

PERSONAL INFORMATION

Armando Magrelli



PERSONAL STATEMENT

Senior Researcher on Molecular Biology and Bioinformatic, Rare diseases, Rna Biology.

WORK EXPERIENCE

01/03/2013–Present

Member of Scientific Advice Working Party

European Medicines Agency, London (United Kingdom)

The Scientific Advice Working Party (SAWP) is a standing working party with the sole remit of providing scientific advice and protocol assistance. It was established by the Committee for Medicinal Products for Human Use (CHMP).

For human medicines, scientific advice and protocol assistance are given by the Committee for Medicinal Products for Human Use (CHMP) on the recommendation of the Scientific Advice Working Party (SAWP).

The SAWP coordinates the provision of scientific advice and protocol assistance. It brings an integrated view forward to the CHMP and the COMP on:

- quality relating to the development of medicinal products;
- non-clinical and clinical safety and efficacy relating to the development of medicinal products;
- the significant benefit of orphan medicinal products.

01/05/2012

Member of Committee Orphan Medicinal ProductsEuropean Medicines Agency
7 Westferry Circus Canary Wharf, E14 4HB London (England)

Examine application for the designation of a medicinal product as an orphan medicinal product which is submitted to it in accordance with the Regulation.

The following represent the priority tasks of the Committee:

Designation Protocol Assistance Marketing Authorisation (Review of Criteria for Maintenance of Orphan Status i.e. prevalence, seriousness, significant benefit when applicable).

Business or sector Regulatory Affairs

01/07/2008

ResearcherIstituto Superiore di Sanità
viale Regina Elena 299, 00161 Rome (Italy)

Studying the role of microRNA in rare diseases; Rare diseases Epidemiology; Hepatoblastoma; Multiple Exostosis; Hailey-Hailey; Rare Diseases and Oxidative stress; Bioinformatics;

Business or sector Public Health

01/01/2006–30/06/2008

Senior consultant in bioinformaticsRome Oncogenomic Center -Istituti Fisioterapici Ospitalieri Centro Ricerca Sperimentale Istituto Regina Elena Rome
Via Elio Chianesi 53, 00100 Rome (Italy)

Linking transcriptome to proteome: functional oncogenomics for diagnosis and treatment of human

cancers. Develop new bioinformatic approaches in microRNAs predictions and data analysis; we developed a software freely available to the scientific community (<http://www.macinolab.org/Genemir.htm>), able to merge different sources on microRNAs. We also applied this tool in our experimental approaches on CLL and other pathologies (hepatoblastomas etc.).

Business or sector Research Institution

- 01/01/2005–01/01/2006 **Senior Consultant in Bioinformatics and Data Analysis**
 University of Rome La Sapienza
 viale Regina Elena 324, 00161 Rome (Italy)
 New Bioinformatic approach to study microRNAs and their targets; System Biology of high throughput data from microRNA;
 Business or sector Research
- 01/04/2004–31/12/2007 **Computer systems analyst**
 Con Soluzioni Con Srl
 Via Boezio 92, 00100 Rome (Italy)
 Main activities were on -System Administration on Windows, Macintosh and Unix environment. -Internet environment. -HTML Web Browser scripts. -LAN and WiFi networks planning and management. -Web design and web publishing. -Web Administration. -Sql Server management. -Microsoft Transact Sql 2003. -Visual Basic. -Microsoft Visual Studio Net. -Software Packages for Web publishing and editing (Macromedia, PHP, Java). -Perl, BioPerl, Perl DBI.
 Business or sector Information and communication
- 01/04/1999–01/04/2004 **Researcher**
 National Council of Research
 Via Ramarini 32, 00015 Monterotondo (Italy)
 The creation of an animal model, able to show the existence of the "RNA Interference" phenomena in higher organisms: in other words the presence of a post-transcriptional mechanism that can abolish gene expression of every mRNA, leaving intact the genome it derives from. Such project has been carried on in collaboration with Prof. Klaus Rajewsky, Head of EMBL Mouse Program, obtaining two transgenic mouse lines to be used as an experimental model. -The study of "High Throughput Screening" techniques and setup of a specific lab for "genome wide analysis". To this purpose I attended an International post lauream course held by EMBL at Heidelberg (Germany), focused on microarrays and high throughput screening techniques. -The in vivo and in vitro characterization of a gene involved in the Juvenile Parkinson, with the relative production of a specific animal model for the study of this pathology
 Business or sector Research
- 01/06/1996–31/03/1999 **Senior Researcher**
 Idi Farmaceutici Spa
 Via dei Castelli Romani, 83/85, 00040 Pomezia (Italy)
 I have been put in charge of the setup and startup of the Molecular Biology Lab. Then, since the experimental model used in the Lab was made of primary cultures of human keratinocytes able to produce functional skin, one of the main issues, and the focus of my work, was the identification of molecular

