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ACADEMIC APPOINTMENTS

2016- Assistant Professor, Department of Biochemistry and Molecular Biology,
University of Chicago

Ph.D.-Granting Committee, Program, Institute, and Center Appointments

2016- Institute for Biophysical Dynamics
2016- Trainer, Graduate Program in Biophysical Sciences
2016- Trainer, Graduate Program in Biochemistry and Molecular Biophysics
2016- Trainer, Molecular Cellular Biology Training Grant

ACADEMIC TRAINING

2001-2005 B.S. with Honors, Chemical Physics. University of Science and Technology of
China, Hefei, China
2005-2010 Ph.D. with Honors, Chemistry, Columbia University, New York, NY
2010-2011 Postdoctoral Fellow, Department of Chemistry, Columbia University, New York,
NY
2011-2015 Postdoctoral Fellow, Center for the Physics of Living Cells (Physics Frontiers
Center funded by NSF), University of Illinois at Urbana-Champaign

FUNDING

(a) Current:

1. NSF. PI: Fei & Regev. My role: PI. Title: " Connecting the sequence logic of RNA splicing to
nuclear localization". Total direct costs to UChicago: \$432,313. Annual salary
recovery or effort: 5%. Project period: 8/2023 – 7/2026.

(b) Pending:

1. NIH R35 GM152173. PI: Fei. My role: PI. Title: " Gene regulation mediated by spatial and
temporal interplay between RNAs and RNA binding proteins". Total direct costs:
\$2,051,805. Project period: 12/2023 – 11/2028. (Impact score: 46, within
fundable range based on statistics in FYs 2021-2023, plan to resubmit in May
2024 if not funded)
2. NIH R01 HG013495. PI: Fei. My role: PI. Title: " Transcriptomic characterization of
membraneless organelles with scalable resolution". Total direct costs:
\$2,072,890. Project period: 4/2024 – 3/2029. (plan to resubmit in Jul 2024)

3. NIH R01 MH136094-A1. PI: Zhang & Fei. My role: co-PI. Title: " Functions and mechanisms of cell-type-specific intron retention in brain development". Total direct costs (my portion): \$1,186,455. Project period: 12/2024 – 11/2029.

(c) Past:

1. NIH/CEGS Y1_Pilot. PI: J Fei. My role: PI. Title: " Deep imaging of the epitranscriptome: deciphering the next layer of gene regulation". Total direct costs: \$6,000. Annual salary recovery or effort: 0%. Project period: 2/1/17-6/30/17.
2. Chicago Biomedical Consortium Catalyst Award. PI: Fei & Mondragon. My role: Co-PI. Title: "Probing the kinetics of tRNA recognition by T-box riboswitch at the single-molecule level ". Total direct costs: \$125,000. Annual salary recovery or effort: 2%. Project period: 2/1/17-2/28/19.
3. NIH/2 R01 GM092830-06A1. PI: Vanderpool. My role: Co-investigator. Title: "Molecular Determinants of Regulatory Hierarchy for Bacterial Small RNAs ". Total direct costs: \$250,000. Annual salary recovery or effort: 3%. Project period: 4/1/17-3/31/21.
4. Searle Scholars Program. PI: Fei. My role: PI. Title: " Single-molecule imaging of the epitranscriptome: deciphering the next layer of gene regulation ". Total direct costs: \$300,000. Annual salary recovery or effort: 1%. Project period: 7/1/17-6/30/20.
5. NIH/1 R01 MH114102-01. PI: Dickinson & Özkan. My role: Co-investigator. Title: "Split RNA polymerases for sensitive, multidimensional analysis of intercellular PPIs at synapses". Total direct costs: \$300,000. Annual salary recovery or effort: 8.3%. Project period: 7/1/17-7/30/21.
6. NIH/1 DP2 OD024286-01. PI: Fei. My role: PI. Title: "Quantitative imaging of epitranscriptomic regulation mediated by RNA modification". Total direct costs: \$1,500,000. Annual salary recovery or effort: 25%. Project period: 09/30/2017 – 08/31/2022.
7. NIH/1R21GM141670-01. PI: Fei & Tang. My role: PI. Title: "Spatially resolved high throughput lineage tracing by targeted in situ DNA diversification". Total direct costs: \$275,000. Annual salary recovery or effort: 5%. Project period: 6/1/2021 – 05/31/2023.

