

THE SILENT REVOLUTION IN CLINICAL MICROBIOLOGY

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When I began shaping the *Silent Revolution*, I thought I was simply gathering metaphors, cases, and teaching tools to make microbiology more vivid for clinicians and students, framed in my 57 years as a clinical microbiologist, pioneering virologist, from culture dependent to culture independent methods. But as the work unfolded, (and the book and I grew, together) I realized something much deeper: I was documenting a paradigm shift, from Evolution to Revolution.

I was the measuring stick; I am part of it. I helped define it

Thomas Kuhn, whom I did not know, in *The Structure of Scientific Revolutions* (1962), showed that science does not advance by steady accumulation of facts, but by upheavals. Doctrines hold sway until anomalies pile up—observations that don't fit, truths that can't be ignored. At that point, the old framework collapses, and a new one takes its place. A paradigm shift. Stuart Levy, whom I did know, in 1992 expanded the view with his book entitled "*The Antibiotic Paradox: How miracle drugs are destroying the miracle*" and later in 2002 voiced his opinion louder in the *J of Antimicrob. Chem.*: "we need to forget 'overcome and conquer' and substitute 'peace' when regarding the microbial world.

Clinical microbiology has reached this crisis. The anomalies are everywhere: oral-systemic links dismissed as coincidence, microbial clocks ignored, bacteriophages misrepresented as enemies, 'balance and co-existence' reduced to 'battle'; biologic contracts lost. The data was always there. We simply misread it.

We still hear the echo's of Koch and Pasteur: The Germ Theory.

Now....we understand the paradigm shift. Microbes inherited humans and while "humans might have been the author of their book", the microbiota is their editor; their ancient ancestor. Microbes made the blue print for survival, from the beginning.

This book is not just about microbes and laboratory sciences for more than a half century, separate silos, now one. It is about correcting misrepresentation, "unlearning the learned", and resetting medicine's clock to microbial time. It is about revolution—not loud, but silent, carried in the rhythm of nature and the rhythm of the words: "we live in a Microbial World".

The advancement of human health rests upon the silent, microbial majority; reimagined by clinical microbiology as a 'Revolution'.