Stanford



Joseph (Jody) Puglisi

Jauch Professor and Professor of Structural Biology

CONTACT INFORMATION

- **Alternate Contact**

  Manolia Margaris - Associate Director of Research Administration and Organizational Affairs

  Email manolia@stanford.edu

  Tel (650) 723-9151

Bio

ACADEMIC APPOINTMENTS

- Professor, Structural Biology
- Member, Bio-X

ADMINISTRATIVE APPOINTMENTS

- Member, Editorial Board, Proceedings of the National Academies of Science, (2017- present)
- Editor, Biophysical Journal, (2014- present)
- Member, Advisory Editorial Board, EMBO reports, (2011- present)
- Editor, Structure, (2007- present)
- Chair, Dept of Structural Biology, Stanford University School of Medicine, (2004-2014)
- Associate Chair, Dept of Structural Biology, Stanford University School of Medicine, (1997-2004)
- Director, Stanford Magnetic Resonance Laboratory, Stanford University School of Medicine, (1997- present)
- Member, Postdoctoral Affairs Committee, Stanford University School of Medicine, (2001-2002)
- Chair, Postdoctoral Affairs Committee, Stanford University School of Medicine, (2002-2005)
- Member, NIH BBCA Study Section, (2003-2007)
- Senior Editor, Structure, (2003-2007)
- Director, Int'l School of Biological Magnetic Resonance, EMFCSC, Erice, Italy, (2003- present)
- Chair, Provost's Advisory Board for Postdoctoral Affairs, Stanford University, (2005-2008)
- Chair, University Committee on Postdoctoral Affairs, Stanford University, (2008-2009)

HONORS AND AWARDS

- Member, National Academy of Sciences (2014)
- Merit Award, NIH (2011)
- NIH Director's Transformative R01 (T-R01) Program Award, NIH (2011)

- Alfred P. Sloan Research Fellow, Alfred P. Sloan Research Foundation (1997)
- David and Lucille Packard Fellow, David and Lucille Packard Fellowship in Science and Engineering (1994-99)
- Teacher Scholar, Camille and Henry Dreyfus Teacher Scholar Award (1993)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Council member, Biophysical Society (2014 - 2017)

PROFESSIONAL EDUCATION

- Ph.D., Univ of California, Berkeley , Biophysical Chemistry (1989)
- B.A., The Johns Hopkins University , Chemistry (1984)

COMMUNITY AND INTERNATIONAL WORK

- ISBMR, 16th Course: Frontiers of Biophysics, Erice, Sicily, Italy
- ISBMR, 15th Course: Biophysics and Molecular Structure, 20-28 May 2017, Erice, Sicily
- ISBMR, 14th Course: Future of Molecular Biophysics, 7-17 May 2016, Erice-Sicily, Italy
- ISBMR, 13th Course: Future of Biophysics and Structural Biology, 31 Jul-9 Aug 2014, Erice-Sicily, Italy
- ISBMR, 12th Course: Future of Biophysics, 9-19 June 2013, Erice-Sicily, Italy
- ISBMR, 11th Course: Frontiers of Biophysics and Structural Biology, 11-21 June 2012, Erice-Sicily, Italy
- ISBMR, 10th Course: Biophysics and Structure to Counter Threats and Challenges, 22 June-2 July 2010, Erice-Sicily, Italy
- ISBMR, 9th Course: Biophysics and Structure, 22 June-2 July 2009, Erice-Sicily, Italy
- ISBMR, 8th Course: Biophysics and the Challenges of Emerging Threats, 19-30 June 2007, Erice-Sicily, Italy
- ISBMR, 7th Course: Structure & Biophysics, 22 Jun-3 Jul 2005, Erice-Sicily, Italy
- ISBMR, 6th Course: Structure, Dynamics, & Function of Biological Macromolecules, 10-22 July 2003, Erice-Sicily, Italy
- ISBMR, 5th Course: Protein Structure, Dynamics, Genomics and Function, 5-15 June 2001, Erice

