# Recently Published Papers in the Field of Molecular Evolution

## PRIMARY STRUCTURES OF NUCLEIC ACIDS

### Gene

17 No. 2 1982

The Nucleotide Sequence of cDNA Coding for the Structural Proteins of Foot-and-Mouth Disease. Boothroyd, J. C. et al. (Beckenham, England) - p. 153

Rapid Evolution of Genes Coding for Variant Surface Glycoproteins in Trypanosomes. Frasch, A. C. et al. (Buenos Aires, Argentina)-p.197

The Complete Nucleotide Sequence of a 16S Ribosomal RNA Gene from Tobacco Chloroplasts. Tohdoh, N. and Sugiura, M. (Mishima, Japan) - p. 213

DNA Sequences Flanking an E. coli Insertion Element IS2 in a Cloned Yeast TRP5 Gene. Brosius, J. and Walz, A. (Cambridge, U.S.A.) - p. 223

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Analysis of Plasmid Genome Evolution Based on Nucleotide-Sequence Comparison of Two Related Plasmids of Escherichia coli. Ryder, T. B. et al. (Stony Brook, U.S.A.) - p. 299

Nucleotide Sequence of Cloned cDNA Fragments Specific for Six Xenopus laevis Ribosomal Proteins. Amaldi, F. et al. (Rome, Italy) - p. 311

Nucleotide Sequence of the Major Early Region of Bacteriophage Ø29. Yoshikawa, H. and Ito, J. (Tokyo, Japan) - p. 323

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The Nucleotide Sequence of the HIS4 Region of Yeast. Donahue, T. F. et al. (Ithaca,U.S.A.) - p. 47

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The Nucleotide Sequence of the Promoter Region of hisS, the Structural Gene for Histidyl-tRNA Synthetase. Eisenbeis, S. J. and Parker, J. (Carbondale, U.S.A.) - p. 107

Nucleotide Sequence of the Transcription Initiation Region of a Rat Ribosomal RNA Gene. Financsek, I. et al. (Tokyo, Japan) - p. 115

The Nucleotide Sequence of the araC Regulatory Gene in Salmonella typhimurium. Clarke, P. et al. (Los Angeles, U.S.A.) - p. 157

A Common Sequence in the Inverted Terminal Repetitions of Human and Avian Adenoviruses. Alestrom, P. et al. (Uppsala, Sweden) - p.193

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Complete Nucleotide Sequence of a Chicken H2B Histone Gene. Grandy, D. K. et al. (East Lansing, U.S.A.) - p. 8577

Bacteriophage T4 Gene 45. Sequences of the Structural Gene and Its Protein Product. Spicer, E. K. et al. (New Haven,U.S.A.) - p.8972

Amplification and Modification of Dihydrofolate Reductase in Escherichia coli. Nucleotide Sequence of fol Genes from Mutationally Altered Plasmids. Smith, D. R. et al. (Ithaca, U.S.A.) - p. 9043

Evolution and Diversity of the Crystallins. Nucleotide Sequence of a ß-Crystallin mRNA from the Mouse Lens. Inana, G. et al. (Bethesda, U.S.A.) - p. 9064

On the Phylogeny of Phycomyces blakesleeanus. Nucleotide Sequence of 5S Ribosomal RNA. Andersen, J. et al. (Stony Brook, U.S.A.)-p.9114

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The Nucleotide and Amino Acid Coding Sequence of a Gene for H1 Histone That Interacts with Euchromatin. The Early Embryonic H1 Gene of the Sea Urchin Strongylocentrotus purpuratus. Levy, S. et al. (Menlo Park, U.S.A.) - p.9438

Two Similar but Nonallelic Rat Pancreatic Trypsinogens. Nucleotide Sequences of the Cloned cDNAs. MacDonald, R. J. et al. (Dallas, U.S.A.) - p. 9724

Cloning, Partial Sequencing, and Expression of Glyceraldehyde-3-phosphate Dehydrogenase Gene in Chick Embryonic Heart Muscle Cells. Arnold, H. H. et al. (Hamburg, F.R.G.)-p.9872

