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Academic History:**Colleges and Universities attended:**

1984-1989 University of California, Berkeley, Ph.D. in Biophysical Chemistry.

1980-1984 The Johns Hopkins University, B.A. in Chemistry.

Scholarships and Honors:

1997 Alfred P. Sloan Research Fellow.

1994 David and Lucille Packard Fellowship in Science and Engineering.

1993 Camille and Henry Dreyfus Teacher-Scholar Award.

1989 EMBO Fellow.

1989 Thesis nominated for J.T. Baker Award in Chemistry.

1989 Sigma Xi Honor Society.

1988 Department of Chemistry, Berkeley. Bruce Mahan Memorial Teaching Award.

1987 Outstanding Graduate Teaching Assistant.

1984-1985 Department of Chemistry, Berkeley. Bruce Mahan Memorial Teaching Award.

2011 NIH Merit Award.

2011 NIH Director's Transformative R01 (T-R01) Program Award, NIH.

2014 Member, National Academy of Sciences.

Named Lectures

2014 Linus Pauling Lecture, Stanford University

2018 David L. Weaver Lecture, UC Davis

2021 Tom Steitz Memorial Lecture, Yale University

2021 RiboClub Canada, Keynote Lecture

2022 Ferry Lectureship in Polymer Science, University of Wisconsin

2022 Michael O'Keefe Memorial Lecture, Arizona State University

2022 Ribosome Meeting. Keynote Lecture

Postdoctoral Training:

1991-1993 Postdoctoral Fellow, Department of Chemistry
Massachusetts Institute of Technology, Cambridge, MA
(Advisor: James R. Williamson).

1989-1991 Postdoctoral Fellow; EMBO Postdoctoral Fellowship
I.B.M.C du CNRS, Strasbourg, France. (Advisor: Richard Giegé).

Employment History:

9/2004-Present Professor of Structural Biology

9/2004-9/2014	Chair, Department of Structural Biology
4/2004-9/2004	Acting Chair, Department of Structural Biology
1998-3/2004	Associate Chair, Department of Structural Biology, Stanford Univ. School of Medicine.
7/1/97-Present	Director, Stanford Magnetic Resonance Laboratory (SMRL).
7/97-8/2004	Associate Professor of Structural Biology, Stanford Univ. School of Medicine.
1993-1997	Affiliate Faculty, Molecular, Cellular, & Developmental Biology Graduate Program in Biology, University of California, Santa Cruz.
1997	Associate Professor of Chemistry and Biochemistry University of California, Santa Cruz.
1993-1997	Assistant Professor of Chemistry and Biochemistry University of California, Santa Cruz.
1984-1989	Research Assistant, University of California, Berkeley Advisor: Professor Ignacio Tinoco, Jr.
1983-1984	Undergraduate Research Fellow, Organic Synthesis, The Johns Hopkins University, Advisor: Professor Alex Nickon.
1981-1984	Summer Research Scientist, Airco Central Research Laboratory, Murray Hill, N.J.

Research Interests:

The Puglisi group investigates the role of RNA in health and disease. Our goal is to understand the dynamic interplay of RNA conformation, function and mechanism using tools of molecular biophysics, structural biology, physical chemistry and biochemistry. We apply structural methods such as NMR) spectroscopy, x-ray crystallography and cryoEM and integrate structural views with real time dynamics at the single-molecule level. Our goal is a unified picture of structure, dynamics and function. A long-term goal is to target processes involving RNA with novel therapeutic strategies.

Jody Puglisi is a leading scientist in the study of RNA structure and function in biology. He has pioneered the use of NMR in the study of RNAs and RNA-ligand complexes. His early work showed how small molecules can bind to RNAs, which has lead to the field of RNA as a drug target and riboswitches. Recent work has merged novel biophysical, biochemical and structural methods to merge dynamic and static structural views of essential RNA mechanisms.