LINKS

- https://puglisi.stanford.edu/: https://puglisi.stanford.edu/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The Puglisi group investigates the role of RNA in cellular processes and disease. Our goal is to understand RNA function in terms of molecular structure and dynamics using a variety of biophysical and biological tools. We use nuclear magnetic resonance (NMR) spectroscopy to determine structures of biological molecules, and integrate structural understanding into further mechanistic and functional studies. We investigate dynamics using single-molecule approaches. Our goal is a unified picture of structure, dynamics and function. We are currently focused on the mechanism and regulation of translation, and the role of RNA in viral infections. A long-term goal is to target processes involving RNA with novel therapeutic strategies.

Teaching

COURSES

2025-26

- Methods in Molecular Biophysics: BIOPHYS 242, SBIO 242 (Win)
- Nucleic Acid Structure and Function: SBIO 240 (Win)

2023-24

- Methods in Molecular Biophysics: BIOPHYS 242, SBIO 242 (Win)
- Nucleic Acid Structure and Function: SBIO 240 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Drew Galls, Gabriel Tauber

Postdoctoral Faculty Sponsor

Hironori Saito

Doctoral Dissertation Advisor (AC)

Carlos Alvarado, Ajinkya Dhepe, Joan Lee, Michael Palo, Crystal Stackhouse

Doctoral Dissertation Co-Advisor (AC)

Helen Elmer

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (PhD Program)
- Biophysics (PhD Program)
- Chemical and Systems Biology (PhD Program)
- Microbiology and Immunology (PhD Program)
- Structural Biology (PhD Program)

Publications

PUBLICATIONS

- **Translation fidelity mechanisms and their changes in aging.** *bioRxiv : the preprint server for biology*
  Rangel, M. A., Powers, C., Lee, J., Tarbox, H. E., Wood, N. B., Fried, S. D., Quake, S., Puglisi, J. D.
  2026
- **The proportional scaling of mRNA and ribosome concentrations controls eukaryotic cell growth.** *Nature cell biology*
  Gao, X., Lanz, M., Grosely, R., Cremer, J., Puglisi, J., Skotheim, J. M.
  2026
- **Remodeling of mRNA by eIF4F in human translation initiation.** *bioRxiv : the preprint server for biology*
  Alvarado, C., Lapointe, C. P., Wang, J., Sokabe, M., Grosely, R., Dhepe, A. A., Stackhouse, C. I., Palo, M. Z., Mamot, A., Jemielity, J., Fraser, C. S., Puglisi, J. D.
  2026
- **A ribosomal kinetic checkpoint governs selective mRNA recruitment.** *bioRxiv : the preprint server for biology*
  Sokabe, M., Alvarado, C., Lapointe, C. P., Villa, N., Puglisi, J. D., Fraser, C. S.
  2026
- **Conformational remodeling of mRNA in human translation initiation**
  Acosta, C., Lapointe, C., Wang, J., Stackhouse, C., Palo, M., Puglisi, J.
  ELSEVIER.2026
- **Dynamic remodeling of long-range flavivirus RNA interactions in translation initiation**
  Palo, M. Z., Alvarado, C., Puglisi, J. D., Puglisi, E.
  CELL PRESS.2026: 388a
- **Mechanistic insights into human scanning during translation initiation**
  Dhepe, A., Alvarado, C., Puglisi, J. D.

