

# Johannes Krause

Born 1980 in Leinefelde, Thuringen, Germany  
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## Research Focus

- **Ancient DNA**
- **Human Evolution**
- **Ancient Pathogen Genomics**
- **Comparative and Evolutionary Genomics**

## Present Positions

Since 2016 **Director, Max-Planck – Harvard Research Center** for the Archaeoscience of the Ancient Mediterranean (MHAAM)  
Since 2015 **Professor** for Archaeo- and Paleogenetics, Institute for Archaeological Sciences, Eberhard Karls University Tuebingen  
Since 2014 **Director, Max Planck Institute for the Science of Human History**, Jena, Department of Archaeogenetics

## Professional Career

2013-2015 **Professor (W3)** for Archaeo- and Paleogenetics, Institute for Archaeological Sciences, Eberhard Karls University Tuebingen  
2010-2013 **Junior Professor** for Palaeogenetics, Institute for Archaeological Sciences, Eberhard Karls University Tuebingen  
2008-2010 **Postdoctoral Fellow** at the Max Planck Institute for Evolutionary Anthropology, Department of Evolutionary Genetics, Leipzig, Germany. Research: Ancient human genetics and genomics  
2003-2005 **Student Assistant** at the Max Planck Institute for Evolutionary Anthropology, Department of Evolutionary Genetics, Leipzig, Germany  
2005-2008 **Dr. rer. nat.** (PhD) *From Genes to Genomes: Applications for Multiplex PCR in Ancient DNA Research*, Grade: 1.0 "Summa cum laude", University of Leipzig & Max Planck Institute for Evolutionary Anthropology, Germany

## University Education

2000-2005 **Biochemistry**, University Leipzig, Germany  
2002-2003 **Biochemistry**, University College Cork, Ireland

## Selected Research Grants

- 2017-2019 **GENESEZS: “Genetic exploitation of epidemics in central Asia”** – BMBF supported project with Kazakh Scientific Center of Quarantine and Zoonotic Diseases (KSCQZD) and Institute of General Genetics and Cytology (IGGC) in Almaty Kazakhstan. Financial grant: 170.000 Euro
- 2016-2021 **Max-Planck – Harvard Research Center for the Archaeoscience in the Ancient Mediterranean (MHAAM)**. Financial volume: 5.000.000 Euro
- 2015 – 2018 **D-A-Ch Project: “The Oberbipp Dolmen in the context of the Neolithic Revolution.”** Financial grant: 200.000 Euro for Johannes Krause
- 2013-2018 **ERC Starting Grant: “Ancient Pathogen Genomics of Re-emerging Infectious Disease.”** Total financial grant: 1,500,000 Euro
- 2013-2016 **WIN-Kolleg Heidelberger Akademie Projekt: “New ways to integrate natural sciences and humanities.”** Total financial grant for Palaeogenetics research group: 130,000 Euro
- 2013-2016 **Landesstiftung Baden Wuerttemberg: “Genetic investigation of the prehistorical settlement of the Ach- and Lone Valleys.”** Total financial grant: 150,000 Euro
- 2012-2015 **DFG Research Grant: “The settlement of Europe: Population genetic history of Pleistocene modern humans in Europe.”** Total financial grant: 252,000 Euro
- 2010-2014 **Carl-Zeiss-Foundation** (structural innovation program) Environmental Archaeology (Umweltarchaeologie): “The impact of climate change on early societies.” Total financial grant for Palaeogenetics research group: 400,000 Euro

## Fellowships and Honors

- 2017 **Annual Thuringian Research Prize** in the area of fundamental research
- since 2016 Corresponding Member, **CARTA** (Center for Academic Research & Training in Anthropogeny)
- since 2016 Corresponding Member, **German Archaeological Institute**
- 2015 **Boerhaave Nascholing**, Excellent Speaker Award
- since 2013 **WIN-Kolleg Fellow** (Heidelberg Academy of Sciences and Humanities)
- 2010 **Tübinger Förderpreis** of the Society of Early Prehistory and Quaternary Ecology for doctoral thesis
- 2010 **AAAS Newcomb Cleveland Prize** for the most outstanding paper published in *Science*

