

Publications

Articles

- 1 Jones, B. N., Lewis, R. V., & Pääbo, S. (1980). Effects of flow rate and eluant composition on the high performance liquid chromatography of proteins. *Journal of Liquid Chromatography*, 3(9), 1373-1383.
- 2 Jones, B. N., Pääbo, S., & Stein, S. (1981). Amino acid analysis and enzymatic sequence determination of peptides by an improved o-phthaldialdehyde precolumn labeling procedure. *Journal of Liquid Chromatography*, 4(4), 565-586.
- 3 Pääbo, S., Lundqvist, G., Peterson, B., & Andersson, A. (1981). Hormone content of pancreatic islets subjected to different in vitro and in vivo functional demands. *Experientia*, 37, 1213-1214.
- 4 Kämpe, O., Bellgrau, D., Hammerling, U., Lind, P., Pääbo, S., Severinsson, L., & Peterson, P. (1983). Complex formation of class I transplantation antigens and a viral glycoprotein. *The Journal of Biological Chemistry*, 258(17), 10594-10598.
- 5 Pääbo, S., Weber, F., Kämpe, O., Schaffner, W., & Peterson, P. (1983). Association between transplantation antigens and a viral membrane protein synthesized from a mammalian expression vector. *Cell*, 33(2), 445-453.
- 6 Pääbo, S., Kämpe, O., Severinsson, L., Andersson, M., Fernandez, C., & Peterson, P. (1985). The association between class-I transplantation antigens and an adenovirus membrane protein. *Progress in Allergy*, 36, 114-134.
- 7 Pääbo, S. (1984). Über den Nachweis von DNA in altägyptischen Mumien. *Das Altertum*, 30, 213-218.
- 8 Pääbo, S. (1985). Preservation of DNA in ancient Egyptian mummies. *Journal of Archaeological Science*, 12(6), 411-417.
- 9 Pääbo, S. (1985). Molecular cloning of ancient Egyptian mummy DNA. *Nature*, 314, 644-645.
- 10 Andersson, M., Pääbo, S., Nilsson, T., & Peterson, P. A. (1985). Impaired intracellular transport of class I MHC antigens as a possible means for adenoviruses to evade immune surveillance. *Cell*, 43(1), 215-222.
- 11 Pääbo, S., Weber, F., Nilsson, T., Schaffner, W., & Peterson, P. (1986). Structural and functional dissection of an MHC class I antigen-binding adenovirus glycoprotein. *EMBO Journal*, 5(8), 1921-1927.
- 12 Pääbo, S., Nilsson, T., & Peterson, P. (1986). Adenoviruses of subgenera B, C, D, and E modulate cell-surface expression of major histocompatibility complex class I antigens. *Proceedings of the National Academy of Sciences of the United States of America*, 83(24), 9665-9669.
- 13 Pääbo, S. (1986). Molecular genetic investigations of ancient human remains. *Cold Spring Harbor Symposia on Quantitative Biology*, 51, 441-446.
- 14 Pääbo, S. (1987). Molecular genetic methods in archaeology - a prospect. *Anthropologischer Anzeiger*, 45(1), 9-17.
- 15 Andersson, L., Pääbo, S., & Rask, L. (1987). Is allograft rejection a clue to the mechanism promoting MHC polymorphism? *Immunology Today*, 8(7-8), 206-209.

- 16 Pääbo, S., Bhat, B. M., Wold, W. S., & Peterson, P. A. (1987). A short sequence in the COOH-terminus makes an adenovirus membrane glycoprotein a resident of the endoplasmic reticulum. *Cell*, 50(2), 311-317.
- 17 Pääbo, S., & Wilson, A. C. (1988). Polymerase chain reaction reveals cloning artefacts. *Nature*, 334, 387-388.
- 18 Pääbo, S., Gifford, J. A., & Wilson, A. C. (1988). Mitochondrial DNA sequences from a 7000-year old brain. *Nucleic Acids Research*, 16(20), 9775-9787.
- 19 Pääbo, S., Severinsson, L., Andersson, M., Martens, I., Peterson, P. A., & Nilsson, T. (1989). Adenovirus proteins and MHC expression. *Advances in Cancer Research*, 52, 151-163.
- 20 Ljunggren, H., Pääbo, S., Cochet, M., Kling, G., Kourilsky, P., & Kärre, K. (1989). Molecular analysis of H-2-deficient lymphoma lines. Distinct defects in biosynthesis and association of MHC class I heavy chains and beta 2-microglobulin observed in cells with increased sensitivity to NK cell lysis. *Journal of Immunology*, 142(8), 2911-2917.
- 21 Pääbo, S. (1989). Ancient DNA: Extraction, characterization, molecular cloning, and enzymatic amplification. *Proceedings of the National Academy of Sciences of the United States of America*, 86(6), 1939-1943.
- 22 Kocher, T., Thomas, W., Meyer, A., Edwards, S., Pääbo, S., Villablanca, F., & Wilson, A. (1989). Dynamics of mitochondrial DNA evolution in animals: Amplification and sequencing with conserved primers. *Proceedings of the National Academy of Sciences of the United States of America*, 86(16), 6196-6200.
- 23 Pääbo, S., Higuchi, R. G., & Wilson, A. C. (1989). Ancient DNA and the polymerase chain reaction: The emerging field of molecular archaeology (Minireview). *The Journal of Biological Chemistry*, 264(17), 9709-9712.
- 24 Thomas, R. H., Schaffner, W., Wilson, A. C., & Pääbo, S. (1989). DNA phylogeny of the extinct marsupial wolf. *Nature*, 340, 465-467.
- 25 Pääbo, S., Irwin, D., & Wilson, A. (1990). DNA damage promotes jumping between templates during enzymatic amplification. *The Journal of Biological Chemistry*, 265(8), 4718-4721.
- 26 Thomas, W. K., Pääbo, S., Villablanca, F. X., & Wilson, A. C. (1990). Spatial and temporal continuity of kangaroo rat populations shown by sequencing mitochondrial DNA from museum specimens. *Journal of Molecular Evolution*, 31(2), 101-112.
- 27 Thomas, R. H., Pääbo, S., & Wilson, A. C. (1990). Chance marsupial relationships (Reply). *Nature*, 345, 394.
- 28 Pääbo, S., Thomas, W. K., Whitfield, K. M., Kumazawa, Y., & Wilson, A. C. (1991). Rearrangements of mitochondrial transfer RNA genes in marsupials. *Journal of Molecular Evolution*, 33(5), 426-430.
- 29 Ward, R., Frazier, B., Dew-Jager, K., & Pääbo, S. (1991). Extensive mitochondrial diversity within a single Amerindian tribe. *Proceedings of the National Academy of Sciences of the United States of America*, 88(19), 8720-8724.
- 30 Pääbo, S., & Wilson, A. C. (1991). Miocene DNA sequences - a dream come true? *Current Biology*, 1(1), 45-46.
- 31 Welsh, N., Pääbo, S., & Welsh, M. (1991). Decreased mitochondrial gene expression in isolated islets of rats injected neonatally with streptozotocin. *Diabetologia*, 34(9), 626-631.

- 32 Sidow, A., Wilson, A. C., & Pääbo, S. (1991). Bacterial DNA in *Clarkia* fossils. *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences*, 333, 429-433.
- 33 Pääbo, S. (1991). Amplifying DNA from archeological remains: A meeting report. *PCR Methods and Applications*, 1, 107-110.
- 34 Cooper, A., Mourer-Chauviré, C., Chambers, G., von Haeseler, A., Wilson, A., & Pääbo, S. (1992). Independent origins of New Zealand moas and kiwis. *Proceedings of the National Academy of Sciences of the United States of America*, 89(18), 8741-8744.
- 35 Pääbo, S., Wayne, R., & Thomas, R. (1992). On the use of museum collections for molecular genetic studies. *Ancient DNA Newsletter*, 1, 4-5.
- 36 Höss, M., Kohn, M., Pääbo, S., Knauer, F., & Schröder, W. (1992). Excrement analysis by PCR. *Nature*, 359, 199.
- 37 Goloubinoff, P., Pääbo, S., & Wilson, A. (1993). Evolution of maize inferred from sequence diversity of an *Adh2* gene segment from archaeological specimens. *Proceedings of the National Academy of Sciences of the United States of America*, 90(5), 1997-2001.
- 38 Ward, R., Redd, A., Valencia, D., Frazier, B., & Pääbo, S. (1993). Genetic and linguistic differentiation in the Americas. *Proceedings of the National Academy of Sciences of the United States of America*, 90(22), 10663-10667.
- 39 Janke, A., & Pääbo, S. (1993). Editing of a tRNA anticodon in marsupial mitochondria changes its codon recognition. *Nucleic Acids Research*, 21(7), 1523-1525.
- 40 Schliewen, U., Fricke, H., Schartl, M., Epplen, J., & Pääbo, S. (1993). Which home for coelacanth? *Nature*, 363, 405.
- 41 Höss, M., & Pääbo, S. (1993). DNA extraction from Pleistocene bones by a silica-based purification method. *Nucleic Acids Research*, 21(16), 3913-3914.
- 42 von Haeseler, A., Janke, A., & Pääbo, S. (1993). Molecular phylogenetics. *Verhandlungen der Deutschen Zoologischen Gesellschaft = Proceedings of the German Zoological Society*, 86(2), 119-129.
- 43 Pääbo, S. (1993). Ancient DNA. *Scientific American*, 269(5), 86-92.
- 44 Thomas, W. K., & Pääbo, S. (1993). DNA sequences from old tissue remains. *Methods in Enzymology*, 224, 406-419.
- 45 Schliewen, U. K., Tautz, D., & Pääbo, S. (1994). Sympatric speciation suggested by monophyly of crater lake cichlids. *Nature*, 368(6472), 629-632.
- 46 Janke, A., Feldmaier-Fuchs, G., Thomas, W. K., von Haeseler, A., & Pääbo, S. (1994). The marsupial mitochondrial genome and the evolution of placental mammals. *Genetics*, 137(1), 243-256.
- 47 Handt, O., Richards, M., Trommsdorff, M., Kilger, C., Simanainen, J., Georgiev, O., Bauer, K., Stone, A., Hedges, R., Schaffner, W., Utermann, G., Sykes, B., & Pääbo, S. (1994). Molecular genetic analyses of the Tyrolean Ice Man. *Science*, 264(5166), 1775-1778.
- 48 Höss, M., Pääbo, S., & Vereshchagin, N. (1994). Mammoth DNA sequences. *Nature*, 370(6488), 333.
- 49 Handt, O., Höss, M., Krings, M., & Pääbo, S. (1994). Ancient DNA: Methodological challenges.

- Experientia, 50(6), 524-529.
- 50 Bada, J. L., Wang, X. S., Poinar, H. N., Pääbo, S., & Poinar, G. O. (1994). Amino acid racemization in amber-entombed insects: Implications for DNA preservation. *Geochimica et Cosmochimica Acta*, 58(14), 3131-3135.
- 51 Gemmell, N. J., Janke, A., Western, P. S., Watson, J. M., Pääbo, S., & Graves, J. A. M. (1994). Cloning and characterization of the platypus mitochondrial genome. *Journal of Molecular Evolution*, 39(2), 200-205.
- 52 Cao, Y., Adachi, J., Janke, A., Pääbo, S., & Hasegawa, M. (1994). Phylogenetic relationships among eutherian orders estimated from inferred sequences of mitochondrial proteins: Instability of a tree based on a single gene. *Journal of Molecular Evolution*, 39(5), 519-527.
- 53 Pult, I., Sajantila, A., Simanainen, J., Georgiev, O., Schaffner, W., & Pääbo, S. (1994). Mitochondrial DNA sequences from Switzerland reveal striking homogeneity of European populations. *Biological chemistry Hoppe-Seyler*, 375, 837-840.
- 54 Kohn, M., Knauer, F., Stoffella, A., Schröder, W., & Pääbo, S. (1995). Conservation genetics of the European brown bear - a study using excremental PCR of nuclear and mitochondrial sequences. *Molecular Ecology*, 4(1), 95-103.
- 55 Dörner, M., & Pääbo, S. (1995). Nucleotide sequence of a marsupial LINE-1 element and the evolution of placental mammals. *Molecular Biology and Evolution*, 12(5), 944-948.
- 56 Mörl, M., Dörner, M., & Pääbo, S. (1995). C to U editing and modifications during the maturation of the mitochondrial tRNA^{Asp} in marsupials. *Nucleic Acids Research*, 23(17), 3380-3384.
- 57 Yokobori, S.-I., & Pääbo, S. (1995). Transfer RNA editing in land snail mitochondria. *Proceedings of the National Academy of Sciences of the United States of America*, 92(22), 100432-10435.
- 58 Comas, D., Pääbo, S., & Bertranpetit, J. (1995). Heteroplasmy in the control region of human mitochondrial DNA. *Genome Research*, 5(1), 89-90.
- 59 Zischler, H., Hoss, M., Handt, O., von Haeseler, A., van der Kuyl, A., Goudsmit, J., & Pääbo, S. (1995). Detecting dinosaur DNA. *Science*, 268(5214), 1192-1193.
- 60 Pääbo, S. (1995). The Y chromosome and the origin of all of us (men). *Science*, 268(5214), 1141-1142.
- 61 Sajantila, A., Lahermo, P., Anttinen, T., Lukka, M., Sistonen, P., Savontaus, M., Aula, P., Beckman, L., Tranebjaerg, L., Gedde-Dahl, T., Issel-Tarver, L., Di Rienzo, A., & Pääbo, S. (1995). Genes and languages in Europe: An analysis of mitochondrial lineages. *Genome Research*, 5(1), 42-52.
- 62 Yokobori, S.-I., & Pääbo, S. (1995). tRNA editing in metazoans. *Nature*, 377(6549), 490.
- 63 Zischler, H., Geisert, H., von Haeseler, A., & Pääbo, S. (1995). A nuclear 'fossil' of the mitochondrial D-loop and the origin of modern humans. *Nature*, 378(6556), 489-492.
- 64 Sajantila, A., & Pääbo, S. (1995). Language replacement in Scandinavia. *Nature Genetics*, 11, 359-360.
- 65 Petri, B., Neuweiler, G., & Pääbo, S. (1995). Mitochondrial diversity and heteroplasmy in two European populations of the large mouse-eared bat, *Myotis myotis*. *Symposia of the Zoological Society of London*, 67, 397-403.
- 66 Janke, A., Gemmell, N. J., Feldmaier-Fuchs, G., von Haeseler, A., & Pääbo, S. (1996). The

