

MOLECULAR AND CELLULAR BIOLOGY

Volume 11

October 1991

No. 10

GENE EXPRESSION

- Myogenin Induces the Myocyte-Specific Enhancer Binding Factor MEF-2 Independently of Other Muscle-Specific Gene Products.** Peter Cserjesi and Eric N. Olson..... 4854-4862
- Repression of the *Drosophila* Proliferating-Cell Nuclear Antigen Gene Promoter by *zerknüllt* Protein.** Masamitsu Yamaguchi, Fumiko Hirose, Yasuyoshi Nishida, and Akio Matsukage 4909-4917
- Activation of Skeletal α -Actin Gene Transcription: The Cooperative Formation of Serum Response Factor-Binding Complexes over Positive *cis*-Acting Promoter Serum Response Elements Displaces a Negative-Acting Nuclear Factor Enriched in Replicating Myoblasts and Nonmyogenic Cells.** Te-Chung Lee, King-Lau Chow, Ping Fang, and Robert J. Schwartz..... 5090-5100
- Two Distinct Alpha-Interferon-Dependent Signal Transduction Pathways May Contribute to Activation of Transcription of the Guanylate-Binding Protein Gene.** Thomas Decker, Daniel J. Lew, and James E. Darnell, Jr. 5147-5153
- Two Components of *Saccharomyces cerevisiae* Transcription Factor IIIB (TFIIIB) Are Stereospecifically Located Upstream of a tRNA Gene and Interact with the Second-Largest Subunit of TFIIC.** Blaine Bartholomew, George A. Kassavetis, and E. Peter Geiduschek 5181-5189
- Inhibition of Chromatin Assembly in *Xenopus* Oocytes Correlates with Derepression of the Mouse Mammary Tumor Virus Promoter.** Thomas Perlmann and Örjan Wrangé 5259-5265
- The 40-Kilodalton To Autoantigen Associates with Nucleotides 21 to 64 of Human Mitochondrial RNA Processing/7-2 RNA In Vitro.** Yan Yuan, Eng Tan, and Ram Reddy 5266-5274
- RNA Polymerase II Pauses at the 5' End of the Transcriptionally Induced *Drosophila hsp70* Gene.** Thomas O'Brien and John T. Lis 5285-5290
- Splice Site Choice in a Complex Transcription Unit Containing Multiple Inefficient Polyadenylation Signals.** Ying Luo and Gordon G. Carmichael 5291-5300
- An RNA-Binding Protein Specifically Interacts with a Functionally Important Domain of the Downstream Element of the Simian Virus 40 Late Polyadenylation Signal.** Zuwei Qian and Jeffrey Wilusz..... 5312-5320
- Exon Recognition and Nucleocytoplasmic Partitioning Determine *AMPD1* Alternative Transcript Production.** Ikuo Mineo and Edward W. Holmes 5356-5363
- Cell-Specific Regulation of Oncogene-Responsive Sequences of the *c-fos* Promoter.** Alejandro Gutman, Christine Wasylyk, and Bohdan Wasylyk 5381-5387

TRANSCRIPTIONAL REGULATION

- The Conserved Carboxy-Terminal Domain of *Saccharomyces cerevisiae* TFIID Is Sufficient To Support Normal Cell Growth.** David Poon, Stephanie Schroeder, C. Kathy Wang, Tohru Yamamoto, Masami Horikoshi, Robert G. Roeder, and P. Anthony Weil 4809-4821

