

## PAOLO FRANCHINI

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## Education

- 2007      **Ph.D. degree in Animal Biology, University of Rome “La Sapienza”, Italy**  
(supervisor: Prof. E. Capanna)
- 2003      **Master degree in Biological Sciences, University of Rome “La Sapienza”, Italy**  
(supervisor: Prof. M. Corti). Grade: 110/110 cum laude

## Positions held to date

- 2019-present      **Postdoctoral Research Fellow (DFG - German Research Foundation – Research Grant: BU 956/23), University of Konstanz, Germany**  
“Decoding the Australian lungfish genome”  
Department of Biology, Group of Zoology and Evolutionary Biology  
(Adviser: Prof. A. Meyer, Prof. Manfred Schartl)
- 2014-2018      **Postdoctoral Research Fellow, Principal Investigator (DFG - German Research Foundation – Research Grant: FR 3399/1), University of Konstanz, Germany**  
“The role of microRNAs in the diversification of Midas cichlids from Nicaragua”  
Department of Biology, Group of Zoology and Evolutionary Biology  
(Host: Prof. A. Meyer)
- 2011-2014      **Scientific manager of the University of Konstanz Genomics Center (GeCKo) - Postdoctoral Researcher, University of Konstanz, Germany**  
“Comparative genomics of parallel evolution in repeated adaptive radiations using Next-generation Sequencing technologies”  
Department of Biology, Group of Zoology and Evolutionary Biology  
(Adviser: Prof. A. Meyer)
- 2009-2011      **Postdoctoral Researcher, University of Stellenbosch, South Africa**  
“Bioinformatic and associated analyses in *Haliotis midae*”  
Department of Genetics, Molecular Aquatic Research Group  
(Adviser: Prof. R. Roodt-Wilding)

- 2008-2009      **Postdoctoral Researcher, University of Rome “La Sapienza”, Italy**  
 “Genetic assignments of cultured populations of gilthead seabream, *Sparus aurata*, through the use of microsatellites”  
 Department of Animal and Human Biology  
 (Adviser: Prof. L. Sola)
- 2007-2008      **Postdoctoral Researcher, University of Rome “La Sapienza”, Italy**  
 “Research activity on the genotypization of wild and cultured populations of gilthead seabream, *Sparus aurata*, through the use of microsatellites”  
 ISPRA (The Institute for Environmental Protection and Research)  
 (Adviser: Prof. L. Sola, Dr. D. Crosetti)
- 2007            **Postdoctoral Researcher, University of Rome “La Sapienza”, Italy**  
 “Population genetics and geometric morphometrics of the house mouse (*Mus musculus domesticus*)”  
 Department of Human and Animal Biology  
 (Adviser: Prof. R. Castiglia)
- 2004-2007      **Doctoral Student Fellow in Animal Biology, University of Rome “La Sapienza”, Italy**  
 “Analysis of hybridization areas between chromosomal races of *Mus musculus domesticus*: microsatellites and geometric morphometrics”  
 Department of Human and Animal Biology  
 (Adviser: Prof. E. Capanna)
- 2003            **Research Assistant, University of Rome “La Sapienza”, Italy**  
 “Organization and database structuring of the African Rodents tissues collection of Museum of Comparative Anatomy G. Grassi”  
 Department of Animal and Human Biology  
 (Supervisor: Prof. E. Capanna)

## Fellowships, Grants and Awards

- 2018            **YSF – Young Scholar Funds – Research Grant** from the University of Konstanz  
 “The role of gene regulation by microRNAs in the parallel diversification of the pharyngeal jaw of Midas cichlid fish from Nicaragua”  
**Received research funding (25,000 Euro)**
- 2016            **YSF – Young Scholar Funds – Research Grant** from the University of Konstanz  
 “What makes a lineage more prone to speciation? The Midas/non-Midas mystery, an insight from a whole genome comparative approach”  
**Received research funding (36,000 Euro)**
- 2014-2017      **DFG – German Research Foundation – Research Grant (FR 3399/1)**  
 “The role of microRNAs in the diversification of Midas cichlids from Nicaragua”  
**Received a monthly salary for three years and research funding (325,000 Euro)**
- 2013            **Travel grant** from the Center for Developmental Biology to attend the 24<sup>th</sup> CDB meeting “Genomics and Epigenomics with Deep Sequencing”. Kobe, Japan, June 13-14, 2013  
**Received a cash award of 2,000 Euro**