## Academic Service

- 2013-2015 Speaker at **EVEREST** - Evolution and Ecology Research School Tuebingen
- Since 2012 Executive Board Member of **EVE** - Evolution and Ecology Forum Tuebingen
- Since 2011 Executive Board Member of **TZA** – Tuebinger Inter-faculty Centre for Archaeology

Since 2010 Associate Editor for **BMC Genomics**  
Since 2005 Reviewer (ad hoc) for *Science*, *Nature*, *Nature Reviews Genetics*, *PLoS Biology*, *PLoS ONE*, *Molecular Biology and Evolution*, *Am. J. Phys. Anthropol.*, *BMC Evolutionary Biology*, *Mitochondria*, *BMC Bioinformatics*, *Biotechniques*, *Genome research*, *MBE*, *Biolinguistics*, *PNAS*, Reviewing Editor for eLife

## Teaching

2013-2015 Seminar, lecture in **Introduction to Evolutionary Genetics**, Palaeoanthropology Bachelor, University of Tuebingen  
2011-2015 Seminar, lecture and practical session in **Paleogenetics**, Palaeoanthropology Bachelor, University of Tuebingen  
2010-2015 Seminar, lecture and practical session in **Human Genetics**, Palaeoanthropology Bachelor, University of Tuebingen  
2009/2001 Seminar and practical session in **Biochemistry**, Polyvalenter Bachelor, University of Leipzig  
2009 Practical session: **Evolutionary Ecology**, master module for biologists, University of Leipzig

## Public Outreach

### Selected television contributions:

Zweites Deutsches Fernsehen: "Terra X" (**November 2017, October 2018**)  
Latestthinking.org (**2016**)  
MDR aktuell (**2015, 2016, 2017**)  
BBC: "The Mystery of Rome's X Tombs" (**2013**)  
3Sat - Scobel: "Viren" (**2013**)  
Planetopia: "Der Schwarze Tod" (**2012**)  
Bundesfilmverband BDFV: "Neandertaler Sind wir wirklich verwandt" (**2011**)  
ARTE: "Der Neandertaler in Uns" (**2010**)  
WDR - Quarks & Co: "Wieviel Neandertaler steckt in uns?" (**2010**)  
Zweites Deutsches Fernsehen, History: "Der Neandertaler-Code" (**2010**)  
National Geographic Documentary: "Neanderthal Code" (**2008**)  
The History Channel Documentary: "Clash of the Cavemen" (**2008**)  
Exploratorium Virtual Museum's Evidence: "How we know what we know" (**2008**)  
Zweites Deutsches Fernsehen: "Der Neandertaler" (**2006**)

### Selected radio contributions:

Deutschlandradio, Radio Eins, Deutschlandfunk, Radioeins, SRF, NPR, CBC Radio, BBC Radio, Radio Scotland, RBB Kulturradio, MDR Figaro, Mephisto, Radio Schweden, Radio NZ, BBC World, BBC Africa, ORF Radiokolleg, Irish Radio, Radio Sachsen, SBS Sydney

### Selected print media:

Science, Nature, The New York Times, National Geographic, Discovery News, GEO Magazine, Times (London), The Guardian, The Independent, Der Spiegel, Der Fokus, FAZ, Die Zeit, Die Welt, Sueddeutsche Zeitung, Channel Four News, USA Today, CNN Online, Washington Post, Frankfurter Rundschau, Science Daily, Neue Zürcher Zeitung, Der Standard, Spektrum der Wissenschaft, International Business Times, Times of India, Science Daily, La Vanguardia, El Pais, Le Figaro

### Invited Presentations

Total 105 (23 Keynote lectures)

