

Alfredo Rago

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DOB 04 March 1988

Citizenship Italian

Education

Dates: 24 September 2012 - 23 September 2016
Organisation: University of Birmingham, Birmingham (UK)
Course: PhD in Biosciences
Main subjects: Systems Biology, Developmental Biology, Functional Transcriptomics and Biostatistics
Qualification awarded:
PhD in Biosciences

Dates: September 2010 - September 2011
Organisation: Oxford University, Oxford (UK)
Course: M.Sc. Biology (Integrative Bioscience)
Main subjects: Evolutionary Biology, Molecular Biology, Developmental Biology, Computational Biology, Ecology, Animal Behaviour, Ornithology
Qualification awarded:
M.Sc. with Distinction

Dates: September 2007 - September 2010
Organisation: Università degli Studi di Pavia, Pavia (IT)
Course: Biotecnologie (bioengineering)
Main subjects: Molecular Biology, Genetics, Biochemistry, Microbiology, Developmental Biology, Chemistry
Qualification awarded:
Laura triennale *cum laude* (eq Bachelor's degree with distinction)

Dates: September 2002 - September 2007
Organisation: Liceo Classico Mancinelli-Falconi (Classic Lyceum)
Viale Salvo D'Acquisto 69, 00049, Velletri (Italy)
Course: Maturità Classica (eq High School Diploma) with maximum grades
Main subjects: Greek, Latin, Philosophy, Literature.

Work experience

- Dates:* October 2016 - January 2018
Project title: Regulatory constraints of developmental gene modules
Main activities: Modelling of the evolution of plasticity in regulatory networks
Employer: Uller Group, Ecology and Evolution, Lunds University, Lund (SE)
- Dates:* October 2015 - December 2015
Project title: Regulatory constraints of developmental gene modules
Main activities: Development of motif enrichment and prediction tools for *Nasonia vitripennis*
Employer: Sinah Lab, University of Illinois, Urbana-Champaign (UIUC), Urbana, IL (USA)
- Dates:* May 2011 - October 2011
Project title: Fate of microRNA genes after the teleost-specific genome duplication
Main Activities: Phylogenetic analyses, sequence alignments, synteny analyses
Employer: Holland Lab, University of Oxford, Oxford (UK)
- Dates:* February 2011 - April 2011
Project title: Determinants of Success in Amphibian Invasions
Main Activities: Ecological modelling, Statistical modelling, Climate modelling
Employer: Uller Lab, Edward Grey Institute, University of Oxford, Oxford (UK)
- Dates:* 07 October 2009 - 14 March 2010
Project title: Role of a specific microRNA in the development of heart and skeletal muscle in mice
Main Activities: Fluorescent In Situ Hybridization, Immunohistochemistry, Histology, Embryology
Employer: Dipartimento di Medicina Sperimentale, Sez. Anatomia Umana Normale, Università degli Studi di Pavia
Via Forlanini 8, 27100, Pavia (Italy)
- Dates:* November 2009
Main Activities: Culturing of human and murine Stem Cells, pluripotent cells and induced pluripotent stem cells
Employer: Stem Cell Research Institute, DIBIT-San Raffaele Scientific Institute, Stem Cell And Neurogenesis Unit, via Olgettina 58, I-20132, 20100 Milan (Italy)
- Dates:* March 2009
Main Activities: Expansion and analysis of murine embryonic stem cells
Employer: Dipartimento di Biologia Animale, Università degli Studi di Pavia, Piazza Botta, 9, 20100 Pavia (Italy)
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Personal Skills

Languages:

Italian (Native speaker), English (Native speaker level), Spanish (basic proficiency)

Molecular Laboratory skills:

Nucleic acid extraction, purification and quality control (Nanodrop and TapeStation), High Throughput Sequencing (Illumina), (q)PCR, electrophoresis, ligation, *in vitro* transcription, Fluorescent In Situ Hybridization (FISH), bacterial and cancer cell culturing, bacterial cell transformation, fluorescent and optic microscopy, *Daphnia* spp. culturing and micro-dissection.

Computing Skills:

Basic UNIX command line experience, basic supercomputing experience, expert statistical programming in R for both general and bioinformatic/biostatistics purposes, univariate statistical modeling (GLMMs), multivariate statistical modeling (PCA, MDS, PLS-DA/R), gene expression network analyses and clustering, multi-model comparison and inference, advanced plotting and big data handling. Proficient in sequence alignment (pairwise and multiple) and phylogenetic analyses. Proficient in Python 3, Anaconda and data science packages (pandas, matplotlib, scikit-learn).

General Skills:

Expert in Windows, proficient in Linux (Ubuntu distributions). Expert in Word Processing (Word, OpenOffice and L^AT_EX), proficient Office Suites, Automated reference handling (BiBTeX), image editing (GIMP, Photoshop) and vector graphics (Inkscape).

Courses attended

- NERC advanced training: Environmental Genomics
- Metabolomics Masterclass at NBAF Birmingham

Websites

- <https://uk.linkedin.com/pub/alfredo-rago/43/701/959>
- https://www.researchgate.net/profile/Alfredo_Rago