

Recent Articles in Ageing Research

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As a regular feature of *Gerontologia*, the Editors publish in each issue a selection of recent articles in all fields of ageing research covered by this journal, appearing in other journals in this field and in some multi-disciplinary journals generally accessible to most readers. This selection does not intend to be complete, but to present articles which in the opinion of the Editors will be of interest to our readers. The Editors are responsible for the selection, but invite readers to bring to their attention articles which they think should be included in the next list.

The articles are ordered alphabetically under the following subject headings: (1) General, (2) Biochemistry, (3) Metabolism, (4) Cell Culture, (5) Physiology and Cell Biology, (6) Immunology, (7) Histology, Cytology, Comparative Anatomy, (8) Pharmacology, (9) Longevity, Populations, Genetics, (10) Plants, and (11) Psychology and Behaviour.

General

HIRSCH, H. R.: The multistep theory of aging: relation to the forbidden-clone theory. A theoretical article. *Mech. Age. Dev.* 3: 165–172 (1974).

NANNEY, D. L.: Aging and long-term temporal regulation in ciliated protozoa. A critical review. *Mech. Age. Dev.* 3: 81–106 (1974).

Biochemistry

BEDRAK, E.: Activity of 21-hydroxylase associated with senescence and heat-acclimatization in the mouse testis. *Expl Gerontol.* 9: 235–244 (1974).

CHESKY, J. A.: The intrinsic nature of the loss of actomyosin ATPase activity during senescence in the male house fly, *Musca domestica* L. *Mech. Age. Dev.* 3: 241–244 (1974).

GANDHI, B. S. and KANUNGO, M. S.: Effect of cortisone on monoamine oxidase of the liver of young and old rats. *Indian J. Biochem. Biophys.* 11: 102–104 (1974).

GJESSING, L. R.; GJESDAHL, P.; DIETRICHSON, P., and PRESTHUS, J.: Free amino acids in the cerebrospinal fluid in old age and Parkinson's disease. *Eur. Neurol.* 12: 33–37 (1974).

GORDON, S. M. and FINCH, C. E.: An electrophoretic study of protein synthesis in brain regions of senescent male mice. *Expl. Gerontol.* 9: 269–174 (1974).

HAWCROFT, D. M. and MARTIN, P. A.: Studies on age-related changes in the lipids of mouse liver microsomes. *Mech. Age. Dev.* 3: 121–130 (1974).

HELFMAN, P. M. and PRICE, P. A.: Human parotid alpha-amylase – a test of the error theory of aging. *Expl. Gerontol.* 9: 209–214 (1974).

HOLM-PEDERSEN, P.; FENSTAD, A. M., and FOLKE, L. E. A.: DNA, RNA and protein synthesis in healing wounds in young and old mice. *Mech. Age. Dev.* 3: 173–186 (1974).

JURKOWITZ, M.; SCOTT, K. M.; ALTSCHULD, R. A.; MEROLA, A. J., and BRIERLEY, G. P.: Ion transport by heart mitochondria. Retention and loss of energy coupling in aged heart mitochondria. *Archs Biochem. Biophys.* 165: 98–113 (1974).

KADLUBOWSKI, M. and HARRIS, J. R.: The appearance of a protein in the human erythrocyte membrane during ageing. *FEBS Lett.* 47: 252–254 (1974).

- KAREN, P.; DEYL, Z., and JELÍNEK, J.: Influence of age and treatment with sodium chloride and desoxycorticosterone acetate on collagenous stroma of compensatory growing kidneys in the rat. *Mech. Age. Dev.* 3: 157-163 (1974).
- MANN, D. M. A. and YATES, P. O.: Lipoprotein pigments – their relationship to ageing in the human nervous system. I. The lipofuscin content of nerve cells. *Brain* 97: 481-488 (1974).
- MANN, D. M. A. and YATES, P. O.: Lipoprotein pigments – their relationship to ageing in the human nervous system. II. The melanin content of pigmented nerve cells. *Brain* 97: 489-498 (1974).
- PLANET, G. and WILLEMOT, J.: Changes in purine phosphoribosyltransferase activities in mouse brain, liver and muscle with age. *Biochim. biophys. Acta* 364: 236-242 (1974).
- RATHA, B. K. and KANONGO, M. S.: Age-dependent induction of isoenzymes of tyrosine aminotransferase of the liver of the rat. *Mech. Age. Dev.* 3: 187-190 (1974).
- RYAN, J. M.; DUDA, G., and CRISTOFALO, V. J.: Error accumulation and aging in human diploid cells. *J. Geront.* 29: 616-621 (1974).
- WALLACH, Z. and GERSHON, D.: Altered ribosomal particles in senescent nematodes. *Mech. Age. Dev.* 3: 225-234 (1974).

