Dr. Siksnys' list of selected publications:

1. Sasnauskas G, Tamulaitiene G, Druteika G, Carabias A, Silanskas A, Kazlauskas D, Venclovas Č, Montoya G, Karvelis T, **Siksnys V**. TnpB structure reveals minimal functional core of Cas12 nuclease family. *Nature*. 2023 Apr;616(7956):384-389. doi: 10.1038/s41586-023-05826-x.
2. Mogila I, Tamulaitiene G, Keda K, Timinskas A, Ruksenaite A, Sasnauskas G, Venclovas Č, **Siksnys V**, Tamulaitis G. Ribosomal stalk-captured CARF-RelE ribonuclease inhibits translation following CRISPR signaling. *Science*. 2023 Dec;382(6674):1036-1041. doi: 10.1126/science.adj2107.
3. Zaremba M, Dakineviciene D, Golovinas E, Zagorskaitė E, Stankunas E, Lopatina A, Sorek R, Manakova E, Ruksenaite A, Silanskas A, Asmontas S, Grybauskas A, Tylenyte U, Jurgelaitis E, Grigaitis R, Timinskas K, Venclovas Č, **Siksnys V**. Short prokaryotic Argonautes provide defence against incoming mobile genetic elements through NAD^+ depletion. *Nat Microbiol*. 2022 Nov;7(11):1857-1869. doi: 10.1038/s41564-022-01239-0.
4. Karvelis T, Druteika G, Bigelyte G, Budre K, Zedaveinyte R, Silanskas A, Kazlauskas D, Venclovas Č, **Siksnys V**. Transposon-associated TnpB is a programmable RNA-guided DNA endonuclease. *Nature*. 2021 Oct 7. doi: 10.1038/s41586-021-04058-1.
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6. Gasiunas G, Young JK, Karvelis T, Kazlauskas D, Urbaitis T, Jasnauskaite M, Grusyte MM, Paulraj S, Wang PH, Hou Z, Dooley SK, Cigan M, Alarcon C, Chilcoat ND, Bigelyte G, Curcuru JL, Mabuchi M, Sun Z, Fuchs RT, Schildkraut E, Weigele PR, Jack WE, Robb GB, Venclovas Č, **Siksnys V**. A catalogue of biochemically diverse CRISPR-Cas9 orthologs. *Nat Commun*. 2020 Nov 2;11(1):5512. doi: 10.1038/s41467-020-19344-1.
7. Karvelis T, Bigelyte G, Young JK, Hou Z, Zedaveinyte R, Budre K, Paulraj S, Djukanovic V, Gasior S, Silanskas A, Venclovas Č, **Siksnys V**. PAM recognition by miniature CRISPR-Cas12f nucleases triggers programmable double-stranded DNA target cleavage. *Nucleic Acids Res*. 2020 May 21;48(9):5016-5023. doi: 10.1093/nar/gkaa208.
8. Kazlauskiene M, Kostiuk G, Venclovas Č, Tamulaitis G, **Siksnys V**. A cyclic oligonucleotide signaling pathway in type III CRISPR-Cas systems. *Science*. 2017 357, 605-609. doi: 10.1126/science.aao0100.
9. Kazlauskiene M, Tamulaitis G, Kostiuk G, Venclovas Č, **Siksnys V**. Spatiotemporal Control of Type III-A CRISPR-Cas Immunity: Coupling DNA Degradation with the Target RNA Recognition. *Mol Cell*. 2016, 62, 295-306. doi: 10.1016/j.molcel.2016.03.024.
10. Karvelis T, Gasiunas G, Young J, Bigelyte G, Silanskas A, Cigan M, **Siksnys V**. Rapid characterization of CRISPR-Cas9 protospacer adjacent motif sequence elements. *Genome Biol*. 2015, 16, 253. doi: 10.1186/s13059-015-0818-7.
11. Gasiunas G, Barrangou R, Horvath P, **Siksnys V**. Cas9-crRNA ribonucleoprotein complex mediates specific DNA cleavage for adaptive immunity in bacteria. *Proc Natl Acad Sci U S A*. 2012, 109, E2579-86.
12. Sapranauskas R, Gasiunas G, Fremaux C, Barrangou R, Horvath P, **Siksnys V**. The Streptococcus thermophilus CRISPR/Cas system provides immunity in Escherichia coli. *Nucleic Acids Res*. 2011, 39, 9275-82.