

**EUROPEAN  
CURRICULUM VITAE  
FORMAT**



**PERSONAL INFORMATION**

Name **ALA UGO**  
Work Address [REDACTED]  
Work Telephone [REDACTED]  
Fax [REDACTED]  
E-mail [REDACTED]  
Nationality [REDACTED]  
Year of birth [REDACTED]

**WORK EXPERIENCE**

2015-2016	Professor of "Abilita' informatiche" (Informatics) course at the S.U.I.S.M. - Scuola Universitaria Interfacoltà in Scienze Motorie di Torino (Interfaculty University School for the Motoric Sciences in Torino)
2015-2016	Professor of "Informatica" (Informatics) in the "C.I. FISICA E INFORMATICA" course at the Scuola Universitaria Interfacolta' per le Biotecnologie di Torino (Interfaculty University School for the Biotechnology in Torino)
2014-2015	Professor of "Abilita' informatiche" (Informatics) course at the S.U.I.S.M. - Scuola Universitaria Interfacoltà in Scienze Motorie di Torino (Interfaculty University School for the Motoric Sciences in Torino)
2014-2015	Professor of "Informatica" (Informatics) in the "C.I. FISICA E INFORMATICA" course at the Scuola Universitaria Interfacolta' per le Biotecnologie di Torino (Interfaculty University School for the Biotechnology in Torino)
2013-2014	Professor of "Abilita' informatiche" (Informatics) course at the S.U.I.S.M. - Scuola Universitaria Interfacoltà in Scienze Motorie di Torino (Interfaculty University School for the Motoric Sciences in Torino)
2013-2014	Professor of "Informatica" (Informatics) in the "C.I. FISICA E INFORMATICA" course at the Scuola Universitaria Interfacolta' per le Biotecnologie di Torino (Interfaculty University School for the Biotechnology in Torino)
2013	Teacher of "Statistica Applicata e Bioinformatica" (Applied statistics and Bioinformatics) – Corso IFTS - IVREA: Istituto di Istruzione Superiore "C. Olivetti"
2012-2013	Professor of "Abilita' informatiche" (Informatics) course at the S.U.I.S.M. - Scuola Universitaria Interfacoltà in Scienze Motorie di Torino (Interfaculty University School for the Motoric Sciences in Torino)
2012-2013	Teacher of "FISICA" (Physics) in the "Corso di Riallineamento Fisica" course at the Corso di Laurea Magistrale in Medicina e Chirurgia della Facoltà San Luigi Gonzaga - Orbassano (TO) (Master Degree in Medicine and Surgery at San Luigi Gonzaga Faculty)
2012-2013	Professor of "Informatica" (Informatics) in the "C.I. FISICA E INFORMATICA" course at the Scuola Universitaria Interfacolta' per le Biotecnologie di Torino (Interfaculty University School for the Biotechnology in Torino)
2011	Teacher of "Statistica Applicata e Bioinformatica" (Applied statistics and Bioinformatics) – Corso IFTS - TORINO: ITIS AVOGADRO
2010-2011	Teacher of "Biostatistica con Applicazioni Informatiche" (Biostatistics with Informatics applications) at the Scuola Universitaria Interfacolta' per le Biotecnologie di Torino (Interfaculty University School for the Biotechnology in Torino)
2009	Teacher of "Statistica Applicata e Bioinformatica" (Applied statistics and Bioinformatics) – Corso IFTS - BUSSOLENO: LICEO "NORBERTO ROSA"