### Publications

(Current as of August 2017. A continuously updated list of publications can be found at: [www.shh.mpg.de/Johannes-Krause-Publications](http://www.shh.mpg.de/Johannes-Krause-Publications))

<b>Total number</b>	<b>83</b>
<b>Peer reviewed</b>	<b>82</b>
<b>Book chapters</b>	<b>1</b>
<b>H-Index</b>	<b>38</b>

Yao, Hong-Bing, Chuan-Chao Wang, Jiang Wang, Xiaolan Tao, Lei Shang, Shao-Qing Wen, Qiajun Du, Qiongying Deng, Bingying Xu, Ying Huang, Hong-Dan Wang, Shujin Li, Bin Cong, Liying Ma, Li Jin, **Johannes Krause**, and Hui Li (2017) Genetic structure of Tibetan populations in Gansu revealed by forensic STR loci. *Scientific Reports* 7.

Warinner, Christina, Alexander Herbig, Allison Mann, James A. Fellows Yates, Clemens L. Weiß, Hernán A Burbano, Ludovic Orlando, and **Johannes Krause** (2017) A Robust Framework for Microbial Archaeology. *Annual Review of Genomics and Human Genetics* 18.

Swarts, Kelly, Rafal M. Gutaker, Bruce Benz, Michael Blake, Robert Bukowski, James Holland, Melissa Kruse-Peebles, Nicholas Lepak, Lynda Prim, M. Cinta Romay, Jeffrey Ross-Ibarra, Jose Jesus de Sanchez-Gonzalez, Chris Schmidt, Verena Schuenemann, **Johannes Krause**, R. G. Matson, Detlef Weigel, Edward S. Buckler, and Hernán A. Burbano (2017) Genomic estimation of complex traits reveals ancient maize adaptation to temperate North America. *Science* 357: 512-515.

Schuenemann, Verena J., Alexander Peltzer, Beatrix Welte, W. Paul van Pelt, Martyna Molak, Chuan-Chao Wang, Anja Furtwängler, Christian Urban, Ella Reiter, Kay Nieselt, Barbara Teßmann, Michael Francken, Katerina Harvati, Wolfgang Haak, Stephan Schiffels, and **Johannes Krause** (2017) Ancient Egyptian mummy genomes suggest an increase of Sub-Saharan African ancestry in post-Roman periods. *Nature Communications* 8: 15694.

Prendergast, Mary E., Michael Buckley, Alison Crowther, Laurent Frantz, Heidi Eager, Ophélie Lebrasseur, Rainer Hutterer, Ardern Hulme-Beaman, Wim van Neer, Katerina Douka, Margaret-Ashley Veall, Eriéndira M. Quintana Morales, Verena J. Schuenemann, Ella Reiter, Richard Allen, Evangelos A. Dimopoulos, Richard M. Helm, Ceri Shipton, Ogeto Mwebi, Christiane Denys, Mark Horton, Stephanie