markers for epidermal stem cells, with the aim to make more effective the in vitro cell culture, for a subsequent transplant on patients with different pathologies such as bad burnt. Furthermore, as human keratinocytes represent a perfect target for ex-vivo gene therapy, I was involved in a project on the gene transduction in cells derived from patient suffering for epidermolysis bollosa.

Business or sector Pharmaceutical Research on Dermatology

01/10/1993–01/06/1996 **Post Doc Scientist**

Max-Planck-Institute for Plant Breeding Research
Carl-von-Linné-Weg 10, 50829 Cologne (Germany)

Involved in a research project on generation of plants with dwarf phenotype following the infection with *Agrobacterium rhizogenes*. I achieved knowledge about plants genetic and molecular biology applied to transgenesis and chimerism. In the same period I took the chance to specialize, working at the local Data Elaboration Office, on the management and maintenance of UNIX based networks

Business or sector Research on Plant

21/10/1992–01/10/1993 **Professional Consultant**

University of Rome La sapienza
Viale Regina Elena 324, 00161 Roma (Italy)

Involved in the National Research Program on Advanced Biotechnologies.

Regarding signal trasduction of blue light in fungi.

Business or sector Research on molecular Biology

EDUCATION AND TRAINING

23/02/2010–23/02/2010 **Invited Speaker**

Istituto Superiore di Sanità
Viale Regina Elena 299, 00161 Roma (Italy)

International Congress RARE DISEASES AND ORPHAN DRUGS

09/10/2009–09/10/2009 **Participant**

Istituto Superiore di Sanità
Viale Regina Elena 299, 00161 Rome (Italy)

Congresso Network Italiano Promozione Acido Folico per la Prevenzione Primaria di Difetti Congeniti

23/02/2009–25/02/2009 **Participant**

Istituto Superiore di Sanità
Viale Regina Elena 299, 00161 Rome (Italy)

5th International Conference on Rare Diseases and Orphan Drugs

23/07/2008–25/11/2008 **Participant**

Società Italiana di Genetica Umana
Largo Francesco Vito 1., 00168 Rome (Italy)

XI Congresso Nazionale Società di Genetica Umana 2008 "microRNA and rare tumors: the hepatoblastoma"

29/10/2008–31/10/2008 **Participant**

Istituto Superiore di Sanità

Viale Regina Elena 299, 00161 Rome (Italy)

Workshop. Projects on rare diseases funded within the bilateral agreement Italy and USA on joint research and development of public health actions