HONORS, PRIZES, AND AWARDS

2007	Blanche R. and David Kasindorf Fellowship Award, Department of Chemistry, Columbia University
2010	Hammett Award, Department of Chemistry, Columbia University
2017	Searle Scholar, Searle Scholars Program
2017	NIH Director's New Innovator Award
2018	Scialog Fellow on Chemical Machinery of the Cell, Research Corporation for Science Advancement
2024	Kavli Fellow, National Academy of Sciences

INVITED SPEAKING

Since joining the University of Chicago

2016	Invited speaker: " <i>Determination of in vivo regulation kinetics of small non-coding RNA in bacteria</i> ", RiboClub Annual Meeting, Sherbrooke, QC, Canada
2016	Invited speaker: " <i>Determination of in vivo regulation kinetics of small non-coding RNA in bacteria</i> ", Cancer Epigenetics and Nuclear Dynamics (CEND) Mini-

- symposium: The Roles of Non-Coding RNAs in Tumorigenesis, Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL.
- 2016 Research seminar: “*RNAs in Action: from Molecules to Cells*”, Department of Chemical Physics, University of Science & Technology of China, Hefei, China.
- 2017 Research seminar: “*RNAs in Action: from Molecules to Cells*”, School of Materials Science and Engineering, South China University of Technology, Guangzhou, China.
- 2017 Invited speaker: “*Kinetic regulation by bacterial small regulatory RNA*”, American Physical Society 2017 March Meeting, DBIO focus session, New Orleans, LA.
- 2018 Invited speaker: “*Two-step binding kinetics of tRNA ligand by T-box riboswitch*”, Chicago Biomedical Consortium Annual Symposium “A New Age of Structural Biology: Structure Meets Dynamics”, Chicago, IL.
- 2018 Research seminar: “*Kinetic mechanisms of cis- and trans- bacterial regulatory RNAs revealed by quantitative imaging*”, Center for Precision Environmental Health, and Department of Molecular and Cellular Biology, Baylor College of Medicine, Houston, TX.
- 2019 Research seminar: “*RNA-mediated gene regulation: one molecule at a time*”, Institute for Genomic Biology, University of Illinois Urbana-Champaign, Urbana, IL.
- 2019 Research seminar: “*RNA-mediated gene regulation: one molecule at a time*”, Department of Physics, University of Arkansas, Fayetteville, AR.
- 2019 Invited speaker: “*Dynamic interactions between Hfq and RNAs in live bacterial cells*”, Biophysical Society of Canada (BSC) annual meeting, Mississauga, ON, Canada.
- 2019 Invited speaker: “*Dynamic interactions between Hfq and RNAs in live bacterial cells*”, Gordon Research Conferences: Mechanisms of Microbial Transcription, Lewiston, ME.
- 2019 Research seminar: “*Gene Regulation by Bacterial Small RNA and RNA Chaperone Hfq*”, Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN. 2016
- 2019 Research seminar: “*Gene Regulation by Bacterial Small RNA and RNA Chaperone Hfq*”. Department of Chemical Physics, University of Science & Technology of China, Hefei, China.
- 2020 Invited speaker: “*Dynamic interactions between Hfq and RNAs in live bacterial cells*”, Symposium: Single molecule visualization of transcription, translation and splicing, 64th Biophysical Society Annual Meeting, San Diego, CA.
- 2020 Invited speaker, Next-Generation Genomics 2020, New York, NY. (Declined due to childbirth).
- 2020 Invited speaker, Symposium: Single-molecule microscopy of molecular search processes: from fundamental biophysics inquiry to pharmaceutical applications, American Chemical Society Fall National Meeting, San Francisco, CA. (Declined due to childbirth).
- 2020 Invited speaker: “*Dynamic interactions between Hfq and RNAs in live bacterial cells*”, Regulating with RNA in Bacteria Virtual Conference
- 2021 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Biological Sciences, Carnegie Mellon University, Pittsburgh, PA.
- 2021 Research Seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Molecular Biology and Genetics, Cornell University, Ithaca, NY.
- 2021 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Chemistry, Boston College, Boston, MA.

