

## **Recently Published Papers in the Field of Molecular Evolution**

### **American Journal of Botany (Lawrence)**

**60** No. 2 (February) 1973

Disc electrophoretic study of pollen proteins from natural populations of *betula populifolia* in New Jersey. Payne, R. C., Fairbrothers, D. E. (Dept. of Botany, Rutgers Univ., New Brunswick, New Jersey 08903) — p. 182

### **Archives of Biochemistry and Biophysics (New York)**

**155** No. 1 (March) 1973

Amino acid analysis with fluorescamine at the picomole level. Stein, S. et al. (Roche Instit. of Molecular Biol., Nutley, New Jersey 07110) — p. 202

### **Biochemical Genetics (New York)**

**8** No. 3 (March) 1973

Age-dependent allozymic variation in a natural population of lizards. Tinkle, D. W. Selander, R. K. (Dept. of Zoology, Univ. of Michigan, Ann Arbor, Michigan) — p. 231

Genetic polymorphism of lactate dehydrogenase isoenzymes in the carp (*cyprinus carpio*) apparently due to a "null allele". Engel, W. et al. (Instit. für Human-genetik, Univ. of Freiburg i.Br.) — p. 281

Evolution of the immunoglobulin antigens in the ruminantia. Curtain, C. C., Fudenberg, H. H. (Sect. of Hematol., Dept. of Med., Univ. of Calif., San Francisco, Calif.) — p. 301

### **Biochemical Systematics (Oxford)**

**1** No. 1 (January) 1973

Chemosystematics and taxonomy of ambrosia *chamissonis*. Payne, W. E. et al. (Dept. of Botany, Univ. of Illinois, Urbana, IL 61801, USA) — p. 21

Chemosystematic aspects of flavonoid distribution in twenty-two taxa of *helenium*. Bierner, M. W. (Dept. of Botany, Univ. of Tennessee, Knoxville, Tenn. TN 37916) — p. 55

Phenetic groupings in bees of the tribe *bombini* based on the enzyme  $\alpha$ -glycerophosphate dehydrogenase. Stephen, W. P., Cheldelin, I. H. (Dept. of Entomol., Oregon State Univ., Corvallis, OR 97331 USA) — p. 69

### **Canadian Journal of Genetics and Cytology (Ottawa)**

**14** No. 4 (December) 1972

Seed protein homologies and the evolution of polyploidy in *avena*. Ladizinsky, G., Johnson, B. L. (Fac. of Agricult., Hebrew Univ., Rehovot, Israel) — p. 875

**Comparative Biochemistry and Physiology (London)**

44 No. 4a (April) 1973

Occurrence of haemoglobin in *lineus lacteus*, L. *Ruber* and *L. Viridis* (*Rhynchocoela*, *Lineidae*). Vernet, G. (Laborat. de Biol. Cellulaire, Fac. des Sciences, B.P. 347—51, Reims, France) — p. 1053

44 No. 4B (April) 1973

Immunochemistry of frog lactate dehydrogenase (LDH) and the subunit homologies of amphibian LDH isozymes. Wright, D. A., Möyer, F. H. (Univ. of Texas Graduate Sch. of Biomed. Sciences, Houston, Texas 77025) — p. 1011

Electrophoretic study of nervous tissue proteins from invertebrate and vertebrate animals. Waehneldt, T. V. et al. (Max-Planck-Instit. für experimentelle Med., Arbeitsgruppe Neurochem., 3400 Göttingen) — p. 1043

Pyruvate kinase isozymes: a comparative study in tissues of various mammalian species. Osterman, J., Fritz, P. J. (Dept. of Pharmacol., Pennsylvania State Univ. Coll. of Med., Hershey, Penn. 17033) — p. 1077

Cytogenetic and biochemical differences between *apodemus sylvaticus* and *apodemus flavicollis*, possibly responsible for the failure to interbreed. Engel, W. et al. (Instit. für Humangenetik der Univ. 78 Freiburg i.Br.) — p. 1165

45 No. 1B (May) 1973

A study of achromatic regions in species of salmonidae and esocidae. Locascio, N. J. T., Wright, J. E. Jr. (Dept. of Biol., Buffalo State Univ. Coll., Buffalo, New York 14222) — p. 13

Phylogenetic evolution of the cornea. Macromolecular composition of the corneal stroma of the squid (*sepia officinalis*). Moczar, M., Moczar, E. (Laborat. de Biochem. du Tissu Conjonctif, Fac. de Med., 6 rue du General Sarrail, 94000 Créteil, France) — p. 213

Protides of the mustelidae: comparative study of plasma lactate dehydrogenases. Ledoux, R. G., Kenyon, A. J. (Dept. of Animal Diseases, Univ. of Connecticut, Storrs, Connecticut 06268) — p. 225

Lactate dehydrogenase isozymes of the mongolian gerbil, *meriones unguiculatus* — II. Ontogeny and relative isozyme composition. Lindahl, R., Mayeda, K. (Dept. of Biol., Wayne State Univ., Detroit, Michigan 48202) — p. 265