CELL PRESS.2026: 257a

- **Mechanisms of translation initiation on the structured HIV-1 5' UTR**
  Stackhouse, C. I., Alvarado, C., Grosely, R., Fernandez, I., Puglisi, J. D., Puglisi, E.
  CELL PRESS.2026: 256a-257a
- **Investigating the role of RRBP1 in dengue viral RNA localization and protein translation**
  Lee, J., Palo, M., Puglisi, E., Puglisi, J.
  CELL PRESS.2026: 57a
- **Investigating the role of RRBP1 in dengue viral RNA localization and protein translation**
  Lee, J., Palo, M., Puglisi, E., Puglisi, J.
  CELL PRESS.2026: 57a
- **eIF1 and eIF5 dynamically control translation start site fidelity.** *Nature structural & molecular biology*
  Grosely, R., Alvarado, C., Ivanov, I. P., Nicholson, O. B., Puglisi, J. D., Dever, T. E., Lapointe, C. P.
  2025
- **Conserved long-range interactions are required for stable folding of orthoflaviviral genomic RNA.** *Nucleic acids research*
  Palo, M. Z., Ha, B., Lapointe, C. P., Alvarado, C., Janetzko, J., Carette, J. E., Puglisi, J. D., Puglisi, E. V.
  2025; 53 (11)
- **Taming the ribosome.** *Biophysical journal*
  Puglisi, J. D.
  2024
- **eIF1 and eIF5 dynamically control translation start site fidelity.** *bioRxiv : the preprint server for biology*
  Grosely, R., Alvarado, C., Ivanov, I. P., Nicholson, O. B., Puglisi, J. D., Dever, T. E., Lapointe, C. P.
  2024
- **A novel tRNA feature found in an archaeal pyrrolysyl tRNA is a requirement for PylRS recognition**
  Zhang, J., Krahn, N., Melnikov, S. V., Tharp, J. M., Villa, A., Patel, A., Howard, R. J., Gabir, H., Patel, T. R., Stetefeld, J., Puglisi, J. D., Soll, D.
  CELL PRESS.2024: 181A
- **Role of human PABPC1 in canonical and viral translation initiation**
  Lim, K., Palo, M. Z., Puglisi, J. D., Puglisi, E.
  CELL PRESS.2024: 362A
- **Impacts of HIV-1 5′ UTR structure on mRNA translation initiation**
  Stackhouse, C. I., Jackson, L. N., Alvarado, C., Grosely, R., Puglisi, J. D., Puglisi, E.
  CELL PRESS.2024: 360A-361A
- **Long-range RNA interactions in flavivirus replication**
  Palo, M. Z., Ha, B., Lapointe, C., Alvarado, C., Puglisi, J. D., Puglisi, E.
  CELL PRESS.2024: 85A
- **N6-methyladenosine in 5' UTR does not promote translation initiation.** *Molecular cell*
  Guca, E., Alarcon, R., Palo, M. Z., Santos, L., Alonso-Gil, S., Davyt, M., de Lima, L. H., Boissier, F., Das, S., Zagrovic, B., Puglisi, J. D., Hashem, Y., Ignatova, et al
  2024
- **tRNA shape is an identity element for an archaeal pyrrolysyl-tRNA synthetase from the human gut.** *Nucleic acids research*
  Krahn, N., Zhang, J., Melnikov, S. V., Tharp, J. M., Villa, A., Patel, A., Howard, R. J., Gabir, H., Patel, T. R., Stetefeld, J., Puglisi, J., Söll, D.
  2023
- **Partial spontaneous intersubunit rotations in pretranslocation ribosomes.** *Proceedings of the National Academy of Sciences of the United States of America*
  Huang, T., Choi, J., Prabhakar, A., Puglisi, J. D., Petrov, A.
  2023; 120 (41): e2114979120
- **Universal features of Nsp1-mediated translational shutdown by coronaviruses.** *Molecular cell*

Schubert, K., Karousis, E. D., Ban, I., Lapointe, C. P., Leibundgut, M., Bäumlin, E., Kummerant, E., Scaiola, A., Schönhut, T., Ziegelmüller, J., Puglisi, J. D., Mühlemann, O., Ban, et al
2023; 83 (19): 3546-3557.e8

- **Human immunodeficiency virus 1 5'-leader mutations in plasma viruses before and after the development of reverse transcriptase inhibitor-resistance mutations.** *The Journal of general virology*
  Nouhin, J., Tzou, P. L., Rhee, S., Sahoo, M. K., Pinsky, B. A., Krupkin, M., Puglisi, J. D., Puglisi, E. V., Shafer, R. W.
  2023; 104 (10)