2006-2011	Teacher and tutor for the practical course of “ <i>Statistica per l’analisi dei dati di interesse biologico</i> ” (Statistics for biological data analysis) in the context of the Scuola di Bioinformatica of the Fondazione per le Biotecnologie ( <a href="http://www.fobiotech.org/">http://www.fobiotech.org/</a> ) <ul style="list-style-type: none"> <li>• Scuola di Bioinformatica (Fondazione per le Biotecnologie) Torino</li> <li>• CRO (Centro di Riferimento Oncologico) di Aviano [2007]</li> <li>• CNR di Bari [2010]</li> </ul>
2006-2010	Tutor for the practical course of “ <i>Abilita’ informatiche</i> ” (Informatics ability) in the context of the Corso di Laurea in Biotecnologie at the Universita’ degli Studi di Torino; “ <i>Cultore della materia</i> ” from 2009
2006-2010	Tutor for the practical course of “ <i>Biologia Molecolare e Computazionale</i> ” (Computational and Molecular Biology) in the context of the Corso di Laurea in Biotecnologie Molecolari at the Universita’ degli Studi di Torino; “ <i>Cultore della materia</i> ” from 2010
2006-2007	Teacher at the Bioinformatics Master organized by the <i>Fondazione per le Biotecnologie</i> in collaboration with the Universita’ degli Studi di Torino. Topics: Perl programming, gene co-expression and phylogenetic analysis
1999-2006	Teacher of Mathematics and Physics in intermediate schools

## EDUCATION AND TRAINING

2012	<b>Master’s degree in Molecular Biotechnology</b> University of Torino
Name and type of organisation providing education and training	
Status	Currently suspended (congelato) because of formal incompatibility with Assegno di Ricerca
2009	<b>Ph.D. in Molecular Biotechnology/Bioinformatics</b> Molecular Biotechnology Center and the Department of Genetics, Biology and Biochemistry of the University of Torino (XXI cycle)
Name and type of organisation providing education and training	
Thesis title	Conserved gene co-expression approaches to discover functional relationships among mammalian genes
Supervisor	Prof. Ferdinando Di Cunto
2005	<b>Postgraduate Master in Bioinformatics</b> University of Torino and Fondazione per le Biotecnologie, Torino, Italy
Name and type of organisation providing education and training	
Thesis title	Implementazione di un sistema per analisi di coespressione uomo-topo basato su dati Affymetrix” (“Implementation of a tool for human-mouse co-expression analysis based on Affymetrix data”)
Supervisor	Prof. Ferdinando di Cunto
Final grade	110 out of 110
2004	<b>Master’s degree in Theoretical Physics</b> University of Torino
Name and type of organisation providing education and training	
Thesis title	Studio numerico della funzione di Wigner e applicazioni” (“Numerical study of Wigner function and applications”)
Supervisor	Dr Marco Genovese
Final grade	108 out of 110

## **POSTDOCTORAL TRAINING**

4/2016 – 3/2018	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship – Assegno di ricerca - Studi computazionali della regolazione post-trascrizionale mediata da microRNA (to start) Computational Biology Unit @ Molecular Biotechnology Center (MBC) - Dept. of Molecular Biotechnology and Health Sciences Paolo Provero, PhD
1/2016 – 3/2016	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship – Borsa di studio - Ricerca di contesti molecolari permissivi per la regolazione genica tramite competing endogenous RNAs Computational Biology Unit @ Molecular Biotechnology Center (MBC) - Dept. of Molecular Biotechnology and Health Sciences Paolo Provero, PhD
12/2014 – 12/2015	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship – Assegno di ricerca - EPIGEN - Sviluppo di approcci computazionali per l'integrazione di dati epigenomici in Drosophila melanogaster Computational Biology Unit @ Molecular Biotechnology Center (MBC) - Dept. of Molecular Biotechnology and Health Sciences Ferdinando Di Cunto, PhD and Paolo Provero, PhD
12/2013 – 12/2014	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship – Assegno di ricerca - EPIGEN - Sviluppo di approcci computazionali per l'integrazione di dati epigenomici in Drosophila melanogaster Computational Biology Unit @ Molecular Biotechnology Center (MBC) - Dept. of Molecular Biotechnology and Health Sciences Ferdinando Di Cunto, PhD and Paolo Provero, PhD
05/2012 - 11/2013	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship Computational Biology Unit @ Molecular Biotechnology Center (MBC) - Dept. of Molecular Biotechnology and Health Sciences Paolo Provero, PhD and Ferdinando Di Cunto, PhD
05/2011 - 04/2012	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship BIDMC, Harvard Medical School and Molecular Biotechnology Center and the Department of Genetics, Biology and Biochemistry of the University of Torino PierPaolo Pandolfi, MD PhD and Paolo Provero, PhD
01/2010 - 04/2011	Name and type of organisation providing education and training Supervisor	Postdoctoral Fellowship Molecular Biotechnology Center and the Department of Genetics, Biology and Biochemistry of the University of Torino Paolo Provero, PhD