- Wynne-Jones, Jeffrey Fleisher, Chantal Radimilahy, Henry Wright, Jeremy B. Searle, **Johannes Krause**, Greger Larson, and Nicole L. Boivin (2017) Reconstructing Asian faunal introductions to eastern Africa from multi-proxy biomolecular and archaeological datasets. *PLoS One* 12: e0182565
- Posth, Cosimo, Christoph Wißing, Keiko Kitagawa, Luca Pagani, Laura van Holstein, Fernando Racimo, Kurt Wehrberger, Nicholas J. Conard, Claus Joachim Kind, Hervé Bocherens, and **Johannes Krause** (2017) Deeply divergent archaic mitochondrial genome provides lower time boundary for African gene flow into Neanderthals. *8*: 16046.
- Lazaridis, Iosif, Alissa Mittnik, Nick Patterson, Swapan Mallick, Nadin Rohland, Saskia Pfrenkle, Anja Furtwängler, Alexander Peltzer, Cosimo Posth, Andonis Vasilakis, P. J. P. McGeorge, Eleni Konsolaki-Yannopoulou, George Korres, Holley Martlew, Manolis Michalodimitrakis, Mehmet Özsait, Nesrin Özsait, Anastasia Papatianasiou, Michael Richards, Songül Alpaslan Roodenberg, Yannis Tzedakis, Robert Arnott, Daniel M. Fernandes, Jeffery R. Hughey, Dimitra M. Lotakis, Patrick A. Navas, Yannis Maniatis, John A. Stamatoyannopoulos, Kristin Stewardson, Philipp Stockhammer, Ron Pinhasi, David Reich, **Johannes Krause**, and George Stamatoyannopoulos (2017) Genetic origins of the Minoans and Mycenaeans. *Nature* 548.
- Key, Felix M., Cosimo Posth, **Johannes Krause**, Alexander Herbig, and Kirsten I. Bos (2017) Mining Metagenomic Data Sets for Ancient DNA: Recommended Protocols for Authentication. *Trends in Genetics* 33: 508-520.
- Weiß, Clemens L., Verena J. Schuenemann, Jane Devos, Gautam Shirsekar, Ella Reiter, Billie A. Gould, John R. Stinchcombe, **Johannes Krause**, and Hernán A. Burbano (2016) Temporal patterns of damage and decay kinetics of DNA retrieved from plant herbarium specimens. *Royal Society Open Science* 3: 160239
- Spyrou, Maria A., Rezeda Tukhbatova, Michal Feldman, Joanna Drath, Sacha Kacki, Julia Beltrán de Heredia, Susanne Arnold, Airat G. Sitdikov, Dominique Castex, Joachim Wahl, Ilgizar R. Gazimzyanov, Danis K. Nurgaliev, Alexander Herbig, Kirsten Bos, and **Johannes Krause** (2016) Historical *Y. pestis* genomes reveal the European Black Death as the source of ancient and modern plague pandemics. *Cell Host & Microbe* 19: 874-881.
- Soubrier, Julien, Graham Gower, Kefei Chen, Stephen M. Richards, Bastien Llamas, Kieren J. Mitchell, Simon Y. W. Ho, Pavel Kosintsev, Michael S. Y. Lee, Gennady Baryshnikov, Ruth Bollongino, Pere Bover, Joachim Burger, David Chivall, Evelyne Crégut-Bonnoure, Jared E. Decker, Vladimir B. Doronichev, Katerina Douka, Damien A. Fordham, Federica Fontana, Carole Fritz, Jan Glimmerveen, Liubov V. Golovanova, Colin Groves, Antonio Guerreschi, Wolfgang Haak, Tom Higham, Emilia Hofman-Kamińska, Alexander Immel, Marie-Anne Julien, **Johannes Krause**, Oleksandra Krotova, Frauke Langbein, Greger Larson, Adam Rohrlach, Amelie Scheu, Robert D. Schnabel, Jeremy F. Taylor, Małgorzata Tokarska, Gilles Tosello, Johannes van der Plicht, Ayla van Loenen, Jean-Denis Vigne, Oliver Wooley, Ludovic Orlando, Rafał Kowalczyk, Beth Shapiro, and Alan Cooper (2016) Early cave art and ancient DNA record the origin of European bison. *Nature Communications* 7: 713158
- Skoglund, Pontus, Cosimo Posth, Kendra Sirak, Matthew Spriggs, Frederique Valentin, Stuart Bedford, Geoffrey A. Clark, Christian Reepmeyer, Fiona Petchey, Daniel Fernandes, Qiaomei Fu, Eadaoin Harney, Mark Lipson, Swapan Mallick, Mario Novak, Nadine Rohland, Kristin Stewardson, Syafiq Abdullah, Murray P. Cox, Françoise R. Friedlaender, Jonathan S. Friedlaender, Toomas Kivisild, George Koki, Pradiptajati Kusuma, D. Andrew Merriwether, Francois-X. Ricaut, Joseph T. S. Wee, Nick Patterson, **Johannes Krause**, Ron Pinhasi, and David Reich (2016)