- **Real-time detection of human telomerase DNA synthesis by multiplexed single-molecule FRET.** *Biophysical journal*
  Hentschel, J., Badstübner, M., Choi, J., Bagshaw, C. R., Lapointe, C. P., Wang, J., Jansson, L. I., Puglisi, J. D., Stone, M. D.
  2023

- **Pressure pushes tRNALys3 into excited conformational states.** *Proceedings of the National Academy of Sciences of the United States of America*
  Wang, J., Koduru, T., Harish, B., McCallum, S. A., Larsen, K. P., Patel, K. S., Peters, E. V., Gillilan, R. E., Puglisi, E. V., Puglisi, J. D., Makhatadze, G., Royer, C. A.
  2023; 120 (26): e2215556120

- **HIV-1 5'-Leader Mutations in Plasma Viruses Before and After the Development of Reverse Transcriptase Inhibitor-Resistance Mutations.** *medRxiv : the preprint server for health sciences*
  Nouhin, J., Tzou, P., Rhee, S., Sahoo, M. K., Pinsky, B. A., Krupkin, M. A., Puglisi, J. D., Puglisi, E. V., Shafer, R. W.
  2023

- **Universal features of Nsp1-mediated translational shutdown by coronaviruses.** *bioRxiv : the preprint server for biology*
  Schubert, K., Karousis, E. D., Ban, I., Lapointe, C. P., Leibundgut, M., Baumlin, E., Kummerant, E., Scaiola, A., Schonhut, T., Ziegelmuller, J., Puglisi, J. D., Muhlemann, O., Ban, et al
  2023

- **Dynamics of release factor recycling during translation termination in bacteria.** *Nucleic acids research*
  Prabhakar, A., Pavlov, M. Y., Zhang, J., Indrisiunaite, G., Wang, J., Lawson, M. R., Ehrenberg, M., Puglisi, J. D.
  2023

- **Basis of speed and fidelity in eukaryotic translation termination.** *Biophysical journal*
  Lawson, M. R., Lessen, L. N., Green, R., Puglisi, J. D.
  2023; 122 (3S1): 317a

- **Rapid 40S scanning and its regulation by mRNA structure during eukaryotic translation initiation.** *Cell*
  Wang, J., Shin, B., Alvarado, C., Kim, J., Bohlen, J., Dever, T. E., Puglisi, J. D.
  2022

- **Uncovering translation roadblocks during the development of a synthetic tRNA.** *Nucleic acids research*
  Prabhakar, A., Krahn, N., Zhang, J., Vargas-Rodriguez, O., Krupkin, M., Fu, Z., Acosta-Reyes, F. J., Ge, X., Choi, J., Crnkovic, A., Ehrenberg, M., Puglisi, E. V., Soll, et al
  2022

- **eIF5B and eIF1A reorient initiator tRNA to allow ribosomal subunit joining.** *Nature*
  Lapointe, C. P., Grosely, R., Sokabe, M., Alvarado, C., Wang, J., Montabana, E., Villa, N., Shin, B., Dever, T. E., Fraser, C. S., Fernandez, I. S., Puglisi, J. D.
  2022

- **Direct tracking of eukaryotic translation termination dynamics**
  Lawson, M. R., Lessen, L., Wang, J., Green, R., Puglisi, J. D.
  CELL PRESS.2022: 202A

- **40S scanning unveiled by smFRET**
  Wang, J., Puglisi, J. D.
  CELL PRESS.2022: 33

- **Pressure Effects on the Conformational Transitions of tRNA(Lys3)**
  Wang, J., Harish, B., Larsen, K., Puglisi, J. D., Gillilan, R., Royer, C. A.