- mitochondrial genome of a monotreme - the platypus (*Ornithorhynchus anatinus*). *Journal of Molecular Evolution*, 42(2), 153-159.
- 67 Höss, M., Dilling, A., Currant, A., & Pääbo, S. (1996). Molecular phylogeny of the extinct ground sloth *Mylodon darwini*. *Proceedings of the National Academy of Sciences of the United States of America*, 93(1), 181-185.
- 68 Stone, A. C., Milner, G. R., Pääbo, S., & Stoneking, M. (1996). Sex determination of ancient human skeletons using DNA. *American Journal of Physical Anthropology*, 99(2), 231-238.
- 69 Höss, M., Jaruga, P., Zastawny, T. H., Dizdaroglu, M., & Pääbo, S. (1996). DNA damage and DNA sequence retrieval from ancient tissues. *Nucleic Acids Research*, 24(7), 1304-1307.
- 70 Tishkoff, S. A., Dietzsch, E., Speed, W., Pakstis, A. J., Kidd, J. R., Cheung, K., Bonn -Tamir, B., Santachiara-Benerecetti, A. S., Moral, P., Krings, M., Pääbo, S., Watson, E., Risch, N., Jenkins, T., & Kidd, K. K. (1996). Global patterns of linkage disequilibrium at the CD4 locus and modern human origins. *Science*, 271(5254), 1380-1387.
- 71 Thomas, R., Zischler, H., Pääbo, S., & Stoneking, M. (1996). Novel mitochondrial DNA insertion polymorphism and its usefulness for human population studies. *Human Biology*, 68(6), 847-854.
- 72 Armour, J. A., Anttinen, T., May, C. A., Vega, E. E., Sajantila, A., Kidd, J. R., Kidd, K. K., Bertranpetit, J., Pääbo, S., & Jeffreys, A. J. (1996). Minisatellite diversity supports a recent African origin for modern humans. *Nature Genetics*, 13, 154-160.
- 73 Handt, O., Krings, M., Ward, R. H., & Pääbo, S. (1996). The retrieval of ancient human DNA sequences. *American Journal of Human Genetics*, 59(2), 368-376.
- 74 Börner, G. V., & Pääbo, S. (1996). Evolutionary fixation of RNA editing. *Nature*, 383, 225.
- 75 Poinar, H. N., Höss, M., Bada, J. L., & Pääbo, S. (1996). Amino acid racemization and the preservation of ancient DNA. *Science*, 272(5263), 864-866.
- 76 von Haeseler, A., Sajantila, A., & Pääbo, S. (1996). The genetical archaeology of the human genome. *Nature Genetics*, 14, 135-140.
- 77 Watson, E., Bauer, K., Aman, R., Weiss, G., von Haeseler, A., & Pääbo, S. (1996). mtDNA sequence diversity in Africa. *American Journal of Human Genetics*, 59(2), 437-444.
- 78 Sajantila, A., Salem, A., Savolainen, P., Bauer, K., Gierig, C., & Pääbo, S. (1996). Paternal and maternal DNA lineages reveal a bottleneck in the founding of the Finnish population. *Proceedings of the National Academy of Sciences of the United States of America*, 93(21), 12035-12039.
- 79 Salem, A. H., Badr, F. M., Gaballah, M. F., & Pääbo, S. (1996). The genetics of traditional living: Y-chromosomal and mitochondrial lineages in the Sinai Peninsula. *American Journal of Human Genetics*, 59(3), 741-743.
- 80 Börner, G., Mörl, M., Janke, A., & Pääbo, S. (1996). RNA editing changes the identity of a mitochondrial tRNA in marsupials. *The EMBO Journal*, 15(21), 5949-5957.
- 81 Pääbo, S. (1996). Mutational hot spots in the mitochondrial microcosm. *American Journal of Human Genetics*, 59(3), 493-496.
- 82 Petri, B., von Haeseler, A., & Pääbo, S. (1996). Extreme sequence heteroplasmy in bat mitochondrial DNA. *Biological Chemistry*, 377, 661-667.
- 83 Kilger, C., Krings, M., Poinar, H., & Pääbo, S. (1997). "Colony sequencing": Direct sequencing of

- plasmid DNA from bacterial colonies. *Biotechniques*, 22(3), 412-418.
- 84 Benes, V., Kilger, C., Voss, H., Pääbo, S., & Ansorge, W. (1997). Direct primer walking on P1 plasmid DNA. *BioTechniques*, 23(1), 98-100.
- 85 Yokobori, S.-i., & Pääbo, S. (1997). Polyadenylation creates the discriminator nucleotide of chicken mitochondrial tRNA Tyr. *Journal of Molecular biology*, 265(2), 95-99.
- 86 Petri, B., Pääbo, S., Haeseler, A. v., & Tautz, D. (1997). Paternity assessment and population subdivision in a natural population of the larger mouse-eared bat *Myotis myotis*. *Molecular Ecology*, 6(3), 235-242.
- 87 Kilger, C., & Pääbo, S. (1997). Direct exponential amplification and sequencing (DEXAS) of genomic DNA. *Biological Chemistry Hoppe-Seyler (Berlin)*, 378(2), 99-105.
- 88 Kilger, C., & Pääbo, S. (1997). Direct DNA sequence determination from total genomic DNA. *Nucleic Acids Research*, 25(10), 2032-2032.
- 89 Krings, M., Stone, A. C., Schmitz, R. W., Krainitzki, H., Stoneking, M., & Pääbo, S. (1997). Neandertal DNA sequences and the origin of modern humans. *Cell*, 90(1), 19-30.
- 90 Laan, M., & Pääbo, S. (1997). Demographic history and linkage disequilibrium in human populations. *Nature Genetics*, 17, 435-438.
- 91 Börner, G. V., Yokobori, S.-i., Mörl, M., & Pääbo, S. (1997). RNA editing in metazoan mitochondria: staying fit without sex. *FEBS Letters*, 409(3), 2032-2034.
- 92 Cooper, A., Poinar, H. N., Pääbo, S., Radovic, J., Debénath, A., Caparros, M., Barroso-Ruiz, C., Bertranpetit, J., Nielsen-Marsh, C., Hedges, R. E. M., & Sykes, B. (1997). Neandertal genetics. *Science*, 277(5329), 1021-1025.
- 93 Gravlung, P., Meldgaard, M., Pääbo, S., & Arctander, P. (1998). Polyphyletic origin of the small-bodied, high-arctic subspecies of tundra reindeer (*Rangifer tarandus*). *Molecular Phylogenetics and Evolution*, 10(2), 151-159.
- 94 Castresana, J., Feldmaier-Fuchs, G., & Pääbo, S. (1998). Codon reassignment and amino acid composition in hemichordate mitochondria. *Proceedings of the National Academy of Sciences of the United States of America*, 95(7), 3703-3707.
- 95 Terwilliger, J. D., Zöllner, S., Laan, M., & Pääbo, S. (1998). Mapping genes through the use of linkage disequilibrium generated by genetic drift: 'Drift Mapping' in small populations with no demographic expansion. *Human Heredity*, 48(3), 138-154.
- 96 Allen, M., Engström, A.-S., Meyer, S., Handt, O., Saldeen, T., von Haeseler, A., Pääbo, S., & Gyllenstein, U. (1998). Mitochondrial DNA sequencing of shed hairs and saliva on robbery caps: Sensitivity and matching probabilities. *Journal of Forensic Sciences*, 43(3), 453-464.
- 97 Castresana, J., Feldmaier-Fuchs, G., Yokobori, S.-i., Satoh, N., & Pääbo, S. (1998). The mitochondrial genome of the hemichordate *Balanoglossus carnosus* and the evolution of deuterostome mitochondria. *Genetics*, 150(3), 1115-1123.
- 98 Laan, M., & Pääbo, S. (1998). Mapping genes by drift-generated linkage disequilibrium. *American Journal of Human Genetics*, 63(2), 654-656.
- 99 Poinar, H. N., Hofreiter, M., Spaulding, W. G., Martin, P. S., Stankiewicz, A. B., Bland, H., Evershed, R. P., Possnert, G., & Pääbo, S. (1998). Molecular coproscopy: Dung and diet of the extinct ground

- sloth *Nothrotheriops shastensis*. *Science*, 281(5375), 402-406.
- 100 Cao, Y., Janke, A., Waddell, P. J., Westermann, M., Takenaka, O., Murata, S., Okada, N., Pääbo, S., & Hasegawa, M. (1998). Conflict among individual mitochondrial proteins in resolving the phylogeny of eutherian orders. *Journal of Molecular Evolution*, 47(3), 307-322.
- 101 Greenwood, A. D., & Pääbo, S. (1999). Nuclear insertion sequences of mitochondrial DNA predominate in hair but not in blood of elephants. *Molecular Ecology*, 8(1), 133-137.
- 102 Krings, M., Salem, A.-e.-H., Bauer, K., Geisert, H., Malek, A. K., Chaix, L., Simon, C., Welsby, D., Di Rienzo, A., Utermann, G., Sajantila, A., Pääbo, S., & Stoneking, M. (1999). mtDNA analysis of Nile River Valley populations: A genetic corridor or a barrier to migration? *American Journal of Human Genetics*, 64(4), 1166-1176.
- 103 Kaessmann, H., Heißig, F., Haeseler, A. v., & Pääbo, S. (1999). DNA sequence variation in a non-coding region of low recombination on the human X chromosome. *Nature Genetics*, 22(1), 78-81.
- 104 Krings, M., Geisert, H., Schmitz, R. W., Krainitzki, H., & Pääbo, S. (1999). DNA sequence of the mitochondrial hypervariable region II from the Neandertal type specimen. *Proceedings of the National Academy of Sciences of the United States of America*, 96(10), 5581-5585.
- 105 Greenwood, A. D., Capelli, C., Possnert, G., & Pääbo, S. (1999). Nuclear DNA sequences from late Pleistocene megafauna. *Molecular Biology and Evolution*, 16(11), 1466-1473.
- 106 Pääbo, S. (1999). Agriculture: Neolithic genetic engineering (News and Views). *Nature*, 398, 194-195.
- 107 Vigilant, L., & Pääbo, S. (1999). A chimpanzee millenium (Guest Editorial). *Biological Chemistry*, 380(12), 1353-1354.
- 108 Kaessmann, H., Wiebe, V., & Pääbo, S. (1999). Extensive nuclear DNA sequence diversity among chimpanzees. *Science*, 286(5442), 1159-1162.
- 109 Pääbo, S. (1999). Human evolution. *Trends in Genetics*, 15(12), M13-M16.
- 110 Yokobori, S.-i., Ueda, T., Feldmaier-Fuchs, G., Pääbo, S., Kondow, A., Nishikawa, K., & Watanabe, K. (1999). Complete DNA sequence of the mitochondrial genome of the ascidian *Halocynthia roretzi* (Chordata, Urochordata). *Genetics*, 153(4), 1851-1862.
- 111 Erlandsson, R., Wilson, J. F., & Pääbo, S. (2000). Sex chromosomal transposable element accumulation and male-driven substitutional evolution in humans. *Molecular Biology and Evolution*, 17(5), 804-812.
- 112 Börner, G. V., Zeviani, M., Tiranti, V., Carrara, F., Hoffmann, S., Gerbitz, K. D., Lochmüller, H., Klopstock, T., Pongratz, D., Melberg, A., Holme, E., & Pääbo, S. (2000). Decreased aminoacylation of mutant tRNAs in MELAS but not in MERRF patients. *Human Molecular Genetics*, 9(4), 467-475.
- 113 Pääbo, S. (2000). Of bears, conservation genetics, and the value of time travel (Commentary). *Proceedings of the National Academy of Sciences USA*, 97(4), 1320-1321.
- 114 Di Benedetto, G., Nasidze, I., Stenico, M., Nigro, L., Krings, M., Lanzinger, M., Vigilant, L., Stoneking, M., Pääbo, S., & Barbujani, G. (2000). Mitochondrial DNA sequences in prehistoric human remains from the Alps. *European Journal of Human Genetics*, 8(9), 669-677.
- 115 Hofreiter, M., Poinar, H. N., Spaulding, W. G., Bauer, K., Martin, P. S., Possnert, G., & Pääbo, S.

- (2000). A molecular analysis of ground sloth diet through the last glaciation. *Molecular Ecology*, 9(12), 1975-1984.
- 116 Krings, M., Capelli, C., Tschentscher, F., Geisert, H., Meyer, S., Haeseler, A. v., Grossschmidt, K., Possnert, G., Paunovic, M., & Pääbo, S. (2000). A view of Neandertal genetic diversity. *Nature Genetics*, 26, 144-146.
- 117 Ingman, M., Kaessmann, H., Pääbo, S., & Gyllenstein, U. (2000). Mitochondrial genome variation and the origin of modern humans. *Nature*, 408, 708-713.
- 118 Motz, M., Pääbo, S., & Kilger, C. (2000). Improved cycle sequencing of GC-rich templates by a combination of nucleotide analogs. *BioTechniques*, 29(2), 268-270.
- 119 Greenwood, A. D., Castresana, J., Feldmaier-Fuchs, G., & Pääbo, S. (2001). A molecular phylogeny of two extinct sloths. *Molecular Phylogenetics and Evolution*, 18(1), 94-103.
- 120 Kaessmann, H., Wiebe, V., Weiss, G., & Pääbo, S. (2001). Great ape DNA sequences reveal a reduced diversity and an expansion in humans. *Nature Genetics*, 27, 155-156.
- 121 Pääbo, S. (2001). The human genome and our view of ourselves. *Science*, 291(5507), 1219-1220.
- 122 Poinar, H. N., Kuch, M., Sobolik, K. D., Barnes, I., Stankiewicz, A. B., Kuder, T., Spaulding, W. G., Bryant, V. M., Cooper, A., & Pääbo, S. (2001). A molecular analysis of dietary diversity for three archaic Native Americans. *Proceedings of the National Academy of Sciences USA*, 98(8), 4317-4322.
- 123 Poinar, H. N., Kuch, M., & Pääbo, S. (2001). Molecular analyses of oral polio vaccine samples. *Science*, 292(5517), 743-744.
- 124 Hofreiter, M., Serre, D., Poinar, H. N., Kuch, M., & Pääbo, S. (2001). Ancient DNA. *Nature Reviews Genetics*, 2, 353-359.
- 125 Dörner, M., Altmann, M., Pääbo, S., & Mörl, M. (2001). Evidence for import of a lysyl-tRNA into marsupial mitochondria. *Molecular Biology of the Cell*, 12(9), 2688-2698.
- 126 Hofreiter, M., Jänicke, V. R., Serre, D., Haeseler, A. v., & Pääbo, S. (2001). DNA sequences from multiple amplifications reveal artifacts induced by cytosine deamination in ancient DNA. *Nucleic Acids Research*, 29(23), 4793-4799.
- 127 Kaessmann, H., & Pääbo, S. (2002). The genetical history of humans and the great apes. *Journal of Internal Medicine*, 251(1), 1-18.
- 128 Kaessmann, H., Zöllner, S., Gustafsson, A. C., Wiebe, V., Laan, M., Lundeberg, J., Uhlen, M., & Pääbo, S. (2002). Extensive linkage disequilibrium in small human populations in Eurasia. *American Journal of Human Genetics*, 70(3), 673-685.
- 129 Hofreiter, M., Capelli, C., Krings, M., Waits, L., Conard, N. J., Munzel, S., Rabeder, G., Nagel, D., Paunovic, M., Jambresic, G., Meyer, S., Weiss, G., & Pääbo, S. (2002). Ancient DNA analyses reveal high mitochondrial DNA sequence diversity and parallel morphological evolution of late pleistocene cave bears. *Molecular Biology and Evolution*, 19(8), 1244-1250.
- 130 Ebersberger, I., Metzler, D., Schwarz, C., & Pääbo, S. (2002). Genomewide comparison of DNA sequences between humans and chimpanzees. *American Journal of Human Genetics*, 70(6), 1490-1497.
- 131 Enard, W., Khaitovich, P., Klose, J., Zöllner, S., Heißig, F., Giavalisco, P., Nieselt-Struwe, K.,