**Experientia (Basel)**

29 No. 3 1973

Die Bedeutung des Serumweißbildes zur Diagnose von *Bufo calamita* Laur., *Bufo viridis* Laur. und deren Bastarden (Amphibia, Anura, Bufonidae). Flindt, R., Hemmer, H. (Instit. für Physiol. Zoologie der Johannes Gutenberg-Univ., D-65 Mainz) — p. 361

**Febs Letters (Amsterdam)**

30 No. 3 (March) 1973

Lack of  $Tp\gamma p$  in loop IV of a mammalian initiator transfer RNA. Piper, P. W., Clark, B. F. C. (Med. Research Council, Laborat. of Molecular Biol., Hills Road, Cambridge CB2 2 QH, England) — p. 265

On the subunit structure of cytochrome oxidase from beef heart mitochondria. Komai, H., Capaldi, A. (Instit. for Enzyme Research, Univ. of Wisconsin, Madison, Wisc. 53706, USA) — p. 273

**Genetica Polonica**

12 No. 4 1971

Polymorphism of transferrins in various pig races bred in Poland. Madeyska-Lewandowska, A. (Instit. of Genetics and Animal Breeding, Polish Acad. of Sciences, Jastrzebiec) — p. 447

Polymorphism of serum amylase in black- and white lowland cattle and polish-red cattle. Skladanowska, E. et al. (Instit. Genet. and Anim. Breed., Polish Acad. Sci., Jastrzebiec) — p. 455

Preliminary research on transferrin polymorphism in wild boar (*sus scrofa ferus*). Szwarczka, T., Zurkowski, M. (Instit. of Genet. and Anim. Breed., Polish Acad. of Sci., Jastrzebiec) — p. 443

Investigations on differentiation of beta-globulin subfractions in the blood serum of nutria (*Myocastor coypus Molina 1792*). Szynkiewicz, E. (Dept. of Gen. Anim. Breed., Agricul. Univ., Warszawa) — p. 465

Polymorphism of blood serum proteins in polish primitive horses (descended from the tarpan). I. Transferrin, Albumin, prealbumin, and esterase polymorphism. Tomaszevska-Guzskiewicz, K., Zurkowski, M. (Instit. of Genet. and Anim. Breed., Polish Acad. of Sci., Jastrzebiec) — p. 459

**Hoppe-Seyler's Zeitschrift für Physiologische Chemie (Berlin)**

354 No. 3 (März) 1973

Über Thynnin, das Protamin des Thunfisches. Die Aminosäuresequenz von Thynnin Zi. XIII. Mitteilung über die Struktur der Protamine in der Untersuchungsreihe von E. Waldschmidt-Leitz und Mitarbeitern. Bretzel, G. (HNO-Klin. der Univ. München, D-8000 München 1, Pettenkoferstr. 4a) — p. 312

**Journal of Theoretical Biology (London)**

38 No. 3 (March) 1973

An iterative approach from the standpoint of the additive hypothesis to the dendrogram problem posed by molecular data sets. Moore, G. W. et al. (Dept. of Anatomy, Wayne State Univ. Sch. of Med., Detroit, Michigan 48207, USA) — p. 423

A method for constructing maximum parsimony ancestral amino acid sequences on a given network. Moore, G. W. et al. (Dept. of Anatomy, Wayne State Univ. Sch. of Med., Detroit, Michigan, USA) — p. 459

On the evolutionary origin of mitochondrial DNA. Meyer, R. R. (Dept. of Biol. Sciences Univ. of Cincinnati, Cincinnati, Ohio 45221, USA) — p. 647

**National Academy of Sciences (Washington)**

70 No. 3 (March) 1973

Temporal frequency changes of enzyme and chromosomal polymorphisms in natural populations of drosophila. Dobzhansky, Th., Ayala, F. J. (Dept. of Genetics, Univ. of Calif., Davis, Calif. 95616) — p. 680

**Space Life Sciences (Dordrecht)**

4 No. 1 (January) 1973

Chemical evolution. Recent syntheses of bioorganic molecules. Stephen-Sherwood, E., Oró, J. (Dept. of Biophys. Sciences, Univ. of Houston, Houston, Texas 77004) — p. 5

The occurrence of nitrate on the early earth and its role in the evolution of the prokaryotes. Hall, J. B. (Dept. of Microbiol., Univ. of Hawaii, Honolulu, H.I.) — p. 204

**The Journal of Biochemistry (Tokyo)**

73 No. 1 (January) 1973

The number and size of ribosomal proteins in the cellular slime mold *dictyostelium discoideum*. Ochiai, H. et al. (Dept. of Botany, Fac. of Science, Hokkaido Univ., Sapporo) — p. 163

**The Journal of Biological Chemistry (Bethesda)**

248 No. 3 (February) 1973

Hemoglobin<sup>3</sup> $\alpha$  chains in apes. Primary structures and the presumptive nature of back mutation in a normally silent gene. Boyer, S. H. et al. (Dept. of Med., Johns Hopkins Univ. Sch. of Med., Baltimore, Maryland 21205) — p. 992