Current research areas include:

- Fundamental mechanisms of translation initiation, elongation, termination and recycling
- Ribosomal pausing induced by RNA modifications, RNA structure and nascent peptides and proteins
- Recoding events, including frameshifting and bypassing
- Drug-ribosome interactions and mechanism
- Mechanism of eukaryotic translation initiation—5' end recognition, scanning, start codon recognition
- HCV IRES mediated translation initiation
- 3' end regulation of translation
- Role of translational processes in human disease
- Single-molecule methods

Professional Service:

07/2023 Organizer, ASI 19TH Course, ISBMR, Erice, Sicily, Italy: "Frontiers of Biophysics."
<http://www.puglisilab.org/erice2023.html>

- 07/2022 Organizer, ASI 18TH Course, ISBMR, Erice, Sicily, Italy: “Frontiers of Biophysics.”
<http://www.puglisilab.org/erice2022.html>
- 08/2019 Organizer, ASI 17TH Course, ISBMR, Erice, Sicily, Italy: “Frontiers of Biophysics.”
<http://www.puglisilab.org/erice2019.html>
- 08/2018 Organizer, ASI 16TH Course, ISBMR, Erice, Sicily, Italy: “Frontiers of Biophysics.”
<http://www.puglisilab.org/erice2018.html>
- 05/2017 Organizer, ASI 15TH Course, ISBMR, Erice, Sicily, Italy: “Biophysics and Molecular Structure.” <http://smrl.stanford.edu/erice2017/>
- 05/2016 Organizer, ASI 14TH Course, ISBMR, Erice, Sicily, Italy: “Future of Molecular Biophysics.” <http://smrl.stanford.edu/erice2016/>
- 07/2014 Organizer, ASI 13TH Course, ISBMR, Erice, Sicily, Italy: “Future of Biophysics and Structural Biology.” <http://smrl.stanford.edu/erice2014/>
- 02/2014 Council Member, Biophysical Society.
- 06/2013 Organizer, ASI 12TH Course, ISBMR, Erice, Sicily, Italy: “Future of Biophysics.”
<http://smrl.stanford.edu/erice2013/>
- 02/2013 Program Chair, 57th Annual Biophysical Society National Meeting.
- 06/2012 Organizer, ASI 11TH Course, ISBMR, Erice, Sicily, Italy: “Frontiers of Biophysics and Structural Biology.” <http://smrl.stanford.edu/erice2012/>
- 2011-Present Member, Advisory Editorial Board, EMBO reports.
- 06/2010 Organizer, NATO-ASI 10TH Course, ISBMR, Erice, Sicily, Italy: “Biophysics and Structure to Counter Threats and Challenges.” <http://smrl.stanford.edu/erice2010/>
- 06/2009 Organizer, ASI 9TH Course, International School of Biological Magnetic Resonance, Erice, Sicily, Italy: “Biophysics and Structure to Counter Threats and Challenges.”
<http://smrl.stanford.edu/erice2009/>
- 06/2007 Organizer, NATO-ASI 8TH Course, ISBMR, Erice, Sicily, Italy: “Biophysics and the Challenges of Emerging Threats.” <http://smrl.stanford.edu/erice2007/>
- 06/2007 Co-Chair, Nucleic Acids Gordon Conference, Salve Regina University, Newport, RI.
- 03/2007 Co-Chair, ACS National Meeting, RNA Biophysics Symposium, Chicago, IL
- 06/2006 Co-Chair, Nucleic Acids Meeting, Salve Regina University, Newport, RI.
- 2005-2009 Chair, Provost’s Advisory Board for Postdoctoral Scholars, Stanford Univ.
- 06/2005 Organizer, NATO-ASI 7TH Course, ISBMR, Erice, Sicily, Italy: “Structure and Biophysics - New Technologies for Current Challenges in Biology and Beyond.”
<http://smrl.stanford.edu/erice2005/>
- 10/2003- Senior Editor, Structure (Cell Press).
- 07/2003- Director, International School of Biological Magnetic Resonance (ISBMR), Ettore Majorana Centre for Scientific Culture, Erice, Italy.
- 07/2003 Organizer, NATO-ASI 6TH Course: Structure, Dynamics and Function of Biological Macromolecules and Assemblies. ISBMR, Erice, Sicily, Italy.
<http://smrl.stanford.edu/erice2003/>
- 05/2003- Member, Fellowships Award Committee, Stanford Univ. School of Medicine.
- 2003-2007 NIH Molecular Biophysics and Cellular Biophysics Study Section, Center for Scientific Review (BBCA).
- 2002-2005 Member, Provost’s Advisory Board for Postdoctoral Scholars, Stanford Univ.
- 2002-2005 Chair, Postdoctoral Affairs Committee, Stanford Univ. School of Medicine.
- 2001-2002 Member, Postdoctoral Affairs Committee, Stanford Univ. School of Medicine.
- 06/2001 Co-organizer, NATO ASI, 5th Course: Protein Structure, Dynamics, Genomics and Function. Int’l School of Biological Magnetic Resonance (ISBMR), Erice, Sicily, Italy.
<http://smrl.stanford.edu/erice2001/>
- 10/2000 BBCA Study Session Ad Hoc.
- 10/1999 NIH Review Panel, Physiological Chemistry Study Session Ad Hoc.