- 2013      **Travel grant** from the Society of Molecular Biology and Evolution to attend the annual conference “SMBE2013”. Chicago, USA, July 7-11, 2013  
**Received a cash award of 2,000 US Dollars**
- 2010      **Travel grant** from the Aquaculture division to attend the Plant and Animal Genome (PAG) XVIII Conference. San Diego, USA, January 9-13, 2010  
 Received a cash award of 1,000 US Dollars
- 2010      **Francesco Spallone Award** from the “National Academy of Lincei” for the best scientific paper in Evolutionary Ecology from the PhD work  
 Received a cash award of 5,000 Euro
- 2004-2006      **Grants for teaching** in practical lessons in Cellular Biology and Histology, Developmental Biology and Comparative Anatomy  
**Received a cash award of 3,800 Euro per three years**
- 2004-2006      **Doctoral fellowship** from the Italian Ministry of University  
**Received a monthly salary for three years and research funding (9,000 Euro)**

## Scientific qualifications

Qualification to function as Associate Professor in Italian Universities for the scientific sectors:

- Zoology and Anthropology (05/B1)
- Comparative Anatomy and Cytology (05/B2)
- Ecology (05/C1)
- Genetics (05/I1)

## Teaching experience

- 2018      **Course organizer and principal instructor:** “*Advanced Methods in Genetics & Genomics*” to Master and PhD students. Course code: BIO-11640. University of Konstanz, Germany.
- 2017      **Course organizer and principal instructor:** “*Species, Speciation and Extinction*” to Master and PhD students. Course code: BIO-14590. University of Konstanz, Germany.
- 2018-2020      **Co-instructor:** “*Evolutionary Organismal Biology*” (EOB) to Master students. Course code: BIO-11290. University of Konstanz, Germany.
- 2014-2020      **Co-instructor:** “*Evolutionary Biology*” to Master students. Course code: BIO-10150. University of Konstanz, Germany.
- 2011-2020      **Co-instructor:** “*Methods in Biology*” to Master students. Course code: BIO-11255. University of Konstanz, Germany.

- 2012-2020 **Co-instructor:** “*Molecular Evolutionary Biology*” to Bachelor and Master students (VTK program). Course code: BIO-11130. University of Konstanz, Germany.
- 2009-2010 **Co-instructor:** “*Bioinformatics in Next Generation Sequencing*” to Bachelor and Master students. University of Stellenbosch, South Africa.
- 2006-2009 **Instructor:** “*Biological Sciences*” to primary and secondary school students. Rome, Italy.
- 2004-2006 **Co-instructor:** Practical lessons for the courses of Cellular Biology and Histology, Cellular Biology and Histology, Developmental Biology and Comparative Anatomy. University of Rome “La Sapienza”, Italy.

## Supervision of Students

- 2020 **Bai Wei Lo**, PhD student, University of Konstanz, Germany  
“The genetic basis of adaptive traits in Neotropical cichlid fishes”
- 2014-2019 **Peiwen Xiong**, PhD student, University of Konstanz, Germany  
“Comparative genomic approaches to unravel the evolutionary mechanisms of cichlid fishes”
- 2014-2015 **Viera Kovakova**, PhD student (co-supervised), University of Konstanz, Germany  
“Signature of selection on Midas cichlids”
- 2009-2011 **Mathilde van der Merwe**, PhD student (co-supervised), University of Stellenbosch, South Africa  
“Growth-related gene expression in *Haliotis midae*”
- 2020 **Lukas Koch**, VTK Master student, University of Konstanz, Germany  
“QTL analysis of jaw traits in Neotropical cichlid fishes”
- 2019 **Anne van Humbeeck**, VTK Master student, University of Konstanz, Germany  
“The genetic basis of lip morphology in cichlid fish adaptive radiations”
- 2018 **Tiziana Schmidt**, VTK Master student, University of Konstanz, Germany  
“Parallel evolution of feeding traits in Midas cichlids”
- 2017 **Patrik Beller** and **Lukas Muskalla**, VTK Master students, University of Konstanz, Germany  
“QTL analysis and body shape and pharyngeal jaw morphology in cichlid fishes”
- 2016 **Bokun Yin**, VTK Master student, University of Konstanz, Germany  
“Expression patterns of miRNAs in Midas cichlids”
- 2015 **Maria Metzker**, VTK Master student, University of Konstanz, Germany  
“The role of miRNAs in the diversification of cichlid fish”
- 2013 **Shuran Yu**, VTK Master student, University of Konstanz, Germany  
“The genetic bases of pharyngeal jaw variation in two sympatric cichlid species in lake Apoyo: a QTL approach”

