

# AURÉLIEN GINOLHAC

Bioanalyst, Providing bioinformatic services to the *Life Sciences Research Unit*

## EDUCATION

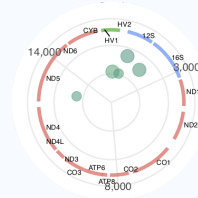
- 2006  
|  
2003
- **PhD. In bioinformatics. Study of bacterial polyketide synthases**  
University Claude Bernard 📍 Lyon, France
    - Joint supervision industry/ university (CIFRE)
- 2003  
|  
2001
- **Master in bioinformatics (french “DESS”)**  
University of Rouen 📍 Rouen, France
    - apprenticeship over one year in industry

## RESEARCH EXPERIENCE

- 2019  
|  
2014
- **Research Scientist**  
University of Luxembourg 📍 Belvaux, Luxembourg
    - Head of the [bioinformatic core](#) for the *LSRU*
- 2014  
|  
2012
- **Postdoctoral fellow**  
Centre for GeoGenetics 📍 Copenhagen, Denmark
    - Bioanalyst, equids evolution and ancient DNA
    - Marie-Curie Fellowship
- 2012  
|  
2010
- **Postdoctoral fellow**  
Centre for GeoGenetics 📍 Copenhagen, Denmark
    - ancient DNA

## INDUSTRY EXPERIENCE

- 2010  
|  
2006
- **Research Scientist**  
LibraGen SA. 📍 Toulouse, France
    - Biocatalysis, bioinformatics
    - System administration
- 2006  
|  
2003
- **PhD Candidate**  
LibraGen SA. 📍 Lyon, France
    - bioinformatics and metagenomic
    - System administration



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## CONTACT

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🌐 [github.com/ginolhac](https://github.com/ginolhac)  
🔗 [lsru bioinfo core](#)  
☎ (352) 661-172104

## SKILLS

Proficient in



△ GNU/Linux environment  
HPC with `slurm`

Experienced with

python  
Bash  
GNU AWK

*Last updated on 2019-10-11.*



## TEACHING EXPERIENCE

- 2019  
|  
2014
- **Biostatistics 2. Bachelor in Life Sciences**  
University of Luxembourg 📍 Belvaux, Luxembourg
    - 60 hours with half hands-on. 7 ECTS
    - <https://biostat2.uni.lu/>
- 2019  
|  
2016
- **Workshop on data processing with R tidyverse**  
University of Luxembourg 📍 Belvaux, Luxembourg
    - Four days course with half hands-on. 2 ECTS
    - With Dr. Roland Krause via Elixir Luxembourg
    - <https://rworkshop.uni.lu/>
- 2014  
|  
2012
- **Workshop on ancient DNA analysis**  
Danish Technology University 📍 Lyngby, Denmark
    - Practical course in the *Next Generation Sequencing* Analysis
- 2010
- **Paleogenomic workflows at the Center for GeoGenetics**  
CNRS Summer School 📍 Cargese, France
    - Lectures and hands-on sessions



## PUBLICATIONS

- 2019
- **Early Pleistocene enamel proteome from Dmanisi resolves *Stephanorhinus* phylogeny**  
Cappellini, E. Welker, F. Pandolfi, L. Ramos-Madrigal, J. Samodova, D. Ruther, P. L. Fotakis, A. K. Lyon, D. Moreno-Mayar, J. V. Bukhsianidze, M. Rakownikow, Jersie-Christensen, R. Mackie, M. **Ginolhac**, A. Ferring, R. Tappén, M. Palkopoulou, E. Dickinson, M. R. Stafford, T. W. Chan, Y. L. Götherström, A. Nathan, S. K. S. S. Heintzman, P. D. Kapp, J. D. Kirillova, I. Moodley, Y. Agusti, J. Kahlke, R. D. Kiladze, G. Martinez-Navarro, B. Liu, S. Sandoval Velasco, M. Sinding, M. S. Kelstrup, C. D. Allentoft, M. E. Orlando, L. Penkman, K. Shapiro, B. Rook, L. Dalen, L. Gilbert, M. T. P. Olsen, J. V. Lordkipanidze, D. and Willerslev, E. *Nature* **574**, 103–107
  - **Identification of genes under dynamic post-transcriptional regulation from time-series epigenomic data**  
Becker, J. C. Gerard, D. **Ginolhac**, A. Sauter, T. Sinkkonen, L. *et al. Epigenomics* **11**, 619–638
  - **TREM2 triggers microglial density and age-related neuronal loss**  
Linnartz-Gerlach, B. Bodea, L. G. Klaus, C. **Ginolhac**, A. Halder, R. *et al. Glia* **67**, 539–550
  - **Temporal enhancer profiling of parallel lineages identifies AHR and GLIS1 as regulators of mesenchymal multipotency**  
Gerard, D. Schmidt, F. **Ginolhac**, A. Schmitz, M. Halder, R. *et al. Nucleic Acids Res.* **47**, 1141–1163