- Muchmore, E., Varki, A., Ravid, R., Doxiadis, G. M., Bontrop, R. E., & Pääbo, S. (2002). Intra- and interspecific variation in primate gene expression patterns. *Science*, 296(5566), 340-343.
- 132 Enard, W., Przeworski, M., Fisher, S. E., Lai, C. S. L., Wiebe, V., Kitano, T., Monaco, A. P., & Pääbo, S. (2002). Molecular evolution of FOXP2, a gene involved in speech and language. *Nature*, 418(6900), 869-872.
- 133 Chou, H. H., Hayakawa, T., Diaz, S., Krings, M., Indriati, E., Leakey, M., Pääbo, S., Satta, Y., Takahata, N., & Varki, A. (2002). Inactivation of CMP-N-acetylneuraminic acid hydroxylase occurred prior to brain expansion during human evolution. *Proceedings of the National Academy of Sciences of the United States of America*, 99(18), 11736-11741.
- 134 Motz, M., Sagner, G., Pääbo, S., & Kilger, C. (2003). Sequential DEXAS: A method for obtaining DNA sequences from genomic DNA and blood in one reaction. *Nucleic Acids Research*, 31(20): e121, pp. 1-8.
- 135 Schmitz, R. W., Serre, D., Bonani, G., Feine, S., Hillgruber, F., Krainitzki, H., Pääbo, S., & Smith, F. H. (2002). The Neanderthal type site revisited: Interdisciplinary investigations of skeletal remains from the Neander Valley, Germany. *Proceedings of the National Academy of Sciences of the United States of America*, 99(20), 13342-13347.
- 136 Hellmann, I., Zöllner, S., Enard, W., Ebersberger, I., Nickel, B., & Pääbo, S. (2003). Selection on human genes as revealed by comparisons to chimpanzee cDNA. *Genome Research*, 13, 831-837.
- 137 Enard, W., Ebersberger, I., Fischer, A., Heiig, F., Hellmann, I., Hffner, B., Khaitovich, P., Kitano, T., Khler, K., Metzler, D., Nickel, B., Przeworski, M., Schwarz, C., Nowick, K., Wiebe, V., Winkler, M., Zllner, S., & Pääbo, S. (2002). Functional genomics in the chimpanzee.
- 138 Gilad, Y., Man, O., Pääbo, S., & Lancet, D. (2003). Human specific loss of olfactory receptor genes. *Proceedings of the National Academy of Sciences of the United States of America*, 100(6), 3324-3327.
- 139 Pääbo, S. (2003). The mosaic that is our genome. *Nature*, 421(6921), 409-412.
- 140 Gilad, Y., Bustamante, C. D., Lancet, D., & Pääbo, S. (2003). Natural selection on the olfactory receptor gene family in humans and chimpanzees. *The American Journal of Human Genetics*, 73(3), 489-501.
- 141 Hellmann, I., Ebersberger, I., Ptak, S. E., Pääbo, S., & Przeworski, M. (2003). A neutral explanation for the correlation of diversity with recombination rates in humans. *American Journal of Human Genetics*, 72(6), 1527-1535.
- 142 Otte, K., Kranz, H., Kober, I., Thompson, P., Hofer, M., Haubold, B., Rimmel, B., Voss, H., Kaiser, C., Albers, M., Cheruvallath, Z., Jackson, D., Casari, G., Koegl, M., Pääbo, S., Mous, J., Kremoser, C., & Deuschle, U. (2003). Identification of Farnesoid X Receptor β as a Novel Mammalian Nuclear Receptor Sensing Lanosterol. *Molecular and Cellular Biology*, 23(3), 864-872.
- 143 Kitano, T., Schwarz, C., Nickel, B., & Pääbo, S. (2003). Gene diversity patterns at 10 X-chromosomal loci in humans and chimpanzees. *Molecular Biology and Evolution*, 20(8), 1281-1289.
- 144 Poinar, H. N., Kuch, M., McDonald, H. G., Martin, P. S., & Pääbo, S. (2003). Nuclear gene sequences from a late Pleistocene sloth coprolite. *Current Biology*, 13(13), 1150-1152.
- 145 Jnicke-Desprs, V. R., Buckler, E. S., Smith, B. D., Gilbert, M. T. P., Cooper, A., Doebley, J., & Pääbo, S. (2003). Early allelic selection in maize as revealed by ancient DNA. *Science*, 302(5648), 1206-1208.

- 146 Thalmann, O., Hebler, J., Poinar, H. N., Pääbo, S., & Vigilant, L. (2004). Unreliable mtDNA data due to nuclear insertions: A cautionary tale from analysis of humans and other great apes. *Molecular Ecology*, 13(2), 321-335.
- 147 Serre, D., Langaney, A., Chell, M., Teschler-Nicola, M., Paunovic, M., Menecier, P., Hofreiter, M., Possnert, G., & Pääbo, S. (2004). No evidence of Neandertal mtDNA contribution to early modern humans. *PLoS Biology*, 2(3): e57, pp. 313-317.
- 148 Hofreiter, M., Rabeder, G., Jänicke-Després, V. R., Withalm, G., Nagel, D., Paunovic, M., Jambresic, G., & Pääbo, S. (2004). Evidence for reproductive isolation between cave bear populations. *Current Biology*, 14(1), 40-43.
- 149 Khaitovich, P., Muetzel, B., She, X., Lachmann, M., Hellmann, I., Dietzsch, J., Steigele, S., Do, H.-H., Weiss, G., Enard, W., Heißig, F., Arendt, T., Nieselt-Struwe, K., Eichler, E. E., & Pääbo, S. (2004). Regional patterns of gene expression in human and chimpanzee brains. *Genome Research*, 14, 1462-1473.
- 150 Fischer, A., Wiebe, V., Pääbo, S., & Przeworski, M. (2004). Evidence for a complex demographic history of chimpanzees. *Molecular Biology and Evolution*, 21(5), 799-808.
- 151 Ptak, S. E., Roeder, A. D., Stephens, M., Gilad, Y., Pääbo, S., & Przeworski, M. (2004). Absence of the TAP2 human recombination hotspot in chimpanzees. *PLoS Biology*, 2(6), 0849-0855.
- 152 Enard, W., Fassbender, A., Model, F., Adorján, P., Pääbo, S., & Olek, A. (2004). Differences in DNA methylation patterns between humans and chimpanzees. *Current Biology*, 14(4), R148-R149.
- 153 Enard, W., & Pääbo, S. (2004). Comparative primate genomics. *Annual Review of Genomics and Human Genetics*, 5, 351-378.
- 154 Gilad, Y., Wiebe, V., Przeworski, M., Lancet, D., & Pääbo, S. (2004). Loss of olfactory receptor genes coincides with the acquisition of full trichromatic vision in primates. *PLoS Biology*, 2(1): e5 [V. Wiebe and S. Pääbo retracted authorship].
- 155 Serre, D., Hofreiter, M., & Pääbo, S. (2004). Mutations induced by ancient DNA extracts? *Molecular Biology and Evolution*, 21(8), 1463-1467.
- 156 Khaitovich, P., Weiss, G., Lachmann, M., Hellmann, I., Enard, W., Muetzel, B., Wirkner, U., Ansorge, W., & Pääbo, S. (2004). A neutral model of transcriptome evolution. *PLoS Biology*, 2(5): e132, pp. 0682-0689.
- 157 Serre, D., & Pääbo, S. (2004). Evidence for gradients of human genetic diversity within and among continents. *Genome Research*, 14, 1679-1685.
- 158 The international Chimpanzee Chromosome 22 Consortium, Watanabe, H., Fujiyama, A., Hattori, M., Taylor, T. D., Toyoda, A., Kuroki, Y., Noguchi, H., BenKahla, A., Lehrach, H., Sudbrak, R., Kube, M., Taenzer, S., Galgoczy, P., Platzer, M., Scharfe, M., Nordsiek, G., Blöcker, H., Hellmann, I., Khaitovich, P., Pääbo, S., Reinhardt, R., Zheng, H.-J., Zhang, X.-L., Zhu, G.-F., Wang, B.-F., Fu, G., Ren, S.-X., Zhao, G.-P., Chen, Z., Lee, Y.-S., Cheong, J.-E., Choi, S.-H., Wu, K.-M., Liu, T.-T., Hsiao, K.-J., Tsai, S.-F., Kim, C.-G., Oota, S., Kitano, T., Kohora, Y., Saitou, N., Park, H.-S., Wang, S.-Y., Yaspo, M.-L., & Sakaki, Y. (2004). DNA sequence and comparative analysis of chimpanzee chromosome 22. *Nature*, 429, 382-388.
- 159 Hofreiter, M., Serre, D., Rohland, N., Rabeder, G., Nagel, D., Conard, N. J., Münzel, S., & Pääbo, S. (2004). Lack of phylogeography in European mammals before the last glaciation. *PNAS*, 101(35), 12963-12968.

- 160 Pääbo, S., Poinar, H. N., Serre, D., Jänicke-Després, V. R., Hebler, J., Rohland, N., Kuch, M., Krause, J., Vigilant, L., & Hofreiter, M. (2004). Genetic analyses from ancient DNA. *Annual Review of Genetics*, 38, 645-679.
- 161 Fischer, A., Gilad, Y., Man, O., & Pääbo, S. (2005). Evolution of bitter taste receptors in humans and apes. *Molecular Biology and Evolution*, 22(3), 432-436.
- 162 Yohn, C. T., Jiang, Z., McGrath, S. D., Hayden, K. E., Khaitovich, P., Johnson, M. E., Eichler, M. Y., McPerson, J. D., Zhao, S., Pääbo, S., & Eichler, E. E. (2005). Lineage-specific expansions of retroviral insertions within the genomes of African great apes but not humans and orangutans. *PLoS Biology*, 3(4): e110.
- 163 Khaitovich, P., Hellmann, I., Enard, W., Nowick, K., Leinweber, M., Franz, H., Weiss, G., Lachmann, M., & Pääbo, S. (2005). Parallel patterns of evolution in the genomes and transcriptomes of humans and chimpanzees. *Science*, 309(5742), 1850-1854.
- 164 Laan, M., Wiebe, V., Khusnutdinova, E., Remm, M., & Pääbo, S. (2005). X-chromosome as a marker for population history: Linkage disequilibrium and haplotype study in Eurasian populations. *European Journal of Human Genetics*, 13(4), 452-462.
- 165 Ptak, S. E., Hinds, D. A., Köhler, K., Nickel, B., Patil, N., Ballinger, D. G., Przeworski, M., Frazer, K. A., & Pääbo, S. (2005). Fine-scale recombination patterns differ between chimpanzees and humans. *Nature Genetics*, 37(4), 429-434.
- 166 Hellmann, I., Prüfer, K., Ji, H. K., Zody, M. C., Pääbo, S., & Ptak, S. E. (2005). Why do human diversity levels vary at a megabase scale? *Genome Research*, 15(9), 1222-1231.
- 167 Rohland, N., Pollack, J. L., Nagel, D., Beauval, C., Airvaux, J., Pääbo, S., & Hofreiter, M. (2005). The population history of extant and extinct hyenas. *Molecular Biology and Evolution*, 22(12), 2435-2443.
- 168 Heißig, F., Krause, J., Bryk, J., Khaitovich, P., Enard, W., & Pääbo, S. (2005). Functional analysis of human and chimpanzee promoters. *Genome Biology*, 6: R57.
- 169 Beauval, C., Maureille, B., Lacrampe-Cuyaubere, F., Serre, D., Peressinotto, D., Bordes, J. G., Cochard, D., Couchoud, I., Dubrasquet, D., Laroulandie, W., Lenoble, A., Mallye, J. B., Pasty, S., Primault, J., Rohland, N., Pääbo, S., & Trinkaus, E. (2005). A late Neandertal femur from Les Rochers-de-Villeneuve, France. *Proceedings of the National Academy of Sciences of the United States of America*, 102(20), 7085-7090.
- 170 Khaitovich, P., Pääbo, S., & Weiss, G. (2005). Toward a neutral evolutionary model of gene expression. *Genetics*, 170(2), 929-939.
- 171 Krause, J., Dear, P. H., Pollack, J. L., Slatkin, M., Spriggs, H., Barnes, I., Lister, A. M., Ebersberger, I., Pääbo, S., & Hofreiter, M. (2006). Multiplex amplification of the mammoth mitochondrial genome and the evolution of Elephantidae. *Nature*, 439(7077), 724-727.
- 172 Noonan, J. P., Hofreiter, M., Smith, D., Priest, J. R., Rohland, N., Rabeder, G., Krause, J., Detter, J. C., Pääbo, S., & Rubin, E. M. (2005). Genomic sequencing of Pleistocene cave bears. *Science*, 309(5734), 597-599.
- 173 Franz, H., Ullmann, C., Becker, A., Ryan, M., Bahn, S., Arendt, T., Simon, M., Pääbo, S., & Khaitovich, P. (2005). Systematic analysis of gene expression in human brains before and after death. *Genome Biology*, 6(13): R112, pp. R112.1-R112.9.
- 174 Fraser, H. B., Khaitovich, P., Plotkin, J. B., Pääbo, S., & Eisen, M. B. (2005). Aging and gene expression in the primate brain. *PLoS Biology*, 3(9): e274, pp. 1653-1661.

- 175 Römpler, H., Schulz, A., Pitra, C., Coop, G., Przeworski, M., Pääbo, S., & Schöneberg, T. (2005). The rise and fall of the chemoattractant receptor GPR33. *Journal of Biological Chemistry*, 280(35), 31068-31075.
- 176 The Chimpanzee Sequencing and Analysis Consortium, Mikkelsen, T. S., Hillier, L. W., Eichler, E. E., Zody, M. C., Jaffe, D. B., Yang, S.-P., Enard, W., Hellmann, I., Lindblad-Toh, K., Altheide, T. K., Archidiacono, N., Bork, P., Butler, J., Chang, J. L., Cheng, Z., Chinwalla, A. T., de Jong, P., Delehaunty, K. D., Fronick, C. C., Fulton, L. L., Gilad, Y., Glusman, G., Gnerre, S., Graves, T. A., Hayakawa, T., Hayden, K. E., Huang, X., Ji, H., Kent, W. J., King, M.-C., Kulbokas, E. J., Lee, M. K., Liu, G., Lopez-Otin, C., Makova, K. D., Man, O., Mardis, E. R., Mauceli, E., Miner, T. L., Nash, W. E., Nelson, J. O., Pääbo, S., Patterson, N. J., Pohl, C. S., Pollard, K. S., Prüfer, K., Puente, X. S., Reich, D., Rocchi, M., Rosenbloom, K., Ruvolo, M., Richter, D. J., Schaffner, S. F., Smit, A. F. A., Smith, S. M., Suyama, M., Taylor, J., Torrents, D., Tuzun, E., Varki, A., Velasco, G., Ventura, M., Wallis, J. W., Wendl, M. C., Wilson, R. K., Lander, E. S., & Waterston, R. H. (2005). Initial sequence of the chimpanzee genome and comparison with the human genome. *Nature*, 437(7055), 69-87.
- 177 Cheng, Z., Ventura, M., She, X., Khaitovich, P., Graves, T. A., Osoegawa, K., Church, D., de Jong, P., Wilson, R. K., Pääbo, S., Rocchi, M., & Eichler, E. E. (2005). A genome-wide comparison of recent chimpanzee and human segmental duplications. *Nature*, 437(7055), 88-93.
- 178 Khaitovich, P., Tang, K., Franz, H., Kelso, J., Hellmann, I., Enard, W., Lachmann, M., & Pääbo, S. (2006). Positive selection on gene expression in the human brain. *Current Biology*, 16(10), R356-R358.
- 179 Somel, M., Khaitovich, P., Bahn, S., Pääbo, S., & Lachmann, M. (2006). Gene expression becomes heterogeneous with age. *Current Biology*, 16(10), R359-R360.
- 180 Fish, J. L., Kosodo, Y., Enard, W., Pääbo, S., & Huttner, W. B. (2006). Aspm specifically maintains symmetric proliferative divisions of neuroepithelial cells. *Proceedings of the National Academy of Sciences of the United States of America*, 103(27), 10438-10443.
- 181 Prüfer, K., Muetzel, B., Do, H.-H., Weiss, G., Khaitovich, P., Rahm, E., Pääbo, S., Lachmann, M., & Enard, W. (2007). FUNC: A package for detecting significant associations between gene sets and ontological annotations. *BMC Bioinformatics*, 8: 41.
- 182 Hublin, J.-J., & Pääbo, S. (2006). Neandertals. *Current Biology*, 16(4), R113-R114.
- 183 Khaitovich, P., Enard, W., Lachmann, M., & Pääbo, S. (2006). Evolution of primate gene expression. *Nature Reviews Genetics*, 7, 693-702.
- 184 Fischer, A., Pollack, J. L., Thalmann, O., Nickel, B., & Pääbo, S. (2006). Demographic history and genetic differentiation in apes. *Current Biology*, 16(11), 1133-1138.
- 185 Stiller, M., Green, R. E., Ronan, M. T., Simons, J. F., Du, L., Egholm, M., Rothberg, J. M., Keats, S. G., Ovodov, N. D., Antipina, E. E., Baryshnikov, G. F., Kuzmin, Y. V., Vasilevski, A. A., Wuenschell, G. E., Termini, J., Hofreiter, M., Jänicke-Després, V. R., Pääbo, S., & He, W. (2006). Patterns of nucleotide misincorporations during enzymatic amplification and direct large-scale sequencing of ancient DNA. *Proceedings of the National Academy of Sciences of the United States of America*, 103(37), 13578-13584.
- 186 Noonan, J. P., Coop, G., Kudaravalli, S., Smith, D., Krause, J., Alessi, J., Chen, J., Platt, D., Pääbo, S., Pritchard, J. K., & Rubin, E. M. (2006). Sequencing and analysis of Neanderthal genomic DNA. *Science*, 314, 1113-1118.
- 187 Green, R. E., Krause, J., Ptak, S. E., Briggs, A. W., Ronan, M. T., Simons, J. F., Du, L., Egholm, M.,