## Skills

- Omics big data handling and analysis (Whole-genome DNA-Seq, RAD.Seq, RNA-Seq, microRNA-Seq, Amplicon-Seq)
- Population genetics and genomics analysis

- Quantitative genetics analysis: Quantitative trait loci (QTL) mapping, Genome-wide association studies (GWAS), Admixture mapping.
- Transcriptomics: Gene and microRNA sequence variation and expression analysis
- Metagenomics: Environmental genomics, Microbiome analysis.
- Statistical tools: R environment
- Operating Systems: Linux, Windows
- Programming languages: Bash, Perl, Python
- Wet lab skills: Standard molecular biology techniques, next-generation library preparation protocols (Whole-genome DNA-Seq, RAD-Seq, RNA-Seq, microRNA-Seq, Amplicon-Seq)

## Services (Symposium organizer, Guest Editor, Reviewer)

- 2020            **Member of the committee** of the German Research Foundation (DFG) for the selection of research projects.
- 2019            **Organizer of the symposium** “*Genetics and Genomics of Adaptation*”. European Society for Evolutionary Biology (ESEB) 2019 Conference, August 19-24, 2019, Turku, Finland.
- 2018            **Organizer of the symposium** “*Genomics of Adaptation*”. AsiaEvo conference, April 18-20, 2018, Sheraton Dameisha Resort, Shenzhen, China.
- 2019            **Guest Editor** of the special issue “*Evolution of Gene Regulation in Rapid Divergence*” for the peer-reviewed journal *Current Zoology*.
- 2019            **Guest Editor** of the special issue “*Genetics and Genomics of Adaptation*” for the peer-reviewed journal *Journal of Evolutionary Biology*.
- 2017            **Reviewer for the Oxford University Press book** “*Genetics: Genes, Genomes, and Evolution*”. ISBN: 9780198712558.
- 2019-2020      **Reviewer for International Research Grants:**
- *Science National Swiss Foundation (SNSF)*
  - *Austrian Agency for International Cooperation in Education and Research - (OeAD-GmbH)*
  - *German Research Foundation (DFG)*
- 2010-present    **Reviewer for peer-reviewed journals:**
- Genes, PLoS ONE, African Journal of Biotechnology, Heredity, Biological Journal of the Linnean Society, Molecular Ecology, BMC Genetics, BMC Genomics, BMC Evolutionary Biology, Aquaculture International, Journal of Experimental Zoology, Molecular Biology Reports, G3: Genes Genomes Genetics, Disease in Aquatic Organisms, International Journal of Molecular Sciences, Scientific Reports, Giga Science, International Journal of Genomics, Bioinformatics, iScience, Science Advances, Genome Biology and Evolution.*

## Invited seminars

- University of Turin, Turin, Italy, 15-10-2020 – “Overview of current research and future plans”
- Evolutionary Biology Centre (EBC), Uppsala, Sweden, 20-03-2018 – “Differential gene regulation by microRNAs in parallel adaptive radiations of cichlid fish”
- Queensland University of Technology (QUT), Australia, 11-07-2016 – “Genomics mechanisms of diversification in the Neotropical cichlid fishes”
- University of Graz, Austria, 02-03-2016 – “The role of miRNA regulation in the ecological diversification of Neotropical cichlid fish lineages”
- University of Glasgow, Scotland, UK, 13-11-2015 – “The role of miRNA regulation in the ecological diversification of cichlid fishes”
- University of Zurich, Switzerland, 23-05-2014 – “Genomic analyses of Robertsonian systems”
- University of Konstanz, Germany, 28-06-2012 – “Next-generation sequencing and applications”
- University of Konstanz, Germany, 23/11/2010 – “Differential Growth-Related Gene Expression in Abalone (*Haliotis midae*)”
- Max-Planck-Institut für Evolutionsbiologie, Plön, Germany, 21-10-2010 – “Gene flow between Robertsonian populations of the house mouse *Mus musculus domesticus* in two hybrid zones in Central Italy”