## Summary

Total number of peer-reviewed publications: **29**

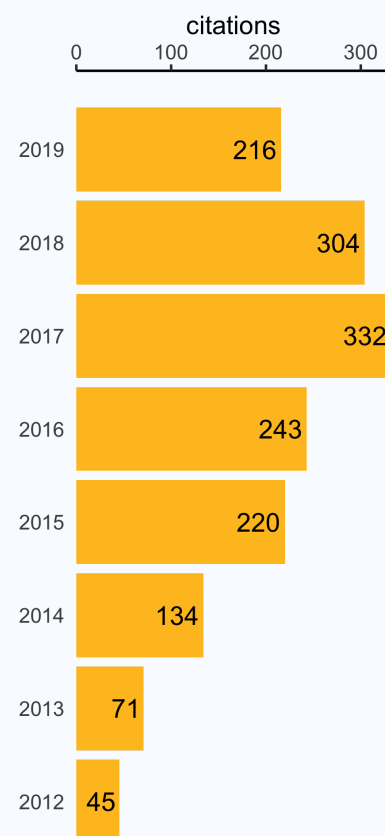
**5** as leading author

Total number of citations: **1,692**

Average citation **60.43**

ORCID ID: **0000-0001-7665-9547**

**H-index: 18**



data from ISI Web of Knowledge

- 2018
- **Cytokine-mediated modulation of the hepatic miRNome: miR-146b-5p is an IL-6-inducible miRNA with multiple targets**  
Kirchmeyer, M. Servais, F. A. Hamdorf, M. Nazarov, P. V. **Ginolhac, A.** Halder, R. Vallar, L. Glanemann, M. Rubie, C. Lammert, F. *et al. J. Leukoc. Biol.* **104**, 987–1002
  - **The PD-L1- and IL6-mediated dampening of the IL27/STAT1 anti-cancer responses are prevented by  $\alpha$ -PD-L1 or  $\alpha$ -IL6 antibodies**  
Rolvering, C. Zimmer, A. D. **Ginolhac, A.** Margue, C. Kirchmeyer, M. Servais, F. Hermanns, H. M. Hergovits, S. Nazarov, P. V. Nicot, N. *et al. J. Leukoc. Biol.* **104**, 969–985
  - **The miR-371 similar to 373 Cluster Represses Colon Cancer Initiation and Metastatic Colonization by Inhibiting the TGFBR2/ID1 Signaling Axis**  
Ullmann, P. Rodriguez, F. Schmitz, M. Meurer, S. K. Qureshi-Baig, K. Felten, P. **Ginolhac, A.** Antunes, L. Frasilho, S. Zugel, N. *et al. Cancer Res.* **78**, 3793–3808
- 2017
- **Loss of Myosin Vb in colorectal cancer is a strong prognostic factor for disease recurrence**  
Letellier, E. Schmitz, M. **Ginolhac, A.** Rodriguez, F. Ullmann, P. *et al. Br. J. Cancer* **117**, 1689–1701
  - **Crosstalk between different family members: IL27 recapitulates IFN  $\gamma$  responses in HCC cells, but is inhibited by IL6-type cytokines**  
Rolvering, C. Zimmer, A. D. Kozar, I. Hermanns, H. M. Letellier, E. Vallar, L. Nazarov, P. V. Nicot, N. **Ginolhac, A.** Haan, S. *et al. Biochim Biophys Acta Mol Cell Res* **1864**, 516–526
- 2016
- **Hypoxia-responsive miR-210 promotes self-renewal capacity of colon tumor-initiating cells by repressing ISCU and by inducing lactate production**  
Ullmann, P. Qureshi-Baig, K. Rodriguez, F. **Ginolhac, A.** Nonnenmacher, Y. Ternes, D. Weiler, J. Gabler, K. Bahlawane, C. Hiller, K. *et al. Oncotarget* **7**, 65454–65470
- 2015
- **Role of Calprotectin as a Modulator of the IL27-Mediated Proinflammatory Effect on Endothelial Cells**  
Doros, S. A. **Ginolhac, A.** Kahne, T. Naumann, M. Sauter, T. *et al. Mediators Inflamm.* **2015**, 737310

