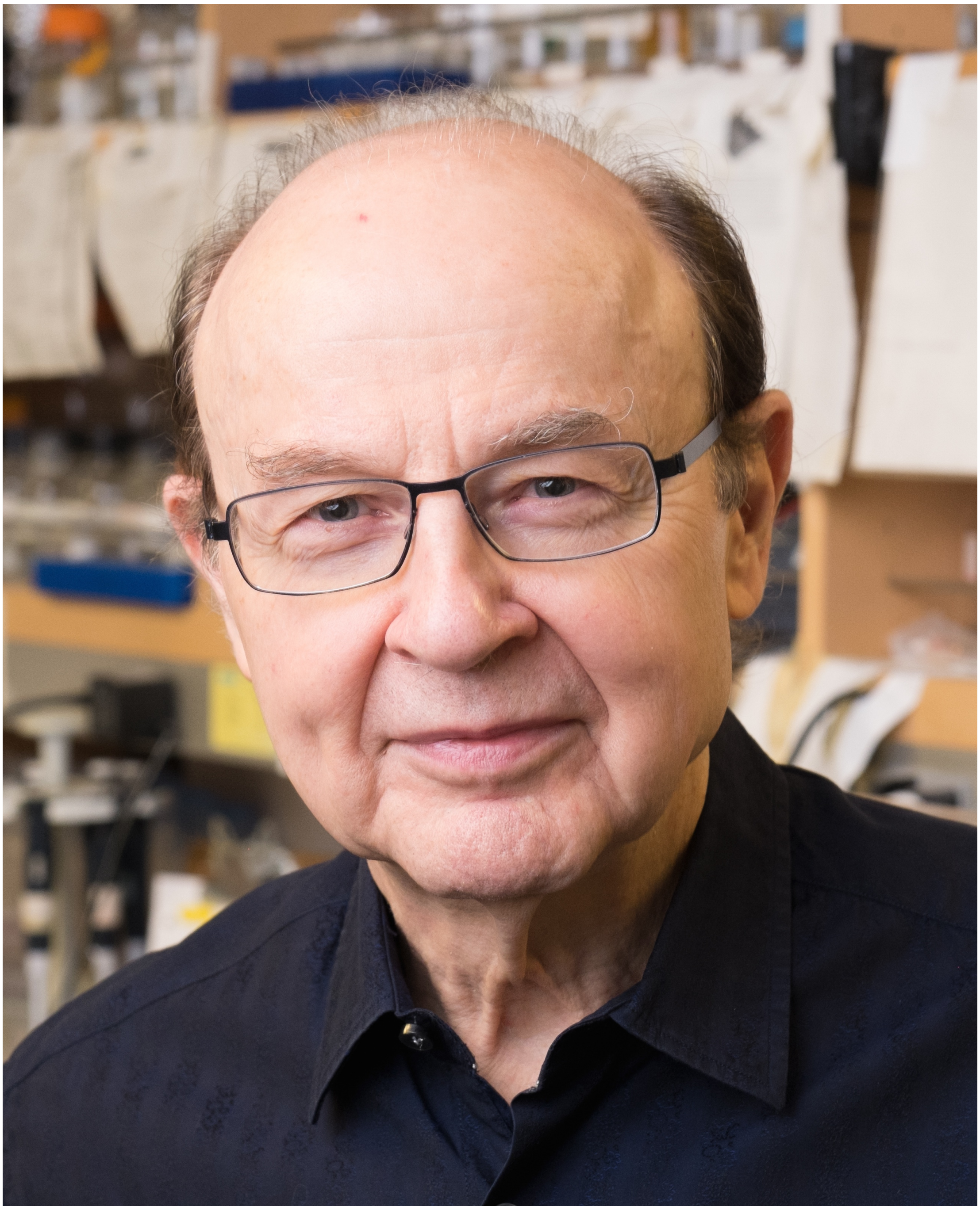

Profofessor Robert G. Roeder
Professor and Head,
Laboratory of Biochemistry and Molecular Biology,
The Rockefeller University
USA

SCIENCE FOR THE BENEFIT OF HUMANITY

November 23, 2017

Office of the Secretary General
World Cultural Council

Dear Sir or Madam:

I am pleased to nominate Professor Robert G. Roeder for the 2017 Albert Einstein World Award of Science.

Transcription of RNA from DNA is one of the most crucial and complicated molecular events in all of biology and Roeder's great skills and persistence have taught us the most about this event. To take just one example of benefits to mankind essentially all we know about what goes wrong in cancer concerns dysregulated transcription. We would not have gained this insight without Roeder's work. He richly deserves this award.