## Courses and Workshops attended

2015	Workshop “Adaptation genomics in the realm of NGS data analysis” (various teachers) – Weggis, Switzerland
2014	Workshop “Landscape genetics in transition to landscape genomics” (various teachers) – Bertinoro, Italy
2013	Workshop “Genetics and Genomics of Speciation” (FrontSpects workshop series) (various teachers) – Eawag’s Department of Aquatic Ecology, Lucern, Switzerland
2010	Workshop in “Next-generation Sequencing applications” (Illumina Research Team) – Stellenbosch University, South Africa
2009	Workshop in “Next-generation Sequencing” (Solid Research Team) – Western Cape University, Cape Town, South Africa
2007	Workshop in “Geometric Morphometrics” (Dr. D. Slice) – University of Rome “La Sapienza”, Italy
2007	Course in statistics on “Data analysis using R” (Dr. P. Colangelo) – University of Rome “La Sapienza”, Italy
2006	Course in “Scientific Writing in English for Publications” (Dr. M. Kenyon) – University of Rome “La Sapienza”, Italy
2005	Course in “Data analysis using SAS system” (Prof. M. Corti) – University of Rome “La Sapienza”, Italy
2004	Apprenticeship “Microsatellite analysis, laboratory methods in evolutionary genetics” (Dr. E. Verheyen) – Royal Belgian Museum of Natural Science, Brussels, Belgium
2003	Course in Statistics on “Multidimensional data analysis” (Prof. M. Corti) – University of Rome “La Sapienza”, Italy

## Memberships

- Society for Molecular Biology and Evolution (SMBE)
- European Society for Evolutionary Biology (ESEB)
- Italian Society for Evolutionary Biology (SIBE)

## Publications in peer-reviewed journals

Total number of publications: **47**

H-index: **23**

Total number of citations: **2051**

Data obtained on 17/11/2020 from Google Scholar database:

<https://scholar.google.com/citations?user=t-inqvcAAAAJ&hl=en>

Kautt AF, Kratochwil CF, Nater A, Machado-Schiaffino G, Olave M, Henning F, Torres-Dowdall J, Härer A, Hulsey CD, **Franchini P**, Pippel M, Myers EW, Meyer A (*In press*) Contrasting signatures of genomic divergence during sympatric speciation. *Nature*.

Fruciano C, Colangelo P, Castiglia R, **Franchini P\*** (*In press*) Does divergence from normal patterns of integration increase as chromosomal fusions increase in number? A test on a house mouse hybrid zone. *Current Zoology*.

**\*Corresponding author**

Real FM, Haas SA, **Franchini P**, *et al.* (2020) The mole genome reveals regulatory rearrangements associated with adaptive intersexuality. *Science* **370**, 208-214.

Rhie A, McCarthy SA, Fedrigo O, ..., **Franchini P** (40/121), ..., Jarvis ED (2020) Towards complete and error-free genome assemblies of all vertebrate species (2020) bioRxiv preprint doi: <https://doi.org/10.1101/2020.05.22.110833>, posted May 23, 2020. *Under revision in Nature*.

**Franchini P\***, Kautt A, Nater A, Antonini G, Castiglia R, Meyer A, Solano E (2020) Reconstructing the evolutionary history of chromosomal races on islands: a genome wide analysis of natural house mouse populations. *Molecular Biology and Evolution* **37**, 2825-2837.

**\*Corresponding author**

Frommeyer B, Fiedler AW, Oehler SR, Hanson BT, Loy A, **Franchini P**, Spitteller D, Schleheck D (2020). Environmental and intestinal phylum Firmicutes bacteria metabolize the plant sugar sulfoquinovose via a 6-deoxy-6-sulfofructose transaldolase pathway. *iScience* **23**, 101510.

Raffini F, Schneider FR, **Franchini P**, Kautt AF, Meyer A (2020) Diving into divergence: adaptive differentiation in swimming performances, physiology and gene expression between sympatric cichlid fishes. *Molecular Ecology* **29**, 1219 -1234.

Perspective on the article in the "News and Views" section of the journal (Gaither MR, Greaves S, Amirthalangam P. 2020. The physiology of rapid ecological specialization: A look at the Midas cichlids. *Molecular Ecology* **29**, 1215-1218).