- 10/1998- Program in Molecular & Genetic Medicine Advisory Board (PMGM)
Stanford Univ. School of Medicine.
- 10/1989- Journal Reviewer. Regularly reviews for Science, Nature, Nature Structural Biology, Cell,
Molecular Cell, J. Mol. Biol., J. Mag Res., J. Biol. NMR, Biochemistry, J. Am. Chem.
Soc., Nucleic Acids Research.

Peer-Reviewed Articles:

184. Krahn N, Zhang J, Melnikov SV, Tharp JM, Villa A, Patel A, Howard RJ, Gabir H, Patel TR, Stetefeld J, **Puglisi J**, Söll D (2024). tRNA shape is an identity element for an archaeal pyrrolysyl-tRNA synthetase from the human gut. *Nucleic Acids Res.* 52(2):513-524. doi: 10.1093/nar/gkad1188.PMID: 3810036. PMCID: 10810272
183. Guca E, Alarcon R, Palo MZ, Santos L, Alonso-Gil S, Davyt M, de Lima LHF, Boissier F, Das S, Zagrovic B, **Puglisi JD**, Hashem Y, Ignatova Z. (2024). N⁶-methyladenosine in 5'UTR does not promote translation initiation. *Mol. Cell* Feb 1;84(3):584-595.e6. doi: 10.1016/j.molcel.2023.12.028. Epub 2024 Jan 19.PMID: 38244546. PMCID: 10576065
182. Huang T, Choi J, Prabhakar A, **Puglisi JD**, Petrov A. (2023). Partial spontaneous intersubunit rotations in pretranslocation ribosomes. *Proc Natl Acad Sci U S A* 2023 Oct 10;120(41):e2114979120. doi: 10.1073/pnas.2114979120. Epub 2023 Oct 6. PMID 37801472. PMCID: 10576065
181. Nouhin J, Tzou PL, Rhee SY, Sahoo MK, Pinsky BA, Krupkin M, **Puglisi JD**, Puglisi EV, Shafer RW. (2023). Human immunodeficiency virus 1 5'-leader mutations in plasma viruses before and after the development of reverse transcriptase inhibitor-resistance mutations. *J. Gen. Virol.* 2023 Oct;104(10).doi: 10.1099/jgv.0.001898. PMID 37801004. PMCID: 10721937
180. Schubert K, Karousis ED, Ban I, Lapointe CP, Leibundgut M, Bäuml E, Kummerant E, Scaiola A, Schönhut T, Ziegelmüller J, **Puglisi JD**, Mühlemann O, Ban N. (2023). Universal features of Nsp1-mediated translational shutdown by coronaviruses. *Mol Cell* Oct 5;83(19):3546-3557.e8. doi: 10.1016/j.molcel.2023.09.002.PMID: 37802027. PMCID:10312502
179. Wang J, Koduru T, Harish B, McCallum SA, Larsen KP, Patel KS, Peters EV, Gillilan RE, Puglisi EV, **Puglisi JD**, Makhatadze G, Royer CA. (2023). Pressure pushes tRNA^{Lys3} into excited conformational states. *Proc Natl Acad Sci U S A* 2023 Jun 27;120(26):e2215556120. doi: 10.1073/pnas.2215556120.Epub 2023 Jun 20. PMCID: 10293818
178. Hentschel J, Badstübner M, Choi J, Bagshaw CR, Lapointe CP, Wang J, Jansson LI, **Puglisi JD**, Stone MD. (2023). Real-time detection of human telomerase DNA synthesis by multiplexed single-molecule FRET. *Biophys. J.* 2023 Jul 27:S0006-3495(23)00471-X. doi: 10.1016/j.bpj.2023.07.019 Online ahead of print. PMID: 37515327. PMCID: 10502476
177. Prabhakar A, Pavlov MY, Zhang J, Indrisiunaite G, Wang J, Lawson MR, Ehrenberg M, **Puglisi JD**. (2023). Dynamics of release factor recycling during translation termination in bacteria. *Nucleic Acids Res.* 2023 Apr 27;gkad286. doi: 10.1093/nar/gkad286. Online ahead of print.PMID: 37102635. PMCID: PMC10287982
176. Wang J, Shin BS, Alvarado C, Kim JR, Bohlen J, Dever TE, **Puglisi JD**. (2022). Rapid 40S scanning and its regulation by mRNA structure during eukaryotic translation initiation. *Cell.* Nov 23;185(24):4474-4487.e17. doi: 10.1016/j.cell.2022.10.005. Epub 2022 Nov 4.PMID: 36334590
175. Prabhakar A, Krahn N, Zhang J, Vargas-Rodriguez O, Krupkin M, Fu Z, Acosta-Reyes FJ, Ge X, Choi J, Crnković A, Ehrenberg M, Puglisi EV, Söll D, **Puglisi J**. (2022). Uncovering translation roadblocks during the development of a synthetic tRNA. *Nucleic Acids Res.* Oct 14;50(18):10201-10211. doi: 10.1093/nar/gkac576.PMID: 35882385