Continued on following page

Chicken Vitellogenin Gene-Binding Protein, a Leucine Zipper Transcription Factor That Binds to an Important Control Element in the Chicken Vitellogenin II Promoter, Is Related to Rat DBP. Subramanian V. Iyer, Dorene L. Davis, Samar N. Seal, and John B. E. Burch	4863–4875
Regulation and a Possible Stage-Specific Function of Oct-2 during Pre-B-Cell Differentiation. Cheryl L. Miller, Andrew L. Feldhaus, John W. Rooney, Linda D. Rhodes, Carol Hopkins Sibley, and Harinder Singh	4885–4894
Highly Conserved Residues in the bZIP Domain of Yeast GCN4 Are Not Essential for DNA Binding. William T. Pu and Kevin Struhl	4918–4926
Thyroid-Specific Enhancer-Binding Protein (T/EBP): cDNA Cloning, Functional Characterization, and Structural Identity with Thyroid Transcription Factor TTF-1. Kimio Mizuno, Frank J. Gonzalez, and Shioko Kimura	4927–4933
Regulation of the Yeast <i>CYT1</i> Gene Encoding Cytochrome <i>c</i>₁ by HAP1 and HAP2/3/4. Jane C. Schneider and Leonard Guarente	4934–4942
AGP/EBP(LAP) Expressed in Rat Hepatoma Cells Interacts with Multiple Promoter Sites and Is Necessary for Maximal Glucocorticoid Induction of the Rat Alpha-1 Acid Glycoprotein Gene. Paul (Mickey) Williams, T. Ratajczak, S. C. Lee, and G. M. Ringold	4959–4965
Light Represses Transcription of Asparagine Synthetase Genes in Photosynthetic and Nonphotosynthetic Organs of Plants. Fong-Ying Tsai and Gloria Coruzzi	4966–4972
Exocrine Pancreas Transcription Factor 1 Binds to a Bipartite Enhancer Element and Activates Transcription of Acinar Genes. Scott L. Weinrich, Andreas Meister, and William J. Rutter	4985–4997
Progesterone Enhances Target Gene Transcription by Receptor Free of Heat Shock Proteins hsp90, hsp56, and hsp70. Milan K. Bagchi, Sophia Y. Tsai, Ming-Jer Tsai, and Bert W. O'Malley	4998–5004
Differential DNA Binding by Monomeric, Homodimeric, and Potentially Heteromeric Forms of the Thyroid Hormone Receptor. Mitchell A. Lazar, Thomas J. Berrodin, and Heather P. Harding	5005–5015
C/EBP-Like Proteins Binding to the Functional Box-α and Box-β of the Second Enhancer of Hepatitis B Virus. Chiou-Hwa Yuh and Ling-Pai Ting	5044–5052
<i>GRR1</i> of <i>Saccharomyces cerevisiae</i> Is Required for Glucose Repression and Encodes a Protein with Leucine-Rich Repeats. Jeffrey S. Flick and Mark Johnston	5101–5112
Recombinant 43-kDa USF Binds to DNA and Activates Transcription in a Manner Indistinguishable from That of Natural 43/44-kDa USF. Philippe Pognonec and Robert G. Roeder	5125–5136
Specificity of a Retinoic Acid Response Element in the Phosphoenolpyruvate Carboxykinase Gene Promoter: Consequences of Both Retinoic Acid and Thyroid Hormone Receptor Binding. Peter C. Lucas, Barry Marc Forman, Herbert H. Samuels, and Daryl K. Granner	5164–5170
Convergent Transcription Initiates from Oppositely Oriented Promoters within the 5' End Regions of <i>Drosophila melanogaster</i> F Elements. Gabriella Minchiotti and Pier Paolo Di Nocera	5171–5180
<i>c-mos</i> Expression in Mouse Oocytes Is Controlled by Initiator-Related Sequences Immediately Downstream of the Transcription Initiation Site. Subrata K. Pal, Sandra S. Zinkel, Ann A. Kiessling, and Geoffrey M. Cooper	5190–5196

Novel Protein-DNA Interactions Associated with Increased Immunoglobulin Transcription in Response to Antigen Plus Interleukin-5. Carol F. Webb, Chhaya Das, Suzanne Eaton, Kathryn Calame, and Philip W. Tucker	5197–5205
Identification of a Matrix-Associated Region 5' of an Immunoglobulin Heavy Chain Variable Region Gene. Carol F. Webb, Chhaya Das, Kenton L. Eneff, and Philip W. Tucker	5206–5211
LyF-1, a Transcriptional Regulator That Interacts with a Novel Class of Promoters for Lymphocyte-Specific Genes. Kiersten Lo, Nathaniel R. Landau, and Stephen T. Smale	5229–5243
Yeast Glycolytic mRNAs Are Differentially Regulated. Paul A. Moore, Francis A. Sogliocco, Rachel M. C. Wood, and Alistair J. P. Brown	5330–5337