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Analysis of Sequence Microheterogeneity Among Zein Messenger RNAs. Marks, M. D. and Larkins, B. A. (West Lafayette, U.S.A.) - p. 9976

The Structure of Cloned DNA Complementary to Catfish Pancreatic Somatostatin-14 Messenger RNA. Minth, C. D. et al. (West Lafayette, U.S.A.) - p. 10372

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Cloning and Characterization of cDNA Sequences Corresponding to Myosin Light Chains 1, 2, and 3, Troponin-C, Troponin-T, α-Tropomyosin, and α-Actin. Garfinkel, L. I. et al. (Bronx,U.S.A.) - p. 11078

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Nucleotide Sequence of the Gene Encoding Adenovirus Type 2 DNA Binding Protein. Kruijer, W. et al. (Utrecht, The Netherlands) -p.4493

Sequence Variation and Methylation of the Flax 5S RNA Genes. Goldsbrough, P. B. et al. (Norwich, U.K.) - p. 4501

Nucleotide Sequence of a Protamine Component $C_{II}$ Gene of Salmo gairdnerii. States, J.C. et al. (Calgary, Canada) - p. 4551

The Nucleotide Sequence of a Glutamate tRNA from Rat Liver. Chan, J. C. et al. (Chicago, U.S.A.) - p. 4605

Mouse DNA Sequences Complementary to Small Nuclear RNA U1. Piechaczyk, M. et al. (Montpellier, France) - p. 4627

Sequences of Three Molluscan 5S Ribosomal RNAs Confirm the Validity of a Dnyamic Secondary Structure Model. Fang, R.-L. et al. (Wilrijk, Belgium) - p. 4679

Nucleotide Sequence of Aspergillus nidulans Mitochondrial Genes Coding for ATPase Subunit 6, Cytochrome Oxidase Subunit 3, Seven Unidentified Proteins, Four tRNAs and L-rRNA. Netzker, R. et al. (Göttingen, F.R.G.)-p.4783

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Isolation and Nucleotide Sequence of a Mouse Histidine tRNA Gene. Han, J. H. and Harding, J. D. (New York, U.S.A.) - p. 4891

Sequence of the Intercistronic Region Between the Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Large Subunit and the Coupling Factor ß Subunit Genes. Shinozaki, K. and Sugiura, M. (Mishima, Japan) - p. 4923

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Sequence of the N2 Neuraminidase from Influenza Virus A/NT/60/68. Bentley, D. R. and Brownlee, G. G. (Oxford, U.K.) - p. 5033

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Prostatic Steroid Binding Protein: Organisation of C1 and C2 Genes. Parker, M. et al. (London, U.K.) - p. 5121

Primary and Secondary Structure of Tetrahymena and Aphid 5.8 S rRNAs: Structural Features of 5.8 S rRNA Which Interacts with the 28 S rRNA Containing the Hidden Break. Fujiwara, H. and Ishikawa, H. (Tokyo, Japan) - p. 5173

Molecular Structure of the uvrC Gene of Escherichia coli: Identification of DNA Sequences Required for Transcription of the uvrC Gene. Sharma, S. et al. (Houston, U.S.A.) - p. 5209

Sequence and Secondary Structure of Mouse 28S rRNA 5'-Terminal Domain. Organisation of the 5.8 S and 28 S rRNA Complex. Michot, B. et al. (Toulose, France) - p.5273

Nucleotide Sequences of Three Poriferan 5S Ribosomal RNAs. Dams, E. et al. (Wilrijk, Belgium) - p. 5297

The Nucleotide Sequence of Chloroplast 5S Ribosomal RNA from a Fern, Dryopteris acuminata. Takaiwa, F. and Sugiura, M. (Mishima, Japan) - p. 5369

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Cloning and Sequence Analysis of a cDNA Plasmid for One of the Rat Liver Glutathione S-Transferase Subunits. Tu, C.-P. et al. (University Park, U.S.A.) - p.5407