CELL PRESS.2021: 315A

- **N 6-Methyladenosines in mRNAs reduce the accuracy of codon reading by transfer RNAs and peptide release factors.** *Nucleic acids research*
  Ieong, K., Indrisiunaite, G., Prabhakar, A., Puglisi, J. D., Ehrenberg, M.
  2021
- **Dynamic competition between SARS-CoV-2 NSP1 and mRNA on the human ribosome inhibits translation initiation.** *Proceedings of the National Academy of Sciences of the United States of America*
  Lapointe, C. P., Grosely, R. n., Johnson, A. G., Wang, J. n., Fernández, I. S., Puglisi, J. D.
  2021; 118 (6)
- **Mechanisms that ensure speed and fidelity in eukaryotic translation termination.** *Science (New York, N.Y.)*
  Lawson, M. R., Lessen, L. N., Wang, J., Prabhakar, A., Corsepius, N. C., Green, R., Puglisi, J. D.
  2021; 373 (6557): 876-882
- **Structural basis for the transition from translation initiation to elongation by an 80S-eIF5B complex.** *Nature communications*
  Wang, J., Wang, J., Shin, B., Kim, J., Dever, T. E., Puglisi, J. D., Fernandez, I. S.
  2020; 11 (1): 5003
- **Polysomes Bypass a 50 Nucleotide Coding Gap less Efficiently than Monosomes Due to Attenuation of a 5' mRNA Stem Loop and Enhanced Drop-off.** *Journal of molecular biology*
  O'Loughlin, S., Capece, M. C., Klimova, M., Wills, N. M., Coakley, A., Samatova, E., O'Connor, P. B., Loughran, G., Weissman, J. S., Baranov, P. V., Rodnina, M. V., Puglisi, J. D., Atkins, et al
  2020
- **Transient Protein-RNA Interactions Guide Nascent Ribosomal RNA Folding**
  Duss, O., Stepanyuk, G. A., Puglisi, J. D., Williamson, J. R.
  CELL PRESS.2020: 334A
- **A memory of eS25 loss drives resistance phenotypes.** *Nucleic acids research*
  Johnson, A. G., Flynn, R. A., Lapointe, C. P., Ooi, Y. S., Zhao, M. L., Richards, C. M., Qiao, W. n., Yamada, S. B., Couthouis, J. n., Gitler, A. D., Carette, J. E., Puglisi, J. D.
  2020
- **The energy landscape of -1 ribosomal frameshifting.** *Science advances*
  Choi, J. n., O'Loughlin, S. n., Atkins, J. F., Puglisi, J. D.
  2020; 6 (1): eaax6969
- **A short translational ramp determines the efficiency of protein synthesis.** *Nature communications*
  Verma, M., Choi, J., Cottrell, K. A., Lavagnino, Z., Thomas, E. N., Pavlovic-Djuranovic, S., Szczesny, P., Piston, D. W., Zaher, H. S., Puglisi, J. D., Djuranovic, S.
  2019; 10 (1): 5774
- **Dynamics of the context-specific translation arrest by chloramphenicol and linezolid.** *Nature chemical biology*
  Choi, J., Marks, J., Zhang, J., Chen, D., Wang, J., Vazquez-Laslop, N., Mankin, A. S., Puglisi, J. D.
  2019
- **Mechanism of ribosome stalling during translation of a poly(A) tail.** *Nature structural & molecular biology*
  Chandrasekaran, V., Juszkiewicz, S., Choi, J., Puglisi, J. D., Brown, A., Shao, S., Ramakrishnan, V., Hegde, R. S.
  2019
- **Transient Protein-RNA Interactions Guide Nascent Ribosomal RNA Folding.** *Cell*
  Duss, O., Stepanyuk, G. A., Puglisi, J. D., Williamson, J. R.
  2019
- **RACK1 on and off the ribosome** *RNA*
  Johnson, A. G., Lapointe, C. P., Wang, J., Corsepius, N. C., Choi, J., Fuchs, G., Puglisi, J. D.
  2019; 25 (7): 881–95
- **Relating Structure and Dynamics in RNA Biology.** *Cold Spring Harbor perspectives in biology*

Larsen, K. P., Choi, J., Prabhakar, A., Puglisi, E. V., Puglisi, J. D.
2019; 11 (7)

