

Arianna Consiglio – Biosketch

Researcher III Level – National Research Council (CNR) Institute for Biomedical Technologies (ITB)

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Arianna Consiglio graduated in Computer Science in 2006 at the University of Bari Aldo Moro with a thesis on Computational Intelligence. From 2007 to 2009 she worked in a private research consortium, on the development of predictive computational models for risk assessment. In May 2009 she completed a Master in Information Systems Government at the University of Rome and since November 2009 works at the Institute for Biomedical Technologies of the CNR of Bari in the Bioinformatics group - first as research fellow and then as researcher - and in 2016 she obtained the Ph.D. in Computer Science at the University of Bari with a thesis in Computational Intelligence applied to Bioinformatics.

Her main research activities are: design and development of algorithms, workflow, applications and bioinformatics databases; statistical analysis of bioinformatics data; functional analysis of the expression of RNA-Seq and single-cell data produced by Next-Generation Sequencing (NGS) technologies; analysis of the structural variations of the genome; metagenomic analysis; application of Machine Learning and Computational Intelligence methods to experimental data.

Keywords: Computer Science, Bioinformatics, Biostatistics, Machine Learning.

Research Products:

Since 2007 she contributed to 31 scientific papers and 41 conference abstracts.

Main bioinformatics publications:

1. Casalino G, Castellano G, Consiglio A, Nuzziello N, Vessio G (2021) MicroRNA expression classification for pediatric Multiple Sclerosis identification; *Journal of Ambient Intelligence and Humanized Computing* [IF:7,104]
2. Consiglio A, Casalino G, Castellano G, Grillo G, Perlino E, Vessio G, Licciulli F (2021) Explaining Ovarian Cancer Gene Expression Profiles with Fuzzy Rules and Genetic Algorithms; *Electronics* [IF:2,397]
3. Puccio S, Grillo G, Consiglio A, Soluri MF, Sblattero D, Cotella D, Santoro C, Liuni S, De Bellis G, Lugli E, Peano C and Licciulli F (2020) InteractomeSeq: a web server for the identification and profiling of domains and epitopes from phage display and next generation sequencing data; *Nucleic Acids Research* [IF:16,971]
4. Casalino G, Vessio G, Consiglio A (2020) Evaluation of Cognitive Impairment in Pediatric Multiple Sclerosis with Machine Learning: An Exploratory Study of miRNA Expressions; 2020 IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS)
5. Casalino G, Castellano G, Consiglio A, Liguori M, Nuzziello N, Primiceri D (2019) A Predictive Model for MicroRNA Expressions in Pediatric Multiple Sclerosis Detection; *Modeling Decisions for Artificial Intelligence. MDAI 2019. Lecture Notes in Computer Science*, vol 11676. Springer, Cham
6. Senesi GS, Manzari P, Consiglio A, De Pascale O (2018) Identification and classification of meteorites by a handheld LIBS instrument coupled with a fuzzy logic-based method; *Journal of Analytical Atomic Spectrometry* [IF:4,023]
7. Consiglio A, Mencar C, Grillo G, Marzano F, Caratozzolo MF, Liuni S (2016) A fuzzy method for RNA-Seq differential expression analysis in presence of multireads; *BMC Bioinformatics* [IF:3,169]
8. Consiglio A, Mencar C, Grillo G, Liuni S (2016) Managing NGS differential expression uncertainty with fuzzy sets; *Lecture Notes in Computer Science* (Springer)
9. Santamaria M, Fosso B, Consiglio A, De Caro G, Grillo G, Licciulli F, Liuni S, Marzano M, Alonso-Aleman D, Valiente G, Pesole G (2012) Reference databases for taxonomic assignment in metagenomics; *Briefings in Bioinformatics* [IF:11,622]
10. Consiglio A, Carella M, De Caro G, Delle Foglie G, Giovannelli C, Grillo G, Ianigro M, Licciulli F, Palumbo O, Piepoli A, Ranieri E, Liuni S (2012) BEAT: Bioinformatics Exon Array Tool to store, analyze and visualize Affymetrix GeneChip Human Exon Array data from disease experiments; *BMC Bioinformatics* [IF:3,169]
11. Consiglio A, Grillo G, Licciulli F, Ceci LR, Liuni S, Losito N, Volpicella M, Gallerani R, De Leo F (2011) PlantPIs - An Interactive Web Resource on Plant Protease Inhibitors; *Current Protein and Peptide Science* [IF:3,272]
12. Mencar C, Consiglio A, Fanelli AM (2007) Interpretable Granulation of Medical Data with DC*; 7th International Conference on Hybrid Intelligent Systems (HIS 2007)
13. Mencar C, Consiglio A, Fanelli AM (2007) DCy: Interpretable Granulation of Data through GA-based Double Clustering; *Fuzzy Systems Conference, 2007. FUZZ-IEEE 2007. IEEE International*
14. Mencar C, Consiglio A, Castellano G, Fanelli AM (2007) Improving the Classification Ability of DC* Algorithm; *WILF 2007 - Lecture Notes in Computer Science* (Springer) - *Lecture Notes in Artificial Intelligence*