

Kevin Richard Jones Roy

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Bio

INSTITUTE AFFILIATIONS

- Member (Staff), Cardiovascular Institute

Publications

PUBLICATIONS

- **Splicing factor Prp18p promotes genome-wide fidelity of consensus 3'-splice sites** *NUCLEIC ACIDS RESEARCH*
Roy, K. R., Gabunilas, J., Neutel, D., Ai, M., Yeh, Z., Samson, J., Lyu, G., Chanfreau, G. F.
2023
- **CRISPR-Cas9 Gene Editing in Yeast: A Molecular Biology and Bioinformatics Laboratory Module for Undergraduate and High School Students.** *Journal of microbiology & biology education*
Sankaran, S. M., Smith, J. D., Roy, K. R.
2021; 22 (2)
- **Multiplexed precision genome editing with trackable genomic barcodes in yeast.** *Nature biotechnology*
Roy, K. R., Smith, J. D., Vonesch, S. C., Lin, G., Tu, C. S., Lederer, A. R., Chu, A., Suresh, S., Nguyen, M., Horecka, J., Tripathi, A., Burnett, W. T., Morgan, et al
2018
- **Common genomic elements promote transcriptional and DNA replication roadblocks.** *Genome research*
Roy, K., Gabunilas, J., Gillespie, A., Ngo, D., Chanfreau, G. F.
2016; 26 (10): 1363-1375
- **Stress-Induced Nuclear RNA Degradation Pathways Regulate Yeast Bromodomain Factor 2 to Promote Cell Survival** *PLOS GENETICS*
Roy, K., Chanfreau, G.
2014; 10 (9)
- **A scalable and cGMP-compatible autologous organotypic cell therapy for Dystrophic Epidermolysis Bullosa.** *Nature communications*
Neumayer, G., Torkelson, J. L., Li, S., McCarthy, K., Zhen, H. H., Vangipuram, M., Mader, M. M., Gebeyehu, G., Jaouni, T. M., Jacków-Malinowska, J., Rami, A., Hansen, C., Guo, et al
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- **Histone deacetylase Hos2 regulates protein expression noise by potentially modulating the protein translation machinery.** *Nucleic acids research*
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Hale, J. J., Matsui, T., Goldstein, I., Mullis, M. N., Roy, K. R., Ville, C. N., Miller, D., Wang, C., Reynolds, T., Steinmetz, L. M., Levy, S. F., Ehrenreich, I. M.
2024; 15 (1): 4234
- **Dissecting quantitative trait nucleotides by saturation genome editing.** *bioRxiv : the preprint server for biology*
Roy, K. R., Smith, J. D., Li, S., Vonesch, S. C., Nguyen, M., Burnett, W. T., Orsley, K. M., Lee, C. S., Haber, J. E., St Onge, R. P., Steinmetz, L. M.
2024

- **Large scale microfluidic CRISPR screening for increased amylase secretion in yeast.** *Lab on a chip*
Johansson, S. A., Dulermo, T., Jann, C., Smith, J. D., Prysizlak, A., Pignede, G., Schraivogel, D., Colavizza, D., Desfougères, T., Rave, C., Farwick, A., Merten, C. A., Roy, et al
2023
- **A scalable, GMP-compatible, autologous organotypic cell therapy for Dystrophic Epidermolysis Bullosa.** *bioRxiv : the preprint server for biology*
Neumayer, G., Torkelson, J. L., Li, S., McCarthy, K., Zhen, H. H., Vangipuram, M., Jackow, J., Rami, A., Hansen, C., Guo, Z., Gaddam, S., Pappalardo, A., Li, et al
2023
- **The interplay of additivity, dominance, and epistasis on fitness in a diploid yeast cross.** *Nature communications*
Matsui, T., Mullis, M. N., Roy, K. R., Hale, J. J., Schell, R., Levy, S. F., Ehrenreich, I. M.
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- **Engineered Graphene Oxide Nanocomposite Capable of Preventing the Evolution of Antimicrobial Resistance.** *ACS nano*
Zheng, H. n., Ji, Z. n., Roy, K. R., Gao, M. n., Pan, Y. n., Cai, X. n., Wang, L. n., Li, W. n., Chang, C. H., Kaweeteerawat, C. n., Chen, C. n., Xia, T. n., Zhao, et al
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- **Robust mapping of polyadenylated and non-polyadenylated RNA 3' ends at nucleotide resolution by 3'-end sequencing.** *Methods (San Diego, Calif.)*
Roy, K. R., Chanfreau, G. F.
2019
- **A global function for transcription factors in assisting RNA polymerase II termination.** *Transcription*
Roy, K., Chanfreau, G. F.
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- **Multiplexed precision genome editing with trackable genomic barcodes in yeast** *NATURE BIOTECHNOLOGY*
Roy, K. R., Smith, J. D., Vonesch, S. C., Lin, G., Tu, C., Lederer, A. R., Chu, A., Suresh, S., Nguyen, M., Horecka, J., Tripathi, A., Burnett, W. T., Morgan, et al
2018; 36 (6): 512-+
- **A method for high-throughput production of sequence-verified DNA libraries and strain collections.** *Molecular systems biology*
Smith, J. D., Schlecht, U., Xu, W., Suresh, S., Horecka, J., Proctor, M. J., Aiyar, R. S., Bennett, R. A., Chu, A., Li, Y. F., Roy, K., Davis, R. W., Steinmetz, et al
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- **Methylation of yeast ribosomal protein Rpl3 promotes translational elongation fidelity.** *RNA (New York, N.Y.)*
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- **Cu Nanoparticles Have Different Impacts in Escherichia coli and Lactobacillus brevis than Their Microsized and Ionic Analogues** *ACS NANO*
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- **Translational Roles of Elongation Factor 2 Protein Lysine Methylation** *JOURNAL OF BIOLOGICAL CHEMISTRY*
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- **Histidine methylation of yeast ribosomal protein Rpl3p is required for proper 60S subunit assembly.** *Molecular and cellular biology*
Al-Hadid, Q., Roy, K., Munroe, W., Dzialo, M. C., Chanfreau, G. F., Clarke, S. G.
2014; 34 (15): 2903-16
- **Intrinsic Dynamics of an Extended Hydrophobic Core in the S. cerevisiae RNase III dsRBD Contributes to Recognition of Specific RNA Binding Sites** *JOURNAL OF MOLECULAR BIOLOGY*
Hartman, E., Wang, Z., Zhang, Q., Roy, K., Chanfreau, G., Feigon, J.
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- **The Diverse Functions of Fungal RNase III Enzymes in RNA Metabolism.** *The Enzymes*
Roy, K., Chanfreau, G. F.
2012; 31: 213-35
- **Structure of a Yeast RNase III dsRBD Complex with a Noncanonical RNA Substrate Provides New Insights into Binding Specificity of dsRBDs** *STRUCTURE*
Wang, Z., Hartman, E., Roy, K., Chanfreau, G., Feigon, J.
2011; 19 (7): 999-1010