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PROFESSIONAL ACTIVITIES

PUBLICATIONS

Smith, M.L., D.L. Hudson, and Peter B. Raven. "Effect of muscle tension on the cardiovascular responses to lower body negative pressure in man". Med. Sci. Sports and Exercise.

Raven, P.B. "Air Pollution and Exercise: Physiological Effects" in Exercise: Benefits, Limits and Adaptations. Eds. Macleod, Maughan, Nimmo Reilly and Williams. E & F Span, London, England, 1987, pp. 324-345.

Alvarez-Gonzalez, R. and M.K. Jacobson. "Characterization of polymers of adenosine diphosphate ribose generated in Vitro and in Vivo". Biochem., 26:3218-3224 (1987).

Jacobson, M.K. and D. Twehous. "Depletion of nicotinamide adenine dinucleotide in normal and xeroderma pigmentosum fibroblast cells by the antitumor drug CC-1065". Biochem. 25:5929-5932 (1987).

Kulkarni, G., G.S.J. Rao, N.G. Srinivasan, H.W. Hofer, P.M. Yuan and B.G. Harris. "Phosphorylation by protein kinase and sequence of the phosphopeptide". JBC, 262 (1):32-34 (1987).

Nunbhakdi, V. and E.L. Jacobson. "Effects of a poly(ADP-ribose) polymerase inhibitor on mutation frequencies in dividing and quiescent C3H10T1/2 cells". Mutation Research (1987).

Ziboh, V.A., T. Wong, M-C. Wu, and A.A. Yunis. "Induced rapid phospholipid methylation and arachidonic acid release by dimethyl sulfoxide-treated human promyelocytic leukemic HL-60 cells". Biochem. Biophys. Res Commun. 140 2:515-522 (1986).

Cardenas-Corona, M.E., E.L. Jacobson, and M.K. Jacobson. "Endogenous polymers of ADP-ribose are associated with the nuclear matrix". JBC, 262:(1987).

Bunnell, L.L. and C.I. Jenkins. "Otitis media: Should amoxicillin still be the first choice for an antibiotic?" JAOA (submitted), 1987.

Peterson, D.M. "The prevention and treatment of glaucoma". JOM, 2 (2): 20-22 (1988).

Peterson, D.M. "Heat disorders: prevention and treatment". JOM, 1 (4): 21-24 (1987).

Watanabe, N., S. Yonekura and H. F. Downey. "Regional myocardial blood flow during cardiac tamponade in hearts with chronic coronary artery occlusion". Cardiovas. Res. XXI (7): 530-536 (1987).

Smith, M.L., W.G. Squires, T.A. Brandon, P.B. Raven, and S.A. Nunneley. "Effect of 60-minute head-down tilt on arterial baroreflex function in anesthetized dogs". J. Autonomic Nerv. Sys., 20:87-90 (1987).
Hudson, D.L., M.L. Smith and P.B. Raven. "Physical fitness and hemodynamic response of women to lower body negative pressure". Med. Sci. in Sports and Exercise. 19 (4):375-381 (1987).

Wood, D.M., M.W. Emmett_Oglesby, and H. Lal. "The relationship between chronic cocaine use and anxiety in an animal model". Proceedings of the 31st Annual AOA Research Conference: Part II:697 (1987).

PRESENTATIONS

The following posters were presented by members of the Department of Microbiology / Immunology at the joint meeting of the Texas Branch of the American Society for Microbiology and the Southwestern Association of Clinical Microbiology in Dallas, Texas, (1987):

"Suspension cultivation of Treponema palladium (Nichols Strain). Bryan S. Reilly and David L. Cox, Ph.D.

"Use of fluorescent monoclonal antibodies to evaluate antichlamydial drug activity". Carolyn Holland, Annette Teepe, Shing-Chein Hsu, Lois Allen, Ph.D., and B.A. Schlech (Alcon).

"Radiolabeling of oligosaccharide determinants of Mycobacterium avium complex (MAC) serovar-specific antigen".

Julie Woodbury and William Barrow, Ph.D.

"Physiology of murine vaginal mucosa during estrous cycle affects susceptibility to HSV-2 infection". Annette Teepe, Lois Allen, Ph.D. and Elizabeth Harris, Ph.D.

"In Vivo effects of imipramine on natural killer cell activity of CBA-N mice during stress induced conditioned behavioral despair". Akbar Shahkolahi and Elizabeth Harris, Ph.D.

Konrad W. Scheel, Ph.D., Professor of Physiology, attended the 60th Scientific Sessions of the American Heart Association at Anaheim, CA. Dr. Scheel was one of the four invited panel members to speak on the subject of "Coronary Collaterals".

Kathryn J. Dolan, Ph.D., Assistant Professor of Medical Humanities, presented "Adult/child sexual interactions in humans: toward an ethological understanding" at the Jemez Springs Symposium of the International Society for Human Ethology. She also attended the Third International Conference on Family Violence Research in Durham, New Hampshire and presented "Evaluating child sexual abuse prevention programs: Is there a method to this madness?"

