

## Elisabetta Viani Puglisi

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### Publications

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#### PUBLICATIONS

- **High-resolution view of HIV-1 reverse transcriptase initiation complexes and inhibition by NNRTI drugs.** *Nature communications*  
Ha, B., Larsen, K. P., Zhang, J., Fu, Z., Montabana, E., Jackson, L. N., Chen, D., Puglisi, E. V.  
2021; 12 (1): 2500
- **Advances in understanding the initiation of HIV-1 reverse transcription.** *Current opinion in structural biology*  
Krupkin, M. n., Jackson, L. N., Ha, B. n., Puglisi, E. V.  
2020; 65: 175–83
- **Distinct Conformational States Underlie Pausing during Initiation of HIV-1 Reverse Transcription.** *Journal of molecular biology*  
Larsen, K. P., Choi, J. n., Jackson, L. N., Kappel, K. n., Zhang, J. n., Ha, B. n., Chen, D. H., Puglisi, E. V.  
2020
- **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
- **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. V., Puglisi, J. D., Zhou, Z. H., Zhao, R., Das, R.  
2018
- **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., Kappel, K., Coey, A., Chen, D., Madigan, L., Skiniotis, G., Puglisi, J., Puglisi, E.  
CELL PRESS.2018: 193A
- **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
- **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
- **Concentric-flow electrokinetic injector enables serial crystallography of ribosome and photosystem II** *NATURE METHODS*  
Sierra, R. G., Gati, C., Laksmono, H., Dao, E. H., Gul, S., Fuller, F., Kern, J., Chatterjee, R., Ibrahim, M., Brewster, A. S., Young, I. D., Michels-Clark, T., Aquila, et al  
2016; 13 (1): 59-?
  - **The molecular choreography of protein synthesis: translational control, regulation, and pathways.** *Quarterly reviews of biophysics*  
Chen, J. n., Choi, J. n., O'Leary, S. E., Prabhakar, A. n., Petrov, A. n., Grosely, R. n., Puglisi, E. V., Puglisi, J. D.  
2016; 49: e11
  - **The Impact of Aminoglycosides on the Dynamics of Translation Elongation** *CELL REPORTS*  
Tsai, A., Uemura, S., Johansson, M., Puglisi, E. V., Marshall, R. A., Aitken, C. E., Korch, J., Ehrenberg, M., Puglisi, J. D.  
2013; 3 (2): 497-508
  - **RNA purification by preparative polyacrylamide gel electrophoresis.** *Methods in enzymology*  
Petrov, A., Wu, T., Puglisi, E. V., Puglisi, J. D.  
2013; 530: 315-330
  - **Secondary Structure of the HIV Reverse Transcription Initiation Complex by NMR** *JOURNAL OF MOLECULAR BIOLOGY*  
Puglisi, E. V., Puglisi, J. D.  
2011; 410 (5): 863-874
  - **Probing the conformation of human tRNA(3)(Lys) in solution by NMR** *FEBS LETTERS*  
Puglisi, E. V., Puglisi, J. D.  
2007; 581 (27): 5307-5314
  - **Rapid purification of RNAs using fast performance liquid chromatography (FPLC)** *RNA-A PUBLICATION OF THE RNA SOCIETY*  
Kim, I., Mckenna, S. A., Puglisi, E. V., Puglisi, J. D.  
2007; 13 (2): 289-294
  - **Purification and characterization of transcribed RNAs using gel filtration chromatography** *NATURE PROTOCOLS*  
Mckenna, S. A., Kim, I., Puglisi, E. V., Lindhout, D. A., Aitken, C. E., Marshall, R. A., Puglisi, J. D.  
2007; 2 (12): 3270-3277
  - **NMR investigation of HIV reverse transcription initiation** *4th NATO Advanced-Study-Institute on Dynamics, Structure and Function of Biological Macromolecules*  
Puglisi, E. V.  
I O S PRESS.2001: 187-192
  - **HIV-1 A-rich RNA loop mimics the tRNA anticodon structure** *NATURE STRUCTURAL BIOLOGY*  
Puglisi, E. V., Puglisi, J. D.  
1998; 5 (12): 1033-1036
  - **Structure of a conserved RNA component of the peptidyl transferase centre** *NATURE STRUCTURAL BIOLOGY*  
Puglisi, E. V., Green, R., Noller, H. F., Puglisi, J. D.  
1997; 4 (10): 775-778
  - **Structure and function of ribosomal RNA** *International Conference on the Structure and Function of the Ribosome*  
Noller, H. F., Green, R., HEILEK, G., HOFFARTH, V., Huttenhofer, A., Joseph, S., Lee, I., Lieberman, K., Mankin, A., Merryman, C., Powers, T., Puglisi, E. V., Samaha, et al  
CANADIAN SCIENCE PUBLISHING, NRC RESEARCH PRESS.1995: 997-1009
  - **NMR ANALYSIS OF TRANSFER-RNA ACCEPTOR STEM MICROHELICES - DISCRIMINATOR BASE CHANGE AFFECTS TRANSFER-RNA CONFORMATION AT THE 3' END** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Puglisi, E. V., Puglisi, J. D., Williamson, J. R., RajBhandary, U. L.  
1994; 91 (24): 11467-11471
  - **A MONOCLONAL-ANTIBODY TO THE NH2-TERMINAL SEGMENT OF HUMAN IFN-GAMMA SELECTIVELY INTERFERES WITH THE ANTIPROLIFERATIVE ACTIVITY OF THE LYMPHOKINE** *JOURNAL OF IMMUNOLOGY*