- Rothberg, J. M., Paunovic, M., & Pääbo, S. (2006). Analysis of one million base pairs of Neanderthal DNA. *Nature*, 444, 330-336.
- 188 Khaitovich, P., Kelso, J., Franz, H., Visagie, J., Giger, T., Joerchel, S., Petzold, E., Green, R. E., Lachmann, M., & Pääbo, S. (2006). Functionality of intergenic transcription: An evolutionary comparison. *PLoS Genetics*, 2(10): e171, pp. 1590-1598.
- 189 Prabhakar, S., Noonan, J. P., Pääbo, S., & Rubin, E. M. (2006). Accelerated evolution of conserved noncoding sequences in humans. *Science*, 314, 786-786.
- 190 Stroud, J. C., Wu, Y. Q., Bates, D. L., Han, A. D., Nowick, K., Pääbo, S., Tong, H., & Chen, L. (2006). Structure of the forkhead domain of FOXP2 bound to DNA. *Structure*, 14(1), 159-166.
- 191 Lalueza-Fox, C., Krause, J., Caramelli, D., Catalano, G., Milani, L., Sampietro, M. L., Calafell, F., Martinez-Maza, C., Bastir, M., García-Tabernero, A., de la Rasilla, M., Fortea, J., Pääbo, S., Bertranpetit, J., & Rosas, A. (2006). Mitochondrial DNA of an Iberian neandertal suggests a population affinity with other European neandertals. *Current Biology*, 16(16), R629-R630.
- 192 Hofreiter, M., Münzel, S., Conard, N. J., Pollack, J. L., Slatkin, M., Weiss, G., & Pääbo, S. (2007). Sudden replacement of cave bear mitochondrial DNA in the late Pleistocene. *Current Biology*, 17(4), R122-R123.
- 193 Thalmann, O., Fischer, A., Lankester, F., Pääbo, S., & Vigilant, L. (2007). The complex evolutionary history of gorillas: Insights from genomic data. *Molecular Biology and Evolution*, 24(1), 146-158.
- 194 Chen, H., Green, R. E., Pääbo, S., & Slatkin, M. (2007). The joint allele-frequency spectrum in closely related species. *Genetics*, 177(1), 387-398.
- 195 Weber, M., Hellmann, I., Stadler, M. B., Ramos, L., Pääbo, S., Rebhan, M., & Schübeler, D. (2007). Distribution, silencing potential and evolutionary impact of promoter DNA methylation in the human genome. *Nature Genetics*, 39(4), 457-466.
- 196 Krause, J., Orlando, L., Serre, D., Viola, B., Prüfer, K., Richards, M. P., Hublin, J.-J., Hänni, C., Derevianko, A. P., & Pääbo, S. (2007). Neanderthals in central Asia and Siberia. *Nature*, 449(7164), 902-904.
- 197 Briggs, A. W., Stenzel, U., Johnson, P. L. F., Green, R. E., Kelso, J., Prüfer, K., Meyer, M., Krause, J., Ronan, M. T., Lachmann, M., & Pääbo, S. (2007). Patterns of damage in genomic DNA sequences from a Neandertal. *Proceedings of the National Academy of Sciences of the United States of America*, 104(37), 14616-14621.
- 198 d'Abbadie, M., Hofreiter, M., Vaisman, A., Loakes, D., Gasparutto, D., Cadet, J., Woodgate, R., Pääbo, S., & Holliger, P. (2007). Molecular breeding of polymerases for amplification of ancient DNA. *Nature Biotechnology*, 25(8), 939-943.
- 199 Krause, J., Lalueza-Fox, C., Ludovic, O., Enard, W., Green, R. E., Burbano, H. A., Hublin, J.-J., Hänni, C., Fortea, J., de la Rasilla, M., Bertranpetit, J., Rosas, A., & Pääbo, S. (2007). The derived FOXP2 variant of modern humans was shared with Neandertals. *Current Biology*, 17(21), 1908-1912.
- 200 Fu, N., Drinnenberg, I., Kelso, J. F., Wu, J.-R., Pääbo, S., Zeng, R., & Khaitovich, P. (2007). Comparison of protein and mRNA expression evolution in humans and chimpanzees. *PLoS One*, 2(2): e216, pp. e216.
- 201 Albert, F. W., Shchepina, O., Winter, C., Römpler, H., Teupser, D., Palme, R., Ceglarek, U., Kratzsch, J., Sohr, R., Trut, L. N., Thiery, J., Morgenstern, R., Plyusnina, I. Z., Schöneberg, T., &

- Pääbo, S. (2008). Phenotypic differences in behavior, physiology and neurochemistry between rats selected for tameness and for defensive aggression towards humans. *Hormones and Behavior*, 53(3), 413-421.
- 202 Meyer, M., Briggs, A. W., Maricic, T., Höber, B., Höffner, B., Krause, J., Weihmann, A., Pääbo, S., & Hofreiter, M. (2008). From micrograms to picograms: Quantitative PCR reduces the material demands of high-throughput sequencing. *Nucleic Acids Research*, 36(1): e5.
- 203 Somel, M., Creely, H., Franz, H., Müller, U., Lachmann, M., Khaitovich, P., & Pääbo, S. (2008). Human and chimpanzee gene expression differences replicated in mice fed different diets. *PLoS ONE*, 3(1): e1504.
- 204 Groszer, M., Keays, D. A., Deacon, R. M., de Bono, J. P., Prasad-Mulcare, S., Gaub, S., Baum, M. G., French, C. A., Nicod, J., Coventry, J. A., Enard, W., Fray, M., Brown, S. D. M., Nolan, P. M., Pääbo, S., Channon, K. M., Costa, R. M., Eilers, J., Ehret, G., Rawlins, J. N. P., & Fisher, S. E. (2008). Impaired synaptic plasticity and motor learning in mice with a point mutation implicated in human speech deficits. *Current Biology*, 18(5), 354-362.
- 205 Hublin, J.-J., Pääbo, S., Derevianko, A. P., Doronichev, V. B., Golovanova, L. V., Friess, M., Froment, A., Hoffmann, A., Kachache, N. E. J., Kullmer, O., Lordkipanidze, D., Moncel, M.-H., Potts, R., Méndez, J. R., Rosas, A., Schmauder, M., Schmitz, R. W., Semal, P., Smith, T. M., Tafuri, M. A., Tattersall, I., Tournepiche, J.-F., Toussaint, M., Vassiliev, S., Vialet, A., Richards, M. P., Radovic, J., Rak, Y. Z., White, T., & Ziegler, R. (2008). Suggested guidelines for invasive sampling of hominid remains. *Journal of Human Evolution*, 55(4), 756-757.
- 206 Green, R. E., Malaspinas, A.-S., Krause, J., Briggs, A. W., Johnson, P. L. F., Uhler, C., Meyer, M., Good, J. M., Maricic, T., Stenzel, U., Prüfer, K., Siebauer, M., Burbano, H. A., Ronan, M. T., Rothberg, J. M., Egholm, M., Rudan, P., Brajkovic, D., Kucan, Z., Gusic, I., Wikström, M., Laakkonen, L., Kelso, J., Slatkin, M., & Pääbo, S. (2008). A complete Neandertal mitochondrial genome sequence determined by high-throughput sequencing. *Cell*, 134(3), 416-426.
- 207 Krause, J., Unger, T., Noçon, A., Malaspinas, A.-S., Kolokotronis, S.-O., Stiller, M., Soibelzon, L., Spriggs, H., Dear, P. H., Briggs, A. W., Bray, S. C. E., O'Brien, S. J., Rabeder, G., Matheus, P., Cooper, A., Slatkin, M., Pääbo, S., & Hofreiter, M. (2008). Mitochondrial genomes reveal an explosive radiation of extinct and extant bears near the Miocene-Pliocene boundary. *BMC Evolutionary Biology*, 8: 220.
- 208 Khaitovich, P., Lockstone, H. E., Wayland, M. T., Tsang, T. M., Jayatilaka, S. D., Guo, A. J., Zhou, J., Somel, M., Harris, L. W., Holmes, E., Pääbo, S., & Bahn, S. (2008). Metabolic changes in schizophrenia and human brain evolution. *Genome Biology*, 9(8): R124.
- 209 Farkas, L. M., Haffner, C., Giger, T., Khaitovich, P., Nowick, K., Birchmeier, C., Pääbo, S., & Huttner, W. B. (2008). Insulinoma-associated 1 has a panneurogenic role and promotes the generation and expansion of basal progenitors in the developing mouse neocortex. *Neuron*, 60(1), 40-55.
- 210 Maricic, T., & Pääbo, S. (2009). Optimization of 454 sequencing library preparation from small amounts of DNA permits sequence determination of both DNA strands. *BioTechniques*, 46(1), 51-57.
- 211 Somel, M., Franz, H., Yan, Z., Lorenc, A., Guo, S., Giger, T., Kelso, J., Nickel, B., Dannemann, M., Bahn, S., Webster, M. J., Weickert, C. S., Pääbo, S., & Khaitovich, P. (2009). Transcriptional neoteny in the human brain. *PNAS - Proceedings of the National Academy of Sciences*, 106(14), 5743-5748.
- 212 Albert, F. W., Carlborg, O., Plyusnina, I. Z., Besnier, F., Hedwig, D., Lautenschläger, S., Lorenz, D.,

- McIntosh, J., Neumann, C., Richter, H., Zeising, C., Kozhemyakina, T., Shchepina, O., Kratzsch, J., Trut, L. N., Teupser, D., Thiery, J., Schöneberg, T., Andersson, L., & Pääbo, S. (2009). Genetic architecture of tameness in a rat model of animal domestication. *Genetics*, 182(2), 541-554.
- 213 Enard, W., Gehre, S., Hammerschmidt, K., Hölter, S. M., Blass, T., Somel, M., Brückner, M. K., Schreiweis, C., Winter, C., Sohr, R., Becker, L., Wiebe, V., Nickel, B., Müller, U., Groszer, M., Adler, T., Aguilar, A., Bolle, I., Calzada-Wack, J., Dalke, C., Erhardt, N., Favor, J., Fuchs, H., Gailus-Durner, V., Hans, W., Hözlwimmer, G., Javaheri, A., Kalaydjiev, S., Kallnik, M., Kling, E., Kunder, S., Moßbrugger, I., Naton, B., Racz, I., Rathkolb, B., Rozman, J., Schrewe, A., Busch, D. H., Graw, J., Ivandic, B., Klingenspor, M., Klopstock, T., Ollert, M., Quintanilla-Martinez, L., Schulz, H., Wolf, E., Wurst, W., Zimmer, A., Fisher, S. E., Morgenstern, R., Arendt, T., Hrabé de Angelis, M., Fischer, J., Schwarz, J., & Pääbo, S. (2009). A humanized version of *Foxp2* affects cortico-basal ganglia circuits in mice. *Cell*, 137(5), 961-971.
- 214 Ptak, S. E., Enard, W., Wiebe, V., Hellmann, I., Krause, J., Lachmann, M., & Pääbo, S. (2009). Linkage disequilibrium extends across putative selected sites in *FOXP2*. *Molecular Biology and Evolution*, 26(10), 2181-2184.
- 215 Briggs, A. W., Good, J. M., Green, R. E., Krause, J., Maricic, T., Stenzel, U., Lalueza-Fox, C., Rudan, P., Brajkovic, D., Kucan, Z., Gusic, I., Schmitz, R. W., Doronichev, V. B., Golovanova, L. V., de la Rasilla, M., Fortea, J., Rosas, A., & Pääbo, S. (2009). Targeted retrieval and analysis of five Neandertal mtDNA genomes. *Science*, 325(5938), 318-321.
- 216 Green, R. E., Briggs, A. W., Krause, J., Prüfer, K., Burbano, H. A., Siebauer, M., Lachmann, M., & Pääbo, S. (2009). The Neandertal genome and ancient DNA authenticity. *EMBO Journal*, 28(17), 2494-2502.
- 217 Briggs, A. W., Good, J. M., Green, R. E., Krause, J., Maricic, T., Stenzel, U., & Pääbo, S. (2009). Primer extension capture: Targeted sequence retrieval from heavily degraded DNA sources (Videodocumentation). *Journal of Visualized Experiments*, (31).
- 218 Weickert, C. S., Elashof, M., Richards, A. B., Sinclair, D., Bahn, S., Pääbo, S., Khaitovich, P., & Webster, M. J. (2009). Transcriptome analysis of male–female differences in prefrontal cortical development. *Molecular Psychiatry*, 14(6), 558-561.
- 219 Briggs, A. W., Stenzel, U., Meyer, M., Krause, J., Kircher, M., & Pääbo, S. (2010). Removal of deaminated cytosines and detection of in vivo methylation in ancient DNA. *Special Issue on Synthetic Biology*, e87, pp. 1-12.
- 220 Krause, J., Briggs, A. W., Kircher, M., Maricic, T., Zwyns, N., Derevianko, A. P., & Pääbo, S. (2010). A complete mtDNA genome of an early modern human from Kostenki, Russia. *Current Biology*, 20(3), 231-236.
- 221 Krause, J., Fu, Q., Good, J. M., Viola, B., Shunkov, M. V., Derevianko, A. P., & Pääbo, S. (2010). The complete mitochondrial DNA genome of an unknown hominin from southern Siberia. *Nature*, 464(7290), 894-897.
- 222 Prüfer, K., Stenzel, U., Hofreiter, M., Pääbo, S., Kelso, J., & Green, R. E. (2010). Computational challenges in the analysis of ancient DNA. *Genome Biology*, 11(5): R47.
- 223 Burbano, H. A., Hodges, E., Green, R. E., Briggs, A. W., Krause, J., Meyer, M., Good, J. M., Maricic, T., Johnson, P. L. F., Xuan, Z., Rooks, M., Bhattacharjee, A., Brizuela, L., Albert, F. W., Rasilla, M. d. I., Fortea, J., Rosas, A., Lachmann, M., Hannon, G. J., & Pääbo, S. (2010). Targeted investigation of the Neandertal genome by array-based sequence capture. *Science*, 328(5979), 723-725.

