

BIOMEDICAL RESEARCH

PUBLICATIONS

A. Wohlgemuth, "The effect of cross-reactivity on immunological reaction matrices," *Mathematical Biosciences* 25, 51-65 (1975).

A. Wohlgemuth, "Abstract immunogenetic systems," *J. Theoretical Biology* 73: 469-508 (1978).

A. Wohlgemuth, "Matrix techniques applied to CML-typed H-2 mutants," *Immunogenetics* 7: 379-389 (1978).

A. Wohlgemuth, "Defining specificities, genes, antigens and antibodies--a matrix approach," *Immunogenetics* 7: 481-490 (1978).

J. Hirschfeld and A. Wohlgemuth, "Conceptual framework shifts in immunogenetics: the anatomy of the Ag system." *Progress in Theoretical Biology*, Vol. 5, 129-182, R. Rosen, Ed., Academic Press (1978).

A. Wohlgemuth, "Labeled reaction matrices, a histocompatibility model," *Discrete Mathematics* 26: 285-292 (1979).

A. Wohlgemuth, "Modeling immunogenetic specificities," *Mathematical Biosciences* 35: 175-177 (1979).

G. Markowsky and A. Wohlgemuth, "Uncovering antibody incidence structures," *Mathematical Biosciences* 52: 141-156 (1980).

A. Wohlgemuth and G. Markowsky, "A fragment-cofragment model of antibody incidence structures," *Mathematical Biosciences* 53: 265-273, (1981).

A. Wohlgemuth and G. Markowsky, "Mathematical immunogenetics I – mathematics as language", *J. Theoretical Biology* 102: 411-424 (1983).

G. Markowsky and A. Wohlgemuth, "Mathematical immunogenetics II – antibody incidence structure", *J. Theoretical Biology* 102: 425-437 (1983).

G. Markowsky and A. Wohlgemuth, "Intersection-union systems", *Discrete Applied Mathematics* 6: 255-262 (1983).

G. Markowsky and A. Wohlgemuth, "Identifying antigens and antibodies in serology", *Mathematical Biosciences* 66: 273-282 (1983).

A. Wohlgemuth, "An interactive program for determining tentative gene assignments from immunological data", *Computers and Biomedical Research* 20: 76-84 (1987).

A. Wohlgemuth and D. P. Dubey, "The impact of symbolism on immunogenetics--an application to HLA", *J. Theoretical Biology* , 126: 149-165 (1987).

A. Wohlgemuth and D. P. Dubey, "Symbolic reinterpretation of HLA gene products - impact of interpretation of HLA data at the molecular level", *Computer Applications in the Biosciences* , Vol. 3, 233-238 (1987).

A. Wohlgemuth, "Symbolic interpretation of data and the definition of factors in immunogenetics", Theoretical Immunology, Part Two, Sante Fe Institute Studies in the Sciences of Complexity, 147-160, A. S. Perelson, Ed. Addison-Wesley (1988).

D. N. Hoover and A. Wohlgemuth, "Serological interpretation - theoretical limits to information from blocking", Mathematical Biosciences 98: 127-142 (1990).

A. Wohlgemuth and D. P. Dubey, "Mathematically defined complex affinities--corroboration at the DNA level", Selected Topics on Mathematical Models in Immunology and Medicine, Chapter 13, 125-130, R. Mohler and A. Asachenkov, Ed. International Institute for Applied Systems Analysis, Laxenburg, Austria (1990).

A. Wohlgemuth and D. P. Dubey, Russian translation of the work above (1991).

A. Wohlgemuth and D. P. Dubey, "The effects of symbolic bias in the science of immunogenetics-- prediction and confirmation in alternative models", Mathematical and Computer Modelling, Vol. 16, No. 6/7, 225;236 (1992).

TECHNICAL REPORTS

University of Maine Mathematics Technical Reports: 78-2 (1978), 81-5(1981); (with Devendra P. Dubey): 84-1 (1984), 84-2 (1984).

IBM Research Reports (with George Markowsky): RC 8102 (1980), RC 8227(1980), RC 8552 (1980), RC 9092 (1981), RC 8901 (1981), RC 8902 (1981), RC9010 (1981).

REVIEWS

J.K.Percus, Combinatorial Methods in Developmental Biology, Courant Inst. Math. Sciences, NY (1977). Mathematical Reviews MR 0452792.

Nau, Markowsky, Woodbury, and Amos, A mathematical analysis of human leukocyte antigen serology, Math. Biosciences 40, (1978). Mathematical Reviews MR 0503830.

SCIENTIFIC REVIEW COMMITTEES

National Institutes of Health, Consultant (1992-1998); UM Biomedical Research Support Grant Review Committee (1986-1990)

REFEREEING

Discrete Mathematics; Mathematical Biosciences; Journal of Theoretical Biology;