- 2021 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Chemistry, Mcgill University, Montreal, QC, Canada.
- 2022 Selected talk: “*Kinetic modeling reveals additional regulation at co-transcriptional level by post-transcriptional sRNA regulators*”, 6th Meeting on Regulating with RNA in Bacteria and Archaea, virtual.
- 2022 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Biophysics, Johns Hopkins University, Baltimore, MD.
- 2022 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Chemistry, Columbia University, New York, NY.
- 2022 Invited speaker: “*sRNA-mediated gene regulation in bacteria: action under the light*”, Symposium: Portable analytical systems and point-of-care analysis, Canadian Chemistry Conference and Exhibition (CCCE) 2022, Calgary, Alberta, Canada.
- 2022 Invited speaker: “*sRNA-mediated gene regulation in bacteria*”, TSRC workshop: The Complexity of Dynamics and Kinetics from Single Molecules to Cells, Telluride CO.
- 2022 Invited speaker: “*sRNA-mediated gene regulation in bacteria: action under the light*”, 6th Midwest single-molecule workshop, Omaha NE.
- 2022 Invited speaker: “*RNA-mediated gene regulation in bacteria: action under the light*”, Symposium: Dynamics of biomolecules in complex environments, American Chemical Society Fall Meeting 2022, Chicago IL.
- 2022 Invited speaker: “*RNA-mediated gene regulation in bacteria: action under the light*” 15th Asia Pacific Physics Conference (APPC15), virtual.
- 2022 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Microbiology, Ohio State University, Columbus, OH.
- 2022 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Université de Strasbourg, Institute of Molecular and Cell Biology, Strasbourg, France.
- 2022 Research seminar: “*RNA-mediated gene regulation: action under the light*”, Department of Biochemistry, University of Utah, Salt Lake City, UT.
- 2023 Invited speaker: “*Sequence-dependent RNA localization and organization at nuclear speckles*”, 37th Annual Symposium of The Protein Society, Boston, MA.
- 2023 Invited speaker: “*Sequence-dependent RNA localization and organization at nuclear speckles*”, University of Chicago, Institute for Biophysical Dynamics annual science symposium, Chicago, IL.
- 2023 Research seminar: “*Gene regulation through spatial and temporal interactions between RNA and RNA binding proteins*”, Department of Chemistry, Arizona State University, Tempe, AZ.
- 2023 Invited speaker: “*Sequence-dependent RNA localization and organization at nuclear speckles*”, Symposium: Optical spectroscopy and microscopy across biological scales, American Chemical Society Fall Meeting 2023, San Francisco, CA.
- 2023 Research seminar: “*RNA-mediated gene regulation: What imaging tells us*”, Department of Biochemistry & Cellular and Molecular Biology, The University of Tennessee, Knoxville, TN.
- 2023 Invited speaker: “*Context-dependent RNA localization to nuclear speckles*”, Advanced Optical Imaging Symposium 2023, University of Illinois Chicago, Chicago, IL.
- 2023 Research seminar: “*RNA-mediated gene regulation: What imaging tells us*”, Department of Biochemistry, University of Wisconsin, Madison, WI.

- 2023 Research seminar: “*Competition and collaboration between RNA and RNA binding proteins in gene regulation*”, Department of Chemistry, Stanford University, Stanford, CA.
- 2024 Invited speaker, Subgroup Symposium: Single-Molecule Forces, Manipulation & Visualization, 68th Biophysical Society Annual Meeting, Philadelphia, PA.
- 2024 Invited speaker, Biochemical Society Harden Conference on Single Molecule Bacteriology (SMOLBAC) III, Cotswolds, United Kingdom.
- 2024 Research seminar, Department of Molecular Biosciences, Northwestern University, Evanston, IL.