Structure of 1.711 bgm/$cm^3$ Bovine Satellite DNA: Evolutionary Relationship to Satellite I. Taparowsky, E. J. and Gerbi, S. A. (Providence, U.S.A.) - p. 5503

5S RNA Sequence from the Philosamia Silkworm: Evidence for Variable Evolutionary Rates in Insect 5S RNA. Xian-Rong, G. et al. (Montreal Canada) - p. 5711

Nucleotide Sequence of 5S Ribosomal RNA from Four Oomycete and Chytrid Water Molds. Walker, W. F. and Doolittle, W. F. (Halifax, Canada) - p. 5717

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Structure of Cloned ß-Globin Genes from a Normal Subject and a Patient with ß-Thalassemia. Sequence Polymorphisms Found in the ß-Globin Gene Region of Japanese Individuals. Kimura, A. et al. (Kyushu, Japan) - p. 5725

Nucleotide Sequence of the Early Genes 3 and 4 of Bacteriophage Ø29. Escarmis, C. and Salas, M. (Madrid, Spain) - p. 5785

The Molecular Cloning and Characterisation of cDNA Coding for the α Subunit of the Acetylcholine Receptor. Sumikawa, K. et al. (High Wycombe, U.K.) - p. 5809

The Structure of the Gene Coding for the Phosphorylated Ribosomal Protein S10 in Yeast. Leer, R. J. et al. (Amsterdam, The Netherlands) - p. 5869

Cloning and Characterization of Five Overlapping cDNAs Specific for the Human Proα1(I) Collagen Chain. Chu, M.-L. et al. (Piscataway, U.S.A.) - p. 5925

Nucleotide Sequence and Properties of the Murine $\gamma_3$ Immunoglobulin Heavy Chain Gene Switch Region: Implications for Successive $C_\gamma$ Gene Switching. Stanton, L. W. and Marcu, K. B. (Stony Brook, U.S.A.) - p. 5993

The Nucleotide Sequence of 5S rRNA from a Red Alga, Porphyra yezoensis. Takaiwa, F. et al. (Mishima, Japan) - p. 6037

Structure and Evolution of the Heavy Chain from Rat Immunoglobulin E. Hellman, L. et al. (Uppsala, Sweden) - p. 6041

Molecular Cloning and Nucleotide Sequences of the Complementary DNAs to Chicken Skeletal Muscle Myosin Two Alkali Light Chain mRNAs. Nabeshima, Y. et al. (Niigata, Japan) -p.6099

Nucleotide Sequence of the 30K Protein Cistron of Cowpea Strain of Tobacco Mosaic Virus. Meshi, T. et al. (Tokyo, Japan) - p. 6111

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Complete Sequence Analysis of cDNA Clones Encoding Rat Whey Phosphoprotein: Homology to a Protease Inhibitor. Dandekar, A. M. et al. (Bethesda, U.S.A.) - p. 3987

Soybean Leghemoglobin Gene Family: Normal, Pseudo, and Truncated Genes. Brisson, N. and Verma, D. P. S. (Montreal, Canada) - p. 4055

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Coding Sequence for the pT181 repC Product: A Plasmid-Coded Protein Uniquely Required for Replication. Novick, R. P. et al. (New York, U.S.A.) - p. 4108

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Isolation and Structure of the Gene for the Progesterone-Inducible Protein Uteroglobin. Menne, C. et al. (Marburg, F.R.G.) - p. 4853

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Nucleotide Sequences Involved in Bacteriophage T4 Gene 32 Translational Self-Regulation. Krisch, H. M. and Allet, B. (Geneva, Switzerland) - p. 4937

Common 82-Nucleotide Sequence Unique to Brain RNA. Sutcliffe, J. G. et al. (La Jolla, U.S.A) - p. 4942

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## P R I M A R Y  S T R U C T U R E S O F  P R O T E I N S

Hoppe-Seyler's Zeitschrift für Physiologische Chemie

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Hämoglobine, XLVII. Das Hämoglobin der Streifengans (Anser indicus). Primärstruktur und Physiologie der Atmung, Systematik und Evolution. Oberthür, W. et al. (Martinsried, F.R.G.) - p. 581