174. Lapointe CP, Grosely R, Sokabe M, Alvarado C, Wang J, Montabana E, Villa N, Shin BS, Dever TE, Fraser CS, Fernández IS, **Puglisi JD** (2022). eIF5B and eIF1A reorient initiator tRNA to allow ribosomal subunit joining. *Nature*. Jul;607(7917):185-190. doi: 10.1038/s41586-022-04858-z. Epub 2022 Jun 22. PMID: 35732735
173. Lawson MR, Lessen LN, Wang J, Prabhakar A, Corsepius NC, Green R, **Puglisi JD**. (2021). Mechanisms that ensure speed and fidelity in eukaryotic translation termination. *Science* Aug 20;373(6557):876-882. doi: 10.1126/science.abi7801. PMID: 34413231.
172. Leong K, Indrisiunaite G, Prabhakar A, **Puglisi JD**, Ehrenberg M. (2021). N 6-Methyladenosines in mRNAs reduce the accuracy of codon reading by transfer RNAs and peptide release factors. *Nucleic Acids Res*. Mar 18;49(5):2684-2699. doi: 10.1093/nar/gkab033.
171. Lapointe CP, Grosely R, Johnson AG, Wang J, Fernández IS, **Puglisi JD**. (2021). Dynamic competition between SARS-CoV-2 NSP1 and mRNA on the human ribosome inhibits translation initiation. *Proc Natl Acad Sci U S A*. Feb 9;118(6):e2017715118. Doi 10.1073/pnas.2017715118. PMID: 33479166. PMC8017934
170. Wang J, Wang J, Shin BS, Kim JR, Dever TE, **Puglisi JD**, & Fernandez IS (2020). Structural basis for the transition from initiation to elongation by an 80S-eIF5B complex. *Nature Communications* Oct 6;11(1):5003. doi: 10.1038/s41467-020-18829-3.
169. Johnson, AG, Flynn, RA, Lapointe, CP, Ooi, YS, Zhao, ML, Richards, CM, Qiao, W, Yamada, SB, Couthouis, J, Gitler, AD, Carette, JE, & **Puglisi, JD**. (2020). A memory of eS25 loss drives resistance phenotypes. *Nucleic Acids Research*. Jul 27;48(13):7279-7297. doi: 10.1093/nar/gkaa444. PMID: 32463448; PMC7367175
168. O'Loughlin, S, Capece, MC, Klimova, M, Wills, NM, Coakley, A, Samatova, E, O'Connor, P, Loughran, G, Weissman, JS, Baranov, PV, Rodnina, MV, **Puglisi, JD**, & Atkins, JF. (2020). 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*, **S0022-2836(20)30346-6**. Advance online publication. doi.org/10.1016/j.jmb.2020.05.010. PMC7245289.
167. Choi J, O'Loughlin S, Atkins JF, **Puglisi JD**. (2020). The energy landscape of -1 ribosomal frameshifting. *Sci Adv*. 2020 Jan 1;**6(1)**:eaax6969. doi: 10.1126/sciadv.aax6969. eCollection 2020 Jan. PMCID: PMC6938710.
166. Chandrasekaran, V, Juszkievicz, S, Choi, J, **Puglisi, JD**, Brown, A, Shao, S, Ramakrishnan, V, & Hegde, RS. (2019). Mechanism of ribosome stalling during translation of a poly(A) tail. *Nature structural & molecular biology*, **26(12)**, 1132–1140. doi.org/10.1038/s41594-019-0331-x. PMC6900289.
165. Verma M, Choi J, Cottrell KA, Lavagnino Z, Thomas EN, Pavlovic-Djuranovic S, Szczesny P, Piston DW, Zaher HS, **Puglisi JD**, Djuranovic S. (2019). A short translational ramp determines the efficiency of protein synthesis. *Nat Commun*. 2019 Dec 18;**10(1)**:5774. doi: 10.1038/s41467-019-13810-1. PMCID: PMC6920384.
164. Choi J, Marks J, Zhang J, Chen DH, Wang J, Vázquez-Laslop N, Mankin AS, **Puglisi JD**. (2019). Dynamics of the context-specific translation arrest by chloramphenicol and linezolid. *Nat Chem Biol*. 2019 Dec 16. doi: 10.1038/s41589-019-0423-2. [Epub ahead of print] PMID: 31844301.
163. Duss O, Stepanyuk GA, **Puglisi JD**, Williamson JR. (2019). Transient Protein-RNA Interactions Guide Nascent Ribosomal RNA Folding. *Cell*. 2019 Nov 27;**179(6)**:1357-1369.e16. doi: 10.1016/j.cell.2019.10.035. Epub 2019 Nov 21. PMID: 31761533.