INVITED, ELECTED, OR APPOINTED EXTRAMURAL SERVICE

- 2016 Co-chair, Platform “Optical Microscopy and Super-Resolution Imaging I”. 60th annual meeting of Biophysical Society.
- 2017 Invited guest editor for a special issue entitled ‘Development and applications of single-molecule and super-resolution imaging’ at the journal *Physical Biology*,
- 2017- Member of eLife Early-Career Reviewer Pool
- 2019- Advisory board of Review Commons. (Review Commons transfers refereed preprints on behalf of the authors to bioRxiv and 17 affiliate journals.)
- 2021 Co-chair, Session “Subcellular RNA localization and spatial transcriptomics”, 2021 RNA Society Meeting.
- 2023 Co-chair, Session of Symposium: Optical spectroscopy and microscopy across biological scales, American Chemical Society Fall Meeting 2023, San Francisco.
- Various Manuscript reviewer for *Science*, *PNAS*, *Nature Methods*, *Nature Chemical Biology*, *Nature Chemistry*, *Nature Structural and Molecular Biology*, *Molecular Cell*, *eLife*, *Nature Communications*, *Cell Reports*, *Science Advances*, *Plos Biology*, *JACS*, *Biophysical Journal*, *Journal of Molecular Biology*, *Communications Biology*, *ACS synthetic Biology*, *mBio*, *Methods*, *WIREs RNA*, *Analytical Chemistry*, *Microbiology Spectrum*, *Plos One*, *Journal of Microbiological Methods*.
- Various Grant reviewer for *NSF*, *The M.J. Murdock Charitable Trust*, *German-Israeli Foundation for Scientific Research and Development*

PROFESSIONAL SOCIETIES

Elected or invited membership

- 2018 Scialog Fellow on Chemical Machinery of the Cell, Research Corporation for Science Advancement
- 2024 Invited attendee to the Kavli Frontiers of Science symposium, National Academy of Sciences

Membership in Professional Societies

- Biophysical Society, 2008-
 American Chemical Society, 2009-
 The RNA Society, 2015-
 Highlighted in the RNA Society “Spotlight” in 2022
 American Physical Society, 2016-
 The Protein Society, 2023-

EDUCATION

The College (B.A., B.S.)

- 2016- Undergraduate research mentor.

2018- BIOS 21360, Advanced Molecular Biology, Winter Quarter, nine lectures (course director, 50% of the total) with weekly discussion.

Graduate programs (Ph.D.):

2016 BCMB 30600, Nucleic Acids, Fall Quarter, five lectures (28% of the total).
 2016 BCMB 30800, Single Molecule Biochemistry, Spring Quarter. One guest lecture.
 2016 Chem 33200 Chemical Biology I, Fall Quarter. Two guest lectures.
 2017- BCMB 30600, Nucleic Acids, Fall Quarter, eight lectures (47% of the total) with weekly discussion.
 2017-2018 Chem 33200 Chemical Biology I, Fall Quarter. One guest lecture.
 2024 MGCB 31200 Molecular Biology I, Winter Quarter. One guest lecture.

Other:

2016-2019 Faculty trainer, Center for the Physics of Living Cells Summer School, University of Illinois at Urbana-Champaign. Provide hand-on training in the super-resolution microscopy module to students from domestic and international institutes.
 2016-2017 Guest lecturer, Modern Biophysical Methods (CHEM557, invited by Dr. Xiaojing Yang), Department of Chemistry, University of Illinois at Chicago.

Total contact hours:

2016-17 11 lecture hours
 2017-18 25 lecture hours + 7-8 hours for discussion sessions.
 2018-now 24 lecture hours + 7-8 hours for discussion sessions.

Research supervisor for trainees:

(a) High school students and teachers

2016-2017 Joshua Mu, Illinois Mathematics and Science Academy.

