

# Bio21 Institute Seminar

## Thursday 16 November 12-1pm



**bio21**  
institute

**Dr Trevor G Marshall**  
Director, Autoimmunity Research  
Foundation, Cal USA



### **“Molecular mechanisms driving the current epidemic of chronic disease”**

**Abstract:** It has long been thought that the diseases termed 'autoimmune' result from 'antibodies to self,' and treatment regimes have therefore been based on immunosuppression. However, we identified that several idiopathic chronic diseases, including many of the 'autoimmune' diagnoses, in fact result from a defect in innate immunity, exacerbated during the 20th Century [2,3,4,5]. The VDR Nuclear Receptor is at the heart of human innate immunity, responsible, inter alia, for TLR2, TLR4, CAMP, TACO and IL2 expression. During Th1 immune challenge, the VDR is activated by the endogenous secosteroid 1,25-dihydroxyvitamin-D, and de-activated by its precursor, 25-hydroxyvitamin-D. Our Phase 2 study results confirm that in order to induce recovery from chronic inflammatory disease, it is necessary to restore VDR functionality by removing all exogenous sources of the secosteroid we call “Vitamin-D”, and by the use of a VDR partial agonist, for example the ARB Olmesartan[1]. This enables the immune system to recognize the pathogens. To date we have demonstrated recovery from Hashimoto's thyroiditis, rheumatoid arthritis, sarcoidosis, CFS, and an assortment of chronic inflammatory diagnoses. This breakthrough is the result of a collaboration between molecular scientists and a disparate group of innovative physicians, facilitated by the Internet.

**Bio:** After an early career in computer engineering, including 5 years as an academic at the West Australian Institute of Technology (now Curtin University), Trevor graduated in 1985 from the University of Western Australia, with a Ph.D. in Bioengineering. His thesis research included a non-surgical method to cure cryptorchidism, effective male and female Infertility interventions, and insulin infusion technology. In 1999 he made the observation that 'autoimmune' diseases resulted from a defect in the innate immune system, and that their morbidity resulted from pathogens, and not antibodies. He has spent the last 7 years successfully elucidating that pathogenesis, and conducting a large, Phase 2, proof-of-concept clinical trial. Trevor is currently a director of the Autoimmunity Research Foundation, in California.

### **Bio21 Institute Auditorium**

Bio21 Institute, 30 Flemington Road, Parkville

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**All welcome. Free event. Refreshments to follow.**



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