- **Evolutionary Genomics and Conservation of the Endangered Prze-walski's Horse**

Der Sarkissian, C. Ermini, L. Schubert, M. Yang, M. A. Librado, P. Fumagalli, M. Jonsson, H. Bar-Gal, G. K. Albrechtsen, A. Vieira, F. G. Petersen, B. **Ginolhac**, A. Seguin-Orlando, A. Magnussen, K. Fages, A. Gamba, C. Lorente-Galdos, B. Polani, S. Steiner, C. Neuditschko, M. Jagannathan, V. Feh, C. Greenblatt, C. L. Ludwig, A. Abramson, N. I. Zimmermann, W. Schafberg, R. Tikhonov, A. Sicheritz-Ponten, T. Willerslev, E. Marques-Bonet, T. Ryder, O. A. McCue, M. Rieder, S. Leeb, T. Slatkin, M. and Orlando, L. *Curr. Biol.* **25**, 2577–2583

2014

- **Prehistoric genomes reveal the genetic foundation and cost of horse domestication**

Schubert, M. Jonsson, H. Chang, D. Der Sarkissian, C. Ermini, L. **Ginolhac**, A. Albrechtsen, A. Dupanloup, I. Foucal, A. Petersen, B. *et al. Proc. Natl. Acad. Sci. U.S.A.* **111**, E5661–5669

- **Speciation with gene flow in equids despite extensive chromosomal plasticity**

Jonsson, H. Schubert, M. Seguin-Orlando, A. **Ginolhac**, A. Petersen, L. Fumagalli, M. Albrechtsen, A. Petersen, B. Korneliussen, T. S. Vilstrup, J. T. *et al. Proc. Natl. Acad. Sci. U.S.A.* **111**, 18655–18660

- **Characterization of ancient and modern genomes by SNP detection and phylogenomic and metagenomic analysis using PALEOMIX**

Schubert, M. Ermini, L. Der Sarkissian, C. Jonsson, H. **Ginolhac**, A. Schaefer, R. Martin, M. D. Fernandez, R. Kircher, M. McCue, M. *et al. Nat Protoc* **9**, 1056–1082

2013

- **A comparative study of ancient environmental DNA to pollen and macrofossils from lake sediments reveals taxonomic overlap and additional plant taxa**

Pedersen, Mikkel Winther **Ginolhac**, Aurelien Orlando, Ludovic Olsen, Jesper Andersen, Kenneth *et al. Quaternary Science Reviews* **75**, 161–168

- **Recalibrating Equus evolution using the genome sequence of an early Middle Pleistocene horse**

Orlando, L. **Ginolhac**, A. Zhang, G. Froese, D. Albrechtsen, A. Stiller, M. Schubert, M. Cappellini, E. Petersen, B. Moltke, I. *et al. Nature* **499**, 74–78

- **mapDamage2.0: fast approximate Bayesian estimates of ancient DNA damage parameters**

Jonsson, H. **Ginolhac**, A. Schubert, M. Johnson, P. L. Orlando, L. *et al. Bioinformatics* **29**, 1682–1684