(b) Undergraduates (B.A., B.S.)

Research supervisor for University of Chicago undergraduates

2016-2017 Carter Stout. Presently a graduate student in Chemistry at Scripps.
 2016-2020 Magda Bujnowska. Presently in the MSTP program at University of Virginia Medical School.
 2016-2020 Shriram Chennakesavalu. Presently a graduate student in Chemistry at Stanford University.
 2017-2018 Eric D. Cormack. Presently in the MSTP program at Johns Hopkins Medical School.
 2021 Jane Tio. Supported by Katen Scholars Program.
 2021 Glingna Wang. Supported by the Quad Faculty Grant Program.
 2022 Andrew Huang. Supported by the Katen Scholars Program.
 2023 Anna Perez. Supported by the Katen Scholars Program.

Faculty member on thesis committees for

2021 Selin E. Yalcindag, University of Chicago.
 2022 Rahul Burra, University of Chicago.
 2023 Peyton Dooley, University of Chicago

(c) Graduate (Ph.D. and M.S)

Principal research supervisor for

2016-2021 Jiacheng Zhang, Biophysics Program (graduated with Ph.D.).
 2016-2021 Matt Reyer, Biophysics Program (graduated with Ph.D.).

2016-2020 Eric L. McLean, Cell and Molecular Biology (CMB) Program.
 2021-2022 Yunzheng Liu, Master of Science in the Physical Sciences Division (graduated with M.S.).
 2021- Li Wen, Ph.D program in Department of Physics.

Thesis committee member or chair for

2016-2020 Member for Simone Rauch, Biochemistry and Molecular Biophysics (BMB) Program.
 2016-2021 Member for Cody Hernandez, Cell and Molecular Biology (CMB) Program.
 2016-2021 Chair for Haneul Yoo, Biochemistry and Molecular Biophysics (BMB) Program.
 2018-2023 Member for Jordan Brown, Cell and Molecular Biology (CMB) Program.
 2019-2022 Chair for Christopher Watkins, Biochemistry and Molecular Biophysics (BMB).
 2020- Chair for Sihao Huang, Biochemistry and Molecular Biophysics (BMB) Program.
 2021- Member for Marcus Foo, Microbiology Program.
 2021- Member for Matt Moore, Biochemistry and Molecular Biophysics (BMB) Program.
 2023- Member for Brandon Chew, Cell and Molecular Biology (CMB) Program.
 2023- Member for Erick Torres Guasp, Biochemistry and Molecular Biophysics (BMB).
 2023- Member for Yichen Hou, Genetic, Genomics and Systems Biology (GGSB).
 2023- Member for Luke Fietze, Biochemistry and Molecular Biophysics (BMB).

(d) Postdoctoral

2016-2021 Seongjin Park, Ph.D. Presently Senior Engineer at Illumina
 2019-2021 Amine Driouchi, Ph.D. Presently Scientist II at Eikon Therapeutics.
 2020 Shafi Azam, Ph.D. Presently postdoctoral fellow in Dr. Dominique Missiakas's group at University of Chicago.
 2020- Jinjun Wu, Ph.D.
 2021- Sneha Paul, Ph.D.
 2022- Xinqi Fan, Ph.D.

(e) Other

2016 Rotation supervisor for Cody Hernandez, Cell and Molecular Biology Program.
 2016-2020 Principal supervisor for Emily Heideman, research specialist, University of Chicago. Presently MD candidate at University of South Florida Medical School
 2017-2018 Principal supervisor for Joanna Zareba, visiting student, University of Technology in Wroclaw (Poland). Presently PhD candidate at Institute of Molecular Life Sciences, University of Zurich.
 2017-2018 Principal supervisor for Sooji Kim, Biochemistry and Molecular Biophysics (BMB) Program. Presently in Dr. Michael Rust's group.
 2019 Principal supervisor for Jiawei Ding, visiting undergraduate student from REU program, Tsinghua University (China).
 2019 Principal supervisor for Yu Fu, visiting undergraduate student from REU program, Peking University (China).
 2021-2022 First-year academic advisor for Caroline Kaminsky, Biochemistry and Molecular Biophysics (BMB) Program.
 2021- Principal supervisor for Alyssa Guzman, research specialist, University of Chicago.
 2021- Principal supervisor for Zunwu Zhou, research professional, University of Chicago.
 2023-2024 Academic advisor for Alyssa Guzman, Biochemistry and Molecular Biophysics (BMB) Program.