- 224 Addis, L., Friederici, A. D., Kotz, S. A., Sabisch, B., Barry, J., Richter, N., Ludwig, A. A., RübSamen, R., Albert, F. W., Pääbo, S., Newbury, D. F., & Monaco, A. P. (2010). A locus for an auditory processing deficit and language impairment in an extended pedigree maps to 12p13.31-q14.3. *Genes, Brain & Behavior*, 9(6), 545-561.
- 225 Green, R. E., Krause, J., Briggs, A. W., Maricic, T., Stenzel, U., Kircher, M., Patterson, N., Li, H., Zhai, W., Fritz, M.-H.-Y., Hansen, N. F., Durand, E. Y., Malaspina, A.-S., Jensen, J. D., Marques-Bonet, T., Alkan, C., Prüfer, K., Meyer, M., Burbano, H. A., Good, J. M., Schultz, R., Aximu-Petri, A., Butthoff, A., Höber, B., Höffner, B., Siegemund, M., Weihmann, A., Nusbaum, C., Lander, E. S., Russ, C., Novod, N., Affourtit, J., Egholm, M., Verna, C., Rudan, P., Brajkovic, D., Kucan, Z., Gusic, I., Doronichev, V. B., Golovanova, L. V., Lalueza-Fox, C., Rasilla, M. d. I., Fordea, J., Rosas, A., Schmitz, R. W., Johnson, P. L. F., Eichler, E. E., Falush, D., Birney, E., Mullikin, J. C., Slatkin, M., Nielsen, R., Kelso, J., Lachmann, M., Reich, D., & Pääbo, S. (2010). A draft sequence of the Neandertal genome. *Science*, 328(5979), 710-722.
- 226 Giger, T., Khaitovich, P., Somel, M., Lorenc, A., Lizano, E., Harris, L. W., Ryan, M. M., Lan, M., Wayland, M. T., Bahn, S., & Pääbo, S. (2010). Evolution of neuronal and endothelial transcriptomes in primates. *Genome Biology and Evolution*, 2, 284-292.
- 227 Xu, G., He, L., Li, Z., Xu, Y., Li, M., Fu, X., Yan, Z., Yuan, Y., Menzel, C., Li, N., Somel, M., Hu, H., Chen, W., Pääbo, S., & Khaitovich, P. (2010). Intergenic and repeat transcription in human, chimpanzee and macaque brains measured by RNA-seq. *PLoS Computational Biology*, 6(7): e1000843.
- 228 Pulvers, J. N., Bryk, J., Fish, J. L., Wilsch-Bräuninger, M., Arai, Y., Schreier, D., Naumann, R., Helppi, J., Habermann, B., Vogt, J., Nitsch, R., Tóth, A., Enard, W., Pääbo, S., & Huttner, W. B. (2010). Mutations in mouse *Aspm* (abnormal spindle-like microcephaly associated) cause not only microcephaly but also major defects in the germline. *Proceedings of the National Academy of Sciences of the United States of America*, 107(38), 16595-16600.
- 229 Maricic, T., Whitten, M., & Pääbo, S. (2010). Multiplexed DNA sequence capture of mitochondrial genomes using PCR products. *PLoS ONE*, 5(11): e14004, pp. 1-5.
- 230 Reich, D., Green, R. E., Kircher, M., Krause, J., Patterson, N., Durand, E. Y., Viola, B., Briggs, A. W., Stenzel, U., Johnson, P. L. F., Maricic, T., Good, J. M., Marques-Bonet, T., Alkan, C., Fu, Q., Mallick, S., Li, H., Meyer, M., Eichler, E. E., Stoneking, M., Richards, M., Talamo, S., Shunkov, M. V., Derevianko, A. P., Hublin, J.-J., Kelso, J., Slatkin, M., & Pääbo, S. (2010). Genetic history of an archaic hominin group from Denisova Cave in Siberia. *Nature*, 468(7327), 1053-1060.
- 231 Gralle, M., Schäfer, I., Seibel, P., & Pääbo, S. (2010). A functional test of Neandertal and modern human mitochondrial targeting sequences. *Biochemical and Biophysical Research Communications*, 402(4), 747-749.
- 232 Reimers-Kipping, S., Hevers, W., Pääbo, S., & Enard, W. (2011). Humanized *Foxp2* specifically affects cortico-basal ganglia circuits. *Neuroscience*, 175, 75-84.
- 233 Gralle, M., & Pääbo, S. (2011). A comprehensive functional analysis of ancestral human signal peptides. *Molecular Biology and Evolution*, 28(1), 25-28.
- 234 Albert, F. W., Hodges, E., Jensen, J. D., Besnier, F., Xuan, Z., Rooks, M., Bhattacharjee, A., Brizuela, L., Good, J. M., Green, R. E., Burbano, H. A., Plyusnina, I. Z., Trut, L., Andersson, L., Schöneberg, T., Carlborg, Ö., Hannon, G. J., & Pääbo, S. (2011). Targeted resequencing of a genomic region influencing tameness and aggression reveals multiple signals of positive selection. *Heredity*, 107(3), 205-214.

- 235 Fischer, A., Prüfer, K., Good, J. M., Halbwax, M., Wiebe, V., André, C., Atencia, R., Mugisha, L., Ptak, S. E., & Pääbo, S. (2011). Bonobos fall within the genomic variation of chimpanzees. *PLoS One*, 6(6): e21605.
- 236 Reich, D., Patterson, N., Kircher, M., Delfin, F., Nandineni, M. R., Pugach, I., Ko, A.-M.-S., Ko, Y.-C., Jinam, T. A., Phipps, M. E., Saitou, N., Wollstein, A., Kayser, M., Pääbo, S., & Stoneking, M. (2011). Denisova admixture and the first modern human dispersals into southeast Asia and Oceania. *The American Journal of Human Genetics*, 89(4), 516-528.
- 237 Brawand, D., Soumillon, M., Necsulea, A., Julien, P., Csárdi, G., Harrigan, P., Weier, M., Liechti, A., Aximu-Petri, A., Kircher, M., Albert, F. W., Zeller, U., Khaitovich, P., Grützner, F., Bergmann, S., Nielsen, R., Pääbo, S., & Kaessmann, H. (2011). The evolution of gene expression levels in mammalian organs. *Nature*, 478(7369), 343-348.
- 238 Nagaraj, N., Wisniewski, J. R., Geiger, T., Cox, J., Kircher, M., Kelso, J., Pääbo, S., & Mann, M. (2011). Deep proteome and transcriptome mapping of a human cancer cell line. *Molecular Systems Biology*, 7: 548.
- 239 Fu, X., Giavalisco, P., Liu, X., Catchpole, G., Fu, N., Ning, Z.-B., Guo, S., Yan, Z., Somel, M., Pääbo, S., Zeng, R., Willmitzer, L., & Khaitovich, P. (2011). Rapid metabolic evolution in human prefrontal cortex. *Proceedings of the National Academy of Sciences of the United States of America*, 108(15), 6181-6186.
- 240 Hu, H. Y., Guo, S., Xi, J., Yan, Z., Fu, N., Zhang, X., Menzel, C., Liang, H., Yang, H., Zhao, M., Zeng, R., Chen, W., Pääbo, S., & Khaitovich, P. (2011). MicroRNA expression and regulation in human, chimpanzee, and macaque brains. *PLoS Genetics*, 7(10): e1002327, pp. 1-14.
- 241 Ka, S., Albert, F. W., Denbow, D. M., Pääbo, S., Siegel, P. B., Andersson, L., & Hallböök, F. (2011). Differentially expressed genes in hypothalamus in relation to genomic regions under selection in two chicken lines resulting from divergent selection for high or low body weight. *Neurogenetics*, 12(3), 211-221.
- 242 Somel, M., Liu, X., Tang, L., Yan, Z., Hu, H., Guo, S., Jiang, X., Zhang, X., Xu, G., Xie, G., Li, N., Hu, Y., Chen, W., Pääbo, S., & Khaitovich, P. (2011). MicroRNA-driven developmental remodeling in the brain distinguishes humans from other primates. *PLoS Biology*, 9(12): e1001214.
- 243 Liu, X., Somel, M., Tang, L., Yan, Z., Jiang, X., Guo, S., Yuan, Y., He, L., Oleksiak, A., Zhang, Y., Li, N., Hu, Y., Chen, W., Qiu, Z., Pääbo, S., & Khaitovich, P. (2012). Extension of cortical synaptic development distinguishes humans from chimpanzees and macaques. *Genome Research*, 22(4), 611-622.
- 244 Burbano, H. A., Green, R. E., Maricic, T., Lalueza-Fox, C., de la Rasilla, M., Rosas, A., Kelso, J., Pollard, K. S., Lachmann, M., & Pääbo, S. (2012). Analysis of human accelerated DNA regions using archaic hominin genomes. *PLoS One*, 7(3): e32877.
- 245 Fu, Q., Rudan, P., Pääbo, S., & Krause, J. (2012). Complete mitochondrial genomes reveal neolithic expansion into Europe. *PLoS One*, 7(3): e32473.
- 246 Prüfer, K., Munch, K., Hellmann, I., Akagi, K., Miller, J. R., Walenz, B., Koren, S., Sutton, G., Kodira, C., Winer, R., Knight, J. R., Mullikin, J. C., Meader, S. J., Ponting, C. P., Lunter, G., Higashino, S., Hobolth, A., Dutheil, J., Karakoç, E., Alkan, C., Sajjadian, S., Catacchio, C. R., Ventura, M., Marques-Bonet, T., Eichler, E. E., André, C., Atencia, R., Mugisha, L., Junhold, J., Patterson, N., Siebauer, M., Good, J. M., Fischer, A., Ptak, S. E., Lachmann, M., Symer, D. E., Mailund, T., Schierup, M. H., Andrés, A. M., Kelso, J., & Pääbo, S. (2012). The bonobo genome compared with

- the chimpanzee and human genomes. *Nature*, 486(7404), 527-531.
- 247 Sawyer, S., Krause, J., Guschanski, K., Savolainen, V., & Pääbo, S. (2012). Temporal patterns of nucleotide misincorporations and DNA fragmentation in ancient DNA. *PLoS One*, 7(3): e34131.
- 248 Fietz, S. A., Lachmann, R., Brandl, H., Kircher, M., Samusik, N., Schröder, R., Lakshmanaperumal, N., Henry, I., Vogt, J., Riehn, A., Distler, W., Nitsch, R., Enard, W., Pääbo, S., & Huttner, W. B. (2012). Transcriptomes of germinal zones of human and mouse fetal neocortex suggest a role of extracellular matrix in progenitor self-renewal. *Proceedings of the National Academy of Sciences of the United States of America*, 109(29), 11836-11841.
- 249 Langergraber, K., Prüfer, K., Rowney, C., Boesch, C., Crockford, C., Fawcett, K., Inoue, E., Inoue-Muruyama, M., Mitani, J. C., Muller, M. N., Robbins, M. M., Schubert, G., Stoinski, T. S., Viola, B., Watts, D., Wittig, R., Wrangham, R. W., Zuberbühler, K., Pääbo, S., & Vigilant, L. (2012). Generation times in wild chimpanzees and gorillas suggest earlier divergence times in great ape and human evolution. *Proceedings of the National Academy of Sciences of the United States of America*, 109(39), 15716-15721.
- 250 Meyer, M., Kircher, M., Gansauge, M.-T., Li, H., Racimo, F., Mallick, S., Schraiber, J. G., Jay, F., Prüfer, K., Filippo, C. d., Sudmant, P. H., Alkan, C., Fu, Q., Do, R., Rohland, N., Tandon, A., Siebauer, M., Green, R. E., Bryc, K., Briggs, A. W., Stenzel, U., Dabney, J., Shendure, J., Kitzman, J., Hammer, M. F., Shunkov, M. V., Dereviako, A. P., Patterson, N., Andrés, A. M., Eichler, E. E., Slatkin, M., Reich, D., Kelso, J., & Pääbo, S. (2012). A high-coverage genome sequence from an archaic Denisovan individual. *Science*, 338(6104), 222-226.
- 251 Albert, F. W., Somel, M., Carneiro, M., Aximu-Petri, A., Halbwax, M., Thalmann, O., Blanco-Aguiar, J. A., Plyusnina, I. Z., Trut, L., Villafuerte, R., Ferrand, N., Kaiser, S., Jensen, P., & Pääbo, S. (2012). A comparison of brain gene expression levels in domesticated and wild animals. *PLoS Genetics*, 8(9): e1002962.
- 252 Sankararaman, S., Patterson, N., Li, H., Pääbo, S., & Reich, D. (2012). The date of interbreeding between Neandertals and modern humans. *PLoS Genetics*, 8(10): e1002947.
- 253 Maricic, T., Günther, V., Georgiev, O., Gehre, S., Culin, M., Schreiweis, C., Naumann, R., Burbano, H. A., Meyer, M., Lalueza-Fox, C., de la Rasilla, M., Rosas, A., Gajovic, S., Kelso, J., Enard, W., Schaffner, W., & Pääbo, S. (2013). A recent evolutionary change affects a regulatory element in the human *FOXP2* gene. *Molecular Biology and Evolution*, 30(4), 844-852.
- 254 Good, J. M., Wiebe, V., Albert, F., Burbano, H. A., Kircher, M., Green, R. E., Halbwax, M., André, C., Atencia, R., Fischer, A., & Pääbo, S. (2013). Comparative population genomics of the ejaculate in humans and the great apes. *Molecular Biology and Evolution*, 30(4), 964-976.
- 255 Fu, Q., Meyer, M., Gao, X., Stenzel, U., Burbano, H. A., Kelso, J., & Pääbo, S. (2013). DNA analysis of an early modern human from Tianyuan Cave, China. *Proceedings of the National Academy of Sciences of the United States of America*, 110(6), 2223-2227.
- 256 Fu, Q., Mittnik, A., Johnson, P. L., Bos, K., Lari, M., Bollongino, R., Sun, C., Giemsch, L., Schmitz, R., Burger, J., Ronchitelli, A. M., Martini, F., Cremonesi, R. G., Svoboda, J., Bauer, P., Caramelli, D., Castellano, S., Reich, D., Pääbo, S., & Krause, J. (2013). A revised timescale for human evolution based on ancient mitochondrial genomes. *Current Biology*, 23(7), 553-559.
- 257 Ka, S., Markljung, E., Ring, H., Albert, F. W., Harun-Or-Rashid, M., Wahlberg, P., Garcia-Roves, P. M., Zierath, J. R., Denbow, D. M., Pääbo, S., Siegel, P. B., Andersson, L., & Hallbook, F. (2013). Expression of carnitine palmitoyl-CoA transferase-1B is influenced by a cis-acting eQTL in two

