Jacopo Dolcini MD PhD

Scientific profile and contribution to research consortia

Assistant Professor in Hygiene, Public Health and Preventive Medicine| Department of Biomedical Sciences and Public Health | Polytechnic University of the Marche, Ancona, Italy

I am a physician specialised in Hygiene and Preventive Medicine, with a PhD and previous postdoctoral research experience at Columbia University. I combine university research and teaching with hospital hygiene practice at AOU delle Marche. My work connects environmental and hospital epidemiology with molecular biomarkers, ageing, chronic disease prevention and health technology assessment. I offer study design, data analysis in R and evidence synthesis, helping teams translate clinical and biological questions into protocols, interpretable findings and publications.

Scientific and analytical expertise

Epidemiology and statistics. Observational study design; population surveys and hospital datasets; weighted, multivariable, multilevel and longitudinal analyses; confounding, interactions and sensitivity analyses.

Environmental and molecular epidemiology. Air pollution, temperature and health; cognition and ageing; DNA methylation, epigenetic clocks, mitochondrial DNA copy number, cortisol and inflammatory markers.

Clinical and biological interpretation. Medical training and hospital hygiene practice; interpretation of epigenetic regulation, oxidative mechanisms and biomarker relevance, supported by epidemiological research and collaboration in experimental molecular biology.

Infection prevention and antimicrobial use. Healthcare-associated infections, surgical site infection prevention, antibiotic prescribing, surgical prophylaxis and WHO AWaRe and DDD frameworks.

Prevention and health technologies. Chronic disease risk factors, nutrition, screening and inequalities; systematic reviews, meta-analyses and statistical appraisal of diagnostic and digital tools, including an experimental Raman-based bacterial detection study.

Contribution I can offer

I can contribute protocols, data dictionaries, statistical analysis plans and reproducible R analyses; integration and interpretation of clinical, exposure and molecular variables; evidence synthesis and scientific writing. I seek scientific roles in exposome research, antiviral and antimicrobial projects, chronic disease interventions, neurodegenerative disease trials, predictive biomarkers, healthcare AI and Virtual Human Twins. I can help define clinical questions, assess data quality, analyse longitudinal outcomes and evaluate model outputs alongside clinical and computational teams.