

LIST OF PUBLICATIONS OF NIKOLAY OSKOLKOV

- 1) **Nikolay Oskolkov**, Refining filtering criteria of Kraken family of tools for accurate taxonomic profiling of ancient metagenomic data, *Frontiers in Microbiology* **2026**, 17:1603339, doi: 10.3389/fmicb.2026.1603339
- 2) A. Panina, A. Sokolov, M. Khandokhin, **N. Oskolkov**, R. Fredriksson, H. Schiöth, Integrative meta-analysis of blood metabolomics reveals dysregulated amino acid, neurotransmitter and energy pathways in depression, *Progress in Neuro-Psychopharmacology and Biological Psychiatry* **2026**, 147, 111737
- 3) Caroline Robinson Christiansen, Emily Hansen Firoozfard, **Nikolay Oskolkov**, M. Thomas P. Gilbert, Sarah S. T. Mak, Martin Wirefeldt, Christina Kjær, Emilio Mármol-Sánchez, Recovering genomic and transcriptomic profiles from decades-old FFPE brain tissues, under review in *Genome Research* **2026**, bioRxiv 2026.04.20.719637; doi: <https://doi.org/10.64898/2026.04.20.719637>
- 4) Bilal Sharif, Verena E. Kutschera, **Nikolay Oskolkov**, Benjamin Guinet, Edana Lord, J. Camilo Chacón-Duque, Jonas Oppenheimer, Tom van der Valk, David Díez del Molino, Peter D. Heintzman, Love Dalén, DNAharvester: A Nextflow Pipeline for Analysing Highly Degraded DNA from Ancient and Historical Specimens, under review in *Bioinformatics* **2026**, bioRxiv 2026.04.20.719564; doi: <https://doi.org/10.64898/2026.04.20.719564>
- 5) Maria Landolfi*, **Nikolay Oskolkov***, Edoardo Pasolli, Federica Villa, Tanja Mimmo, Eran Elhaik* and Luigimaria Borruso*, Plant-Microbial Interactions: Tracing a 2-Million-Year-Old Alliance with Ancient DNA, under review in *Nature Communications* **2026**
- 6) Strom Kristoffer* and **Oskolkov Nikolay***, Karaderi Tugce, Kalamajski Sebastian, Mir Bilal A., Ekstrom Ola, Miyamoto-Mikami Eri, Ladenvall Claes, Kakulidis Ellen, Reid Steven, Andersson Anna-Maria Dutius, Kryvokhyzha Dmytro, Zhang Enming, Fadista, Joao, Thangam Manonanthini, Iemitsu Motoyuki, Semenova Ekaterina A., Larin Andrey K., Sultanov Rinat I., Babalyan Konstantin A., Zhelankin Andrey V., Kulemin Nikolay A., Generozov Edward V., Hultström Michael, Frithiof Robert, Zeberg Hugo, Lipcsey Miklos, Larsson Anders, Mahajan Anubha, Ahlqvist Emma, Prasad Rashmi B., Prüfer, Kay, Sabater-Lleal Maria, Smith Nicholas L., Dehghan Abbas, Lind Lars, McGawley Kerry, Morris Andrew P., Andersson Johan P.A., Lehtovirta, Mikko, Szczerbiński Łukasz, Kretowski Adam, Ahmetov Ildus I., Wang Guan, Pitsiladis Yannis, Santos-Lozano Alejandro, Lucia Alejandro, Fuku Noriyuki, Holmberg Hans-Christer, Gomez Maria F., Eriksson Karl-Fredrik, Pietras Kristian, Lindgren Cecilia M., Franks Paul, Hansson Ola, RAB3GAP2 is a Regulator of Skeletal Muscle Endothelial Cell Proliferation and Associated with Capillary Density, *Cell Reports* **2026**, Feb 11; 45(2):116961. doi: 10.1016/j.celrep.2026.116961. PMID: 41678332
- 7) Zoé Pochon, Amanj Bajalan, Alicia Muriel, Emrah Kırdök, Petter Larsson, **Nikolay Oskolkov**, Lars Einarsson, Thijessen Naidoo, Michael Lindberg, Erika Hagelberg, Tobias Allander, Alex Hildred, Anna Kjellström, Reyhan Yaka, Ricardo Rodríguez-Varela, Maja Krzewińska, Anders Götherström, Björn Andersson, Parvovirus B19 from early modern warships suggests genotype 2 continuity in Europe, bridging a millennium-long gap, under review in *Nature Communications* **2026**
- 8) Shripurna Gangopadhyay, **Nikolay Oskolkov**, Eran Elhaik, Sedimentary Ancient DNA from Tel Megiddo reveals Near- and Far-East food exchanges in the Bronze Age Levant, under review in *Frontiers in Microbiology* **2026**
- 9) Mikhail M. Khandokhin, Aleksandr V. Sokolov, **Nikolay Oskolkov**, Robert Fredriksson, Olga E. Titova, Helgi B. Schiöth, NCBI Metabolomics Workbench: Data content, classification of