- chicken lines selected for high and low body weight. *Physiological Genomics*, 45(9), 367-376.
- 258 Dabney, J., Knapp, M., Glocke, I., Gansauge, M.-T., Weihmann, A., Nickel, B., Valdiosera, C., García, N., Pääbo, S., Arsuaga, J.-L., & Meyer, M. (2013). Complete mitochondrial genome sequence of a Middle Pleistocene cave bear reconstructed from ultrashort DNA fragments. *Proceedings of the National Academy of Sciences of the United States of America*, 110(39), 15758-15763.
- 259 Kuhlwilm, M., Davierwala, A., & Pääbo, S. (2013). Identification of putative target genes of the transcription factor RUNX2. *PLoS One*, 8(12): e83218.
- 260 Thalmann, O., Shapiro, B., Cui, P., Schuenemann, V. J., Sawyer, S., Greenfield, D. L., Germonpré, M. B., Sablin, M. V., López-Giráldez, F., Domingo-Roura, X., Napierala, H., Uerpmann, H.-P., Loponte, D. M., Acosta, A. A., Giemsch, L., Schmitz, R. W., Worthington, B., Buikstra, J. E., Druzhkova, A., Graphodatsky, A. S., Ovodov, N. D., Wahlberg, N., Freedman, A. H., Schweizer, R. M., Koepfli, K.-P., Leonard, J. A., Meyer, M., Krause, J., Pääbo, S., Green, R. E., & Wayne, R. K. (2013). Complete mitochondrial genomes of ancient canids suggest a European origin of domestic dogs. *Science*, 342(6160), 871-874.
- 261 The SIGMA Type 2 Diabetes Consortium, including authors, Prüfer, K., Sawyer, S., Stenzel, U., Kelso, J., Pääbo, S., & and others (2014). Sequence variants in SLC16A11 are a common risk factor for type 2 diabetes in Mexico. *Nature*, 506, 97-101.
- 262 Prüfer, K., Racimo, F., Patterson, N., Jay, F., Sankararaman, S., Sawyer, S., Heinze, A., Renaud, G., Sudmant, P. H., de Filippo, C., Li, H., Mallick, S., Dannemann, M., Fu, Q., Kircher, M., Kuhlwilm, M., Lachmann, M., Meyer, M., Ongyerth, M., Siebauer, M. F., Theunert, C., Tandon, A., Moorjani, P., Pickrell, J., Mullikin, J. C., Vohr, S. H., Green, R. E., Hellmann, I., Johnson, P. L. F., Blanche, H., Cann, H., Kitzman, J. O., Shendure, J., Eichler, E. E., Lein, E. S., Bakken, T. E., Golovanova, L. V., Doronichev, V. B., Shunkov, M. V., Derevianko, A. P., Viola, B., Slatkin, M., Reich, D., Kelso, J., & Pääbo, S. (2014). The complete genome sequence of a Neanderthal from the Altai Mountains. *Nature*, 505(7481), 43-49.
- 263 Meyer, M., Fu, Q., Ayinuer-Petri, A., Glocke, I., Nickel, B., Arsuaga, J.-L., Martínez, I., Gracia, A., de Castro, J. M. B., Carbonell, E., & Pääbo, S. (2014). A mitochondrial genome sequence of a hominin from Sima de los Huesos. *Nature*, 505(7483), 403-406.
- 264 Skoglund, P., Northoff, B. H., Shunkov, M. V., Derevianko, A. P., Pääbo, S., Krause, J., & Jakobsson, M. (2014). Separating endogenous ancient DNA from modern day contamination in a Siberian Neandertal. *Proceedings of the National Academy of Sciences of the United States of America*, 111(6), 2229-2234.
- 265 Sankararaman, S., Mallick, S., Dannemann, M., Prüfer, K., Kelso, J., Pääbo, S., Patterson, N., & Reich, D. (2014). The genomic landscape of Neanderthal ancestry in present-day humans. *Nature*, 507(7492), 354-357.
- 266 Khrameeva, E. E., Bozek, K., He, L., Yan, Z., Jiang, X., Wei, Y., Tang, K., Gelfand, M. S., Prüfer, K., Kelso, J., Pääbo, S., Giavalisco, P., Lachmann, M., & Khaitovich, P. (2014). Neanderthal ancestry drives evolution of lipid catabolism in contemporary Europeans. *Nature Communications*, 5: 3584.
- 267 Pääbo, S. (2014). The human condition: A molecular approach (Review). *Cell*, 157(1), 216-226.
- 268 Castellano, S., Parra, G., Sánchez-Quinto, F. A., Racimo, F., Kuhlwilm, M., Kircher, M., Sawyer, S., Fu, Q., Heinze, A., Nickel, B., Dabney, J., Siebauer, M. F., White, L., Burbano, H. A., Renaud, G., Stenzel, U., Lalueza-Fox, C., de la Rasilla, M., Rosas, A., Rudan, P., Brajkovic, D., Kucan, Ž., Gušić,

- I., Shunkov, M. V., Derevianko, A. P., Viola, B., Meyer, M., Kelso, J., Andrés, A. M., & Pääbo, S. (2014). Patterns of coding variation in the complete exomes of three Neandertals. *Proceedings of the National Academy of Sciences of the United States of America*, 111(18), 6666-6671.
- 269 Gokhman, D., Lavi, E., Prüfer, K., Fraga, M. F., Riancho, J. A., Kelso, J., Pääbo, S., Meshorer, E., & Carmel, L. (2014). Reconstructing the DNA methylation maps of the Neandertal and the Denisovan. *Science*, 344(6183), 523-527.
- 270 Lindskog, C., Kuhlwilm, M., Davierwala, A., Fu, N., Hegde, G., Uhlén, M., Navani, S., Pääbo, S., & Pontén, a. F. (2014). Analysis of candidate genes for lineage-specific expression changes in humans and primates. *Journal of Proteome Research*, 13(8), 3596-3606.
- 271 Wunderlich, S., Kircher, M., Vieth, B., Haase, A., Merkert, S., Beier, J., Göhring, G., Glage, S., Schambach, A., Curnow, E. C., Pääbo, S., Martin, U., & Enard, W. (2014). Primate iPSC cells as tools for evolutionary analyses. *Stem Cell Research*, 12(3), 622-629.
- 272 Schreiweis, C., Bornschein, U., Burguière, E., Kerimoglu, C., Schreiter, S., Dannemann, M., Goyal, S., Rea, E., French, C. A., Puliyadi, R., Groszer, M., Fisher, S. E., Mundry, R., Winter, C., Hevers, W., Pääbo, S., Enard, W., & Graybiel, A. M. (2014). Humanized Foxp2 accelerates learning by enhancing transitions from declarative to procedural performance. *Proceedings of the National Academy of Sciences of the United States of America*, 111(39), 14253-14258.
- 273 Lazaridis, I., Patterson, N., Mitnik, A., Renaud, G., Mallick, S., Kirsanow, K., Sudmant, P. H., Schraiber, J. G., Castellano, S., Lipson, M., Berger, B., Economou, C., Bollongino, R., Fu, Q., Bos, K. I., Nordenfelt, S., Li, H., de Filippo, C., Prüfer, K., Sawyer, S., Posth, C., Haak, W., Hallgren, F., Fornander, E., Rohland, N., Delsate, D., Francken, M., Guinet, J.-M., Wahl, J., Ayodo, G., Babiker, H. A., Bailliet, G., Balanovska, E., Balanovsky, O., Barrantes, R., Bedoya, G., Ben-Ami, H., Bene, J., Berrada, F., Bravi, C. M., Brisighelli, F., Busby, G. B. J., Cali, F., Churnosov, M., Cole, D. E. C., Corach, D., Damba, L., van Driem, G., Dryomov, S., Dugoujon, J.-M., Fedorova, S. A., Romero, I. G., Gubina, M., Hammer, M., Henn, B. M., Hervig, T., Hodoglugil, U., Jha, A. R., Karachanak-Yankova, S., Khusainova, R., Khusnutdinova, E., Kittles, R., Kivisild, T., Klitz, W., Kucinskis, V., Kushniarevich, A., Laredj, L., Litvinov, S., Loukidis, T., Mahley, R. W., Melegh, B., Metspalu, E., Molina, J., Mountain, J., Näkkäläjärvi, K., Nesheva, D., Nyambo, T., Osipova, L., Parik, J., Platonov, F., Posukh, O., Romano, V., Rothhammer, F., Rudan, I., Ruizbakiev, R., Sahakyan, H., Sajantila, A., Salas, A., Starikovskaya, E. B., Tarekegn, A., Toncheva, D., Turdikulova, S., Uktveryte, I., Utevska, O., Vasquez, R., Villena, M., Voevoda, M., Winkler, C. A., Yepiskoposyan, L., Zalloua, P., Zemanek, T., Cooper, A., Capelli, C., Thomas, M. G., Ruiz-Linares, A., Tishkoff, S. A., Singh, L., Thangaraj, K., Vilems, R., Comas, D., Sukernik, R., Metspalu, M., Meyer, M., Eichler, E. E., Burger, J., Slatkin, M., Pääbo, S., Kelso, J., Reich, D., & Krause, J. (2014). Ancient human genomes suggest three ancestral populations for present-day Europeans. *Nature*, 513(7518), 409-413.
- 274 Fu, Q., Li, H., Moorjani, P., Jay, F., Slepchenko, S. M., Bondarev, A. A., Johnson, P. L. F., Ayinuer-Petri, A., Prüfer, K., de Filippo, C., Meyer, M., Zwyns, N., Salazar García, D. C., Kuzmin, Y. V., Keates, S. G., Kosintsev, P. A., Razhev, D. I., Richards, M. P., Peristov, N. V., Lachmann, M., Douka, K., Higham, T. F. G., Slatkin, M., Hublin, J.-J., Reich, D., Kelso, J., Viola, B., & Pääbo, S. (2014). Genome sequence of a 45,000-year-old modern human from western Siberia. *Nature*, 514(7523), 445-449.
- 275 Heyne, H. O., Lautenschläger, S., Nelson, R., Besnier, F., Rotival, M., Cagan, A., Kozhemyakina, R., Plyusnina, I. Z., Trut, L., Carlborg, Ö., Petretto, E., Kruglyak, L., Pääbo, S., Schöneberg, T., & Albert, F. W. (2014). Genetic influences on brain gene expression in rats selected for tameness and aggression. *Genetics*, 198(3), 1277-1290.

- 276 Bozek, K., Wei, Y., Yan, Z., Liu, X., Xiong, J., Sugimoto, M., Tomita, M., Pääbo, S., Pieszek, R., Sherwood, C. C., Hof, P. R., Ely, J. J., Steinhauser, D., Bangsbo, J., Willmitzer, L., Hansson, O., Call, J., Giavalisco, P., & Khaitovich, P. (2014). Exceptional evolutionary divergence of human muscle and brain metabolomes parallels human cognitive and physical uniqueness. *PLoS Biology*, 12(5): e1001871.
- 277 Teixeira, J. C., de Filippo, C., Weihmann, A., Meneu, J. R., Racimo, F., Dannemann, M., Nickel, B., Fischer, A., Halbwax, M., Andre, C., Atencia, R., Meyer, M., Parra, G., Pääbo, S., & Andrés, A. M. (2015). Long-term balancing selection in LAD1 maintains a missense trans-species polymorphism in humans, chimpanzees and bonobos. *Molecular Biology and Evolution*, 32(5), 1186-1196.
- 278 Florio, M., Albert, M., Taverna, E., Namba, T., Brandl, H., Lewitus, E., Haffner, C., Sykes, A., Wong, F. K., Peters, J., Guhr, E., Klemroth, S., Prüfer, K., Kelso, J., Naumann, R., Nüsslein, I., Dahl, A., Lachmann, R., Pääbo, S., & Huttner, W. B. (2015). Human-specific gene ARHGAP11B promotes basal progenitor amplification and neocortex expansion. *Science*, 347(6229), 1465-1470.
- 279 Benazzi, S., Slon, V., Talamo, S., Negrino, F., Peresani, M., Bailey, S. E., Sawyer, S., Panetta, D., Vicino, G., Starnini, E., Mannino, M. A., Salvadori, P. A., Meyer, M., Pääbo, S., & Hublin, J.-J. (2015). The makers of the Protoaurignacian and implications for Neandertal extinction. *Science*, 348(6236), 793-796.
- 280 Fu, Q., Hajdinjak, M., Moldovan, O., Constantin, S., Mallick, S., Skoglund, P., Patterson, N., Rohland, N., Lazaridis, I., Nickel, B., Viola, B., Prüfer, K., Meyer, M., Kelso, J., Reich, D., & Pääbo, S. (2015). An early modern human from Romania with a recent Neanderthal ancestor. *Nature*, 524(7564), 216-219.
- 281 Pääbo, S. (2015). The diverse origins of the human gene pool (Commentary). *Nature Reviews Genetics*, 16, 313-314.
- 282 Ronke, C., Dannemann, M., Halbwax, M., Fischer, A., Helmschrodt, C., Brügel, M., André, C., Atencia, R., Mugisha, L., Scholz, M., Ceglarek, U., Thiery, J., Pääbo, S., Prüfer, K., & Kelso, J. (2015). Lineage-specific changes in biomarkers in great apes and humans. *PLoS One*, 10(8): e0134548.
- 283 Sawyer, S., Renaud, G., Viola, B., Hublin, J.-J., Gansauge, M.-T., Shunkov, M. V., Derevianko, A. P., Prüfer, K., Kelso, J., & Pääbo, S. (2015). Nuclear and mitochondrial DNA sequences from two Denisovan individuals. *Proceedings of the National Academy of Sciences of the United States of America*, 112(51), 15696-15700.
- 284 Camp, J. G., Badsha, F., Florio, M., Kanton, S., Gerber, T., Wilsch-Bräuning, M., Lewitus, E., Sykes, A., Hevers, W., Lancaster, M., Knoblich, J. A., Lachmann, R., Pääbo, S., Huttner, W. B., & Treutlein, B. (2015). Human cerebral organoids recapitulate gene expression programs of fetal neocortex development. *Proceedings of the National Academy of Sciences of the United States of America*, 112(51), 15672-15677.
- 285 Bozek, K., Wei, Y., Yan, Z., Liu, X., Xiong, J., Sugimoto, M., Tomita, M., Pääbo, S., Sherwood, C. C., Hof, P. R., Ely, J. J., Li, Y., Steinhauser, D., Willmitzer, L., Giavalisco, P., & Khaitovich, P. (2015). Organization and evolution of brain lipidome revealed by large-scale analysis of human, chimpanzee, macaque, and mouse tissues. *Neuron*, 85(4), 695-702.
- 286 Hammerschmidt, K., Schreiweis, C., Minge, C., Pääbo, S., Fischer, J., & Enard, W. (2015). A humanized version of Foxp2 does not affect ultrasonic vocalization in adult mice. *Genes, Brain and Behavior*, 14(8), 583-590.

