

## **Dr. Martin Joseph Dudziak, PhD**

Martin is a scientist with a background in both the physical and biomedical fields and a lifelong preoccupation with applying innovative research to social and community challenges. As founder and CEO of TETRADYN, an applied sciences company based in Charlotte, NC and specializing in biothreat detection/response and public health risk prevention, Martin is leading a team of over twenty specialists in life sciences, physics, engineering and social networks. TETRADYN's projects range from detection and countermeasures for infectious diseases like influenza, MRSA, salmonella and their possible mutations in the population, to educational engagement and intentionality modeling that pertains to crime and terrorism prevention. Based on these foundations, Martin's work has been incorporated into projects in the USA and as far away as the Russian Federation that focus upon the problems of youth, families, and neighborhoods for reducing organized and domestic violence and for transmuted social conflict stimuli into agents for social change and rule of law.

Formerly a professor on the faculty of the Medical College of Virginia (VCU) and a research leader at corporations including Battelle, Martin-Marietta, ST Microelectronics and Intel, Martin has been involved for more than twenty-five years in such projects and programs as CommonHealthNet (one of the first web-based medical information and family health networks), Saño y Salvo (Costa Rican internet-based help-line for women and children at risk from drug gangs and prostitution rings), and Futures Gateway (internet-based educational teams and clubs collaborating and competing with futures-oriented study projects).

Some current projects underway by "Dr. D" and his team include: developing tools for community education and awareness in children's health and wellness (for a children's hospital in Basrah, Iraq); company-sponsored internships directed at dropouts and homeless youth coming through the *Stand Up For Kids* organization; and "Jedi Quetzal," a unique experiment to introduce neighborhood improvement and public health activities, using some of TETRADYN's inventions and products such as a mobile trailer-based emergency/disaster relief unit (the "EcOasis PodLab"), as an alternative to gang-centric social status-building in Guatemala.

Recently Martin has been appointed as a Fellow within the Center for Advanced Defense Studies, a well-known policy research center in Washington, D.C. that conducts the Innovation for Peace program and the emerging Technologies Initiative with partners and beneficiaries throughout the world, especially in the Middle East.

A graduate of Colgate Univ., Johns Hopkins Univ., and The Union Institute and University (PhD in physics), Martin has over 100 publications and has been an active presenter, teacher and mentor. Among his inventions that he considers to be of most special merit is the EcOasis Pod. Bundling emergency water, power, medical diagnostics, environmental testing and satellite-internet communications) into one package, the Pod serves communities that have been struck by disaster or, through poverty or warfare, are in chronic emergency for basic needs. When children lack the visible incentives and signs for hope and an opportunity to grow out of conflict and chaos, the seeds of perpetual violence and terror are sown for multiple generations. Martin and his team work for turning this tide around with the use of the latest fruits of science and technology.