SERVICE**University of Chicago**Committee membership:

2016	Preliminary examiner for Christina Roman, BMB
2017-2021	Graduate Student Admissions Committee, Molecular Biosciences
2017-	Graduate Student Admissions Committee, Biophysics Program
2017	Preliminary examiner for Jane Lodwick, BMB
2017	Preliminary examiner for Nicole Ladd, BMB
2018-	Selection committee for IBD seminar speakers
2018	Preliminary examiner for Andrew Wang, MSTP
2018	Preliminary examiner for Dian Liu, BMB (cancelled by the student)
2019	Preliminary examiner for Caitlin Wong, BMB
2019	Preliminary examiner for Sihao Huang, BMB
2019	Faculty Search Committee, BMB
2019-	Review Committee for the Chicago Fellow Program
2019-2020	Faculty Survey Committee for IBD with a particular focus on the future role and important of IBD
2020	Presentation judge for Grier Prize competition, IBD and Biophysics Graduate Program
2021	Preliminary examiner for Erin Higgins, BMB
2021	Faculty Search Committee, BMB
2021-	Grier Prize selection committee, IBD and Biophysics Graduate Program
2021	Committee for Institute of Biophysical Dynamics (IBD) directorship, for recommending IBD director for the next term.
2022	Preliminary examiner for Caroline Kaminsky, BMB
2023	Preliminary examiner for Erik Torres Guasp, BMB
Various	Inviter and host for visiting speakers for BMB and IBD seminar series: Ido Golding, Baylor College of Medicine; Ailong Ke, Cornell University; Jörg Vogel, University of Würzburg; Qiong Yang, University of Michigan, Ann Arbor; Aaron Hoskins, University of Wisconsin, Madison; Bo Huang, University of California, San Francisco; Jeff Kieft, University of Colorado School of Medicine; Johan Elf, Uppsala University; Patricia Clark, University of Notre Dame, Sarah Woodson, Johns Hopkins University; Kai Zhang, University of Illinois, Urbana-Champaign; Gisela Storz, National Institutes of Health; Adrian R. Ferré-D'Amaré, National Institutes of Health; Samuel Sternberg, Columbia University; Jie Xiao, Johns Hopkins University; Jian Ma, Carnegie Mellon University; Liang Tong, Columbia University; Ruben Gonzalez, Columbia University; Julie Biteen, University of Michigan; Bo Wang, Stanford University.

Other:

Various	Interviewer of MSTP candidates, Pritzker School of Medicine
2017	Discussion facilitator, "Life in the Math Lane" club for undergraduate students interested in quantitative biology, The College of the University of Chicago
2018-2019	Panelist, "How to Give a Chalk Talk for an Academic Job Interview", Biochemistry and Molecular Biology Postdoctoral Series
2018	Session chair, Science @ the Interface IBD Symposium -- Microscopy: Advances and Applications
2021	Panelist, "The process of applying for faculty positions in the US", myCHOICE.