- 287 Weyer, S., & Pääbo, S. (2016). Functional analyses of transcription factor binding sites that differ between present-day and archaic humans. *Molecular Biology and Evolution*, 33(2), 316-322.
- 288 Kuhlwilm, M., Gronau, I., Hubisz, M. J., de Filippo, C., Prado-Martinez, J., Kircher, M., Fu, Q., Burbano, H. A., Lalueza-Fox, C., de la Rasilla, M., Rosas, A., Rudan, P., Brajkovic, D., Kucan, Ž., Gušić, I., Marques-Bonet, T., Andrés, A. M., Viola, B., Pääbo, S., Meyer, M., Siepel, A., & Castellano, S. (2016). Ancient gene flow from early modern humans into Eastern Neanderthals. *Nature*, 530(7591), 429-433.
- 289 Meyer, M., Arsuaga, J.-L., de Filippo, C., Nagel, S., Aximu-Petri, A., Nickel, B., Martínez, I., Gracia, A., Bermúdez de Castro, J. M., Carbonell, E., Viola, B., Kelso, J., Prüfer, K., & Pääbo, S. (2016). Nuclear DNA sequences from the Middle Pleistocene Sima de los Huesos hominins. *Nature*, 531(7595), 504-507.
- 290 Vernot, B., Tucci, S., Kelso, J., Schraiber, J., Wolf, A., Gittelman, R., Dannemann, M., Grote, S., McCoy, R., Norton, H., Scheinfeldt, L., Merriwether, D., Koki, G., Friedlaender, J., Wakefield, J., Pääbo, S., & Akey, J. (2016). Excavating Neandertal and Denisovan DNA from the genomes of Melanesian individuals. *Science*, 352(6282), 235-239.
- 291 Brown, S., Higham, T., Slon, V., Pääbo, S., Meyer, M., Douka, K., Brock, F., Comeskey, D., Procopio, N., Shunkov, M., Derevianko, A., & Buckley, M. (2016). Identification of a new hominin bone from Denisova Cave, Siberia using collagen fingerprinting and mitochondrial DNA analysis. *Scientific Reports*, 6: 23559.
- 292 Li, Q., Guo, S., Jiang, X., Bryk, J., Naumann, R., Enard, W., Tomita, M., Sugimoto, M., Khaitovich, P., & Pääbo, S. (2016). Mice carrying a human *GLUD2* gene recapitulate aspects of human transcriptome and metabolome development. *Proceedings of the National Academy of Sciences of the United States of America*, 113(19), 5358-5363.
- 293 Fu, Q., Posth, C., Hajdinjak, M., Petr, M., Mallick, S., Fernandes, D., Furtwängler, A., Haak, W., Meyer, M., Mittnik, A., Nickel, B., Peltzer, A., Rohland, N., Slon, V., Talamo, S., Lazaridis, I., Lipson, M., Mathieson, I., Schiffels, S., Skoglund, P., Derevianko, A. P., Drozdov, N., Slavinsky, V., Tsybankov, A., Cremonesi, R. G., Mallegni, F., Gély, B., Vacca, E., Morales, M. R. G., Straus, L. G., Neugebauer-Maresch, C., Teschler-Nicola, M., Constantin, S., Moldovan, O. T., Benazzi, S., Peresani, M., Coppola, D., Lari, M., Ricci, S., Ronchitelli, A., Valentin, F., Thevenet, C., Wehrberger, K., Grigorescu, D., Rougier, H., Crevecoeur, I., Flas, D., Semal, P., Mannino, M. A., Cupillard, C., Bocherens, H., Conard, N. J., Harvati, K., Moiseyev, V., Drucker, D. G., Svoboda, J., Richards, M. P., Caramelli, D., Pinhasi, R., Kelso, J., Patterson, N., Krause, J., Pääbo, S., & Reich, D. (2016). The genetic history of Ice Age Europe. *Nature*, 534(7606), 200-205.
- 294 Prasad, R. B., Lessmark, A., Almgren, P., Kovacs, G., Hansson, O., Oskolkov, N., Vitai, M., Ladenvall, C., Kovacs, P., Fadista, J., Lachmann, M., Zhou, Y., Sonestedt, E., Poon, W., Wollheim, C. B., Orho-Melander, M., Stumvoll, M., Tuomi, T., Pääbo, S., Koranyi, L., & Groop, L. (2016). Excess maternal transmission of variants in the *THADA* gene to offspring with type 2 diabetes. *Diabetologia*, 59(8), 1702-1713.
- 295 Krause, J., & Pääbo, S. (2016). Genetic time travel. *Genetics*, 203(1), 9-12.
- 296 Chen, Y.-C., Kuo, H.-Y., Bornschein, U., Takahashi, H., Chen, S.-Y., Lu, K.-M., Yang, H.-Y., Chen, G.-M., Lin, J.-R., Lee, Y.-H., Chou, Y.-C., Cheng, S.-J., Chien, C.-T., Enard, W., Hevers, W., Pääbo, S., Graybiel, A. M., & Liu, F.-C. (2016). *Foxp2* controls synaptic wiring of corticostriatal circuits and vocal communication by opposing *Mef2c*. *Nature Neuroscience*, 19(11), 1513-1522.
- 297 Welker, F., Hajdinjak, M., Talamo, S., Jaouen, K., Dannemann, M., David, F., Julien, M., Meyer, M.,

- Kelso, J., Barnes, I., Braces, S., Kamma, P., Fischer, R., Kessler, B., Stewart, J. R., Pääbo, S., Collins, M. J., & Hublin, J.-J. (2016). Palaeoproteomic evidence identifies archaic hominins associated with the Châtelperronian at the Grotte du Renne. *Proceedings of the National Academy of Sciences of the United States of America*, 113(44), 11162-11167.
- 298 Mallick, S., Li, H., Lipson, M., Mathieson, I., Gymrek, M., Racimo, F., Zhao, M., Chennagiri, N., Nordenfelt, S., Tandon, A., Skoglund, P., Lazaridis, I., Sankararaman, S., Fu, Q., Rohland, N., Renaud, G., Erlich, Y., Willems, T., Gallo, C., Spence, J. P., Song, Y. S., Poletti, G., Balloux, F., van Driem, G., de Knijff, P., Romero, I. G., Jha, A. R., Behar, D. M., Bravi, C. M., Capelli, C., Hervig, T., Moreno-Estrada, A., Posukh, O. L., Balanovska, E., Balanovsky, O., Karachanak-Yankova, S., Sahakyan, H., Toncheva, D., Yepiskoposyan, L., Tyler-Smith, C., Xue, Y., Abdullah, M. S., Ruiz-Linares, A., Beall, C. M., Rienzo, A. D., Jeong, C., Starikovskaya, E. B., Metspalu, E., Parik, J., Villems, R., Henn, B. M., Hodoglugil, U., Mahley, R., Sajantila, A., Stamatoyannopoulos, G., Wee, J. T. S., Khusainova, R., Khusnutdinova, E., Litvinov, S., Ayodo, G., Comas, D., Hammer, M. F., Kivisild, T., Klitz, W., Winkler, C. A., Labuda, D., Bamshad, M., Jorde, L. B., Tishkoff, S. A., Watkins, W. S., Metspalu, M., Dryomov, S., Sukernik, R., Singh, L., Thangaraj, K., Pääbo, S., Kelso, J., Patterson, N., & Reich, D. (2016). The Simons Genome Diversity Project: 300 genomes from 142 diverse populations. *Nature*, 538(7624), 201-206.
- 299 Mora-Bermúdez, F., Badsha, F., Kanton, S., Camp, J. G., Vernot, B., Köhler, K., Voigt, B., Okita, K., Maricic, T., He, Z., Lachmann, R., Pääbo, S., Treutlein, B., & Huttner, W. B. (2016). Differences and similarities between human and chimpanzee neural progenitors during cerebral cortex development. *eLife*, e18683.
- 300 Liu, X., Han, D., Somel, M., Jiang, X., Hu, H., Guijarro, P., Zhang, N., Mitchell, A., Halene, T., Ely, J. J., Sherwood, C. C., Hof, P. R., Qiu, Z., Pääbo, S., Akbarian, S., & Khaitovich, P. (2016). Disruption of an evolutionarily novel synaptic expression pattern in autism. *PLoS Biology*, 14(9): e1002558.
- 301 Nissen, J. D., Lykke, K., Bryk, J., Stridh, M. H., Zaganas, I., Skytt, D. M., Schousboe, A., Bak, L. K., Enard, W., Pääbo, S., & Waagepetersen, H. S. (2017). Expression of the human isoform of glutamate dehydrogenase, hGDH2, augments TCA cycle capacity and oxidative metabolism of glutamate during glucose deprivation in astrocytes. *Glia*, 65(3), 474-488.
- 302 Bozek, K., Khrameeva, E. E., Reznick, J., Omerbašić, D., Bennett, N. C., Lewin, G. R., Azpurua, J., Gorbunova, V., Seluanov, A., Regnard, P., Wanert, F., Marchal, J., Pifferi, F., Aujard, F., Liu, Z., Shi, P., Pääbo, S., Schröder, F., Willmitzer, L., Giavalisco, P., & Khaitovich, P. (2017). Lipidome determinants of maximal lifespan in mammals. *Scientific Reports*, 7: 5.
- 303 Slon, V., Hopfe, C., Weiß, C. L., Mafessoni, F., de la Rasilla, M., Lalueza-Fox, C., Rosas, A., Soressi, M., Knul, M. V., Miller, R., Stewart, J. R., Derevianko, A. P., Jacobs, Z., Li, B., Roberts, R. G., Shunkov, M. V., de Lumley, H., Perrenoud, C., Gušić, I., Kucan, Ž., Rudan, P., Ayinuer-Petri, A., Essel, E., Nagel, S., Nickel, B., Schmidt, A., Prüfer, K., Kelso, J., Burbano, H. A., Pääbo, S., & Meyer, M. (2017). Neandertal and Denisovan DNA from Pleistocene sediments. *Science*, 356(6338), 605-608.
- 304 Douka, K., Slon, V., Stringer, C., Potts, R., Hübner, A., Meyer, M., Spoor, F., Pääbo, S., & Higham, T. (2017). Direct radiocarbon dating and DNA analysis of the Darra-i-Kur (Afghanistan) human temporal bone. *Journal of Human Evolution*, 107, 86-93.
- 305 Li, Q., Bozek, K., Xu, C., Guo, Y., Sun, J., Pääbo, S., Sherwood, C. C., Hof, P. R., Ely, J. J., Li, Y., Willmitzer, L., Giavalisco, P., & Khaitovich, P. (2017). Changes in lipidome composition during brain development in humans, chimpanzees, and macaque monkeys. *Molecular Biology and Evolution*, 34(5), 1155-1166.

- 306 Singh, N., Albert, F. W., Plyusnina, I., Trut, L., Pääbo, S., & Harvati, K. (2017). Facial shape differences between rats selected for tame and aggressive behaviors. *PLoS One*, 12(4): e0175043.
- 307 Slon, V., Viola, B., Renaud, G., Gansauge, M.-T., Benazzi, S., Sawyer, S., Hublin, J.-J., Shunkov, M. V., Derevianko, A. P., Kelso, J., Prüfer, K., Meyer, M., & Pääbo, S. (2017). A fourth Denisovan individual. *Science Advances*, 3(7): e1700186.
- 308 Devièse, T., Karavanic, I., Comeskey, D., Kubiak, C., Korlevic, P., Hajdinjak, M., Radovic, S., Procopio, N., Buckley, M., Pääbo, S., & Higham, T. (2017). Direct dating of Neanderthal remains from the site of Vindija Cave and implications for the Middle to Upper Paleolithic transition. *Proceedings of the National Academy of Sciences of the United States of America*, 114(40), 10606-10611.
- 309 Prüfer, K., Filippò, C. d., Grote, S., Mafessoni, F., Korlevic, P., Hajdinjak, M., Vernot, B., Skov, L., Hsieh, P., Peyrégne, S., Reher, D., Hopfe, C., Nagel, S., Maricic, T., Fu, Q., Theunert, C., Rogers, R., Skoglund, P., Chintalapati, M., Dannemann, M., Nelson, B. J., Key, F. M., Rudan, P., Kucan, Ž., Gušić, I., Golovanova, L. V., Doronichev, V. B., Patterson, N., Reich, D., Eichler, E. E., Slatkin, M., Schierup, M. H., Andrés, A. M., Kelso, J., Meyer, M., & Pääbo, S. (2017). A high-coverage Neanderthal genome from Vindija Cave in Croatia. *Science*, 358(6363), 655-658.
- 310 Yang, M. A., Gao, X., Theunert, C., Tong, H., Ayinuer-Petri, A., Nickel, B., Slatkin, M., Meyer, M., Pääbo, S., Kelso, J., & Fu, Q. (2017). 40,000-year-old individual from Asia provides insight into early population structure in Eurasia. *Current Biology*, 27(20), 3202-3208.
- 311 Hajdinjak, M., Fu, Q., Hübner, A., Petr, M., Mafessoni, F., Grote, S., Skoglund, P., Narasimham, V., Rougier, H., Crevecoeur, I., Semal, P., Soressi, M., Talamo, S., Hublin, J.-J., Gušić, I., Kucan, Ž., Rudan, P., Golovanova, L. V., Doronichev, V. B., Posth, C., Krause, J., Korlevic, P., Nagel, S., Nickel, B., Slatkin, M., Patterson, N., Reich, D., Prüfer, K., Meyer, M., Pääbo, S., & Kelso, J. (2018). Reconstructing the genetic history of late Neanderthals. *Nature*, 555(7698), 652-656.
- 312 Vernot, B., & Pääbo, S. (2018). The predecessors within.. (Commentary). *Cell*, 173(1), 6-7.
- 313 Loosdrecht, M. v. d., Bouzouggar, A., Humphrey, L., Posth, C., Barton, N., Ayinuer-Petri, A., Nickel, B., Nagel, S., Talbi, E. H., Hajraoui, M. A. E., Amzazi, S., Hublin, J.-J., Pääbo, S., Schiffels, S., Meyer, M., Haak, W., Jeong, C., & Krause, J. (2018). Pleistocene North African genomes link Near Eastern and sub-Saharan African human populations. *Science*, 360(6388), 548-552.
- 314 Slon, V., Mafessoni, F., Vernot, B., de Filippo, C., Grote, S., Viola, T. B., Hajdinjak, M., Peyrégne, S., Nagel, S., Brown, S., Douka, K., Higham, T., Kozlikin, M. B., Shunkov, M. V., Derevianko, A. P., Kelso, J., Meyer, M., Prüfer, K., & Pääbo, S. (2018). The genome of the offspring of a Neanderthal mother and a Denisovan father. *Nature*, 561(7721), 113-116.
- 315 Lamnidis, T. C., Majander, K., Jeong, C., Salmela, E., Wessman, A., Moiseyev, V., Khartanovich, V., Balanovsky, O., Ongyerth, M., Weihmann, A., Sajantila, A., Kelso, J., Pääbo, S., Onkamo, P., Haak, W., Krause, J., & Schiffels, S. (2018). Ancient Fennoscandian genomes reveal origin and spread of Siberian ancestry in Europe. *Nature Communications*, 9: 5018.
- 316 Gunz, P., Tilot, A. K., Wittfeld, K., Teumer, A., Shapland, C. Y., van Erp, T. G. M., Dannemann, M., Vernot, B., Neubauer, S., Guadalupe, T., Fernández, G., Brunner, H. G., Enard, W., Fallon, J., Hosten, N., Völker, U., Profico, A., Di Vincenzo, F., Manzi, G., Kelso, J., St. Pourcain, B., Hublin, J.-J., Franke, B., Pääbo, S., Macciardi, F., Grabe, H. J., & Fisher, S. E. (2019). Neanderthal introgression sheds light on modern human endocranial globularity. *Current Biology*, 29(1), 120-127.e5.