- **Mitochondrial phylogenomics of modern and ancient equids**

Vilstrup, J. T. Seguin-Orlando, A. Stiller, M. **Ginolhac**, A. Raghavan, M. Nielsen, S. C. Weinstock, J. Froese, D. Vasiliev, S. K. Ovodov, N. D. *et al. PLoS ONE* **8**, e55950

- 2012
- **Improving ancient DNA read mapping against modern reference genomes**  
Schubert, M. **Ginolhac, A.** Lindgreen, S. Thompson, J. F. Al-Rasheid, K. A. *et al. BMC Genomics* **13**, 178
  - **Improving the performance of true single molecule sequencing for ancient DNA**  
**Ginolhac, A.** Vilstrup, J. Stenderup, J. Rasmussen, M. Stiller, M. Shapiro, B. Zazula, G. Froese, D. Steinmann, K. E. Thompson, J. F. *et al. BMC Genomics* **13**, 177
  - **Proteomic analysis of a pleistocene mammoth femur reveals more than one hundred ancient bone proteins**  
Cappellini, E. Jensen, L. J. Szklarczyk, D. **Ginolhac, A.** da Fonseca, R. A. Stafford, T. W. Holen, S. R. Collins, M. J. Orlando, L. Willerslev, E. *et al. J. Proteome Res.* **11**, 917–926
- 2011
- **True single-molecule DNA sequencing of a pleistocene horse bone**  
Orlando, L. **Ginolhac, A.** Raghavan, M. Vilstrup, J. Rasmussen, M. Mag-nussen, K. Steinmann, K. E. Kapranov, P. Thompson, J. F. Zazula, G. *et al. Genome Res.* **21**, 1705–1719
  - **mapDamage: testing for damage patterns in ancient DNA sequences**  
**Ginolhac, A.** Rasmussen, M. Gilbert, M. T. Willerslev, E. Orlando, L. *et al. Bioinformatics* **27**, 2153–2155
- 2008
- **Drugs from hidden bugs: their discovery via untapped resources**  
Lefevre, F. Robe, P. Jarrin, C. **Ginolhac, A.** Zago, C. *et al. Res. Microbiol.* **159**, 153–161
- 2007
- **Environmental metagenomics: An innovative resource for industrial biocatalysis**  
Lefevre, Fabrice Jarrin, Cyrille **Ginolhac, Aurelien** Auriol, Daniel Nalin, Re-naud *et al. Biocatalysis & Biotransformation* **25**, 242–250
- 2005
- **Type I polyketide synthases may have evolved through horizontal gene transfer**  
**Ginolhac, A.** Jarrin, C. Robe, P. Perriere, G. Vogel, T. M. *et al. J. Mol. Evol.* **60**, 716–725
- 2004
- **Phylogenetic analysis of polyketide synthase I domains from soil metagenomic libraries allows selection of promising clones**  
**Ginolhac, A.** Jarrin, C. Gillet, B. Robe, P. Pujic, P. Tuphile, K. Bertrand, H. Vo-gel, T. M. Perriere, G. Simonet, P. *et al. Appl. Environ. Microbiol.* **70**, 5522–5527
- 2000
- **Functional cytochrome oxidase histochemistry in the honeybee brain**  
Armengaud, C. Causse, N. Ait-Oubah, J. **Ginolhac, A.** Gauthier, M. *et al. Brain Res.* **859**, 390–393



## PATENTS

2010

- **Hydrosoluble [6-O- $\alpha$ -D-Glcp-(1 $\rightarrow$ n)-6-O- $\beta$ -D-Glcp-(1 $\rightarrow$ )-phenolic Derivatives With Dermo-cosmetic, Nutritional And Therapeutic Applications, And Compositions Containing Said Water Soluble Compounds**

Auriol, D. **Ginolhac, A.** Lefevre, F. *et al.* *Patent WO 2010/072754 A1*,

2009

- **Method For Preparing C-6 Phosphorylated D-aldohehexoses And C-6 Phosphorylated D-aldohehexoses Derivatives And New C-6 Phosphorylated D-aldohehexoses Derivatives**

Auriol, D. Nalin, R. Lefevre, F. **Ginolhac, A.** De Guembecker, D. *et al.* *Patent WO 2008/142155 A3*,