162. Wang J, Johnson AG, Lapointe CP, Choi J, Prabhakar A, Chen DH, Petrov AN, **Puglisi JD.** (2019). eIF5B gates the transition from translation initiation to elongation. *Nature*. 2019 Sep;**573**(7775):605-608. doi: 10.1038/s41586-019-1561-0. Epub 2019 Sep 18. PMCID: PMC6763361.
161. Yamada SB, Gendron TF, Niccoli T, Genuth NR, Grosely R, Shi Y, Glaria I, Kramer NJ, Nakayama L, Fang S, Dinger TJI, Thoeng A, Rocha G, Barna M, **Puglisi JD**, Partridge L, Ichida JK, Isaacs AM, Petrucelli L, Gitler AD. (2019). RPS25 is required for efficient RAN translation of C9orf72 and other neurodegenerative disease-associated nucleotide repeats. *Nat Neurosci*. 2019 Sep;22(9):1383-1388. doi: 10.1038/s41593-019-0455-7. Epub 2019 Jul 29. PMC6713615.
160. Larsen KP, Choi J, Prabhakar A, Puglisi EV, **Puglisi JD.** (2019). Relating Structure and Dynamics in RNA Biology. *Cold Spring Harb Perspect Biol*. 2019 Jul 1;11(7). pii: a032474. doi: 10.1101/cshperspect.a032474. Review. PMID:31262948.
159. Choi J, Grosely R, Puglisi EV, **Puglisi JD.** (2019). Expanding single-molecule fluorescence spectroscopy to capture complexity in biology. *Curr Opin Struct Biol*. 2019 Jun 15. pii: S0959-440X(18)30129-5. doi: 10.1016/j.sbi.2019.05.005. [Epub ahead of print] Review. PMID:31213390.
158. Johnson AG, Lapointe CP, Wang J, Corsepius NC, Choi J, Fuchs G, **Puglisi JD.** (2019). RACK1 on and off the ribosome. *RNA*. 2019 Jul;**25**(7):881-895. doi: 10.1261/rna.071217.119. Epub 2019 Apr 25. PMC6573788.
157. Prabhakar A, Puglisi EV, **Puglisi JD.** (2019). Single-Molecule Fluorescence Applied to Translation. *Cold Spring Harb Perspect Biol*. 2019 Jan 2;11(1). pii: a032714. doi: 10.1101/cshperspect.a032714. Review. PMC6314065.
156. Duss O, Stepanyuk GA, Grot A, O'Leary SE, **Puglisi JD**, Williamson JR. (2018). Real-time assembly of ribonucleoprotein complexes on nascent RNA transcripts. *Nat Commun*. 2018 Nov 30;**9**(1):5087. doi: 10.1038/s41467-018-07423-3. PMC6269517.
155. Coey AT, Larsen KP, Choi J, Barrero DJ, **Puglisi JD**, Puglisi EV. (2018). Dynamic Interplay of RNA and Protein in the Human Immunodeficiency Virus-1 Reverse Transcription Initiation Complex. *J Mol Biol*. 2018 Dec 7;**430**(24):5137-5150. doi: 10.1016/j.jmb.2018.08.029. Epub 2018 Sep 7. PMC6289658.
154. Kappel K, Liu S, Larsen KP, Skiniotis G, Puglisi EV, **Puglisi JD**, Zhou ZH, Zhao R, Das R. (2018). De novo computational RNA modeling into cryo-EM maps of large ribonucleoprotein complexes. *Nat Methods*. 2018 Nov;**15**(11):947-954. doi: 10.1038/s41592-018-0172-2. Epub 2018 Oct 30. PMC6636682.
153. Choi J, Grosely R, Prabhakar A, Lapointe CP, Wang J, **Puglisi JD.** (2018). How Messenger RNA and Nascent Chain Sequences Regulate Translation Elongation. *Annu Rev Biochem*. 2018 Jun 20;**87**:421-449. doi: 10.1146/annurev-biochem-060815-014818. Review. PMC6594189.
152. Larsen KP, Mathiharan YK, Kappel K, Coey AT, Chen DH, Barrero D, Madigan L, **Puglisi JD**, Skiniotis G, Puglisi EV. (2018). Architecture of an HIV-1 reverse transcriptase initiation complex. *Nature*. 2018 May;**557**(7703):118-122. doi: 10.1038/s41586-018-0055-9. Epub 2018 Apr 25. PMC5934294.
151. Choi J, Indrisiunaite G, DeMirci H, Jeong KW, Wang J, Petrov A, Prabhakar A, Rechavi G, Dominissini D, He C, Ehrenberg M, **Puglisi JD.** (2018). 2'-O-methylation in mRNA disrupts tRNA decoding during translation elongation. *Nat Struct Mol Biol*. 2018 Mar;**25**(3):208-216. doi: 10.1038/s41594-018-0030-z. Epub 2018 Feb 19. PMCID: PMC5840002