BIBLIOGRAPHY

* Co-correspondence

Equal contribution

(a) Peer-reviewed publications in the primary literature, exclusive of abstracts*Publications at The University of Chicago*

47. E Campos-Chavez[#], S Paul[#], Z Zhou, D Alonso, AR Verma, **J Fei**^{*}, A Mondragon^{*}, (2024). Translational T-box riboswitches bind tRNA by modulating conformational flexibility. *bioRxiv*.
<https://www.biorxiv.org/content/10.1101/2024.02.02.578613v1> (In revision at **Nature Communications**)
46. J Wu[#], Y Xiao[#], Y Liu[#], L Wen, C Jin, S Liu, S Paul, C He, O Regev^{*}, **J Fei**^{*}, (2024) Dynamics of RNA localization to nuclear speckles are connected to splicing efficiency. *BioRxiv*.
<https://www.biorxiv.org/content/10.1101/2024.02.29.581881v1.abstract>
45. S Paul[#], MA Arias[#], L Wen, SE Liao, J Zhang, X Wang, O Regev^{*}, **J Fei**^{*}, (2023). Nuclear speckle-localized RNAs exhibit preferential positioning and orientation. *iScience* (**Accepted in principle**).
bioRxiv: <https://www.biorxiv.org/content/10.1101/2022.10.17.512423v1>
44. T Ha, **J Fei**, S Schmid, NK Lee, RL Gonzalez, Jr., S Paul, S Yeou (2024). Fluorescence resonance energy transfer at the single-molecule level. *Nature Reviews Methods Primers* (**Accepted**).
43. T Wu, A Cheng, X Li, J Wu, Y Zhang, J Xu, B Liu, X Dou, P Wang, L Zhang, **J Fei**, J Li, Z Ouyang, C He (2024). KARR-seq reveals cellular RNA higher-order structures and RNA-RNA interactions. *Nature Biotechnology*.
<https://www.nature.com/articles/s41587-023-02109-8>
42. Y Xiao, Y-M Chen, Z Zou, C Ye, X Dou, J Wu, C Liu, S Liu, H Yan, P Wang, T Zeng, Q Liu, **J Fei**, W Tang, C He (2024). Profiling of RNA-binding protein binding sites by in-situ reverse transcription-based sequencing, *Nature Methods*. **21**(2):247
<https://www.nature.com/articles/s41592-023-02146-w>
41. KK Ray, CD Kinz-Thompson, **J Fei**, B Wang, Q Lin, RL Gonzalez (2023) Entropic control of the free-energy landscape of an archetypal biomolecular machine, *Proc Natl Acad Sci, USA*, **120**: e2220591120.
<https://www.pnas.org/doi/10.1073/pnas.2220591120>
40. Z Luo, J Zhang, **J Fei**, S Ke, (2022) Deep learning modeling m6A deposition reveals the importance of downstream cis-element sequences, *Nature Communications*, **13**:2720.
<https://www.nature.com/articles/s41467-022-30209-7>
39. MA Reyer, S Chennakesavalu[#], EM Heideman[#], X Ma, M Bujnowska, L Hong, AR Dinner, CK Vanderpool, **J Fei**, (2021) Kinetic modeling reveals additional regulation at co-transcriptional level by post-transcriptional sRNA regulators, *Cell Reports*, **36**: 109764. (# co-authorship)