## BIOINFORMATICS SERVICE

09/2015 – current

Member of **GenoBiToUS** (<http://genobitous.unito.it/>): a Genomics and Bioinformatics Torino University Service

## RESEARCH OUTPUTS

Citations: 1182 total citations by 913 documents

h-index: 12 (from <http://www.scopus.com>)

*Impact factors obtained from: InCites Journal Citation Reports (Thompson Reuters), Selected JCR Year: 2014 Selected Editions: SCIE,SSCI*

*Number of Citations* obtained from Scopus: <http://www.scopus.com>  
 $N^1$  = Number of Citations from PubMed Central

Scientific Publications (*first co-author)	Impact Factor	N_citations	Title/Journal
	9.322	-	<p>1. Morena D, Maestro N, Bersani F, Forni PE, Lingua MF, Foglizzo V, Šćepanović P, Miretti S, Morotti A, Shern JF, Khan J, Ala U, Provero P, Sala V, Crepaldi T, Gasparini P, Casanova M, Ferrari A, Sozzi G, Chiarle R, Ponzetto C, Taulli R. <i>Hepatocyte Growth Factor-mediated satellite cells niche perturbation promotes development of distinct sarcoma subtypes</i> accepted for publication in eLife (March 2016)</p>
	11.470	-	<p>2. Fasanelli F, Baglietto L, Ponzi E, Guida F, Campanella G, Johansson M, Grankvist K, Johansson M, Assumma MB, Naccarati A, Chadeau-Hyam M, Ala U, Faltus C, Kaaks R, Risch A, De Stavola B, Hodge A, Giles GG, Southee MC, Relton CL, Haycock PC, Lund E, Polidoro S, Sandanger TM, Severi G, Vineis P. "Hypomethylation of smoking-related genes is associated with future lung cancer in four prospective cohorts." <i>Nat Commun.</i> 2015 Dec 15;6:10192. doi: 10.1038/ncomms10192. PMID:26667048</p>
	19.679	-	<p>3. Procopio MG, Laszlo C, Al Labban D, Kim DE, Bordignon P, Jo SH, Goruppi S, Menietti E, Ostano P, Ala U, Provero P, Hoetzenegger W, Neel V, Kilarski WW, Swartz MA, Briskin C, Lefort K, Dotto GP. "Combined CSL and p53 downregulation promotes cancer-associated fibroblast activation." <i>Nat Cell Biol.</i> 2015 Sep;17(9):1193-204. doi: 10.1038/ncb3228. Epub 2015 Aug 24. Erratum in: <i>Nat Cell Biol.</i> 2015 Oct;17(10):1370. PMID: 26302407</p>
	32.242	5 <sup>1</sup>	<p>4. Karreth FA, Reschke M, Ruocco A, Ng C, Chapuy B, Léopold V, Sjoberg M, Keane TM, Verma A, Ala U, Tay Y, Wu D, Seitzer N, Velasco-Herrera MD, Bothmer A, Fung J, Langellotto F, Rodig SJ, Elemento O, Shipp MA, Adams DJ, Chiarle R, Pandolfi PP. "The BRAF Pseudogene Functions as a Competitive Endogenous RNA and Induces Lymphoma In Vivo" <i>Cell.</i> 2015 Apr 1. pii: S0092-8674(15)00244-5. doi: 10.1016/j.cell.2015.02.043. [Epub ahead of print]</p>
	19.453	2 <sup>1</sup>	<p>5. Lunardi A, Varmeh S, Chen M, Taulli R, Guarnerio J, Ala U, Seitzer N, Ishikawa T, Carver BS, Hobbs RM, Quarantotti V, Ng C, Berger AH, Nardella C, Polisenzo L, Montironi R, Castillo-Martin M, Cordon-Cardo C, Signoretti S, Pandolfi PP. "Suppression of CHK1 by ETS family members promotes DNA damage response by-pass and tumorigenesis" <i>Cancer Discov.</i> 2015 Feb 4. pii: CD-13-1050</p>
	4.565	-	<p>6. Coda DM, Lingua MF, Morena D, Foglizzo V, Bersani F, Ala U, Ponzetto C, Taulli R. "Smyd1 And G6Pd Modulation Are Critical Events For Mir-206-Mediated Differentiation Of Rhabdomyosarcoma" <i>Cell Cycle.</i> 2015 Feb 2:0</p>

