fund, 2022 (\$1,000)

UNCC Faculty Research Grant, 2020 – 2021; Role: PI (\$8,000)

Carnegie Institution for Science P² Seed grant, 2019; Role: PI (\$5,000)

International Phycological Congress Travel Fund, 2013; (\$500)

INVITED SEMINARS AND PRESENTATIONS

- 2023 Department of Biology Seminar, University of North Carolina at Chapel Hill
- 2023 Department of Biology Seminar, Pennsylvania State University
- 2023 Ciliate Molecular Biology Meeting 2023, Montpellier, France
- 2022 Department of Bioengineering Seminar, University of California, Riverside
- 2022 15th International Coral Reef Symposium, Bremen, Germany
- 2022 10th Annual Symbiosis Workshop, Sierra Nevada Research Institute, Wawona, CA
- 2021 Department of Plant Biology Seminar, University of Georgia, GA
- 2021 12th International Phycological Congress, virtual
- 2021 Virtual Meeting of Systematics, Biogeography, and Evolution
- 2020 Marine Sciences Department Seminar, University of North Carolina at Chapel Hill, NC
- 2019 Department of Biology Seminar, University of Florida, FL
- 2019 Department of Biological Sciences Seminar, University of North Carolina, Charlotte, NC
- 2017 University of Guam, The UOG Marine Laboratory, Mangilao, GU
- 2017 Institute of Microbiology, Chinese Academy of Sciences, Beijing, China
- 2016 13th International Coral Reef Symposium, Honolulu, HI
- 2015 Animal-Microbe Symbioses, Gordon Research Conference, Waterville Valley, NH
- 2014 Carnegie Department of Plant Biology Retreat, Lake Tahoe, CA. Awarded best poster presentation.
- 2014 The 10th anniversary of the Lindau-Program of the Sino-German Center for Research Promotion, Beijing, China
- 2013 10th International Phycological Congress, Orlando, FL
- 2013 The 22nd Western Photosynthesis Conference, Pacific Grove, CA
- 2012 The 12th International Coral Reef Symposium, Cairns, Queensland, Australia
- 2007 The 18th International Conference on Arabidopsis Research, Beijing, China

RESEARCHERS MENTORED

Dr. Pranee Pairs (Postdoctoral researcher, UCR)

Dr. Casandra Newkirk (NSF postdoctoral research fellow in Biology, UNCC)

Andrea Kirk (PhD student, UNCC)
Stephanie Peak (PhD student, UNC Chapel Hill)
Tessa Gebert (PhD student, Wayland H. Cato Jr. fellow, UNCC)
Janki Bhalodi (PhD student, UNCC)
Earl Givens (PhD student, UCR Botany and Plant Sciences)
Amy Do (Graduate researcher, UCR Bioengineering)
Chulin Cao (Graduate researcher, UCR Bioengineering)
Eric Huitt (Undergraduate researcher, UCR Bioengineering)
Sarrah Furniturewala (Undergraduate researcher, UCR Bioengineering)
Dev Bhatt (Undergraduate researcher, UCR Bioengineering)
Amber Alden (Undergraduate researcher, UCR Bioengineering)
Abraham Ramirez Sierra (Undergraduate researcher, UCR Bioengineering)
Tori Stoenner (Undergraduate researcher, UNCC)
Melanie Akers (SPARC4 undergraduate researcher, UNCC)
Kes Moore (Undergraduate researcher, UNCC)
Alexandra Tew (Undergraduate researcher, UNCC)
Mahita Sadula (Undergraduate researcher, UNCC, accepted to Still Scholars Program)
Sydney Elmore (Undergraduate researcher, UNCC)
Sankalp Vadlapudi (Undergraduate researcher, UNCC)
Cheri Arbello (Undergraduate researcher, UNCC)
Sean Patrick O'Conner (Undergraduate researcher, Stanford)
Elizabeth Duan (Undergraduate researcher, UC Irvine)
Shilin Cui (Undergraduate researcher, UC Berkeley)
Noah Rose (PhD student, Stanford)
Weijiao Huang (PhD student, NIBS, currently postdoc at Stanford)
Rong Yan (Undergraduate researcher, NIBS, currently Hai-Yan pharmaceuticals)
Sriram Ramamurthy (Los Altos High School, accepted to UC Santa Barbara)
James Shortland (Los Altos High School, accepted to the University of Manchester)
Everett Pustell (Los Altos High School, accepted to Miami University)

GRADUATE STUDENT COMMITTEES

Stephanie Peak, Ph.D. Student, 2022 – present
Earl Givens, Ph.D. Student, 2023 – present
Cheikh Dieng, Ph.D. Student, 2020 – 2022
John Ramsby, Ph.D. Student, 2020 – present
Taylor Parker, Ph.D. Student, 2020 – 2022
Chulin Cao, Master's Student, 2023 – present
Amy Do, Master's Student, 2023 – present
Amy Klock, Master's Student, 2019 – 2020

Sarah Estvander, Master's Student, 2020 – 2023

GRADUATE COURSES TAUGHT

BIEN 224	Cellular and Molecular Engineering, 2023 Fall
BIEN 175C	Senior Design, 2023 Spring
BIEN 249	Integration of Computational and Experimental Biology, 2023 Winter
BIOL 6241/8241	Environmental Biology, 2020 – present (2 times)
BIOL 6000/8000	Special Topics in Biology – Symbiosis, 2021 – present (2 times)

PROFESSIONAL SERVICE

2023	NSF Grant Review Panel
2023 –	Graduate Admission Committee, UCR Bioengineering
2022	Grant review Panel: NIH/NIAID Pathogenic Eukaryotes Study Section (PTHE)
2022	Search Committee Member, Tenure Track Assistant Professor position in the biology of viruses; Tenure-Track Assistant Professor position in the biology of microbes and microbial communities
2021	Poster judge for JGI User Meeting
2021	Reviewer, UNCC Graduate Student Summer Fellowship
2021 –	Guest Editor for Frontiers in Marine Science
2020 –	<i>Ad Hoc</i> Grant Reviewer: NSF
2020 – 2022	Seminar Committee Member, UNCC Department of Biological Sciences
2020	Discussion leader for the Plant Cell Atlas Workshop
2018	Organizer for Aiptasia–Dinoflagellate Symbiosis Workshop
2018	Organizer for Carnegie Summer Internship Program
2016	<i>Ad Hoc</i> Grant Reviewer, French National Research Agency
2016	Organizer for “Super Plant” session of NightLife at California Academy of Science
2015	Organizer for living poster session “Coral symbiosis” in Carnegie Trustee meeting
2014 – 2016	Organizer for Endosymbiosis Journal Club – Carnegie & Stanford
2014 –	Manuscript reviewer for journals: Current Biology, Nature Communications, The ISME Journal, mBio, Journal of Experimental Biology, Journal of Phycology, Journal of Eukaryotic Microbiology, Scientific Reports, Symbiosis, Planta, Algal Research, Molecular Plant-Microbe Interactions, Journal of Phycology, Environmental and Experimental Botany, Frontiers in Marine Science, PLoS ONE, Journal of Oceanology and Limnology, Coral Reef, Scientific Reports, Symbiosis, Planta.
2008 – 2009	President of NIBS Association of Graduates
2008	Organizer for the 1 st Young Scientists' Forum, Beijing, China

PROFESSIONAL SOCIETY MEMBERSHIPS

Genetics Society of America
International Society for Reef Studies
American Society for Cell Biology

American Society for Plant Biology