Sincerely yours,

James E. Darnell, Jr.
Vincent Astor Professor Emeritus
Head, Laboratory of Molecular Cell Biology
The Rockefeller University

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ROGER D. KORNBERG
WINZER PROFESSOR IN MEDICINE
DEPARTMENT OF STRUCTURAL BIOLOGY

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November 16, 2016

Professor James Darnell
The Rockefeller University
1230 York Avenue
New York, NY 10065

Dear Professor Darnell:

I am delighted to support your nomination of Dr. Robert Roeder for the Albert Einstein World Award of Science. Roeder is certainly one of the people most deserving of an award for exceptional and sustained achievement in biomedical science. Roeder's prolific publication record speaks for itself. I should like to draw attention to three papers of extraordinary significance. In 1969, Roeder succeeded in solubilizing eukaryotic RNA polymerases (a crucial advance), leading to his report of the three isoforms, termed polymerases I, II, and III. In 1979, Roeder and colleagues reported the first cell-free system for promoter-dependent eukaryotic RNA polymerase transcription (no small feat), leading to the identification of the general transcription factors. In particular, the report in 1980 of the RNA polymerase III general transcription factor TFIIIA led eventually to the discovery of the zinc finger motif, the most prevalent in eukaryotic gene activator proteins, and currently the basis for targeted gene disruption and replacement, a possible approach for gene therapy. These seminal papers would alone justify a distinguished award, and Roeder has of course done much more.

Sincerely,

Roger Kornberg

Roger Kornberg

Joseph L. Goldstein, M.D.
Regental Professor and Chairman
Department of Molecular Genetics

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Dallas, Texas 75390-9046
214-648-2141 Telefax 214-648-8804
joe.goldstein@utsouthwestern.edu

November 17, 2016

Selection Committee
Albert Einstein World Award of Science

Greetings:

I write to support enthusiastically the nomination of **Robert G. Roeder** for the 2017 Albert Einstein World Award of Science.

The conceptual basis for how genes are turned on and off was formulated in the early 1960s by Jacob and Monod in their classic studies on the lac operon in bacteria. In bacteria and other prokaryotic organisms, the first step in transcribing a gene from DNA into messenger RNA is relatively simple. A single enzyme (RNA polymerase), together with only one accessory protein (sigma factor), attaches to a short stretch of DNA (the promoter) located just in front of the gene. This attachment of RNA polymerase to the gene's promoter is sufficient to begin the transcription process.

Roeder's research in transcription began in 1965 when he was a graduate student with William J. Rutter, then at the University of Washington in Seattle. Roeder discovered that eukaryotic cells, in contrast to bacterial cells, possess three RNA polymerases. He also identified the nuclear products that each polymerase synthesizes: Pol I forms ribosomal RNA, Pol II forms messenger RNA, and Pol III forms transfer RNA. The discovery of three eukaryotic RNA polymerases all at one time by a 23-year-old graduate student is as spectacular a feat as that of the 18-year-old jockey Steve Cauthen's winning the Triple Crown in a single year – 1978.

As an independent scientist, first at Washington University and then at the Rockefeller University, Roeder went on to purify each of the three eukaryotic RNA polymerases and then identified their different subunit compositions. With pure polymerases in hand, he developed the first cell-free, test-tube reactions in which eukaryotic genes could be transcribed in a faithful manner outside of cells. This accomplishment opened the field of RNA transcription in much the same way as Arthur Kornberg's test-tube synthesis of DNA opened the field of DNA replication.

Early in his studies (in 1979) Roeder made a crucial discovery: unlike the situation in bacteria where a single RNA polymerase initiates gene transcription by attaching directly to the promoter region of a gene, none of the three eukaryotic RNA polymerases was capable of initiating transcription directly. Accurate transcription ensued only when the test-tube reactions were supplemented with multiple cellular proteins. In the case of Pol II, Roeder identified, purified, and characterized six factors that are required for Pol II to initiate transcription and form messenger RNA. These six general transcription factors and the polymerase itself are known today as the "general transcription machinery" because their action is required for the initiation of transcription of *all* protein-encoding genes in *all* eukaryotic organisms – from yeast to flies to humans. Each one of these six general transcription factors and Pol II itself is a multisubunit complex, each composed of 5 to 8 proteins. All together, the eukaryotic general transcription machinery consists of as many as 50 different proteins.

Roeder's classic papers in the late 1970s and early 1980s provided the conceptual framework and basic experimental system that launched hundreds of scientists in their quest to reveal the molecular mysteries of gene transcription. Today, we now know that regulated gene expression in eukaryotes requires an immensely complex protein assemblage, involving the following multilayered components: 1) the general transcription machinery consisting of RNA polymerase and six general transcription factors; 2) thousands of different individual gene-specific transcription activators and repressors; and 3) a multiprotein co-activator complex (mediator) that links each individual activator or repressor to the general transcription machinery. The wonder of this RNA polymerase II-transcribing machine is beautifully visualized in Roger Kornberg's Nobel Prize-winning X-ray structure.