5.365	8	7. Jlenia Guarnerio, Nadia Coltell, Ugo Ala, Giovanni Tonon, Pier Paolo Pandolfi and Rosa Bernardi. "Bone Marrow Endosteal Mesenchymal Progenitors Depend on HIF Factors for Maintenance and Regulation of Hematopoiesis" Stem Cell Reports j Vol. 2 j 1-16 j June 3, 2014
-	3	8. Karreth FA, Ala U, Provero P, Pandolfi PP. "Pseudogenes as Competitive Endogenous RNAs: Target Prediction and Validation." Methods Mol Biol. 2014;1167:199-212. doi: 10.1007/978-1-4939-0835-6_13
8.358	12	9. Reschke M, Clohessy JG, Seitzer N, Goldstein DP, Breitkopf SB, Schmolze DB, Ala U, Asara JM, Beck AH, Pandolfi PP. „Characterization and Analysis of the Composition and Dynamics of the Mammalian Riboproteome.“ Cell Rep. 2013 Sep 17. pii: S2211-1247(13)00438-5. doi: 10.1016/j.celrep.2013.08.014.
2.576	3	10. Molineris I, Ala U, Provero P, Di Cunto F. „Drug repositioning for orphan genetic diseases through Conserved Anticoexpressed Gene Clusters (CAGCs).“ BMC Bioinformatics 2013 Oct 2;14:288. doi: 10.1186/1471-2105-14-288
22.268	86	11. Song SJ, Ito K, Ala U, Kats L, Webster K, Sun SM, Jongen-Lavrencic M, Manova-Todorova K, Teruya-Feldstein J, Avigan DE, Delwel R, Pandolfi PP. "The Oncogenic MicroRNA miR-22 Targets the TET2 Tumor Suppressor to Promote Hematopoietic Stem Cell Self-Renewal and Transformation." Cell Stem Cell. 2013 Jul 3;13(1):87-101. doi: 10.1016/j.stem.2013.06.003.
32.242	108	12. Song SJ, Poliseno L, Song MS, Ala U, Webster K, Ng C, Beringer G, Brikbak NJ, Yuan X, Cantley LC, Richardson AL, Pandolfi PP. "MicroRNA-Antagonism Regulates Breast Cancer Stemness and Metastasis via TET-Family-Dependent Chromatin Remodeling." Cell. 2013 Jul 2. pii: S0092-8674(13)00765-4. doi: 10.1016/j.cell.2013.06.026.
8.459	5	13. Taulli R, Foglizzo V, Morena D, Coda DM, Ala U, Bersani F, Maestro N, Ponzetto C. "Failure to downregulate the BAF53a subunit of the SWI/SNF chromatin remodeling complex contributes to the differentiation block in rhabdomyosarcoma." Oncogene. 2013 Jun 3. doi: 10.1038/onc.2013.188. [Epub ahead of print]
29.352	49	14. Lunardi A, Ala U, Epping MT, Salmena L, Clohessy JG, Webster KA, Wang G, Mazzucchelli R, Bianconi M, Stack EC, Lis R, Patnaik A, Cantley LC, Bubley G, Cordon-Cardo C, Gerald WL, Montironi R, Signoretti S, Loda M, Nardella C, Pandolfi PP. "A co-clinical approach identifies mechanisms and potential therapies for androgen deprivation resistance in prostate cancer." Nat Genet. 2013 Jun 2;45(7):747-55. doi: 10.1038/ng.2650.
29.352	29	15. Wang G, Lunardi A, Zhang J, Chen Z, Ala U, Webster KA, Tay Y, Gonzalez-Billalabentia E, Egia A, Shaffer DR, Carver B, Liu XS, Taulli R, Kuo WP, Nardella C, Signoretti S, Cordon-Cardo C, Gerald WL, Pandolfi PP. "Zbtb7a suppresses prostate cancer through repression of a Sox9-dependent pathway for cellular senescence bypass and tumor invasion." Nat Genet. 2013 Jun 2;45(7):739-746. doi: 10.1038/ng.2654. Epub 2013 Jun 2.
9.674	62	16. Ala U(*), Karreth FA, Bosia C, Pagnani A, Taulli R, Léopold V, Tay Y, Provero P, Zecchina R, Pandolfi PP. „Integrated transcriptional and competitive endogenous RNA networks are cross-regulated in permissive molecular environments.“ Proc Natl Acad Sci U S A. 2013 Apr 30;110(18):7154-9 doi: 10.1073/pnas.1222509110