chemical groups, correlation of metabolite classes, biomarkers and drugs, under review in *Nature Communications* 2026

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- 13) Emilio Mármol-Sánchez, M. Thomas P. Gilbert, Bastian Fromm, Glenn Dunshea, Sebastien Calvignac-Spencer, **Nikolay Oskolkov**, Michael D. Martin, Ludovic Orlando, Marc Friedländer, Anders Johannes Hansen, Oliver Smith, Hannes Schroeder, Liam Thomas Lanigan, Karina Krarup Svenninggaard Sand, Sarah S.T. Mak, Verena J. Schuenemann, Hinzke Tjorven, Ancient RNA: Unveiling the hidden past to unlock future horizons, under review in *Nature Reviews Genetics* 2025
- 14) Emilio Mármol-Sánchez, Bastian Fromm, **Nikolay Oskolkov**, Zoé Pochon, Marianne Dehasque, Morteza Aslanzadeh1, Elif Bozlak, Katherine Brown, Tom van der Valk, Panagiotis Kalogeropoulos, J Camilo Chacón-Duque, Inna Biryukova, Valeri Plotnikov, Albert Protopopov, Björn Andersson, Erik Ersmark, Kevin J Peterson, Marc R Friedländer, Love Dalén, Ancient RNA expression profiles from the extinct woolly mammoth, *Cell* 2026, Jan 8;189(1):52-69.e22. doi: 10.1016/j.cell.2025.10.025. Epub 2025 Nov 14. PMID: 41240910
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- 17) Nora Bergfeldt, **Nikolay Oskolkov**, Ricardo Rodriguez-Varela, Benjamin Guinet, Petter Larsson, Jorge Arturo Talavera, Sandra Guevara Flores, Federico Navarrete Linares, Anders Götherström*, Cristina Valdiosera*, *Vibrio cholerae* in 18th century Mexico, under review in *Nature Communications* 2025
- 18) Zaher Elbeck, Mohammad Bakhtiar Hossain, Humam Siga, **Nikolay Oskolkov**, Fredrik Karlsson, Julia Lindgren, Anna Walentinsson, Cristobal Dos Remedios, Dominique Koppenhöfer, Rebecca

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- 21) Marianne Dehasque, Hernán E. Morales, David Díez del Molino, Patrícia Pečnerová, J. Camilo Chacón-Duque, Foteini Kanellidou, Héloïse Muller, Valerii Plotnikov, Albert Protopopov, Alexei Tikhonov, Pavel Nikolskiy, Gleb K. Danilov, Maddalena Gianni, Laura van der Sluis, Tom Higham, Peter D. Heintzman, **Nikolay Oskolkov**, M. Thomas P. Gilbert, Anders Götherström, Tom van der Valk, Sergey Vartanyan, Love Dalén, Temporal dynamics of woolly mammoth genome erosion prior to extinction, *Cell* **2024**, Jun 17:S0092-8674(24)00577-4. <https://doi.org/10.1016/j.cell.2024.05.033>
- 22) Tina Rönn, Alexander Perfilyev, **Nikolay Oskolkov*** and Charlotte Ling*, Predicting type 2 diabetes via Machine Learning integration of multiple Omics from human pancreatic islets, *Scientific Reports* **2024**, Jun 25;14(1):14637. <https://doi.org/10.1038/s41598-024-64846-3>
- 23) Zoé Pochon, Nora Bergfeldt, Emrah Kirdök, Mário Vicente, Thijessen Naidoo, Tom van der Valk, N. Ezgi Altınışık, Maja Krzewińska, Love Dalen, Anders Götherström, Claudio Mirabello*, Per Unneberg* and **Nikolay Oskolkov***, aMeta: an accurate and memory-efficient ancient Metagenomic profiling workflow, *Genome Biology* **2023**, 24, 242, <https://doi.org/10.1186/s13059-023-03083-9>
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* shared authorship