- 01/10/2008–03/10/2008 **Invited Speaker**
Istituto Superiore di Sanità
Viale Regina Elena 299, 00161 Rome (Italy)
International Meeting Needs and Challenges in Translational Medicine:
filling the gap between basic research and clinical applications
- 01/12/2005–01/07/2008 **training in biotechnological Patents**
Studio Ferrario
Via Collina 36, 00187 Rome (Italy)
training in biotechnological Patents.
Analysis and draft of Italian patent in biotechnological application and their extension at european and US level, technical analysis and responses to official patent office reviewers.
- 05/11/2006–12/11/2006 **Bioinformatic Instructor**
Rome Oncogenomic Center
Via delle Messi D'oro 156, 00158 Rome (Italy)
Bioinformatic analysis of ChIP on chip data
- 17/10/2005–21/10/2005 **Programming in Perl**
CINECA
via Magnanelli 6/3, 40033 Casalecchio di Reno (Italy)
Perl For Biologist
- 15/07/2005–15/08/2005 **Visiting Scientist**
New York University
100 Washington Square East, 10003-6688 New York (United States)
Bioinformatic training on microRna algorithms, and High Throughput data analysis. Center for Genomics & Systems Biology NYU
- 04/03/2005–04/03/2005 **Invited Speaker**
Centro Ricerca Sperimentale, Istituto Regina Elena
Via delle messi d'oro 156, 00158 Rome (Italy)
Workshop Understanding cancer by high throughput biology Microarray e chip on chip
- 15/03/2004–30/04/2004 **Certificate of attendance**
Con Soluzioni Con Srl
Via Boezio 92, 00100 Rome (Italy)
Programming in C language
- 09/02/2004–13/03/2004 **Certificate of attendance**
Con Soluzioni Con Srl
Via Boezio 92, 00100 Rome (Italy)
Web publishing with Dreamweaver

- 16/06/2003–21/06/2003 **Certificate of attendance**
 Con Soluzioni Con Srl
 Via Boezio 92, 00100 Rome (Italy)
 Data structure and algorithms
- 09/06/2003–14/06/2003 **Certificate of attendance**
 Con Soluzioni Con Srl
 Via Boezio 92, 00100 Rome (Italy)
 Theory of relational databases
- 01/04/2001–01/05/2001 **Visiting Scientist**
 European Molecular Biology Laboratory
 Meyerhofstraße 1, 69117 Heidelberg (Germany)
 Training on bioinformatics and High Throughput technique for molecular biologist.
- 29/11/2000–10/12/2000 **Certificate of attendance**
 European Molecular Biology Laboratory
 Meyerhofstraße 1, 69117 Heidelberg (Germany)
 Genome Analysis by High Throughput Technique.
- 12/06/2000–12/06/2000 **First Certificate in English** Certificate grade C
 University of Cambridge
 International examination for the First Certificate in English
- 12/04/1999–15/04/1999 **Certificate of attendance**
 International Centre for Genetic Engineering and Biotechnology
 Science Park Padriciano 99, 34149 Trieste (Italy)
 Rna structure and Function- 19 hours of lectures
- 01/12/1989–20/10/1992 **Graduated M.Sc. in Biology** 110/100 summa cum laude
 University of Rome La Sapienza
 P.le Aldo Moro 5, 00185 Rome (Italy)
 University course on Biology

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B1	B2	B1
Spanish	A2	A1	A1	A1	A1
French	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills	<p>Molecular Biology: DNA Purification Techniques, DNA Transformation/Library Preparation, Southern/Northern Blotting, DNA Sequencing, PCR and related methods, RNA handling, Proteins handling.</p> <p>Cellular Biology: Primary cell culture (human, plant, mouse); methods of detection and analysis. Routine Culturing of ES Cells, Isolation of primary mouse embryo fibroblasts, mitomycin C treatment of PMEFs, gamma irradiation of PMEF'S, PMEF feeder layer concentration, electroporation of ES cells and isolation of H/R clones, virus infection of fibroblasts, DNA transfection of eukaryotic cells.</p> <p>Immunology: Mono and Polyclonal Antibody, Immunocytochemistry, Immunofluorescence, Confocal Microscopy, Immunohistochemistry, Mouse and human analysis by FACS.</p> <p>Mouse Biology: DNA Purification for Microinjection, Preparation of DNA from Tail</p> <p>Biopsies, Robotic DNA Preparation, PCR Analysis of Tail DNA, Transgene Screening, Transgene Expression, Identification of Transgenic Founders, Southern Analysis, Transgenic Analysis.</p> <p>Bio-informatics: Web Basics; Nucleotide Sequence Databases; Protein Sequence Databases; Protein Classification Databases; Molecular Structure Databases; Gene Function Databases: Enzymes, Interactions, Expression and Pathways; Genomic Centers; Genomic Tools; Pattern and Domain Databases; Genome and Database Resources, Microarray Resources and Databases.</p>
Digital competence	<p>Macintosh and IBM OS. -Unix Enviroment. -Windows Small business Server. -Microsoft exchange Server. -Microsoft Office package (Word, Excel, Access, PowerPoint, FrontPage, Publisher,Visio). -LIMS for clinical chemistry laboratory. -Specialized software for data acquisition, processing and post processing and microarray data analysis.</p> <p>-Software for molecular biology (Databases, Sequence Analysis, Medline, etc.).</p> <p>-Software for graphics (Photoshop, Adobe Illustrator, Canvas). -System Administration on Windows, Macintosh and Unix environment. -Internet environment. -HTML Web Browser scripts. -LAN and WiFi networks planning and management. -Web design and web publishing. -Web Administration. -Sql Server management. -Microsoft Transact Sql 2003. -Visual Basic. -Microsoft Visual Studio Net. -Software Packages for Web publishing and editing (Macromedia, PHP, Java).</p> <p>Perl, BioPerl, Perl DBI.</p>
Driving licence	A, B