0.678	10	17. Solej M, Martino V, Mao P, Enrico S, Rosa R, Fornari M, Destefano I, Ferrarese AG, Gibin E, Bindi F, Falcone A, <b>Ala U</b> , Nano M. „Early versus delayed laparoscopic cholecystectomy for acute cholecystitis“ Minerva Chir. 2012 Oct;67(5):381-7.
27.363	103	18. Ito K, Carracedo A, Weiss D, Arai F, <b>Ala U</b> , Avigan DE, Schafer ZT, Evans RM, Suda T, Lee CH, Pandolfi PP. „A PML-PPAR- $\delta$ pathway for fatty acid oxidation regulates hematopoietic stem cell maintenance.“ Nat Med. 2012 Aug 19. doi: 10.1038/nm.2882. [Epub ahead of print]
32.242	234	19. Karreth FA, Tay Y, Perna D, <b>Ala U</b> , Tan SM, Rust AG, DeNicola G, Webster KA, Weiss D, Perez-Mancera PA, Krauthammer M, Halaban R, Provero P, Adams DJ, Tuveson DA, Pandolfi PP. "In vivo identification of tumor-suppressive PTEN ceRNAs in an oncogenic BRAF-induced mouse model of melanoma." Cell. 2011 Oct 14;147(2):382-95.
32.242	307	20. Tay Y, Kats L, Salmena L, Weiss D, Tan SM, <b>Ala U</b> , Karreth F, Poliseno L, Provero P, Di Cunto F, Lieberman J, Rigoutsos I, Pandolfi PP. "Coding-independent regulation of the tumor suppressor PTEN by competing endogenous mRNAs." Cell. 2011 Oct 14;147(2):344-57.
3.234	3	21. Bianchi FT, Camera P, <b>Ala U</b> , Imperiale D, Miglieli A, Boda E, Tempia F, Berto G, Bosio Y, Oddo S, Laferla FM, Taraglio S, Dotti CG, Di Cunto F. The Collagen Chaperone HSP47 Is a New Interactor of APP that Affects the Levels of Extracellular Beta-Amyloid Peptides. PLOS ONE. 2011 vol. 6, ISSN: 1932-6203, doi: 10.1371/journal.pone.0022370
9.105	9	22. Molineris I, Grassi E, <b>Ala U</b> , Di Cunto F, Provero P, "Evolution of promoter affinity for transcription factors in the human lineage." Molecular Biology and Evolution. 2011 Aug;28(8):2173-83. Epub 2011 Feb 18.
4.349	24	23. Piro RM, <b>Ala U</b> (*), Molineris I, Grassi E, Bracco C, Perego GP, Provero P, Di Cunto F, "An atlas of tissue-specific conserved coexpression for functional annotation and disease gene prediction" European Journal of Human Genetics. 2011 Jun 8. doi: 10.1038/ejhg.2011.96.
3.234	5	24. Piro RM, Molineris I, <b>Ala U</b> , Di Cunto F. "Evaluation of candidate genes from orphan FEB and GEFS+ loci by analysis of human brain gene expression atlases." PLoS One. 2011;6(8):e23149. Epub 2011 Aug 1
6.393	20	25. Forlani G, Giarda E, <b>Ala U</b> , Di Cunto F, Salani M, Tupler R, Kilstrup-Nielsen C, Landsberger N: "The MeCP2/YY1 interaction regulates ANT1 expression at 4q35: novel hints for Rett syndrome pathogenesis." Hum Mol Genet. 2010 Aug 15;19(16):3114-23.
4.981	8	26. Piro RM, Molineris I, <b>Ala U</b> , Provero P, Di Cunto F. "Candidate gene prioritization based on spatially mapped gene expression: an application to XLMR." Bioinformatics. 2010 Sep 15;26(18):i618-24.
4.620	73	27. <b>Ala U</b> (*), Piro RM, Grassi E, Damasco C, Silengo L, Oti M, Provero P, Di Cunto F: "Prediction of human disease genes by human-mouse conserved coexpression analysis". PloS Comput Biol, 2008 Mar 28 ; 4(3).
3.234	16	28. Miozzi L, Piro RM, Rosa F, <b>Ala U</b> , Silengo L, Di Cunto F, Provero P: "Functional annotation and identification of candidate disease genes by computational analysis of normal tissue gene expression data." PLoS ONE. 2008 Jun 18;3(6).