- **Expanding single-molecule fluorescence spectroscopy to capture complexity in biology.** *Current opinion in structural biology*
  Choi, J., Grosely, R., Puglisi, E. V., Puglisi, J. D.
  2019

- **RPS25 is required for efficient RAN translation of C9orf72 and other neurodegenerative disease-associated nucleotide repeats.** *Nature neuroscience*
  Yamada, S. B., Gendron, T. F., Niccoli, T. n., Genuth, N. R., Grosely, R. n., Shi, Y. n., Glaria, I. n., Kramer, N. J., Nakayama, L. n., Fang, S. n., Dinger, T. J., Thoeng, A. n., Rocha, et al
  2019

- **eIF5B gates the transition from translation initiation to elongation.** *Nature*
  Wang, J. n., Johnson, A. G., Lapointe, C. P., Choi, J. n., Prabhakar, A. n., Chen, D. H., Petrov, A. N., Puglisi, J. D.
  2019

- **RACK1 on and off the ribosome.** *RNA (New York, N.Y.)*
  Johnson, A. G., Lapointe, C. P., Wang, J. n., Corsepius, N. C., Choi, J. n., Fuchs, G. n., Puglisi, J. D.
  2019

- **Single-Molecule Fluorescence Applied to Translation** *COLD SPRING HARBOR PERSPECTIVES IN BIOLOGY*
  Prabhakar, A., Puglisi, E., Puglisi, J. D.
  2019; 11 (1)

- **Dynamic Interplay of RNA and Protein in the Human Immunodeficiency Virus-1 Reverse Transcription Initiation Complex** *JOURNAL OF MOLECULAR BIOLOGY*
  Coey, A. T., Larsen, K. P., Choi, J., Barrero, D. J., Puglisi, J. D., Puglisi, E.
  2018; 430 (24): 5137–50

- **Real-time assembly of ribonucleoprotein complexes on nascent RNA transcripts.** *Nature communications*
  Duss, O., Stepanyuk, G. A., Grot, A., O'Leary, S. E., Puglisi, J. D., Williamson, J. R.
  2018; 9 (1): 5087

- **De novo computational RNA modeling into cryo-EM maps of large ribonucleoprotein complexes** *NATURE METHODS*
  Kappel, K., Liu, S., Larsen, K. P., Skiniotis, G., Puglisi, E., Puglisi, J. D., Zhou, Z., Zhao, R., Das, R.
  2018; 15 (11): 947-+

- **Dynamic Interplay of RNA and Protein in the Human Immunodeficiency Virus-1 Reverse Transcription Initiation Complex.** *Journal of molecular biology*
  Coey, A. T., Larsen, K. P., Choi, J., Barrero, D. J., Puglisi, J. D., Puglisi, E. V.
  2018

- **Single-Molecule Fluorescence Applied to Translation.** *Cold Spring Harbor perspectives in biology*
  Prabhakar, A., Puglisi, E. V., Puglisi, J. D.
  2018

- **Structural Characterization of the HIV-1 Reverse Transcriptase Initiation Complex**
  Larsen, K., Mathiharan, Y., Kappei, K., Coey, A., Chen, D., Madigan, L., Skiniotis, G., Puglisi, J., Puglisi, E.
  CELL PRESS.2018: 193A

- **How 2 '-O-Methylation in mRNA Disrupts tRNA Decoding during Translation Elongation**
  Choi, J., Indrisiunaite, G., DeMirci, H., Ieong, K., Wang, J., Petrov, A., Prabhakar, A., Rechavi, G., Dominissini, D., He, C., Ehrenberg, M., Puglisi, J. D.
  CELL PRESS.2018: 592A

- **2'-O-methylation in mRNA disrupts tRNA decoding during translation elongation.** *Nature structural & molecular biology*
  Choi, J. n., Indrisiunaite, G. n., DeMirci, H. n., Ieong, K. W., Wang, J. n., Petrov, A. n., Prabhakar, A. n., Rechavi, G. n., Dominissini, D. n., He, C. n., Ehrenberg, M. n., Puglisi, J. D.
  2018