- Caruso, A., Tiberio, L., DERANGO, C., Bonfanti, C., FLAMMINIO, G., Gribaudo, G., Monti, E., Viani, E., Manca, N., Garotta, G., Landolfo, S., Balsari, A., Turano, et al  
1993; 150 (3): 1029-1035
- **Molecular Recognition in Water: New Receptors for Academic Derivatives** *J. Am. Chem. Soc.*  
Rotello, V., Viani E., Deslongchamps G, Murray BA., Rebek J Jr.  
1993: 797-798
  - **NATURAL HUMAN-ANTIBODIES TO GAMMA INTERFERON INTERFERE WITH THE IMMUNOMODULATING ACTIVITY OF THE LYMPHOKINE** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Turano, A., Balsari, A., Viani, E., Landolfo, S., Zanoni, L., Gargiulo, F., Caruso, A.  
1992; 89 (10): 4447-4451
  - **INHIBITION OF THE BIOLOGICAL-ACTIVITY OF HUMAN INTERFERON-GAMMA BY ANTIPEPTIDE ANTIBODIES** *JOURNAL OF INTERFERON RESEARCH*  
Caruso, A., Viani, E., Tiberio, L., Pollara, P., Monti, E., Bonfanti, C., Gao, J., Landolfo, S., Balsari, A., Turano, A.  
1992; 12 (1): 49-54
  - **PURIFICATION OF NATURAL HUMAN IFN-GAMMA ANTIBODIES** *IMMUNOLOGY LETTERS*  
Viani, E., FLAMMINIO, G., Caruso, A., Foresti, I., DeFrancesco, M., Pollara, P., Balsari, A., Turano, A.  
1991; 30 (1): 53-58
  - **NATURAL ANTIBODIES TO IFN-GAMMA IN MAN AND THEIR INCREASE DURING VIRAL-INFECTION** *JOURNAL OF IMMUNOLOGY*  
Caruso, A., Bonfanti, C., Colombrita, D., DeFrancesco, M., DERANGO, C., Foresti, I., Gargiulo, F., Gonzales, R., Gribaudo, G., Landolfo, S., Manca, N., Manni, M., Pirali, et al  
1990; 144 (2): 685-690