150. Johnson AG, Petrov AN, Fuchs G, Majzoub K, Grosely R, Choi J, **Puglisi JD.** (2018). Fluorescently-tagged human eIF3 for single molecule spectroscopy. *Nucleic Acids Res.* 2018 Jan 25;46(2):e8. doi: 10.1093/nar/gkx1050. PMC5778468.
149. Choi J, **Puglisi JD.** (2017). Three tRNAs on the ribosome slow translation elongation. *Proc Natl Acad Sci U S A.* Dec 26;114(52):13691-13696. doi: 10.1073/pnas.1719592115. Epub 2017 Dec 11. PMC5748233.
148. Prabhakar, A. Capece, MC, Petrov, A, Choi, J & **Puglisi JD.** (2017). Post-termination ribosome intermediate acts as the gateway to ribosome recycling. *Cell Reports.* Jul 5;20(1):161-172. doi: 10.1016. PMID: 28683310. PMC5555083.
147. Prabhakar A, Choi J, Wang J, Petrov A, **Puglisi JD.** (2017). Dynamic basis of fidelity and speed in translation: Coordinated multistep mechanisms of elongation and termination. *Protein Sci.* 2017 May 8. doi: 10.1002/pro.3190. [Epub ahead of print] Review. PMID: 28480640. PMC5477533.
146. Johnson AG, Grosely R, Petrov AN, **Puglisi, JD** (2017). Dynamics of IRES-mediated translation. *Philos Trans R Soc Lond B Biol Sci.* 2017 Mar 19;372(1716). pii: 20160177. doi: 10.1098/rstb.2016.0177. Review. PMID: 28138065. PMC5311923.
145. Chen J, Choi J, O'Leary SE, Prabhakar A, Petrov A, Grosely R, Puglisi EV, **Puglisi JD.** (2016). The molecular choreography of protein synthesis: translational control, regulation, and pathways. *Q Rev Biophys.* 2016 Jan;49:e11. PMID: 27658712.
144. Coey A, Larsen K, **Puglisi JD,** Puglisi EV. (2016) Heterogeneous structures formed by conserved RNA sequences within the HIV reverse transcription initiation site. *RNA.* 2016 Sep 9. [Epub ahead of print] PMID: 27613581. PMC5066621.
143. Navon SP, Kornberg G, Chen J, Schwartzman T, Tsai A, Puglisi EV, **Puglisi JD,** Adir N. (2016). Amino acid sequence repertoire of the bacterial proteome and the occurrence of untranslatable sequences. *Proc Natl Acad Sci U S A.* 2016 Jun 28;113(26):7166-70. doi: 10.1073/pnas.1606518113. PMID: 27307442. PMC4932979.
142. Petrov A, Grosely R, Chen J, O'Leary SE, **Puglisi JD.** (2016). Multiple Parallel Pathways of Translation Initiation on the CrPV IRES. *Mol Cell.* 2016 Apr 7;62(1):92-103. doi: 10.1016/j.molcel.2016.03.020. PMID: 27058789. PMC4826567.
141. Tsai A, **Puglisi JD,** Uemura S. (2016). Probing the Translation Dynamics of Ribosomes Using Zero-Mode Waveguides. *Prog Mol Biol Transl Sci.* 2016;139:1-43. doi: 10.1016/bs.pmbts.2015.10.006. PMID: 26970189.
140. Choi J, Jeong KW, Demirci H, Chen J, Petrov A, Prabhakar A, O'Leary SE, Dominissini D, Rechavi G, Soltis SM, Ehrenberg M, **Puglisi JD.** (2016). N(6)-methyladenosine in mRNA disrupts tRNA selection and translation-elongation dynamics. *Nat Struct Mol Biol.* **23(2)**:110-5. doi: 10.1038/nsmb.3148. Epub 2016 Jan 11. PMID: 26751643. PMC4826618.
139. Sierra RG, Gati C, Laksmono H, Dao EH, Gul S, Fuller F, Kern J, Chatterjee R, Ibrahim M, Brewster AS, Young ID, Michels-Clark T, Aquila A, Liang M, Hunter MS, Koglin JE, Boutet S, Junco EA, Hayes B, Bogan MJ, Hampton CY, Puglisi EV, Sauter NK, Stan CA, Zouni A, Yano J, Yachandra VK, Soltis SM, **Puglisi JD,** DeMirici H. (2016) Concentric-flow electrokinetic injector enables serial crystallography of ribosome and photosystem II. *Nat Methods.* **13(1)**:59-62. doi: 10.1038/nmeth.3667. Epub 2015 Nov 30. PMID: 26619013. PMC4890631.
138. Siprashvili Z, Webster DE, Johnston D, Shenoy RM, Ungewickell AJ, Bhaduri A, Flockhart R, Zarnegar BJ, Che Y, Meschi F, **Puglisi JD,** Khavari PA. (2016). The noncoding RNAs SNORD50A