Konrad Scheel, Ph.D., Department of Physiology, was invited to present a paper on "Model of the coronary and collateral circulation" in Osaka and Hirosaki, Japan at the 8th International Conference of the Cardiovascular Systems Dynamics Society. He also chaired a session on "Collateral Circulation".

Carl E. Jones, Ph.D., Professor and Chairman of Physiology, attended a

meeting at the Johnson Space Center in Houston. He submitted a report on his work funded by NASA titled "Assessment of clinical chemical sensing technology for possible use in the space station health maintenance facility".

H. Fred Downey, Ph.D., Professor of Physiology, presented a report on "Peripheral coronary microembolism increases retrograde flow in hearts with well-developed collateral vessels: evidence for microvascular collaterals" at the Fourth World Congress for Microcirculation held in Tokyo, Japan. Co-authors of this presentation were Noriyasu Watanabe, M.D., Ph.D., Shuji Yonekura, M.D., Derald Grice and Arthur Williams.

Harbans Lal, Ph.D. co-chaired and Konrad Retz, Ph.D. was Program Chairman of a Satellite Symposium, of the 17th Annual Meeting of the Society for Neuroscience "Autoimmunity: Its Role in Alzheimer's Disease and Other Behavioral Disorders." Papers presented included:

Forster, M.J., K.C. Retz and H. Lal. "Autoimmunity-associated learning and memory deficits in mice: animal models of Alzheimer's disease?"

Retz, K.C., M.J. Forster and H. Lal. "Altered pharmacological responses in autoimmune NZB/BINJ mice".

The following faculty members of the Department of Pharmacology presented posters at the 17th Annual meeting of the Society for Neuroscience which was held in New Orleans, LA:

Michael Forster, Konrad Retz, T.L. Johnson, M.D. Popper, and H. Lal. "Habituation retention: age differences in young NZB/BINJ mice parallel senescence-related changes in C57BL/6NNIA mice".

D. Benjamin, Cynthia Harris, S. Bhadra, Michael Emmett-Oglesby, and Harbans Lal. "Intensity of Pentyl- enetetrazol-like discriminative stimulus produced by

ethanol withdrawal depends on dose and duration of ethanol given in nutritionally balanced diet".

Smart Idemudia and Harbans Lal. "Interceptive stimulus produced by diazepam withdrawal is potentiated by picrotoxinin".

T.S. Shippenberg, Michael Emmett - Oglesby and A. Herz. "Motivational properties of opioids: evidence that tolerance develops to their reinforcing and aversive effects".

Harbans Lal, P. Bhakthavatsalam, and Michael Forster. "Facilitation of learning, enhancement of memory and protection against amnesia by a benzodiazepine antagonist in mice".

Douglas Wood, and Michael Emmett - Oglesby. "Evidence for D2-receptor involvement in tolerance to the discriminative stimulus properties of cocaine".

Michael Emmett-Oglesby and Douglas Wood. "Evidence for site specific mediation of the discriminative stimulus produced by cocaine: the role of the nucleus accumbens".

Cynthia Harris, D. Benjamin and Harbans Lal. "Ethanol antagonist Ro 15-4513: anxiogenic effect demonstrated in pentylenetetrazol discrimination".

Konrad Retz and T.V. Tran. "Use a repeated-measures design to study analgesia produced by oxotremorine and nicotine in mouse tail immersion test".

Harbans Lal attended the American College of Neuropsychopharmacology meeting in San Juan, Puerto Rico and presented a paper titled "Alzheimer's disease and autoimmunity: a research update".

NEWS AND NOTES

MEDICAL STUDENT WINS AWARD FOR RESEARCH

S/D J. Ben Hengy won a first place award of \$100 in the Annual Medical Graduate Student Research Competition of the Southwest Section, Society for Experimental Biology and Medicine. S/D Hengy's research report was titled "Does peripheral collaterization also induce coronary collaterization?"

He conducted his research in the laboratory of H. Fred Downey, Ph.D., Professor of Physiology, during the summer of 1987. The work was supported by Dr. Downey's NIH grant. An abstract describing the work has been published in the Proceedings of the Society. Co-authors of the abstract are Arthur Williams, Noriyasu Watanabe and H. Fred Downey.

DOCTORAL GRADUATE RECEIVES NRSA

Michael L. Smith, Ph.D., a doctoral graduate of the Physiology Department at TCOM/NTSU, recently received notice of a three year National Research Service Award of \$65,004 from the National Heart, Lung and Blood Institute.

Dr. Smith will carry out his fellowship with Professor Dwain L. Eckberg, M.D. at Virginia Commonwealth University in Richmond, VA. Mike did his work at TCOM under Peter Raven, Ph.D.

PHARMACOLOGISTS CHAIR SATELLITE SESSION

Drs. Michael Emmett-Oglesby and **Harbans Lal** co-chaired a meeting of the Society for Stimulus Properties of Drugs. The meeting was held as a satellite session of the annual meeting of the Society for Neuroscience in New Orleans, LA. Twelve presentations were made concerning the use of drug discrimination (a technique for assessing subjective effects of drugs in animals). Dr. Lal is President, and Dr. Emmett-Oglesby is Secretary - Treasurer of the Society.