- Genomic insights into the peopling of the Southwest Pacific. *Nature* 538: 510-518.
- Rougier, H., I. Crevecoeur, C. Beauval, C. Posth, D. Flas, C. Wissing, A. Furtwängler, M. Germonpré, A. Gómez-Olivencia, P. Semal, J. van der Plicht, H. Bocherens, and **J. Krause** (2016) Neandertal cannibalism and Neandertal bones used as tools in Northern Europe. *Scientific Reports* 6: 29005
- Posth, Cosimo, Gabriel Renaud, Alissa Mittnik, Dorothée G. Drucker, Hélène Rougier, Christophe Cupillard, Frédérique Valentin, Corinne Thevenet, Furtwängler Anja, Christoph Wißing, Michael Francken, Maria Malina, Michael Bolus, Martina Lari, Elena Gigli, Giulia Capecchi, Isabelle Crevecoeur, Cédric Beauval, Damien Flas, Mietje Germonpré, Johannes van der Plicht, Richard Cottiaux, Bernard Gély, Annamaria Ronchitelli, Kurt Wehrberger, Dan Grigorescu, Jiri Svoboda, Patrick Semal, David Caramelli, Hervé Bocherens, Katerina Harvati, Nicholas J. Conard, Wolfgang Haak, Adam Powell, and **Johannes Krause** (2016) Pleistocene mitochondrial genomes suggest a single major dispersal of non-Africans and late glacial population turnover in Europe. *Current Biology* 26: 827 - 833
- Pelzer, Alexander, Günter Jäger, Alexander Herbig, Alexander Seitz, Christian Kniep, **Johannes Krause**, and Kay Nieselt (2016) EAGER: efficient ancient genome reconstruction. *Genome Biology* 17: 60.
- Mittnik, Alissa, Chuan-Chao Wang, Jiří Svoboda, and **Johannes Krause** (2016) A molecular approach to the sexing of the triple burial at the upper paleolithic site of Dolní Věstonice. *PLoS One* 11: e0163019.
- Mascher, Martin, Verena J. Schuenemann, Uri Davidovich, Nimrod Marom, Axel Himmelbach, Sarel Hübner, Abraham Korol, Michal David, Ella Reiter, Simone Riehl, Mona Schreiber, Samuel H. Vohr, Richard E. Green, Ian K. Dawson, Joanne Russell, Benjamin Kilian, Gary J. Muehlbauer, Robbie Waugh, Tzion Fahima, **Johannes Krause**, Ehud Weiss, and Nils Stein (2016) Genomic analysis of 6,000-year-old cultivated grain illuminates the domestication history of barley. *Nature Genetics* 48: 1089–1093.
- Maixner, Frank, Ben Krause-Kyora, Dmitrij Turaev, Alexander Herbig, Michael R. Hoopmann, Janice L. Hallows, Ulrike Kusebauch, Eduard Egarter Vigl, Peter Malferttheiner, Francis Megraud, Niall O’Sullivan, Giovanna Cipollini, Valentina Coia, Marco Samadelli, Lars Engstrand, Bodo Linz, Robert L. Moritz, Rudolf Grimm, **Johannes Krause**, Almut Nebel, Yoshan Moodley, Thomas Rattei, and Albert Zink (2016) The 5300-year-old *Helicobacter pylori* genome of the Iceman. *Science* 351: 162 - 165
- Lazaridis, Iosif, Dani Nadel, Gary Rollefson, Deborah C. Merrett, Nadin Rohland, Swapan Mallick, Daniel Fernandes, Mario Novak, Beatriz Gamarra, Kendra Sirak, Sarah Connell, Kristin Stewardson, Eadaoin Harney, Qiaomei Fu, Gloria Gonzalez-Fortes, Eppie R. Jones, Songül Alpaslan Roodenberg, György Lengyel, Fanny Bocquentin, Boris Gasparian, Janet M. Monge, Michael Gregg, Vered Eshed, Ahuva-Sivan Mizrahi, Christopher Meiklejohn, Fokke Gerritsen, Luminita Bejenaru, Matthias Blüher, Archie Campbell, Gianpiero Cavalleri, David Comas, Philippe Froguel, Edmund Gilbert, Shona M. Kerr, Peter Kovacs, **Johannes Krause**, Darren McGettigan, Michael Merrigan, D. Andrew Merriwether, Seamus O'Reilly, Martin B. Richards, Ornella Semino, Michel Shamoon-Pour, Gheorghe Stefanescu, Michael Stumvoll, Anke Tönjes, Antonio Torroni, James F. Wilson, Loic Yengo, Nelli A. Hovhannisyan, Nick Patterson, Ron Pinhasi, and David Reich (2016) Genomic insights into the origin of farming in the ancient Near East. *Nature* 536: 419-424.
- Krause, Johannes**, and Svante Pääbo (2016) Genetic time travel. *Genetics* 203: 9-12.
- Immel, Alexander, Adeline Le Cabec, Marion Bonazzi, Alexander Herbig, Heiko Temming, Verena Schuenemann, Kirsten I. Bos, Frauke Langbein, Katerina Harvati, Anne

