

SHORT REPORT: 2,3,7,8-TETRACHLORODIBENZO- -DIOXIN (TCDD) REDUCES
A A A BURDENS IN C57BL/6 MICE

OWEN J. BOWERS, KIRSA B. SOMMERSTED, RYAN T. SOWELL, GRETCHEN E. BOLING, WILLIAM H. HANNEMAN,
RICHARD G. TITUS, AND GREGORY K. DEKREY*



A . Acute exposure to 2,3,7,8-tetrachlorodibenzo-dioxin [p] TJET/F1 SF02 316.4125 596.32.7(H) TJ
-infected mice to TCDD caused a dose-dependent and unexpected decrease in
parasite burdens on day 20 after infection. In contrast, TCDD-mediated lymphoid atrophy, suppressed antibody levels,

2. Solbach W, Laskay T, 2000. The host response to *Leishmania* infection. *J Clin Invest* 105: 275-317.
3. Alexander J, Bryson K, 2005. T helper (h)1/Th2 and Th17: Paradox rather than paradigm. *J Clin Invest* 115: 17-23.
4. Brown DR, Reiner SL, 1999. Polarized helper-T-cell responses against *Leishmania* in the absence of B cells. *J Clin Invest* 103: 266-270.
5. Huber M, Timms E, Mak TW, Rollinghoff M, Lohoff M, 1998. Effective and long-lasting immunity against the parasite *Leishmania* in CD8-deficient mice. *J Clin Invest* 101: 3968-3970.
6. Safe SS, 1990. Polychlorinated biphenyls (PCBs), dibenzodioxins (PCDDs), dibenzofurans (PCDFs), and related compounds: Environmental and mechanistic considerations which

biology, Immunology and Pathology, College of Veterinary and Biomedical Sciences, Colorado State University, Fort Collins, CO, 80523, Telephone: 970-491-4964, Fax: 970-491-0603, E-mail: richard.titus@colostate.edu. Gregory K. DeKrey, School of Biological Sciences, College of Natural and Health Sciences, University of Northern Colorado, 501 20th Street, Greeley, CO 80639, Telephone: 970-351-2493, Fax: 970-351-2335, E-mail: gregory.dekrey@unco.edu.

REFERENCES

1. Lohoff M, Gessner A, Bogdan C, Röllinghoff M, 1998. The Th1/Th2 paradigm and experimental murine leishmaniasis. *J Clin Invest* 101: 191-202.

macrophages augment Th2-type T cell activation. *J Immunol* 153: 4378-4387.

22. Mbow ML, DeKrey GK, Titus RG, 2001. *IL-1* induces differential expression of costimulatory molecules on mouse epidermal cells. *J Invest Dermatol* 117: 1400-1409.
23. Alsharif NZ, Schlueter WJ, Stohs SJ, 1994. Stimulation of NADPH-dependent reactive oxygen species formation and DNA damage by 2,3,7,8-tetrachlorodibenzo-p-dioxin in rat peritoneal lavage cells. *Toxicol Appl Pharmacol* 126: 392.
24. Alsharif NZ, Lawson T, Stohs SJ, 1994. Oxidative stress induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin is mediated by the aryl hydrocarbon (Ah) receptor complex. *Toxicol Appl Pharmacol* 122: 39-51.