
Summary

Gianfranco Porcile – *Systemic Vision in Medicine*

This paper advocates for moving beyond the reductionist biomedical model toward a systemic vision based on Complexity Theory. The author outlines the evolution into Engel's "biopsychosocial" model, which views biological, psychological, and social factors as interconnected in patient health. The text presents the PNEI paradigm as the clinical application of this vision, serving as a bridge between molecular biology and philosophy by scientifically demonstrating the interactions between the organism's systems. Finally, it discusses the "One Health" concept and the "Ecological Model", emphasizing that human health is inseparable from environmental and animal health, thus requiring medicine that integrates personalized care, environmental sustainability, and Medical Humanities.

Ilaria Demori – *The microbiota-immune interaction in the gut-brain axis*

This article explores the crucial role of the immune system (IS) as a coordinator within the microbiota-gut-brain axis. It describes how bacterial metabolites, particularly Short-Chain Fatty Acids (SCFAs), act as signaling molecules that regulate the integrity of both the intestinal and blood-brain barriers, as well as neuroinflammation (by modulating microglia and astrocytes). The author analyzes these dynamics in the context of Parkinson's disease, where dysbiosis and altered SCFA levels contribute to neurodegeneration. The paper concludes by highlighting the therapeutic potential of probiotics, prebiotics, and postbiotics for treating neurological and psychiatric disorders, while noting the need for further clinical studies in humans.

Mauro Bologna – *Environmental causes of disease in the Anthropocene. A paramount PNEI view*

This paper analyzes environmental causes of disease in the current Anthropocene era through the lens of PNEI and the “One Health” concept. The author examines the devastating impact of pollution (air, water, soil), microplastics, and persistent chemicals (such as PFAS) on human health, linking them to endocrine disruption, chronic inflammation, and neurodegeneration. Climate change and risks associated with modern lifestyles (stress, technology, diet) are also discussed. The article concludes with a strong call for primary prevention and social/political responsibility to mitigate the environmental “polycrisis” threatening the global health of all living beings.

Marina Amore, Alessandro Bianchi, Donatella De Colle, Laura Bastianelli, Francesco Bottaccioli, Raffaella Cardone, Ines Romy Cutrona, Emanuela Stoppele, Laura Vaccaro – *Reflections on the physical and biological dimension of the person in psychotherapy and in PNEI-oriented clinical practice*

This paper reflects on integrating physical and biological dimensions into PNEI-oriented psychotherapy. The authors highlight a paradox where, despite growing theoretical attention to the body, it remains marginal in actual clinical practice. The concept of the “organism” as an inseparable mind-body unit is introduced to overcome the fragmentation of different psychotherapeutic models. The article suggests specific technical modifications, such as using interoceptive listening and attending to bodily signals (breathing, muscle tone) within the therapeutic relationship, ultimately proposing integrated training that includes biological competencies for psychotherapists.

Francesco Bottaccioli, Anna Giulia Bottaccioli – *A systemic and dialectical paradigm for Psychoneuroendocrineimmunology and integrated care science*

This paper outlines a philosophical and scientific paradigm for PNEI and integrated care science. The authors critique reductionist models and Cartesian dualism, proposing instead a “systemic and dialectical” approach. Drawing on Yin-Yang dialectics as a framework for biological regulation (e.g., in the immune system), the article explores scientific evidence of bidirectional communication between the psyche and biological systems, citing mechanisms such as stress-induced inflammation and the gut-brain axis. It concludes by emphasizing the need for a new philosophy to guide research and clinical practice toward a true integration of medicine and psychology.

Silvia Moneti – *The Influence of Healthcare Environment Architecture on the Psycho-Neuro-Endocrine-Immunological System*

This article explores the impact of architectural and environmental design on the psycho-neuro-endocrine-immunological (PNEI) system of acute and chronic patients. It outlines operational design guidelines for orientation, accessibility, circadian lighting, acoustics, clinical aromatherapy, and room personalization. Furthermore, it addresses specialized care settings – including labor and breastfeeding rooms, ICUs and NICUs, prosthetic architecture for cognitive impairments, and home-based care – positioning architecture as an integrated therapeutic tool to foster psychophysical health.