ADDITIONAL INFORMATION

Publications on international peer reviewed journals

- 1) A. Magrelli, K. Langenkemper, K. Dehio, J. Schell and A. Spena. "Splicing of rol A transcript of *Agrobacterium rhizogenes* in *Arabidopsis*;" (1994) *Science*, 266, 1986-1988. IF 31.37
- 2) P. Ballario, P. Vittorioso, A. Magrelli, C. Talora, A. Cabibbo and G. Macino. "White collar-1, a central regulator of blue light responses in *Neurospora*, is a zinc finger protein." (1996) *EMBO-Journal*. 15(7), 1650-1657. IF 10.12
- 3) D. Marazziti, E. Golini, A. Magrelli, R. Matteoni and G.P. Tocchini-Valentini. "Genomic Analysis of GPR37 and Related Orphan G-Protein Coupled Receptor Genes Highly Expressed in the Mammalian Brain". (2001) *Current Genomics*, 2 (3), 253-260 . IF 2.48
- 4) Daniela Marazziti, Elisabetta Golini, Silvia Mandillo, Armando Magrelli, Walter Witke, Rafaele Matteoni, and Glauco P. Tocchini-Valentini Altered dopamine signaling and MPTP resistance in mice lacking the Parkinson's disease-associated GPR37/parkin-associated endothelin-like receptor *PNAS* 2004 101: 10189-10194. IF 9.77