CELL GROWTH AND DEVELOPMENT

Dominant Inhibitory Mutations in the Mg²⁺-Binding Site of Ras^H Prevent Its Activation by GTP. Charles L. Farnsworth and Larry A. Feig	4822–4829
A Mutation in the Putative Mg²⁺-Binding Site of G_s α Prevents Its Activation by Receptors. John D. Hildebrandt, Regina Day, Charles L. Farnsworth, and Larry A. Feig	4830–4838
Characterization of a Candidate <i>bcl-1</i> Gene. Donald A. Withers, Richard C. Harvey, John B. Faust, Ostap Melnyk, Kendall Carey, and Timothy C. Meeker	4846–4853
Protein Phosphatase 2A in <i>Saccharomyces cerevisiae</i>: Effects on Cell Growth and Bud Morphogenesis. Hans Ronne, Monika Carlberg, Guo-Zhen Hu, and Jan Olof Nehlin	4876–4884
Induction of Tyrosine Phosphorylation by the Erythropoietin Receptor Correlates with Mitogenesis. Osamu Miura, Alan D'Andrea, David Kabat, and James N. Ihle	4895–4902
v-Src Increases Diacylglycerol Levels Via a Type D Phospholipase-Mediated Hydrolysis of Phosphatidylcholine. Jianguo Song, Lawrence M. Pfeffer, and David A. Foster	4903–4908
Induction of NF-κB DNA-Binding Activity during the G₀-to-G₁ Transition in Mouse Fibroblasts. Albert S. Baldwin, Jr., Jane Clifford Azizkhan, David E. Jensen, Amer A. Beg, and Lavanya R. Coodly	4943–4951
Early Gene Responses to Transforming Growth Factor-β in Cells Lacking Growth-Suppressive RB Function. Alejandro Zentella, Frances M. B. Weis, David A. Ralph, Marikki Laiho, and Joan Massague	4952–4958
<i>axl</i>, a Transforming Gene Isolated from Primary Human Myeloid Leukemia Cells, Encodes a Novel Receptor Tyrosine Kinase. John P. O'Bryan, Roy A. Frye, Patricia C. Cogswell, Andreas Neubauer, Barry Kitch, Carol Prokop, Rafael Espinosa III, Michelle M. Le Beau, H. Shelton Earp, and Edison T. Liu	5016–5031
Progesterins Both Stimulate and Inhibit Breast Cancer Cell Cycle Progression while Increasing Expression of Transforming Growth Factor α, Epidermal Growth Factor Receptor, <i>c-fos</i>, and <i>c-myc</i> Genes. Elizabeth A. Musgrove, Christine S. L. Lee, and Robert L. Sutherland	5032–5043
Molecular Features of the Viral and Cellular Src Kinases Involved in Interactions with the GTPase-Activating Protein. Barbara K. Brott, Stuart Decker, Melanie C. O'Brien, and Richard Jove	5059–5067