Book contributions	<ul style="list-style-type: none"> <li>• Chapter: “<i>Introduction to GRNs (Gene Regulatory Networks)</i>” in “Handbook of Research on Computational Methodologies in Gene Regulatory Networks” (Edited By: Sanjoy Das, Kansas State University, USA; Doina Caragea, Kansas State University, USA; Stephen Welch, Kansas State University, USA; William H. Hsu, Kansas State University, USA); 2010</li> <li>• Sections “<i>Esercitiamoci insieme</i>” e “<i>Ricordati che ...</i>” in “<i>Dentro la fisica</i>” Vol.2 (A. Caforio- A. Ferilli, Edumont Le Monnier Scuola)</li> </ul>
Reviewer activity	<ul style="list-style-type: none"> <li>• Reviewer for: <i>PlosONE</i>, <i>Biophysical Journal – Cell</i> and <i>Journal of Hematology &amp; Oncology</i></li> </ul>
Workshop partecipation	<ul style="list-style-type: none"> <li>• EPIGEN RNA-Seq Workshop December 3-4, 2013. Bari</li> </ul>
Conference talks	<ul style="list-style-type: none"> <li>• EPIGEN Annual Meeting Roma, 21-24 April 2015 <i>Talk: “Chronic disruption of the circadian rhythmicity and chromatin epigenetic modifications in the model organism Drosophila melanogaster”</i></li> <li>• Festival della Scienza – Futuro Prossimo Genova, 23 October – 3 November 2013 <i>Talk: “Big Omics: when the knowledge meets its boundaries”</i></li> <li>• Festival della Scienza – Futuro Prossimo Genova, 25 October – 4 November 2012 <i>Talk: “Facebook al tempo della Santa Inquisizione”</i></li> <li>• XII Congresso FISV Roma, 24-27 September 2012 <i>Talk: “The ceRNA world: a new way of looking at the role of different RNA molecules.”</i></li> <li>• ABCD Meeting Gubbio, 18-20 Giugno 2009 <i>Talk: “Tissue-specific human-mouse conserved co-expression networks for prediction of mammalian genes functional properties.”</i></li> <li>• 5° Seminario SIBBM “Frontiers in Molecular Biology” Napoli, 4-6 giugno 2009 <i>Talk: “Tissue-specific human-mouse conserved co-expression networks for prediction of mammalian genes functional properties.”</i></li> <li>• IX Convegno FISV Riva del Garda, 26-29 September 2007 <i>Talk: “Human-Mouse conserved co-expression networks predict candidate disease genes”</i></li> <li>• III European bioalpine convention Geneve, 3-4 December 2008 <i>Poster: “Tissue- and state- specific co-expression analysis for prediction of mammalian genes functional properties and of human disease genes”</i> Winner in the Bioinformatics Poster Session</li> <li>• III Functional genomics and disease Innsbruck, 1-4 October 2008 <i>Poster: “A wide collection of microarray data to infer global and specific biological relationships across species”</i></li> <li>• Riunione Nazionale Dottorandi ABCD 2007 Rimini, 17-19 May 2007 <i>Poster: “Generation and analysis of a human-mouse conserved co-expression network”</i></li> </ul>
Conference partecipation	<ul style="list-style-type: none"> <li>• III European bioalpine convention Geneve, 3-4 December 2008 <i>Poster: “Tissue- and state- specific co-expression analysis for prediction of mammalian genes functional properties and of human disease genes”</i> Winner in the Bioinformatics Poster Session</li> <li>• III Functional genomics and disease Innsbruck, 1-4 October 2008 <i>Poster: “A wide collection of microarray data to infer global and specific biological relationships across species”</i></li> <li>• Riunione Nazionale Dottorandi ABCD 2007 Rimini, 17-19 May 2007 <i>Poster: “Generation and analysis of a human-mouse conserved co-expression network”</i></li> </ul>