- Franchini P\***, Xiong P, Fruciano C, Schneider FR, Woltering J, Hulsey CD, Meyer A (2019) MicroRNA Gene Regulation in Extremely Young and Parallel Adaptive Radiations of Crater Lake Cichlid Fish. *Molecular Biology and Evolution* **36**, 2498-2511.  
**\*Corresponding author**
- Xiong P, Schneider FR, Hulsey CD, Meyer A, **Franchini P\*** (2019) Conservation and novelty in the microRNA genomic landscape of hyperdiverse cichlid fishes. *Scientific Reports* **9**, 13848.  
**\*Corresponding author**
- Fruciano C, Meyer A, **Franchini P\*** (2019) Divergent allometric trajectories in gene expression and coexpression produce species differences in sympatrically speciating Midas cichlid fish. *Genome Biology and Evolution* **11**, 1644-1657.  
**\*Corresponding author**
- Franchini P**, Jones JC, Xiong P, Kneitz S, Gompert Z, Warren WC, Walter RB, Meyer A, Schartl M (2018) Long-term experimental hybridisation results in the evolution of a new sex chromosome in swordtail fish. *Nature Communications* **9**, 5136.
- Irisarri, I, Singh P, Koblmüller S, Torred-Dowdall J, Henning F, **Franchini P**, Fisher C, Lemmon AR, Lemmon EM, Thallinger GG, Sturmbauer C Meyer A (2018) Anchored phylogenomics uncovers deep inter-tribal hybridizations in the Lake Tanganyika cichlid radiation and highlights adaptive loci shaping species' ecology. *Nature Communications* **9**, 3159.
- Xiong P, Hulsey D, Meyer A, **Franchini P\*** (2018) Evolutionary divergence of 3'UTR in cichlid fishes. *BMC Genomics* **19**, 433.  
**\*Corresponding author**
- Burrichter A, Denger K, **Franchini P**, Huhn T, Müller N, Spiteller D, Schleheck D (2018) Anaerobic degradation of the plant sugar sulfoquinovose concomitant with H<sub>2</sub>S production: *Escherichia coli* K-12 and *Desulfovibrio* sp. strain DF1 as co-culture model. *Frontiers in Microbiology* **9**, 2792.
- Franchini P**, Irisarri I, Fudickar A, Schmidt A, Meyer A, Wikelski M, Partecke J (2017) Animal tracking meets migration genomics: transcriptomic analysis of a partially migratory bird species. *Molecular Ecology* **26**, 3204-3216.
- Franchini P**, Monne-Parera D, Kautt AF, Meyer A (2017) quaddRAD: a new high-multiplexing and PCR duplicate removal ddRAD protocol produces novel evolutionary insights in a non-radiating cichlid lineage. *Molecular Ecology* **26**, 2783-2795.
- Raffini F, Fruciano C, **Franchini P**, Meyer A (2017) Towards understanding the genetic basis of mouth asymmetry in the scale-eating cichlid *Perissodus microlepis*. *Molecular Ecology* **26**, 77-91.
- Lee HJ, Manousaki T, Kang JY, Lein E, **Franchini P**, Meyer A (2017) Lateralized feeding behavior is associated with asymmetrical neuroanatomy and lateralized gene expressions in the brain in scale-eating cichlid fish. *Genome Biology and Evolution* **9**, 3122-3136.
- Franchini P**, Xiong P, Fruciano C, Meyer A (2016) The role of microRNAs in the repeated parallel diversification of lineages of Midas cichlid fish from Nicaragua. *Genome Biology and Evolution* **8**, 1543-1555.
- Franchini P\***, Colangelo P, Meyer A, Fruciano C (2016) Chromosomal rearrangements, phenotypic variation and modularity: a case study from a contact zone between house mouse Robertsonian races in Central Italy. *Ecology and Evolution* **6**, 1353-1362.  
**\*Corresponding author**