<https://www.sciencedirect.com/science/article/pii/S2211124721012183?via%3Dihub>

38. D Lalaouna, K Prevost[#], S Park[#], T Chenard, M Bouchard, M Caron, CK Vanderpool, **J Fei**^{*}, E Masse^{*}, (2021) Binding of the RNA chaperone Hfq on target mRNAs promotes the small RNA RyhB-induced degradation in Escherichia coli, *Non-Coding RNA*, **7**: 64. (* co-correspondence)
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8544716/>
37. Yu Y[#], Zheng Q[#], Erramilli SK[#], Pan M[#], Park S, Xie Y, Li J, **Fei J**, Kossiakoff AA^{*}, Liu L^{*}, Zhao M^{*}, (2021) K29-linked ubiquitin signaling regulates proteotoxic stress response and cell cycle, *Nature Chemical Biology*, doi: 10.1038/s41589-021-00823-5. (* co-correspondence, # co-authorship)
<https://www.nature.com/articles/s41589-021-00823-5>
36. E Lerner^{#*}, A Barth^{#*}, J Hendrix^{#*}, B Ambrose, V Birkedal, SC Blanchard, R Borner, HS Chung, T Cordes, TD Craggs, AA Deniz, J Diao, **J Fei**, RL Gonzalez, IV Gopich, T Ha, C A Hanke, G Haran, NS Hatzakis, S Hohng, S-C Hong, T Hugel, A Ingargiola, C Joo, AN Kapanidis, HD Kim, T Laurence, NK Lee, T-H Lee, EA Lemke, E Margeat, J Michaelis, X Michalet, S Myong, D Nettels, T-O Peulen, E Ploetz, Y Razvag, NC Robb, B Schuler, H Soleimaninejad, C Tang, R Vafabakhsh, DC Lamb^{*}, CAM Seidel^{*}, S Weiss^{*}, (2021) FRET-based dynamic structural biology: Challenges, perspectives and an appeal for open-science practices, *eLife*, **10**:e60416. (* co-correspondence, # co-authorship)
<https://elifesciences.org/articles/60416>
35. S Park[#], K Prevost[#], EM Heideman[†], M-C Carrier[†], MS Azam, MA Reyer, W Liu, E Masse^{*}, **J Fei**^{*}, (2021) Dynamic interactions between the RNA chaperone Hfq, small regulatory RNAs and mRNAs in live bacterial cells, *eLife*, **10**:e64207. (* co-correspondence, #[†] co-authorship)
<https://elifesciences.org/articles/64207>
34. A Poddar, MS Azam, T Kayikcioglu, M Bobrovskyy, J Zhang, X Ma, P Labhsetwar, **J Fei**, D Singh, Z Luthey-Schulten, CK Vanderpool, T Ha, (2021) Effects of individual base-pairs on in vivo target search and destruction kinetics of small RNA, *Nature Communications* **12**:1
<https://www.nature.com/articles/s41467-021-21144-0#:~:text=Single%20base%2Dpair%20mismatches%20in,target%20by%20about%20a%20third.>
33. Y Fan, Y Lim, LS Wyss, S Park, C Xue, H Fu, **J Fei**, Y Hong, B Wang (2021) Mechanical expansion microscopy, *Methods in Cell Biology*, **161**:125.
<https://www.sciencedirect.com/science/article/pii/S0091679X20301023>
32. M Bujnowska, J Zhang, Q Dai, EM Heideman, **J Fei**, (2020), Deoxyribozyme-based method for absolute quantification of N6-methyladenosine fraction at specific sites of RNA, *Journal of Biological Chemistry*, **295**:6992.
[https://www.jbc.org/article/S0021-9258\(17\)48202-0/fulltext](https://www.jbc.org/article/S0021-9258(17)48202-0/fulltext)
31. Y Wang^{*}, **J Fei**^{*} (2020) Continuous active development of super-resolution fluorescence microscopy, *Phys Biol* **17**:030401. (* co-correspondence)
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7658958/>

30. S Park, MA Reyer, EL McLean, W Liu, **J Fei**, (2019) An improved method for bacterial immunofluorescence staining to eliminate antibody exclusion from the fixed nucleoid, *Biochemistry* **58**:4457.
<https://pubs.acs.org/doi/10.1021/acs.biochem.9b00724>
29. J Zhang[#], B Chetnani[#], ED Cormack, D Alonso, W Liu, A Mondragón, **J Fei**, (2018), Specific structural elements of the T-box riboswitch drive the two-step binding of the tRNA ligand, *eLife*, **7**:e39518. ([#] co-authorship).
<https://elifesciences.org/articles/39518>
28. **J Fei**^{*}, CM Sharma^{*}. (2018) RNA Localization in Bacteria, *Microbiol Spectr*, **6**, no. 5
doi:10.1128/microbiolspec.RWR-0024-2018. (^{*} co-correspondence)
<http://www.asmscience.org/content/journal/microbiolspec/10.1128/microbiolspec.RWR-0024-2018>
27. S Park, J Zhang, MA Reyer, J Zareba, AA Troy, **J Fei**. (2018) Conducting Multiple Imaging Modes with One Fluorescence Microscope, *JoVE*, **140**: e58320,
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