- BITS  
Napoli, 26-28 April 2007  
Poster: "*Generation and analysis of a human-mouse conserved co-expression network*"
- EuroGP-EvoCOP-EvoBIO-EvoWorkshop  
Valencia, 11-13 April 2007
- 3rd EMBO Conference: From Functional Genomics to Systems Biology  
Heidelberg, 14-17 November, 2006  
Poster: "*Generation and analysis of a human-mouse conserved co-expression network*"
- BITS  
Bologna, 28-29 April 2006

## PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE      **Italian**

OTHER LANGUAGES

**English**

- Reading skills      Very good  
Writing skills      Very good  
Verbal skills      Very good

**French**

- Reading skills      Very good  
Writing skills      Very good  
Verbal skills      Very good

SOCIAL SKILLS  
AND COMPETENCES

Good experience in working with other people, in positions where communication and teamwork is very important, still improved during my Post-Doc period at the Harvard Medical Schools Cancer Center in Boston, where I had the great opportunity to work in a very exciting multicultural environment.

ORGANISATIONAL SKILLS  
AND COMPETENCES

Good experience in team working, where the ability to cooperate and the encouragement of cooperation is essential, acquired both in the scientific environment and in other music and cultural associations where I have been in the directional board. From June 2015, I am the President of the Associazione Musicale Eufone' (Cirie', TO).

HOBBIES AND INTERESTS

- Music: private courses of pianoforte, pipe organ, composition and singing
- Literature and Philosophy (in particular Epistemology, presocratic and eastern phylosophy)
- Minority Languages: working at the publication of a Franco-Provenzale vocabulary and poetic texts
- Mountain culture and trekking

TECHNICAL SKILLS  
AND COMPETENCES

Operating System: Linux, Unix, Windows 2000/XP/Vista/7/8

Programming Languages: Fortran, MySQL, Perl, R and Bioconductor packages

Applications: OFFICE 2000, LaTeX, Mathematica, GraphPad Prism

Advanced use of principal biological databases and bioinformatics softwares:

- ◆ sequenze analysis
  - BLAST, BLAT, ClustalW, PHILIP
- ◆ microarray analysis
  - normalization
  - RMA, MAS5

- statistics
    - limma
- ◆ Next Generation Sequencing
  - alignment
    - Bowtie, BWA, TopHat, Cufflinks, miRDeep2
  - data analysis and manipulation
    - SAMtools, Cuffdiff, EdgeR, DeSeq, MACS
- ◆ Networks analysis
  - MrBayes, Aracne, NetBag
- ◆ Gene Functional Annotation
  - in house tools, David, REVIGO, GSEA
- ◆ miRNA-target detection
  - TargetScan software, RNA22
- ◆ data visualization
  - Cytoscape, IGV, Cluster3.0, TreeView, Gephi

## NARRATIVE REPORT

From the beginning of my PhD until now, I always had great opportunities to work in many scientific teams where I had the chance to grow my scientific interests and skills as well as my attitude to collaborate with other people acquiring good experience in team working. This experience has been improved further not only in other music and cultural associations, where I am in the directional board, but mainly during my Post-Doc period at the Harvard Medical Schools Cancer Center in Boston, where I have had the great opportunity to work in a very exciting multicultural environment.