- Bridault, Gilbert Pion, Marie-Anne Julien, Oleksandra Krotova, Nicholas J. Conard, Susanne C. Münzel, Dorothee G. Drucker, Bence Viola, Jean-Jacques Hublin, Pau Tafforeau, and **Johannes Krause** (2016) Effect of X-ray irradiation on ancient DNA in sub-fossil bones : guidelines for safe X-ray imaging. *Scientific Reports* 6: 32969
- Gogarten, Jan F., Ariane Dux, Verena J. Schuenemann, Kathrin Nowak, Christophe Boesch, Roman M. Wittig, **Johannes Krause**, Sébastien Calvignac-Spencer, and Fabian H. Leendertz (2016) Tools for opening new chapters in the book of *Treponema pallidum* evolutionary history. *Clinical Microbiology and Infection* 22: 916-921.
- Fu, Qiaomei, Cosimo Posth, Mateja Hajdinjak, Martin Petr, Swapan Mallick, Daniel Fernandes, Anja Furtwängler, Wolfgang Haak, Matthias Meyer, Alissa Mittnik, Birgit Nickel, Alexander Peltzer, Nadin Rohland, Viviane Slon, Sahra Talamo, Iosif Lazaridis, Mark Lipson, Iain Mathieson, Stephan Schiffels, Pontus Skoglund, Anatoly P. Derevianko, Nikolai Drozdov, Vyacheslav Slavinsky, Alexander Tsybankov, Renata Grifoni Cremonesi, Francesco Mallegni, Bernard Gély, Eligio Vacca, Manuel R. González Morales, Lawrence G. Straus, Christine Neugebauer-Maresch, Maria Teschler-Nicola, Silviu Constantin, Oana Teodora Moldovan, Stefano Benazzi, Marco Peresani, Donato Coppola, Martina Lari, Stefano Ricci, Annamaria Ronchitelli, Frédérique Valentin, Corinne Thevenet, Kurt Wehrberger, Kurt Grigorescu, Hélène Rougier, Isabelle Crevecoeur, Damien Flas, Patrick Semal, Marcello A. Mannino, Christophe Cupillard, Hervé Bocherens, Nicholas J. Conard, Katerina Harvati, Vyacheslav Moiseyev, Dorothee G. Drucker, Jiří Svoboda, Michael P. Richards, David Caramelli, Ron Pinhasi, Janet Kelso, Nick Patterson, **Johannes Krause**, Svante Pääbo, and David Reich (2016) The genetic history of Ice Age Europe. *Nature* 534: 200-205.
- Feldman, Michal, Michaela Harbeck, Marcel Keller, Maria A. Spyrou, Andreas Rott, Bernd Trautmann, Holger C. Scholz, Bernd Päffgen, Joris Peters, Michael McCormick, Kirsten Bos, Alexander Herbig, and **Johannes Krause** (2016) A high-coverage *Yersinia pestis* genome from a 6th-century Justinianic plague victim. *Molecular Biology and Evolution* 33: 2911-2923.
- Bos, Kirsten, Alexander Herbig, Jason Sahl, Nicholas Waglechner, Mathieu Fourment, Stephen A. Forrest, Jennifer Klunk, Verena J. Schuenemann, Debi Poinar, Melanie Kuch, Brian G. Golding, Olivier Dutour, Paul Keim, David M. Wagner, Edward C. Holmes, **Johannes Krause**, and Hendrik N. Poinar (2016) Eighteenth century *Yersinia pestis* genomes reveal the long-term persistence of an historical plague focus. *eLife* 5: e12994
- Arora, Natasha, Verena J. Schuenemann, Günter Jäger, Alexander Peltzer, Alexander Seitz, Alexander Herbig, Michal Strouhal, Linda Grillová, Leonor Sánchez-Busó, Denise Kühnert, Kirsten I. Bos, Leyla Rivero Davis, Lenka Mikalová, Sylvia Bruisten, Peter Komericki, Patrick French, Paul R. Grant, María A. Pando, Lucía Gallo Vaulet, Marcelo Rodríguez Fermepin, Antonio Martinez, Arturo Centurion Lara, Lorenzo Giacani, Steven J. Norris, David Šmajš, Philipp P. Bosshard, Fernando González-Candelas, Kay Nieselt, **Johannes Krause**, and Homayoun C. Bagheri (2016) Origin of modern syphilis and emergence of a pandemic *Treponema pallidum* cluster. *Nature Microbiology* 2: 16245
- Stockhammer, Philipp W., Ken Massy, Corina Knipper, Ronny Friedrich, Bernd Kromer, Susanne Lindauer, Jelena Radosavljevic, Fabian Wittenborn, and **Johannes Krause** (2015) Rewriting the Central European Early Bronze Age Chronology: Evidence from Large-Scale Radiocarbon Dating. *PloS one* 10: e0139705.
- Singh, Pushpendra, Andrej Benjak, Verena J. Schuenemann, Alexander Herbig, Charlotte Avanzi, Philippe Busso, Kay Nieselt, **Johannes Krause**, Lucio Vera-Cabrera, and Stewart T. Cole (2015) Insight into the evolution and origin of leprosy bacilli