- Fruciano C<sup>†</sup>, **Franchini P<sup>†</sup>**, Kovacova V, Elmer K, Henning F, Meyer A (2016) Genetic linkage of distinct adaptive traits in sympatrically speciating crater lake cichlid fish. *Nature Communications* **7**, 12736.  
<sup>†</sup>*These authors contributed equally to this work.*
- Fruciano C, **Franchini P**, Raffini F, Fan S, Meyer A (2016) Are sympatrically speciating Midas cichlid fish special? Patterns of morphological and genetic variation in the closely related species *Archocentrus centrarchus*. *Ecology and Evolution* **6**, 4102–4114.
- Felix A-K, **Franchini P**, Schleheck D (2015) Permanent draft genome sequence of sulfoquinovose-degrading *Pseudomonas putida* strain SQ1. *Standards in Genomic Sciences* **10**, 1.
- Kang JH, Manousaki T, **Franchini P**, Kneitz S, Scharf M, Meyer A (2015) Transcriptomics of two evolutionary novelties: how to make a sperm-transfer organ out of an anal fin and a sexually selected “sword” out of a caudal fin. *Ecology and Evolution* **5**, 848-864.
- Kavembe GD, **Franchini P**, Irisarri I, Machado-Schiaffino G, Meyer A (2015) Genomics of adaptation to multiple concurrent stresses: insights from comparative transcriptomics of a Cichlid fish from one of earth’s most extreme environments, the Hypersaline Soda Lake Magadi in Kenya, East Africa. *Journal of Molecular Evolution* **81**, 90-109.
- Modica MV, Lombardo F, **Franchini P**, Oliverio M (2015) The venomous cocktail of the vampire snail *Colubraria reticulata* (Mollusca, Gastropoda). *BMC genomics* **16**, 1.
- Franchini P<sup>†</sup>**, Fruciano C<sup>†</sup>, Frickey T, Jones JC, Meyer A (2014) The gut microbial community of Midas cichlid fish in repeatedly evolved limnetic-benthic species pairs. *PLoS One* **9**, e95027.  
<sup>†</sup>*These authors contributed equally to this work.*
- Franchini P<sup>†</sup>**, Fruciano C<sup>†</sup>, Spreitzer ML, Jones JC, Elmer KR, Henning F, Meyer A (2014) Genomic architecture of ecologically divergent body shape in a pair of sympatric crater lake cichlid fishes. *Molecular Ecology* **23**, 1828-1845.  
<sup>†</sup>*These authors contributed equally to this work.*  
Perspective on the article in the "News and Views" section of the journal (Rogers SM, Jamniczky HA. 2014. The shape of things to come in the study of the origin of species? *Molecular Ecology* **23**: 1650-1652.)
- Elmer KR, Fan S, Kusche H, Spreitzer ML, Kautt AF, **Franchini P**, Meyer A (2014) Parallel evolution of Nicaraguan crater lake cichlid fishes via non-parallel routes. *Nature Communications* **5**, 5168.
- Seehausen Ole, Butlin RK, Keller I, ..., **Franchini P** (17/33), ..., Wiedmer A (2014) Genomics and the origin of species. *Nature Reviews Genetics* **15**, 176-192.
- Henning F, Lee HJ, **Franchini P**, Meyer A (2014) Genetic mapping of horizontal stripes in Lake Victoria cichlid fishes: benefits and pitfalls of using RAD markers for dense linkage mapping. *Molecular Ecology* **23**, 5224-5240.  
Perspective on the article in the "News and Views" section of the journal (Hohenlohe PA. 2014. Ecological genomics in full colour. *Molecular Ecology* **23**, 5129-5131.)
- Gunter HM, Fan S, Xiong F, **Franchini P**, Fruciano C, Meyer A (2013) Shaping development through mechanical strain: the transcriptional basis of diet-induced phenotypic plasticity in a cichlid fish. *Molecular Ecology* **22**, 4516-4531.  
Perspective on the article in the "News and Views" section of the journal (Young RL 2013. Linking conceptual mechanisms and transcriptomic evidence of plasticity-driven diversification. *Molecular Ecology* **22**, 4363-4365.)
- Henning F, Jones JC, **Franchini P**, Meyer A (2013) Transcriptomics of morphological color change in polychromatic Midas cichlids. *BMC Genomics* **14**, 171.