Metabolism

- INAMDAR, A. R.; PERSON, R.; KOHNEN, P.; DUNCAN, H., and MACKLER, B.: Effect of age on oxidative phosphorylation in tissues of hamsters. *J. Geront.* 29: 638-642 (1974).
- PÉNZES, L.: Intestinal absorption of glycine, L-alanine and L-leucine in the old rat. *Expl. Gerontol.* 9: 254-258 (1974).
- PÉNZES, L.: Further date on the age-dependent intestinal absorption of dibasic amino acids. *Expl. Gerontol.* 9: 259-262 (1974).
- PÉNZES, L. and BOROS, M.: Intestinal absorption of some heterocyclic and aromatic amino acids from the ageing gut. *Expl. Gerontol.* 9: 253-258 (1974).

Cell Culture

- BEZOOIJEN, C. F. A. VAN; NOORD, M. J. VAN, and KNOOK, D. L.: The viability of parenchymal liver cells isolated from young and old rats. *Mech. Age. Dev.* 3: 107-120 (1974).
- GOLDSTEIN, S. and SINGAL, D. P.: Alteration of fibroblast gene products *in vitro* from a subject with Werner's syndrome. *Nature, Lond.* 251: 719-721 (1974).
- GOOD, P. I. and SMITH, J. R.: Age distribution of human diploid fibroblasts. A stochastic model for *in vitro* aging. *Biophys. J.* 14: 811-824 (1974).
- GROVE, G. L. and MITCHELL, R. B.: DNA microdensitometry as a measure of cycling-noncycling activity in aged human diploid cells in culture. *Mech. Age. Dev.* 3: 235-240 (1974).
- YANISHEVSKY, R.; MENDELSON, M. I.; MAYALL, B. H., and CRISTOFALO, V. J.: Proliferative capacity and DNA content of aging human diploid cells in culture: a cytophotometric and autoradiographic analysis. *J. cell. comp. Physiol.* 84: 165-170 (1974).

Physiology and Cell Biology

- EHRET, G.: Age-dependent hearing loss in normal-hearing mice. *Naturwissenschaften* 61: 506-507 (1974).

- POLLOCK, M. L.; MILLER, H. S., and WILMORE, J.: Physiological characteristics of champion American track athletes 40 to 75 years of age. *J. Geront.* 29: 645-649 (1974).
- SILINI, G.; ANDREOZZI, U., and BRIGANTI, G.: Erythroid differentiation of haemopoietic progenitor cells in the course of ageing. *Expl. Gerontol.* 9: 281-284 (1974).
- VYSKOČIL, F.: Action potentials of the rat diaphragm and their sensitivity to tetrodotoxin during postnatal development and old age. *Eur. J. Physiol.* 352: 155-164 (1974).

Immunology

- BUCKLEY, C. E.; BUCKLEY, E. G., and DORSEY, F. C.: Longitudinal changes in serum immunoglobulin levels in older humans. *Fed. Proc.* 33: 2036 (1974).
- CALLARD, R. E.: Rosette-forming cells in neonatal animals. *Mech. Age. Dev.* 3: 191-202 (1974).
- GERBER, N. L.; HARDIN, J. A.; CHUSED, T. M., and STEINBERG, A. D.: Loss with age in NZB/W mice of thymic suppressor cells in the graft-vs.-host reaction. *J. Immun.* 113: 1618-1625 (1974).
- GOLDSTEIN, A. L.; HOOPER, J. A.; SCHULOF, R. S.; COHEN, G. H.; THURMAN, G. B.; MCDANIEL, M. C.; WHITE, A., and DARDENNE, M.: Thymosin and the immunopathology of aging. *Fed. Proc.* 33: 2053 (1974).
- GOLDSTONE, M. B. A. and DIXON, F. J.: Aging and chronic virus infection: is there a relationship? *Fed. Proc.* 33: 2057 (1974).
- GOOD, R. A. and YUNIS, E. J.: Association of autoimmunity, immunodeficiency and aging in man, rabbits and mice. *Fed. Proc.* 33: 2040 (1974).
- NORDIN, A. A. and MAKINODAN, T.: Humoral immunity in aging. *Fed. Proc.* 33: 2033 (1974).
- STUTMAN, O.: Cell-mediated immunity and aging. *Fed. Proc.* 33: 2028 (1974).
- TEAGUE, P. O.: Spontaneous autoimmunity and involution of the lymphoid system. *Fed. Proc.* 33: 2051 (1974).
- WALFORD, R. L.: Immunologic theory of aging: current status. *Fed. Proc.* 33: 2020 (1974).
- YUNIS, E. J. and GREENBERG, L. J.: Immunopathology of aging. *Fed. Proc.* 33: 2017 (1974).