Primärstruktur menschlicher Histokompatibilitätsantigene der Klasse II. 2. Mitt. Aminosäuresequenz der N-Terminalen 179 Reste der α-Kette des HLA-Dw2/DR-2-Alloantigens. Yang, C.-Y. et al. (Göttingen, F.R.G.) - p. 671

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Hämoglobine, XLVIII. Die primäre Struktur des Hämoglobins des indischen Elefanten (Elephas maximus, Proboscidea):ß2 = Asn. Braunitzer, G. et al. (Martinsried, F.R.G.) - p. 683

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al. (Basel, Switzerland) - p. 1069

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Analysis of the Primary Structure of the Strongly Hydrophobic Brain Myelin Proteolipid Apoprotein (Lipophilin). Isolation and Amino Acid Sequence Determination of Proteolytic Fragments. Stoffel, W. et al. (Köln, F.R.G.) - p. 1117

The Journal of Biological Chemistry

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α Subunit of Rat Pituitary Glycoprotein Hormones. Primary Structure of the Precursor Determined from the Nucleotide Sequence of Cloned cDNAs. Godine, J. E. et al. (Boston, U.S.A.) - p. 8368

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79 No. 14 1982

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## GENERAL ASPECTS

### BioSystems

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Origin of Life: A Hypothesis for the Origin of Adaptor-Mediated Ordered Synthesis of Proteins and an Explanation for the Choice of Terminating Codons in the Genetic Code. Balasubramanian, R. (Tamil Nadu, India) - p. 99

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Parsimony in Evolutionary Theory: Law or Methodological Prescriptions? Crisci, J. V. (La Plata, Argentina) - p. 35

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Genetic Coding: Approaches to Theory Construction. Findley, A. M. et al. (Baton Rouge, U.S.A.) - p. 299

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Molecular Drive: A Cohesive Mode of Species Evolution. Dover, G. (Cambridge,U.K.)- p. 111

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Formation of Cyanate and Carbamyl Phosphate by Electric Discharges of Model Primitive Gas. Yamagata, Y. and Mohri, T. (Ishikawa, Japan) - p. 41

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Polynucleotide Replication Coupled to Protein Synthesis: A Possible Mechanism for the Origin of Life. MacKinlay, A. G. (Kensington, Australia) - p. 55

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Universal Structural Features of Prokaryotic and Eukaryotic Ribosomal 5S RNA Derived from Comparative Analysis of Their Sequences. Böhm, S. et al. (Berlin, G.D.R.) - p. 1

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21 No. 10 1982

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698 No. 3 1982

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Nucleotide Sequence of a Human Immunoglobulin C-Gamma-4 Gene. Ellison, J. et al. (Pasadena, U.S.A.) - p. 11

Hormonally Regulated Mammalian Gene Expression - Steady-State Level and Nucleotide Sequence of Rabbit Uteroglobin Messenger RNA. Chandra, T. et al. (Houston, U.S.A.) - p. 19

Cloning of Bovine Prolactin cDNA and Evolutionary Implications of Its Sequence. Miller, W. L. et al. (San Francisco, U.S.A.) - p. 37

Nucleic Acid Sequence Database. Dayhoff, M.O. et al. (Washington, U.S.A.) - p. 51

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Nucleic Acid Sequence Database. 2. Chen, H.R. et al. (Washington, U.S.A.) - p. 103

The Human Pro-Opiomelanocortin Gene - Organization, Sequence, and Interspersion with Repetitive DNA. Whitfeld, P. L. et al. (Canberra, Australia) - p. 133

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Human Papillomavirus 1a Complete DNA Sequence A Novel Type of Genome Organization Among Papovaviridae. Danos, O. et al. (Paris, France) - p. 231

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Nucleotide Sequence of the asd Gene of Escherichia coli: Absence of a Typical Attenuation Signal. Haziza, C. et al. (Orsay, France) - p. 379

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