

fairs, University of Illinois College of Medicine, to dean, Mercer University School of Medicine. . . . **C. Mel Adams**, professor of materials engineering, University of Wisconsin, Milwaukee, to dean, College of Engineering, University of Cincinnati. . . . **Donald F. Tapley**, professor of medicine, Columbia University, to dean, Columbia University Faculty of Medicine. . . . **Hla Shwe**, chairman, physics department, East Stroudsburg State College, to dean of science at the college. . . . **Roy B. Levow**, assistant professor of mathematics, Florida Atlantic University, to chairman, mathematics department at the university. . . . **Robert N. Berk**, associate professor of radiology, University of California, San Diego, to chairman, radiology department, University of Texas Health Science Center. . . . **Louis Kriesberg**, professor of sociology, Syracuse University, to chairman, sociology department at the university. . . . **Douglas E. Kelly**, chairman, biological structure department, University of Miami School of Medicine, to chairman, anatomy department, University of Southern California School of Medicine.

RECENT DEATHS

Norma J. Adamo, 47; associate professor of anatomy, Louisiana State University; 25 October.

Charles Aikin, 73; former chairman, political science department, University of California, Berkeley; 24 November.

Carl B. Allendorfer, 63; professor of mathematics, University of Washington; 29 September.

Rupert S. Anderson, 76; former research physiologist, U.S. Army Biomedical Laboratory, Edgewood Arsenal; 16 October.

Wilfred H. Baker, 62; former professor of civil engineering, West Virginia University; 5 November.

Ralph Colp, 81; former clinical professor of surgery, College of Physicians and Surgeons, Columbia University; 11 November.

LeRoy L. Constantin, 39; professor of physiology and biophysics, Washington University School of Medicine; 7 November.

George S. Counts, 84; professor emeritus of education, Columbia University; 10 November.

Rex Cox, 86; former professor of agricultural economics, University of Minnesota; 29 October.

Hunter Guthrie, 73; former president, Georgetown University; 11 November.

Jarvis B. Hadley, 65; research geologist, U.S. Geological Survey; 14 November.

Conrad Hammar, 79; former professor of agricultural economics, University of Minnesota; 5 November.

Roger G. Hart, 46; biophysicist, bio-medical division, Lawrence Livermore Laboratory; 10 November.

L. Emmett Holt, Jr., 79; former chairman, pediatrics department, New York University School of Medicine; 30 November.

Myron R. Karon, 42; professor of pediatrics, University of Southern California School of Medicine; 16 November.

M. Gertrude Keckeissen, 65; professor of psychology, College of Mount St. Vincent; 17 November.

Robert C. Kinter, 74; professor emeritus of chemical engineering, Illinois Institute of Technology; 15 October.

Erich Lindemann, 74; visiting professor of psychiatry, Stanford University School of Medicine; 16 November.

Gerald MacCarthy, 77; former professor of geology, University of North Carolina, Chapel Hill; 31 October.

Ray S. Marsh, 79; professor emeritus of horticulture, West Virginia University; 2 November.

Robert E. McKechnie, 68; former chancellor, University of British Columbia; 17 October.

Imogene E. Okes, 52; education specialist, U.S. Office of Education; 22 October.

James R. Patrick, 81; professor emeritus of psychology, Ohio University; 3 August.

William B. Snow, 79; retired professor of physical medicine, Columbia University; 16 November.

Charles K. Trueblood, 81; former chairman, psychology department, American University; 1 November.

Jerome P. Webster, 86; professor emeritus of clinical surgery, College of Physicians and Surgeons, Columbia University; 14 November.

Howard B. White, 62; former dean, graduate faculty of political and social sciences, New School for Social Research; 4 November.

Irvin G. Wyllie, 54; chancellor, University of Wisconsin-Parkside; 25 October.

Frederick F. Yonkman, 72; former chairman, pharmacology department, Wayne State University; 16 September.

RESEARCH NEWS

(Continued from page 1185)

now at Sloan-Kettering Memorial Institute, has purified two polypeptides, thymopoietin I and II (formerly called thymine I and II) from bovine thymus gland. The two polypeptides have very similar chemical and biological properties.

The precursors of T cells are formed in bone marrow. Gideon Goldstein and Ross Basch of New York University School of Medicine found that bone marrow cells rapidly acquire surface antigens characteristic of mature T cells when they are incubated with very low concentrations of thymopoietin I or II. As little as 2 nanograms of polypeptide per milliliter of culture medium produces a maximal response. With David Schlesinger of Massachusetts General Hospital, Gideon Goldstein has now determined the amino acid sequence of thymopoietin II, which weighs 5550 daltons, and has synthesized a biologically active molecule.

Nonspecific Thymic Polypeptide

Gideon Goldstein, Edward Boyse, and their colleagues at Sloan-Kettering have isolated yet another thymic polypeptide that induces T cell differentiation. This one, however, also induces B cell maturation and is found in every cell type, including plant cells and bacteria, that they have examined. The investigators have named the material ubiquitous immunopoietic polypeptide (UBIP). Because of its lack of specificity and its presence in organisms that have no immune systems, they do not think that UBIP functions physiologically in the differentiation of T cells. The capacity of this substance to stimulate T cell differentiation points up the caution that must be exercised in identifying physiological inducers of differentiation.

Nevertheless, there is strong evidence that an endocrine deficiency—a lack of thymosin or other thymic hormones—contributes at least partially to the etiologies of immunodeficiency and autoimmune diseases, cancer, and even the degenerative changes of old age. All this raises the as yet unproven but still exciting possibility that hormonal replacement therapy can help control these diseases just as insulin controls diabetes. It also means that the thymus gland, once thought to be about as useful as the human appendix, may well be the master gland of the immune system.—JEAN L. MARX