Histology, Cytology, Comparative Anatomy

- BARNETT, S. A.; MUNRO, K. M. H., and STODDART, R. C.: Growth and pathology of aged house mice. *Expl. Gerontol.* 9: 275-280 (1974).
- DAVIES, I.: The effect of age and diet on the ultrastructure of hymenopteran flight muscle. *Expl. Gerontol.* 9: 215-220 (1974).
- HECKER, H.; BRUN, R.; REINHARDT, C., and BURRI, P.: Morphometric analysis of the midgut of female *Aedes aegypti* (L.) (*Insecta, Diptera*) under various physiological conditions. *Cell Tiss. Res.* 152: 31-49 (1974).
- HIRSCH, H. R.; JOHNSON, H. A.; CURTIS, H. J., and PAVELEC, M.: The influence of temperature on chromosome aberrations in tissue culture: relation to thermal aging. *Expl. Gerontol.* 9: 221-226 (1974).
- JOHNSON, J. E. and MIQUEL, J.: Fine structural changes in the lateral vestibular nucleus of aging rats. *Mech. Age. Dev.* 3: 203-224 (1974).

- JORIS, I. and MAJNO, G.: Cellular breakdown within the arterial wall. An ultrastructural study of the coronary artery in young and aging rats. *Virchows Arch. path. Anat. Physiol. A* 364: 111 (1974).
- MIQUEL, J.; TAPPEL, A. L.; DILLARD, C. J.; HERMAN, M. M., and BENSCH, K. G.: Fluorescent products and lysosomal components in aging *Drosophila melanogaster*. *J. Geront.* 29: 622-637 (1974).
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- SIMPSON, L. O.: Studies on the NZB mouse thymus. I. Thymus weight relationships to age and body weight from birth to old age. *Am. J. Anat.* 141: 127-132 (1974).
- SPOERRI, P. E. and GLEES, P.: The effects of dimethylaminoethyl *p*-chlorophenoxyacetate on spinal ganglia neurons and satellite cells in culture. Mitochondrial changes in the aging neurons. An electron microscope study. *Mech. Age. Dev.* 3: 131-156 (1974).
- TANAKA, Y.; NODA, K.; NOMAGUCHI, T., and YAMAGISHI, H.: Hepatic melanosis and aging in amphibia. A preliminary observation on two species of *Anura*, *Xenopus laevis* and *Rana nigromaculata*. *Expl. Gerontol.* 9: 263-268 (1974).
- VAUGHAN, D. W. and PETERS, A.: Neuroglial cells in the cerebral cortex of rats from young adulthood to old age. An electronmicroscopic study. *J. Neurocytol.* 3: 405-429 (1974).

Pharmacology

- COHEN, M. L. and BERKOWITZ, B. A.: Age-related changes in vascular responsiveness to cyclic nucleotides and contractile agonists. *J. Pharmac. exp. Ther.* 191: 147-155 (1974).
- STOPP, M.: Age-dependent differences in the toxicity of 2,4-dinitrophenol in rats. *Acta biol. med. germ.* 33: 249-252 (1974).

Longevity, Populations, Genetics

- NOMAGUCHI, T. A.: Seasonal variations in life span of the ascidian, *Ciona intestinalis*. *Expl. Gerontol.* 9: 231-234 (1974).

Plants

- KHAN, P. A. and MISRA, G.: Correlation between the age-related metabolites and photo-induction in *Oryza sativa*. *Expl. Gerontol.* 9: 227-230 (1974).

Psychology and Behaviour

- ARENBERG, D.: A longitudinal study of problem solving in adults. *J. Geront.* 29: 650-658 (1974).
- BRONSTEIN, P. M.; DWORKIN, T., and BILDER, B. H.: Age-related differences in rats' spontaneous alternation. *Anim. Behav.* 2: 285-288 (1974).
- GORDON, S. K. and CLARK, W. C.: Adult age differences in word and nonsense syllable recognition memory and response criterion. *J. Geront.* 29: 659-665 (1974).
- LABOUIE-VIEF, G.; HOYER, W. J.; BALTES, M. M., and BALTES, P. B.: Operant analysis of intellectual behaviour in old age. *Hum. Dev.* 17: 259-272 (1974).
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