- and SNORD50B bind K-Ras and are recurrently deleted in human cancer. *Nat Genet.* **48(1)**:53-8. doi: 10.1038/ng.3452. Epub 2015 Nov 23. PMID: 26595770. PMC5324971.
137. Chen J, Coakley A, O'Connor M, Petrov A, O'Leary SE, Atkins JF, **Puglisi JD.** (2015) Coupling of mRNA Structure Rearrangement to Ribosome Movement during Bypassing of Non-coding Regions. *Cell.* **163(5)**:1267-80. doi: 10.1016/j.cell.2015.10.064. PMID: 26590426.
 136. Nilsson OB, Hedman R, Marino J, Wickles S, Bischoff L, Johansson M, Müller-Lucks A, Trovato F, **Puglisi JD,** O'Brien EP, Beckmann R, von Heijne G. Cotranslational Protein Folding inside the Ribosome Exit Tunnel. *Cell Rep.* **12(10)**:1533-40. doi: 10.1016/j.celrep.2015.07.065. Epub 2015 Aug 28. PMID: 26321634. PMCID: PMC4571824.
 135. **Puglisi, JD.** (2015) Synthetic biology: Ribosomal ties that bind. *Nature.* **524(7563)**:45-6. doi: 10.1038/nature14642. Epub 2015 Jul 29. PMID: 26222027.
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