PERSONAL INFORMATION

Anna Isabella Pisani

Department Biology, Faculty of Health Sciences. Padua (Italy)

pisaniai92@gmail.com

POSITION

Ph.D. Student

WORK EXPERIENCE

29 Aug 2017–Present

Ph.D. - Neuroscience, Psychological and Psychiatric Science

Department of Neuroscience, Biomedicine and Movement - University of Verona, Verona (Italy)

Machine and statistical learning methods implementation in order to predict disability progression in Multiple Sclerosis patients.

Dec 2016–Apr 2017

Collaboration with EPIGEN project, Padua (Italy)

Bioinformatics support to "Chronic disruption of the circadian rhythmicity and chromatin epigenetic modifications in the model organism Drosophila melanogaster" project.

- Analysis and development of gene-gene networks in *Drosophila melanogaster* after chircadian rhythm perturbation;
- Differential expression gene analysis and activity contextualization in developed networks.

EDUCATION AND TRAINING

Feb 2015–Mar 2017

Master degree in Bioinformatics

University of Rome "Tor Vergata", Rome (Italy)

Title of thesis: "Regulative pathway analysis to study shift-work effect in *Drosophila melanogaster*"

Tutors: Manuela Helmer-Chitteric, Rodolfo Costa and Chiara Romuladi

Mark: 108/110

Jun 2016–Feb 2017

Educational Internship

University of Padua, Padua (Italy)

Dissection of complex mechanism of circadian rhythm to identify the interactions between miRNAs and their targets involved in the clock perturbation and to formulate new hypothesis about the links between circadian rhythm, shift work and physiological disorders.

- Use of R language and relative Bioconductor package: EDASeq, edgeR, igraph, clipper, graphite,

micrographite.

- Use of statistical methods in order to identify and analyze differential gene expression.
- Study of main gene set analysis
- Analysis and interpretation of *regulative pathway s* in *Drosophila melanogaster.*
- Validation of data obtained from bioinformatics analysis using *q-PCR real time*.

Oct 2012–Dec 2014

Bachelor's degree in Informatics and Digital Communication

University of Bari, Bari (Italy)

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
	The International Certification Board : English Diploma				

DIGITAL COMPETENCIES

Programming Language: C++, mySQL, Ruby, R

Software: R and relative Bioconductor package (e.g: Graphite, micrographite, Clipper, EDASeq), Cytoscape, Blast, David Functional Annotation Bioinformatics Microarray Analysis, Ensembl.

Lab Instruments experience: PCR, q-PCR real time

STATISTICAL COMPETENCIES

- Normal linear models, generalized linear models and multivariate analysis.
- Dimension reduction analysis in high dimensional dataset, such as Principle Component Analysis, Sparse Principle Component Analysis and T-distribueted stochastic neighbour embedding. Cluster analysis and High Dimensional Cluster Analysis.
- Predictive model through statistical and machine learning approach in classification and regression contest: Ridge and Lasso regression, Linear Discriminant analysis, Logistic regression, Multinomial regression, Trees regression, Random forest, Artificial Neural Network, Support Vector Machine.
- Survival Analysis (Cox's regression, Kaplan-Meier analysis, nonparametric approach).

CONFERENCES & WORKSHOP S

May 15, 2018	ROOMS: Spazi di confronti sulla pratica clinica in Sclerosi Multipla (Villafranca di Verona, VR, IT)
April 12-13, 2018	Attendence at the 32nd Plenary Meeting and Workshop of Magnetic Resonance Imaging in Multiple Sclerosis: "Big Data and Deep Learning: New Avenues for MRI in MS?" (Amsterdam, NL)
January 21-25, 2018	Winter School in Applied Bioinformatics (Alba di Canazei ,TN, IT)
December 11, 2015	Attendence at EPIGEN-MiChroNetwork Chromatin Seminar : "DNA methylation and demethylation in cancer"(IFOM, Milan, IT)

PUBLICATIONS

Evaluation of NODDI indexes in white and gray matter for the characterization of MS clinical features: phenotypes, EDSS and disease duration. Poster ECTRIMS 2018
A. Tamanti, **A. I. Pisani**, A. De Luca, F. Pizzini, M. Castellaro, C. Zuco, D. Marastoni, F. Crescenzo, A. Scalfari, A.Bertoldo, M. Pitteri, R. Magliozzi and M. Calabrese.

Early predictors of brain atrophy among MS patients. Poster ECTRIMS 2018
Scalfari, **A.I. Pisani**, C. Romualdi, P. Muraro, R. Nicholas, M. Calabrese

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs. 196/2003