- Jones JC, Fan S, **Franchini P**, Scharl M, Meyer A (2013) The evolutionary history of Xiphophorus fish and their sexually selected sword: a genome-wide approach using restriction site-associated DNA sequencing. *Molecular Ecology* **22**, 2986-3001.
- Fruciano C, **Franchini P**, Meyer A (2013) Resampling-based approaches to study variation in morphological modularity. *PLoS One* **8**, e69376.
- Manousaki T, Hull PM, Kusche H, Machado-Schiaffino G, **Franchini P**, Harrod C, Elmer KR, Meyer A (2013) Parsing parallel evolution: ecological divergence and differential gene expression in the adaptive radiations of thick-lipped Midas cichlid fishes from Nicaragua. *Molecular Ecology* **22**, 650-669.
- Solano E, **Franchini P**, Colangelo P, Capanna E, Castiglia R (2013) Multiple origins of the western European house mouse in the Aeolian Archipelago: clues from mtDNA and chromosomes. *Biological Invasions* **15**, 729-739.
- Franchini P\***, Sola L, Crosetti D, Milana V, Rossi AR (2012) Low levels of population genetic structure in the gilthead sea bream, *Sparus aurata*, along the coast of Italy. *ICES Journal of Marine Science: Journal du Conseil* **69**, 41-50.  
**\*Corresponding author**
- Milana V, **Franchini P**, Sola L, Angiulli E, Rossi AR (2012) Genetic structure in lagoons: the effects of habitat discontinuity and low dispersal ability on populations of *Atherina boyeri*. *Marine Biology* **159**, 399-411.
- Colangelo P, Aloise G, **Franchini P**, Annesi F, Amori G (2012) Mitochondrial DNA reveals hidden diversity and an ancestral lineage of the bank vole in the Italian peninsula. *Journal of Zoology* **287**, 41-52.
- Franchini P**, Van der Merwe M, Roodt-Wilding R (2011) Transcriptome characterization of the South African abalone *Haliotis midae* using sequencing-by-synthesis. *BMC Research Notes* **4**, 11.
- Van der Merwe M, **Franchini P**, Roodt-Wilding R (2011) Differential growth-related gene expression in abalone (*Haliotis midae*). *Marine Biotechnology* **13**, 1125-1139.
- Franchini P\***, Colangelo P, Solano E, Capanna E, Verheyen E, Castiglia R (2010) Reduced gene flow at pericentromeric loci in a hybrid zone involving chromosomal races of the house mouse *Mus musculus domesticus*. *Evolution* **64**, 2020-2032.  
**\*Corresponding author**
- Franchini P**, Slabbert R, Merwe MVD, Roux A, Roodt-Wilding R (2010) Karyotype and genome size estimation of *Haliotis midae*: estimators to assist future studies on the evolutionary history of Haliotidae. *Journal of Shellfish Research* **29**, 945-950.
- Colangelo P, Castiglia R, **Franchini P**, Solano E (2010) Pattern of shape variation in the eastern African gerbils of the genus *Gerbilliscus* (Rodentia, Muridae): Environmental correlations and implication for taxonomy and systematics. *Mammalian Biology-Zeitschrift für Säugetierkunde* **75**, 302-310.
- Rossi AR, Miggiano M, Crosetti D, **Franchini P**, Sola L (2009) Genetic comparison of temporal replicates of gilthead sea bream (*Sparus aurata*) from two Tyrrhenian coastal lagoons characterized by different management. *Journal of Applied Ichthyology* **25**, 603-605.
- Franchini P\***, Castiglia R, Capanna E (2008) Reproductive isolation between chromosomal races of the house mouse *Mus musculus domesticus* in a parapatric contact area revealed by an analysis of multiple unlinked loci. *Journal of evolutionary biology* **21**, 502-513.  
**\*Corresponding author**

## Publications submitted

Xiong P, Hulseley CD, Fruciano C, Wong WY, Nater A, Kautt AF, Simakov O, Pippel M, Kuraku S, Meyer A, **Franchini P\*** (*Under revision*) The Comparative Genomic Landscape of Adaptive Radiation in Crater Lake Cichlid Fishes. *Molecular Ecology*.

**\*Corresponding author**

Meyer A<sup>†</sup>, Schloissnig S<sup>†</sup>, **Franchini P<sup>†</sup>**, Kang D<sup>†</sup>, Woltering J<sup>†</sup>, *et al.* (*Under revision*) Giant Australian Lungfish genome increases the understanding of the conquest of land by vertebrates. *Nature*.

<sup>†</sup>*These authors contributed equally to this work.*