A Tyrosine-Phosphorylated Carboxy-Terminal Peptide of the FGF Receptor (Flg) Is a Binding Site for the SH2 Domain of Phospholipase C-γ1. M. Mohammadi, A. M. Honegger, D. Rotin, R. Fischer, F. Bellot, W. Li, C. A. Dionne, M. Jaye, M. Rubinstein, and J. Schlessinger.....	5068–5078
The Thyroid Hormone Receptor Gene (<i>c-erbAα</i>) Is Expressed in Advance of Thyroid Gland Maturation during the Early Embryonic Development of <i>Xenopus laevis</i>. Deborah E. Banker, Jeannette Bigler, and Robert N. Eisenman	5079–5089
Identification and Characterization of a Novel Cytoskeleton-Associated pp60^{src} Substrate. Hong Wu, Albert B. Reynolds, Steven B. Kanner, Richard R. Vines, and J. Thomas Parsons.....	5113–5124
Overexpression of Transforming Growth Factor-β in Transgenic Mice Carrying the Human T-Cell Lymphotropic Virus Type I <i>tax</i> Gene. Seong-Jin Kim, Thomas S. Winokur, Hy-De Lee, David Danielpour, Kyung Young Kim, Andrew G. Geiser, Lian-Sheng Chen, Michael B. Sporn, Anita B. Roberts, and Gilbert Jay	5222–5228
Quantitation of α-Factor Internalization and Response during the <i>Saccharomyces cerevisiae</i> Cell Cycle. Bettina Zanolari and Howard Riezman.....	5251–5258
Expression of <i>v-src</i> in Embryonic Neural Retina Alters Cell Adhesion, Inhibits Histogenesis, and Prevents Induction of Glutamine Synthetase. Lily Vardimon, Lyle E. Fox, Rachel Cohen-Kupiec, Linda Degenstein, and A. A. Moscona	5275–5284
Suppression of the Chemically Transformed Phenotype of BHK Cells by a Human cDNA. Maribeth V. Eiden, Linda MacArthur, and Hiroto Okayama.....	5321–5329
Cloning of a Growth Arrest-Specific and Transforming Growth Factor β-Regulated Gene, TI 1, from an Epithelial Cell Line. Bengt Kallin, Rainer de Martin, Thure Etzold, Vincenzo Sorrentino, and Lennart Philipson.....	5338–5345
The Tumor Promoter 12-<i>O</i>-Tetradecanoylphorbol-13-Acetate and the <i>ras</i> Oncogene Modulate Expression and Phosphorylation of Gap Junction Proteins. Janice L. Brissette, Nalin M. Kumar, Norton B. Gilula, and G. Paolo Dotto.....	5364–5371

CELL AND ORGANELLE STRUCTURE AND ASSEMBLY

Isolation and Characterization of a <i>Chlamydomonas reinhardtii</i> Mutant Lacking the γ-Subunit of Chloroplast Coupling Factor 1 (CF₁). Eric J. Smart and Bruce R. Selman.....	5053–5058
A Hydrophobic Protein Sequence Can Override a Nuclear Localization Signal Independently of Protein Context. Karen van Zee, Frank Appel, and Ellen Fanning.....	5137–5146

DNA DYNAMICS AND CHROMOSOME STRUCTURE

Direct-Repeat Analysis of Chromatid Interactions during Intrachromosomal Recombination in Mouse Cells. Roni J. Bollag and R. Michael Liskay.....	4839–4845
Chromatin Structure, Not DNA Sequence Specificity, Is the Primary Determinant of Topoisomerase II Sites of Action In Vivo. Andor Udvardy and Paul Schedl.....	4973–4984
Retrovirus-Induced Insertional Mutagenesis: Mechanism of Collagen Mutation in Mov13 Mice. Douglas D. Barker, Hong Wu, Stefan Hartung, Michael Breindl, and Rudolph Jaenisch	5154–5163

In Vivo Analysis of the <i>Saccharomyces cerevisiae</i> Centromere CDEIII Sequence: Requirements for Mitotic Chromosome Segregation. Birgit Jehn, Rainer Niedenthal, and Johannes H. Hegemann	5212–5221
Amplification of the Multidrug Resistance Gene <i>pfmdr1</i> in <i>Plasmodium falciparum</i> Has Arisen as Multiple Independent Events. Tony Triglia, Simon J. Foote, David J. Kemp, and Alan F. Cowman.....	5244–5250
The Chromatin Structure of <i>Saccharomyces cerevisiae</i> Autonomously Replicating Sequences Changes during Cell Division Cycle. Julie A. Brown, Scott G. Holmes, and M. Mitchell Smith	5301–5311
Evidence Suggesting that the <i>ARS</i> Elements Associated with Silencers of the Yeast Mating-Type Locus <i>HML</i> Do Not Function as Chromosomal DNA Replication Origins. Dharani D. Dubey, Leslie R. Davis, Scott A. Greenfeder, Loke Y. Ong, Jiguang Zhu, James R. Broach, Carol S. Newlon, and Joel A. Huberman	5346–5355
Heteroduplex Formation and Mismatch Repair of the “Stuck” Mutation during Mating-Type Switching in <i>Saccharomyces cerevisiae</i>. Bryan L. Ray, Charles I. White, and James E. Haber	5372–5380