My major working experiences have been focused on scientific research with the attempt to improve the field of analysis of biological networks to obtain a more structured picture of cell function and the teaching activity focused to give students instruments to analyze and manipulate huge amounts of data deriving from new biological high-throughput technologies.

My starting research activities have been focused on the gene functional annotation and disease gene prediction through study of gene co-expression, mostly based on analysis of micro-array data. I have shown, in a systematical way, that the integration of human-mouse conserved co-expression networks with a phenotype similarity map allows the efficient identification of disease genes in large genomic regions. Moreover, I showed that the simultaneous use of generic and tissue-specific conserved co-expression networks, when combined with genome derived networks, is an improvement towards a more efficient prediction of human disease genes than the use of generic networks alone.

Before joining Pandolfi's Lab at Beth Israel Deaconess Medical Center, I worked also on the integration of transcription factors binding sites prediction, via sequence alignment of positional weight matrix and phylogenetic conservation, and miRNA target prediction through sequence analysis and expression data.

During the year spent at the BIDMC Cancer Center, I have had the possibility to reach many insights in the molecular cancer biology and contribute in new views of the genome non-coding space (new roles for the miRNAs and lncRNAs), in particular I contributed to some extents of competing endogenous RNAs (ceRNAs) theory, both with bioinformatics analysis and with the collaboration at a mathematical model of this phenomenon together with other physicists of Torino.

In the last period, I extended my researches by using Next Generation Sequencing data (in particular RNA\_Seq and ChIP\_Seq data), representing an impressive new field of information far more precise and accurate. In this context, I had the opportunity to analyze NGS data from different species (human, mouse and fruit-fly) as well as from different RNA molecules species, long and short transcripts and to participate to the planning of some new studies, like the improvements in the understanding of circadian clock mechanisms in the EPIGEN project.

My teaching activity began with Mathematics and Physics in the intermediate schools and moved to the Academia as "*Professore a contratto*". Now it includes two major fields: *Statistics* as a fundamental instrument for the comprehension and the design of biomedical studies and *Introduction to Programming Language* in order to provide biologists and bio-informaticians the expertise to properly query biological databases and

to perform data and meta-data analysis in a more flexible way. In the group where I am working now, I have the possibility to follow and coordinate the graduation projects of some students (based mainly on the analysis of ncRNAs function, with a special interest on miRNAs and circRNAs).

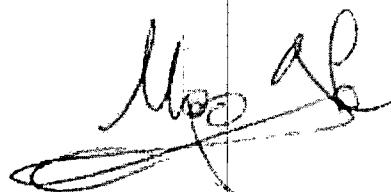
From September 2015, I am involved as bioinformatician in the team of GenoBiToUS, a facility at the Universita' di Torino offering genomics and bioinformatic services to research centers and health-care institutions, particularly in designing, conducting and interpreting Next Generation Sequencing experiments and other genome-scale assays, and in exploiting public domain data to answer biological questions.

During these years, I have had the possibility to deepen in a very fruitful way the field of conserved gene co-expression networks, gene disease prediction and genome non-coding space functions, having the opportunity to merge scientific and teaching activities in a very satisfying way.

DRIVING LICENCE(S)      Driving licence of type B (from December 1995)

Torino, 9 Marzo 2016

Ugo ALA



Si autorizza al trattamento dei dati personali quanto indicato nel D.Lgs 196/03 e s.m.i.  
In ottemperanza all'art. 10 della L. 31/12/1996 n. 675 (art. 48 DPR 445/00) il sottoscritto dichiara, sotto la propria ed esclusiva responsabilità, che quanto riportato nel presente curriculum corrisponde al vero.