- 5) Fulci V, Chiaretti S, Goldoni M, Azzalin G, Carucci N, Tavolaro S, Castellano L, Magrelli A, Citarella F, Messina M, Maggio R, Peragine N, Santangelo S, Mauro FR, Landgraf P, Tuschi T, Weir DB, Chien M, Russo JJ, Ju J, Sheridan R, Sander C, Zavolan M, Guarini A, Foa R, Macino G. Quantitative technologies establish a novel microRNA profile of chronic lymphocytic leukemia. *Blood*. 2007 Feb 27; IF 10.55
- 6) Armando Magrelli, Gianluca Azzalin, Marco Salvatore, Mara Viganotti, Fabrizio Tosto, Teresa Colombo, Rita Devito, Alessandra Di Masi, Antonio Antocchia, Stefano Lorenzetti, Francesca Maranghi, Alberto Mantovani, Caterina Tanzarella, Giuseppe Macino, Domenico Taruscio. Altered microRNA Expression Patterns in Hepatoblastoma Patients. *Transl Oncol* 2009 Aug 18;2(3):157-63. IF 3.39
- 7) Elisabetta Caprini, Cristina Cristofolini, Diego Arcelli, Paolo Fadda, Mauro Helmer Citterich, Francesca Sampogna, Armando Magrelli, Federica Censi, Paola Torrerri, Marina Frontani, Enrico Scala, Maria Cristina Picchio, Paola Temperani, Alessandro Monopoli, Giuseppe Alfonso Lombardo, Domenico Taruscio, Maria Grazia Narducci, Giandomenico Russo (2009) Identification of key regions and genes important in the pathogenesis of Sezary syndrome by combining genomic and expression microarrays. *Cancer Res*. 2009 Nov 1;69(21):8438-46. Epub 2009 Oct 20. IF 8.23
- 8) Cialfi, Oliviero, Ceccarelli, Marchese, Barbieri, Biolcati, Uccelletti, Palleschi, Barboni, De Bernardo, Grammatico, Magrelli, Salvatore, Taruscio, Frati, Gulino, Screpanti, Talora Complex multipathways alterations and oxidative stress are associated with Hailey-Hailey disease. *Br J Dermatol*. 2010 Mar;162(3):518-26. Epub 2009 Nov 9 IF 4.35
- 9) Maria Grazia Di Certo, Nicoletta Corbi, Georgios Strimpakos, Annalisa Onori, Siro Luvisetto, Cinzia Severini, Angelo Guglielmotti, Enrico Maria Batassa, Cinzia Pisani, Aristide Floridi, Barbara Benassi, Maurizio Fanciulli, Armando Magrelli, Elisabetta Mattei, Claudio Passananti. The artificial gene Jazz, a transcriptional regulator of Utrophin, corrects the dystrophic pathology in mdx mice. *Hum Mol Genet*. 2010 Mar 1;19(5):752-60. Epub 2009 Dec 4 IF 8.05
- 10) Maranghi F, Lorenzetti S, Tassinari R, Moracci G, Tassinari V, Marcocchia D, Di Virgilio A, Eusepi A, Romeo A, Magrelli A, Salvatore M, Tosto F, Viganotti M, Antocchia A, Di Masi A, Azzalin G, Tanzarella C, Macino G, Taruscio D, Mantovani A. In utero exposure to di-(2-ethylhexyl) phthalate affects liver morphology and metabolism in post-natal CD-1 mice. *Reprod Toxicol*. 2010 Jul;29(4):427-32. Epub 2010 Mar 20. IF 3.13
- 11) Zuntini M, Salvatore M, Pedrini E, Parra A, Sgariglia F, Magrelli A, Taruscio D, Sangiorgi L. MicroRNA profiling of multiple osteochondromas: identification of disease-specific and normal cartilage signatures. *Clin Genet*. 2010 Jun 23. [Epub ahead of print] IF 2.94
- 12) A. Di Masi, M. Viganotti, A. Antocchia, A. Magrelli, M. Salvatore, et al. Characterization of HuH6, Hep3B, HepG2 and HLE liver cancer cell lines by beta-catenin pathway, microRNA expression and protein expression profile. *Cell Mol Biol*, 2010 10:1299-317 IF 0.833
- 13) Salvatore M, Magrelli A, Taruscio D. The Role of microRNAs in the Biology of Rare Diseases. *Int J Mol Sci*. 2011;12(10):6733-42. Epub 2011 Oct 11. IF 0.94
- 14) Manca S, Magrelli A, Cialfi S, Lefort K, Ambra R, Alimandi M, Biolcati G, Uccelletti D, Palleschi C, Screpanti I, Candi E, Melino G, Salvatore M, Taruscio D, Talora C. Oxidative stress activation of miR-125b is part of the molecular switch for Hailey-Hailey disease manifestation. *Exp Dermatol*. 2011 Nov;20(11):932-7. Epub 2011 Sep 14. IF 4.15
- 15) Domenico Taruscio, Marco Salvatore, Armando Magrelli, Rosella Tomanin Predictive medicine and biomarkers: the case of rare diseases *Personalized Medicine*, March 2012, Vol. 9, No. 2, Pages 143-146. I.F. 0.9
- 16) D Taruscio, L Agresta, A Amato, G Bernardo, L Bernardo, F Braguti, et al.
The Italian National Centre for Rare Diseases: where research and public health translate into action. *Blood transfusion* 12 (Suppl 3), s591-605
- 17) Valeria De Arcangelis, Georgios Strimpakos, Francesca Gabanella, Nicoletta Corbi, Siro Luvisetto, Armando Magrelli et al. *Journal of cellular physiology*, 2015 DOI: 10.1002/jcp.25075 I.F. 3.45