- 317 Van Laer, B., Kapp, U., Soler-Lopez, M., Moczulska, K., Pääbo, S., Leonard, G., & Mueller-Dieckmann, C. (2018). Molecular comparison of Neanderthal and Modern Human adenylosuccinate lyase. *Scientific Reports*, 8: 18008.
- 318 Petr, M., Pääbo, S., Kelso, J., & Vernet, B. (2019). Limits of long-term selection against Neandertal introgression. *Proceedings of the National Academy of Sciences*, 116(5), 1639-1644.
- 319 Devièse, T., Massilani, D., Yi, S., Comeskey, D., Nagel, S., Nickel, B., Ribechini, E., Lee, J., Tseveendorj, D., Gunchinsuren, B., Meyer, M., Pääbo, S., & Higham, T. (2019). Compound-specific radiocarbon dating and mitochondrial DNA analysis of the Pleistocene hominin from Salkhit Mongolia. *Nature Communications*, 10(10): 274.
- 320 Douka, K., Slon, V., Jacobs, Z., Ramsey, C. B., Shunkov, M. V., Derevianko, A. P., Mafessoni, F., Kozlikin, M. B., Li, B., Grün, R., Comeskey, D., Devièse, T., Brown, S., Viola, B., Kinsley, L., Buckley, M., Meyer, M., Roberts, R. G., Pääbo, S., Kelso, J., & Higham, T. (2019). Age estimates for hominin fossils and the onset of the Upper Palaeolithic at Denisova Cave. *Nature*, 565(7741), 640-644.
- 321 Douka, K., Brown, S., Higham, T., Pääbo, S., Derevianko, A., & Shunkov, M. (2019). FINDER project: collagen fingerprinting (ZooMS) for the identification of new human fossils. *Antiquity*, 93(367): e1.
- 322 Peyrégne, S., Slon, V., Mafessoni, F., de Filippo, C., Hajdinjak, M., Nagel, S., Nickel, B., Essel, E., Le Cabec, A., Wehrberger, K., Conard, N. J., Kind, C. J., Posth, C., Krause, J., Abrams, G., Bonjean, D., Di Modica, K., Toussaint, M., Kelso, J., Meyer, M., Pääbo, S., & Prüfer, K. (2019). Nuclear DNA from two early Neandertals reveals 80,000 years of genetic continuity in Europe. *Science Advances*, 5(6): eaaw5873.
- 323 Bokelmann, L., Hajdinjak, M., Peyrégne, S., Brace, S., Essel, E., de Filippo, C., Glocke, I., Grote, S., Mafessoni, F., Nagel, S., Kelso, J., Prüfer, K., Vernet, B., Barnes, I., Pääbo, S., Meyer, M., & Stringer, C. (2019). A genetic analysis of the Gibraltar Neanderthals. *Proceedings of the National Academy of Sciences*, 116(31), 15610-15615.
- 324 Riesenberger, S., Chintalapati, M., Macak, D., Kanis, P., Maricic, T., & Pääbo, S. (2019). Simultaneous precise editing of multiple genes in human cells. *Nucleic Acids Research*, 47(19): e116.
- 325 Kanton, S., Boyle, M. J., He, Z., Santel, M., Weigert, A., Sanchís-Calleja, F., Guijarro, P., Sidow, L., Fleck, J. S., Han, D., Qian, Z., Heide, M., Huttner, W. B., Khaitovich, P., Pääbo, S., Treutlein, B., & Camp, J. G. (2019). Organoid single-cell genomic atlas uncovers human-specific features of brain development. *Nature*, 574(7778), 418-422.
- 326 Hublin, J.-J., Sirakov, N., Aldeias, V., Bailey, S., Bard, E., Delvigne, V., Enderova, E., Fagault, Y., Fewlass, H., Hajdinjak, M., Kromer, B., Krumov, I., Marreiros, J., Martisius, N. L., Paskulin, L., Sinet-Mathiot, V., Meyer, M., Pääbo, S., Popov, V., Rezek, Z., Sirakova, S., Skinner, M. M., Smith, G. M., Spasov, R., Talamo, S., Tuna, T., Wacker, L., Welker, F., Wilcke, A., Zahariev, N., McPherron, S. P., & Tsanova, T. (2020). Initial Upper Palaeolithic Homo sapiens from Bacho Kiro Cave, Bulgaria. *Nature*, 581, 299-302.
- 327 Zeberg, H., Kelso, J., & Pääbo, S. (2020). The Neandertal progesterone receptor (advance online). *Molecular Biology and Evolution*, msaa119.
- 328 Mafessoni, F., Grote, S., de Filippo, C., Slon, V., Kolobova, K. A., Viola, B., Markin, S. V., Chintalapati, M., Peyrégne, S., Skov, L., Skoglund, P., Krivoschapkin, A. I., Derevianko, A. P., Meyer, M., Kelso, J., Peter, B., Prüfer, K., & Pääbo, S. (2020). A high-coverage Neandertal genome from Chagyrskaya Cave (advance online). *Proceedings of the National Academy of Sciences*.

- 329 Dannemann, M., He, Z., Heide, C., Vernot, B., Sidow, L., Kanton, S., Weigert, A., Treutlein, B., Pääbo, S., Kelso, J., & Camp, J. G. (2020). Human stem cell resources are an inroad to Neandertal DNA functions. *Stem Cell Reports*, 15, 1-12.
- 330 Khrameeva, E., Kurochkin, I., Han, D., Guijarro, P., Kanton, S., Santel, M., Qian, Z., Rong, S., Mazin, P., Sabirov, M., Bulat, M., Efimova, O., Tkachev, A., Guo, S., Sherwood, C. C., Camp, J. G., Pääbo, S., Treutlein, B., & Khaitovich, P. (2020). Single-cell-resolution transcriptome map of human, chimpanzee, bonobo, and macaque brains. *Genome Research*, 30(5), 776-789.
- 331 Zeberg, H., Dannemann, M., Sahlholm, K., Tsuo, K., Maricic, T., Wiebe, V., Hevers, W., Robinson, H. P., Kelso, J., & Pääbo, S. (2020). A Neandertal sodium channel increases pain sensitivity in present-day humans (advance online). *Current Biology*, 30.

Books

- 1 Pääbo, S. (2014). *Neanderthal man: In search of lost genomes* (Translated into 14 languages). New York: Basic Books.

Book Reviews

- 1 Pääbo, S. (1988). The mummy of Ramses II reconsidered: Book review of "La Momie de Ramsès II: contribution scientifique à l'égyptologie" sous la dir. [de] Lionel Balout.. *Orientalische Literaturzeitung*, 83(4), 389-394.
- 2 Pääbo, S. (1991). Molecular systematics at the crossroads: Book review of "Molecular systematics" ed. by D.M. Hillis and C. Moritz. *Trends in Genetics*, 7(8), 272.
- 3 Pääbo, S. (1993). Molecular Anthropology? Book review of "Molecular applications in biological anthropology" ed. by Eric J. Devor. *Trends in Genetics*, 9(7), 255.
- 4 Pääbo, S. (1997). A revolution in evolution: Book review of "Patterns in evolution: The new molecular view" by Roger Lewin. *Nature*, 386(6624), 456.

Book Chapters

- 1 Hellerström, C., Andersson, A., Björkén, C., Eriksson, U., Groth, C., Gunnarsson, R., Hardstedt, C., Lundgren, G., Peterson, B., Pääbo, S., Swenne, I., Agren, A., & Östman, J. (1980). Isolation, culture and transplantation of human pancreatic islets. In I. Cumming, J. Funder, & F. A. Mendelsohn (Eds.), *Endocrinology 1980: Proceedings of the VI International Congress of Endocrinology*, Melbourne, Australia, February 10-16, 1980 (pp. 368-372). Amsterdam [u.a.]: Elsevier/North Holland.
- 2 Kämpe, O., Larhammer, D., Wiman, K., Schenning, L., Claesson, L., Gustafsson, K., Pääbo, S., Hyldig-Nielsen, J., Rask, L., & Peterson, P. (1983). Molecular analyses of MHC antigens. In E. Möller, & G. Möller (Eds.), *Genetics of the immune response*. New York: Plenum Pr.
- 3 Pääbo, S. (1986). DNA is preserved in ancient Egyptian mummies. In A. David (Ed.), *Science in Egyptology* (pp. 383-388). Manchester: Manchester Univ. Pr.
- 4 Pääbo, S. (1990). Amplifying ancient DNA. In M. A. Innis (Ed.), *PCR protocols: A guide to methods and applications* (pp. 159-166). San Diego: Academic Pr.
- 5 Simon, C., Pääbo, S., Kocher, T., & Wilson, A. (1990). Evolution of mitochondrial ribosomal RNA in

- insects as shown by the polymerase chain reaction. In M. T. Clegg, & S. J. O'Brian (Eds.), *Molecular evolution: Proceedings of a UCLA Colloquium, held at Lake Tahoe, California, February 27-March 6, 1989* (pp. 235-244). New York [u.a.]: Wiley-Liss.
- 6 Goloubinoff, P., Pääbo, S., & Wilson, A. C. (1991). Molecular characterization of ancient maize: Potentials and pitfalls. In S. Johannessen, & C. Hastorf (Eds.), *Corn and culture in the prehistoric New World* (pp. 113-125). Boulder: Westview Pr.
 - 7 Pääbo, S., & Di Renzo, A. (1993). A molecular approach to the study of Egyptian history. In W. V. Davies, & R. Walker (Eds.), *Biological anthropology and the study of ancient Egypt* (pp. 86-90). London: British Museum Pr.
 - 8 Höss, M., Handt, O., & Pääbo, S. (1994). Recreating the past by PCR. In K. B. Mullis, F. Ferré, & R. A. Gibbs (Eds.), *The Polymerase Chain Reaction* (pp. 257-264). Boston [u.a.]: Birkhäuser.
 - 9 Höss, M., & Pääbo, S. (1993). Ancient DNA. In *McGraw-Hill Yearbook of Science* (pp. 114-116). McGraw-Hill.
 - 10 Mörl, M., Dörner, M., & Pääbo, S. (1994). Direct purification of tRNAs using oligonucleotides coupled to magnetic beads. In M. Uhlen, E. Horner, & O. Olsvik (Eds.), *Advances in biomagnetic separation* (pp. 107-111). Natick, MA: Eaton Publ.
 - 11 Pääbo, S. (2000). Gene, Sprache und die Besiedelung des europäischen Nordens Europas - Zum Ursprung von Populationen aus molekulargenetischer Sicht. In Max-Planck-Gesellschaft (Ed.), *Wie entstehen neue Qualitäten in komplexen Systemen? 50 Jahre Max-Planck-Gesellschaft 1948-1998. Dokumentation des Symposiums zum 50jährigen Gründungsjubiläum der Max-Planck-Gesellschaft am 18. Dezember 1998 in Berlin* (pp. 49-56). Göttingen: Vandenhoeck & Ruprecht.
 - 12 Poinar, H. N., & Pääbo, S. (Eds.). (2001). DNA. In D. E. G. Briggs, & P. R. Crowther (Eds.), *Palaeobiology II* (pp. 241-245). Oxford: Blackwell Science.
 - 13 Pääbo, S. (2002). Die Wurzeln der Menschheit - die Evolution des humanen Genoms. In M. Lessl, & G. Stock (Eds.), *Die Architektur des Lebens - über Gene, Organismen und Personen: Symposium anlässlich des 10-jährigen Bestehens der Schering-Forschungsgesellschaft, November 2001* (pp. 39-72). Berlin: Springer.
 - 14 Rabeder, G., Hofreiter, M., Nagel, D., Pääbo, S., & Withalm, G. (2002). Die neue Taxonomie der Höhlenbären. In W. Rosendahl, M. Morgan, & M. Correa (Eds.), *Cave Bear Researches* (pp. 68-69). München: Verband der Dt. Höhlen- und Karstforscher.
 - 15 Pääbo, S. (2004). Ancient DNA. In Krude, T. (Ed.), *DNA - Changing Science and Society* (pp. 68-87). Cambridge: Cambridge University Press.
 - 16 Pääbo, S. (2005). Was ist Forschung? In H. Braun, & D. Grömling (Eds.), *Entwurfsatlas Forschungs- und Technologiebau* (pp. 10-11). Basel: Birkhäuser.
 - 17 Serre, D., Schmitz, R. W., & Pääbo, S. (2006). Genetic analyses of the Neanderthals from the Feldhofer Caves. *Neanderthal 1856-2006*, 329-333.
 - 18 Serre, D., Langaney, A., Chech, M., Teschler-Nicola, M., Paunovic, M., Mennecier, P., Hofreiter, M., Possnert, G., & Pääbo, S. (2006). No evidence of Neandertal mtDNA contribution to early modern humans. In M. Teschler-Nicola (Ed.), *Early modern humans and the Moravian Gate: Mladec caves and their remains* (pp. 491-503). Berlin: Springer.
 - 19 Serre, D., & Pääbo, S. (2006). The fate of European Neanderthals. In Katerina Harvati & Terry Harrison (Ed.), *Neanderthals revisited: new approaches and perspectives* (pp. 211-219). Berlin:

Springer.

- 20 Dabney, J., Meyer, M., & Pääbo, S. (2014). Ancient DNA damage. In E. C. Friedberg, S. J. Elledge, A. R. Lehmann, T. Lindahl, & M. Muzi-Falconi (Eds.), *DNA Repair, Mutagenesis, and Other Responses to DNA Damage: A subject collection from Cold Spring Harbor Perspectives in Biology* (pp. 19-26). New York: Cold Spring Harbor Laboratory Pr.
- 21 Viola, B., & Pääbo, S. (2013). What's new in Central Asia? In M. V. Shunkov, & V. Molodin (Eds.), *Fundamental'nye problemy archeologii antropologii i etnografii evrazii: k 70. letiju akademika A. P. Derevjanko = Basic Issues in Archaeology, Anthropology and Ethnography of Eurasia: Festschrift on the occasion of Anatoly Derevianko's 70th birthday* (pp. 555-565). Novosibirsk: SB RAS Press.
- 22 Pääbo, S. (2015). The contribution of ancient hominin genomes from Siberia to our understanding of human evolution. In *Herald of the Russian Academy of Sciences* 85 (5): Papers by Laureates of the 2014 Lomonosov Grand Gold Medal of the Russian Academy of Sciences (pp. 392-396). Moscow: IAPC «Nauka/Interperiodica».
- 23 Pääbo, S. (2015). Genomy drevnich gominin iz Sibiri = Genomes of ancient hominins from Siberia. In *Vestnik Rossijskoj Akademii Nauk* 85 (10): Doklady Laureatov Bol'shoj Zolotoj Medali imeni M. V. Lomonosova Rossijskoj Akademii Nauk 2014 goda (pp. 879-884). Moscow: Nauka.
- 24 Pääbo, S. (2015). Dorcas Cummings Lecture: The Genetic Legacy of Neanderthals. In T. Grodzicker, D. Stewart, & B. Stillman (Eds.), *21st Century Genetics: Genes at Work* (pp. 291-294). Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press.
- 25 Pääbo, S. (2019). Lessons from our inner Neanderthal: How extinct hominins live on in people today; the genomes of now-extinct archaic humans can help us understand more about what makes us modern-day humans truly unique. In S. Shuzhen, & B. Seet (Eds.), *Sydney Brenner's 10-on-10: the chronicles of evolution* (pp. 129-137). Singapore: Wildtype Books.