The concern with respect to antimicrobial resistance and the associated health threat has gained increasing attention and there has been difficulty in gaining traction globally. Given the lack of success by the two pathways established to date which have focused on: 1) “replication of infective agent” and, 2) “immune system enhancement,” the current researcher has conceptualized and developed the new, or third, mode of action pathway represented by “site attachment inhibition (or, negation of cellular attachment by infective agents).” The current author anticipates site attachment inhibition therapeutics to include drug (medication) based therapies, stem cell based treatment (including prenatal and earlier) incorporating new generation immunization methods, and waveform (E.g. electromagnetic radiation) based treatment. With respect to viruses, support for the likely success of the new mode of action pathway: A) the known CCR5-Δ32 mutation achieves resistance (immunity) against HIV through negation of cellular attachment; B) other areas of medicine use analogous receptor antagonism (E.g. beta blocker therapy); C) advanced IT uses analogous site attachment inhibition to remove viruses. With respect to bacteria, support for the likely success of the new mode of action pathway: A) advanced IT uses analogous site attachment inhibition to remove IT infections; B) glycoproteins are key proteins/receptors for attachment and, analogous to glycoprotein IIb/IIIa medications which inhibit (negate) platelet aggregation and thrombus formation, it seems reasonable to pursue antagonism or blockade of other glycoprotein receptors in order to prevent bacterial attachment to human cells (note: this is also relevant to viral infections); C) the human immune system coats infective agents in an attempt to negate cellular attachment, therefore this mode of action represented by site attachment inhibition makes scientific sense. Attention must be directed toward correctly identifying the target receptors and appreciating the difference between association and causation. Looking at mutations noticed in the human population and connecting this to the innate resistance they possess to certain infections is not enough as this may simply represent association as opposed to causation. Even the known CCR5-Δ32 mutation has not been completely confirmed as direct/causative of the inhibition of attachment observed in research analyses. There is direct relevance to cancer, including breast cancer. Examples include: (A) the vaccine (immunization) against HPV used for prevention of cervical cancer; (B) tamoxifen used, through antagonism (or, blockade), of estrogen in preventing further issues relating to breast cancer development (or, metastatic spread). Future research by the current author will likely include delineation of the application of quantum physics to medicine and surgery, starting with neurology and immunology, and in what circumstances this is appropriate. In addition, the merger between fields including immunology, neurology, IT including three-dimensional printing of biology, and advanced physics (quantum physics) that appears likely to commence. Furthermore, detailed delineation of new generation immunization methods to be developed based on
site attachment inhibition. Examples as a commencing point, regarding the application of quantum physics to medicine, may include: In neurology (and, ophthalmology) the updating of basic principles, for instance: (1) an understanding that the central beam theory may perhaps be better explained by way of scientific principles, in quantum physics, revolving around light acting in both wave and particle forms and, by application of the pinhole aperture, light may arguably as result hit the retina more predominantly in particle form, and subsequently in a more concentrated manner, thereby increasing visual acuity; (2) monocular abilities to judge depth (depth perception) may perhaps be better explained through interaction of diffraction wave patterns (E.g. from points of different distance relationships), with accompanying neurological calculation of time and distance relationships based on such analysis, as opposed to historical explanations such as texture gradient, interposition, relative size etc. Interestingly, partial coherence interferometry (used in ophthalmology) utilizes such principles; (3) The analysis of chronology (for instance, with inflammation, trauma, and infection) as to which occurred first, taking into account relevant principles. In conclusion, this paper presents the new, or third, mode of action pathway in antimicrobial therapy represented by site attachment inhibition therapeutics.

**Speaker Biography**

Simon Raymond is a Consultant who specialised in Medical and Scientific Research and an Alumnus of Melbourne University (Rank of Number 1 in Australia and Number 33 in the World). The above stated Researcher has acted as a Reviewer for the respected *Medical Journal of Australia*, has received invitations internationally to review from prestigious medical journals including *Journal of American Medical Association Network*. He has received award in recognition of his research by *Royal Australasian College of Surgeons (PSC, 2006)* and invited to conferences internationally as an official Delegate and Researcher, including that in USA and China. He has worked as the Principle Researcher in the highest-powered form of medical trial—Randomised Controlled Trial (RCT). The above stated Researcher is also a Member of the Golden Key International Society for Honoured and outstanding Academics and has been cited as a Notable Global Leader.

e: simonraymondcontact@gmail.com