- from the genome sequence of *Mycobacterium lepromatosis*. *Proceedings of the National Academy of Sciences of the USA* 112: 4459 - 4464.
- Shafer, Aaron B. A., Jochen B. W. Wolf, Paulo C. Alves, Linnea Bergstrom, Michael W. Bruford, Ioana Brannstrom, Guy Colling, Love Dalen, Luc De Meester, Robert Ekblom, Katie D. Fawcett, Simone Fior, Mehrdad Hajibabaei, Jason A. Hill, A. Rus Hoebel, Jacob Hogg, Evelyn L. Jensen, **Johannes Krause**, Torsten N. Kristensen, Michael Kruetzen, John K. McKay, Anita J. Norman, Rob Ogden, E. Martin Osterling, N. Joop Ouborg, John Piccolo, Danijela Popovic, Craig R. Primmer, Floyd A. Reed, Marie Roumet, Jordi Salmons, Tamara Schenekar, Michael K. Schwartz, Gernot Segelbacher, Helen Senn, Jens Thaulow, Mia Valtonen, Andrew Veale, Philippine Vergeer, Nagarjun Vijay, Caries Vila, Matthias Weissensteiner, Lovisa Wennerstrom, Christopher W. Wheat, and Piotr Zielinski (2015) Genomics and the challenging translation into conservation practice. *Trends in Ecology and Evolution* 30: 78 - 87.
- Mathieson, I.; Lazaridis, I.; Rohland, N.; Mallick, S.; Patterson, N.; Roodenberg, S. A.; Harney, E.; Stewardson, K.; Fernandes, D.; Novak, M. ; Sirak, K.; Gamba, C.; Jones, E. R.; Llamas, B.; Dryomov, S.; Pickrell, J.; Arsuaga, J. L.; de Castro, J. M. B.; Carbonell, E.; Gerritsen, F.; Khokhlov, A.; Kuznetsov, P.; Lozano, M.; Meller, H.; Mochalov, O.; Moiseyev, V.; Guerra, M. A. R.; Roodenberg, J.; Vergès, J. M.; **Krause, J.**; Cooper, A.; Alt, K. W.; Brown, D.; Anthony, D.; Lalueza-Fox, C.; Haak, W.; Pinhas, R.; Reich, D. (2015) Genome-wide patterns of selection in 230 ancient Eurasians. *Nature* 528: 499-503.
- Krause, Johannes (2015)** Ancient human migrations. *Die Kunde* 64: 87-99.
- Immel, Alexander, Dorothee G Drucker, Marion Bonazzi, Tina K Jahnke, Susanne C Munzel, Verena J Schuenemann, Alexander Herbig, Claus-Joachim Kind, and **Johannes Krause** (2015) Mitochondrial genomes of giant deers suggest their late survival in Central Europe. *Scientific Reports* 5: 10853
