

Antonio Colaprico, PhD graduated from University of Sannio, Italy, earning his Bachelor's degree and Master's degree in Telecommunication Engineering in 2005 and 2011, respectively. In July 2014, he defended his PhD thesis entitled 'Integrative analysis on colon and lung cancer with identification of master regulators microRNA--gene networks' supervised by Prof. Michele Ceccarelli. The PhD was awarded jointly by the the University of Sannio and BIOGEM (Biotechnology and Molecular Gene=cs Research Centre), Ariano Irpino (AV), Italy.

In October 2014, Antonio joined the Machine Learning Group (MLG) of the Université libre de Bruxelles (ULB) and the Interuniversity Institute of Bioinformatics in Brussels (IB)² as a postdoctoral researcher under the supervision of Prof. Gianluca Bontempi.

In July 2017, he started to work as an Assistant Scientist with Prof. Maria Figueroa in the Department of Human Genetics, Sylvester Comprehensive Cancer Center, University of Miami. Dr. Colaprico is currently Assistant Scientist with Prof. Xi (Steven) Chen in the Department of Public Health Sciences, Division of Biostatistics, University of Miami.

Dr. Colaprico is actively developing a number of software tools with his collaborators such as TCGAbiolinks, TCGAbiolinksGUI, SpidermiR, CancerSubtypes and MoonlightR.

His research activities are focused on the development of innovative integrated bioinformatics methods and applications with the aim of modelling complex systems in biology and improving molecular diagnosis. He is first and co-author of several scientific publications, in high impact factor journals including Nucleic Acid Research, Gastroenterology, Cell and Immunity.

PUBLICATIONS

1. The Immune Landscape of Cancer. Thorsson V, Gibbs DL, Brown SD, Wolf D, Bortone DS, Ou Yang TH, Porta-Pardo E, Gao GF, Plaisier CL, Eddy JA, Ziv E, Culhane AC, Paull EO, Sivakumar IKA, Gentles AJ, Malhotra R, Farshidfar F, **Colaprico A**, Parker JS, Mose LE, Vo NS, Liu J, Liu Y, Rader J, Dhankani V, Reynolds SM, Bowlby R, Califano A, Cherniack AD, Anastassiou D, Bedognej D, Rao A, Chen K, Krasnitz A, Hu H, Malta TM, Noushmehr H, Peadamallu CS, Bullman S, Ojesina AI, Lamb A, Zhou W, Shen H, Choueiri TK, Weinstein JN, Guinney J, Saltz J, Holt RA, Rabkin CE; Cancer Genome Atlas Research Network, Lazar AJ, Serody JS, Demicco EG, Disis ML, Vincent BG, Shmulevich L. *Immunity*. 2018 Apr 17;48(4):812-830
2. Comprehensive Characterization of Cancer Driver Genes and Mutations. Bailey MH, Tokheim C, Porta-Pardo E, Sengupta S, Bertrand D, Weerasinghe A, **Colaprico A**, Wendl MC, Kim J, Reardon B, Ng PK, Jeong KJ, Cao S, Wang Z, Gao J, Gao Q, Wang F, Liu EM, Mularoni L, Rubio-Perez C, Nagarajan N, Cortés-Ciriano I, Zhou DC, Liang WW, Hess JM, Yellapantula VD, Tamborero D, Gonzalez-Perez A, Suphavilai C, Ko JY, Khurana E, Park PJ, Van Allen EM, Liang H; MC3 Working Group; Cancer Genome Atlas Research Network, Lawrence MS, Godzik A, Lopez-Bigas N, Stuart J, Wheeler D, Getz G, Chen K, Lazar AJ, Mills GB, Karchin R, Ding L. *Cell*. 2018 Apr 5;173(2):371-385
3. Machine Learning Identifies Stemness Features Associated with Oncogenic Dedifferentiation. Malta TM, Sokolov A, Gentles AJ, Burzykowski T, Poisson L, Weinstein JN, Kamińska B, Huelsken J, Omberg L, Gevaert O, **Colaprico A**, Czerwińska P, Mazurek S,

Mishra L, Heyn H, Krasnitz A, Godwin AK, Lazar AJ; Cancer Genome Atlas Research Network, Stuart JM, Hoadley KA, Laird PW, Noushmehr H, Wiznerowicz M. *Cell*. 2018 Apr 5;173(2):338-354

4. Perspective on Oncogenic Processes at the End of the Beginning of Cancer Genomics. Ding L, Bailey MH, Porta-Pardo E, Thorsson V, **Colaprico A**, Bertrand D, Gibbs DL, Weerasinghe A, Huang KL, Tokheim C, Cortés-Ciriano I, Jayasinghe R, Chen F, Yu L, Sun S, Olsen C, Kim J, Taylor AM, Cherniack AD, Akbani R, Suphavitai C, Nagarajan N, Stuart JM, Mills GB, Wyczalkowski MA, Vincent BG, Huper CM, Zenklusen JC, Hoadley KA, Wendl MC, Shmulevich L, Lazar AJ, Wheeler DA, Getz G; Cancer Genome Atlas Research Network. *Cell*. 2018 Apr 5;173(2):305-320

5. TCGAbiolinks: an R/Bioconductor package for integrative analysis of TCGA data. **Colaprico A**, Silva TC, Olsen C, Garofano L, Cava C, Garolini D, Sabedot TS, Malta TM, Pagnopa SM, Castiglioni I, Ceccarelli M, Bontempi G, Noushmehr H. *Nucleic Acids Res*. 2016 May 5;44(8):e71

6. Integrative Analysis with Monte Carlo Cross-Validation Reveals miRNAs Regulating Pathways Cross-Talk in Aggressive Breast Cancer. **Colaprico A**, Cava C, Bertoli G, Bontempi G, Castiglioni I. *Biomed Res Int*. 2015;2015:831314

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