- **How Messenger RNA and Nascent Chain Sequences Regulate Translation Elongation** *ANNUAL REVIEW OF BIOCHEMISTRY, VOL 87*
  Choi, J., Grosely, R., Prabhakar, A., Lapointe, C. P., Wang, J., Puglisi, J. D.
  edited by Kornberg, R. D.
  2018; 87: 421–49
- **Architecture of an HIV-1 reverse transcriptase initiation complex.** *Nature*
  Larsen, K. P., Mathiharan, Y. K., Kappel, K. n., Coey, A. T., Chen, D. H., Barrero, D. n., Madigan, L. n., Puglisi, J. D., Skiniotis, G. n., Puglisi, E. V.
  2018
- **Dynamic basis of fidelity and speed in translation: Coordinated multistep mechanisms of elongation and termination.** *Protein science*
  Prabhakar, A., Choi, J., Wang, J., Petrov, A., Puglisi, J. D.
  2017
- **Dynamics of IRES-mediated translation** *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
  Johnson, A. G., Grosely, R., Petrov, A. N., Puglisi, J. D.
  2017; 372 (1716)
- **Co-Transcriptional Ribosome Assembly in Real-Time**
  Duss, O., O'Leary, S., Puglisi, J., Williamson, J.
  CELL PRESS.2017: 178A
- **Three tRNAs on the ribosome slow translation elongation.** *Proceedings of the National Academy of Sciences of the United States of America*
  Choi, J. n., Puglisi, J. D.
  2017; 114 (52): 13691–96
- **Fluorescently-tagged human eIF3 for single-molecule spectroscopy.** *Nucleic acids research*
  Johnson, A. G., Petrov, A. N., Fuchs, G. n., Majzoub, K. n., Grosely, R. n., Choi, J. n., Puglisi, J. D.
  2017
- **Post-termination Ribosome Intermediate Acts as the Gateway to Ribosome Recycling.** *Cell reports*
  Prabhakar, A. n., Capece, M. C., Petrov, A. n., Choi, J. n., Puglisi, J. D.
  2017; 20 (1): 161–72
- **Heterogeneous structures formed by conserved RNA sequences within the HIV reverse transcription initiation site** *RNA*
  Coey, A., Larsen, K., Puglisi, J. D., Puglisi, E. V.
  2016; 22 (11): 1689-1698
- **Amino acid sequence repertoire of the bacterial proteome and the occurrence of untranslatable sequences** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Navon, S. P., Kornberg, G., Chen, J., Schwartzman, T., Tsai, A., Puglisi, E. V., Puglisi, J. D., Adir, N.
  2016; 113 (26): 7166-7170
- **The molecular choreography of protein synthesis: translational control, regulation, and pathways** *QUARTERLY REVIEWS OF BIOPHYSICS*
  Chen, J., Choi, J., O'Leary, S. E., Prabhakar, A., Petrov, A., Grosely, R., Puglisi, E. V., Puglisi, J. D.
  2016; 49
- **Multiple Parallel Pathways of Translation Initiation on the CrPV IRES.** *Molecular cell*
  Petrov, A., Grosely, R., Chen, J., O'Leary, S. E., Puglisi, J. D.
  2016; 62 (1): 92-103
- **The Dynamic Pathways of Prokaryotic Translation Termination and Recycling**
  Prabhakar, A., Chen, J., Puglisi, J. D.
  CELL PRESS.2016: 351A–352A
- **N(6)-methyladenosine in mRNA disrupts tRNA selection and translation-elongation dynamics.** *Nature structural & molecular biology*
  Choi, J., Ieong, K., Demirci, H., Chen, J., Petrov, A., Prabhakar, A., O'Leary, S. E., Dominissini, D., Rechavi, G., Soltis, S. M., Ehrenberg, M., Puglisi, J. D.
  2016; 23 (2): 110-115
- **The noncoding RNAs SNORD50A and SNORD50B bind K-Ras and are recurrently deleted in human cancer.** *Nature genetics*

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