- Harkins, Kelly M., Jane E. Buikstra, Tessa Campbell, Kirsten I. Bos, Eric D. Johnson, **Johannes Krause**, and Anne C. Stone (2015) Screening ancient *tuberculosis* with qPCR: challenges and opportunities. *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences* 370: 20130622
- Haak, Wolfgang, Iosif Lazaridis, Nick Patterson, Nadin Rohland, Swapan Mallick, Bastien Llamas, Guido Brandt, Susanne Nordenfelt, Eadaoin Harney, Kristin Stewardson, Qiaomei Fu, Alissa Mittnik, Eszter Bánffy, Christos Economou, Michael Francken, Susanne Friederich, Rafael Garrido Pena, Fredrik Hallgren, Valery Khartanovich, Aleksandr Khokhlov, Michael Kunst, Pavel Kuznetsov, Harald Meller, Oleg Mochalov, Vayacheslav Moiseyev, Nicole Nicklisch, Sandra L. Pichler, Roberto Risch, Manuel A. Rojo Guerra, Christina Roth, Anna Szécsényi-Nagy, Joachim Wahl, Matthias Meyer, **Johannes Krause**, Dorcas Brown, David Anthony, Alan Cooper, Kurt Werner Alt, and David Reich (2015) Massive migration from the steppe was a source for Indo-European languages in Europe. *Nature* 522: 207-211.
- Bos, Kirsten I., Guenter Jaeger, Verena J. Schuenemann, Ashild J. Vagene, Maria A. Spyrou, Alexander Herbig, Kay Nieselt, and **Johannes Krause** (2015) Parallel detection of ancient pathogens via array-based DNA capture. *Philosophical Transactions of the Royal Society of London, Series B: Biological Sciences* 370: 20130375
- Zink, Albert, L. Samuel Wann, Randall C. Thompson, Andreas Keller, Frank Maixner, Adel H. Allam, Caleb E. Finch, Bruno Frohlich, Hillard Kaplan, Guido P. Lombardi, M. Linda Sutherland, James D. Sutherland, Lucia Watson, Samantha L. Cox, Michael I. Miyamoto, Jagat Narula, Alexandre F.R. Stewart, Gregory S. Thomas, and **Johannes Krause** (2014) Genomic correlates of atherosclerosis in ancient humans. *Global Heart* 9: 203 - 209.



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- Skoglund, Pontus, Bernd H. Northoff, Michael V. Shunkov, Anatoli P. Derevianko, Svante Paabo, **Johannes Krause**, and Mattias Jakobsson (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: 2229 - 2234.
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