Gene transcription is fundamentally important to all aspects of biology and medicine and is crucial for understanding how biological information is retrieved from the genome. When Roeder began his work in 1965, there was no direct path to connect the relatively simple Jacob-Monod model of gene transcription in bacteria to the immensely more complex transcriptional protein machinery of eukaryotic cells as we envision it today. Scientists studying gene regulation in eukaryotic cells had to make a fresh start, and this start was made in a clear-cut, decisive, and unequivocal way by Robert Roeder, who almost singlehandedly opened the field of eukaryotic gene transcription 40 years ago.

Sincerely yours,

Joseph L. Goldstein, M.D.

JLG/jr
C11/191

Nomination for 2017 Albert Einstein World Award of Science (Nominee: Robert G. Roeder)

The biosynthesis of the key cellular macromolecules in every case requires huge protein machines and those for eukaryotic RNA synthesis have proved to be the most complex of all. Robert G. Roeder has been more responsible than any other investigator for describing the components of and elucidating the mechanisms of action of the astounding number of proteins required to initiate and carry out RNA synthesis in animal cells. In 1969 Roeder first identified the three different RNA polymerases (I, II and III) that produced the primary transcripts for ribosomal precursor RNA (pol I), hnRNA, the mRNA precursor (pol II), and small RNAs such as 5S and tRNAs (pol III). He purified all three, noting their similarities and distinctions among their ~12 individual proteins. Most important he achieved successful initiation *in vitro* from the correct starting site on DNA utilizing nuclear extracts of human cells plus purified polymerases, an absolute requirement for all the subsequent biochemistry in the field. The first such success was with pol III initiating 5S RNA; pol II was then shown to initiate correctly the major late adenovirus transcript thus identifying the first correct nucleotide start site for any eukaryotic messenger RNA. In fact, Roeder's *in vitro* initiation system became the first method of accurately identifying nucleotide specific start sites for pre mRNA, thereby furnishing the lead for discovering upstream promoter regions in all protein coding eukaryotic genes. With this knowledge Roeder purified the first promoter specific binding protein TFIIIA. Persistent, energetic and innovative biochemical fractionation of extracts to uncover other factors required for correct initiation of both pol III and especially pol II allowed Roeder to identify dozens of proteins including 1) general transcription factors, a group of 7 or 8 factors several of which were multi-component complexes, 2) the multi-protein co-activator complex TFIID containing TBP, the TATA box binding factor that together with factor IIB helps bind DNA and load the polymerases, and 3) a number of regulatory site-specific transcription factors. Finally, the most widely used co-activator complex, the 20-protein mediator, was recognized, purified and each of the genes for the 20 proteins cloned. The identification of and functional characterization of such a large group of proteins all dedicated to the crucial task of regulated RNA synthesis initiation represents the most outstanding biochemical achievement certainly of the last 40 years, if not of the last century.

In recent years the work of the Roeder group has shown that chromatin reconstituted with purified constituents can be transcribed opening up the exploration of proteins and complexes involved in transcription as it actually occurs in cells. To call attention to particularly noteworthy achievements the group has shown the importance of histone modifications for the initiation of transcription.

Roeder has been widely recognized for his many contributions as will be evident from the enclosed *curriculum vitae*. Because of his decades long devotion to this critically important research area and his continuing success he is an ideal candidate for the Albert Einstein World Award of Science of the World Cultural Council.

Arguably the single most important biochemical event in all living cells is retrieving the information in DNA by copying it into RNA. Roeder is the world leader in this avenue and therefore virtually all advances in biology and medicine employ his work. Listed below are major advances.

MAJOR SCIENTIFIC DISCOVERIES AND ACHIEVEMENTS

1. Discovery of nuclear RNA polymerases I, II and III in eukaryotes ranging from yeast to mammals -- thus establishing a major difference between the transcriptional machineries in prokaryotes (with a single RNA polymerase) and eukaryotes and catalyzing further studies of eukaryotic transcriptional regulation.

2. Discovery that RNA polymerases I, II, and III have specific functions in the synthesis, respectively, of large ribosomal RNAs, mRNA precursors, and transfer and 5S RNA -- thus indicating a means for the independent regulation of the major classes of RNA and allowing focused studies of the in vitro transcription of specific genes with appropriate RNA polymerases.

3. Discovery of distinct multi-subunit structures for mammalian RNA polymerases I, II, and III -- thus indicating a molecular basis for the distinct specificities of the enzymes.

4. Discovery of methods for accurate transcription of isolated eukaryotic genes, and regulation by gene-specific factors, in cell-free systems reconstituted with purified RNA polymerases (II and III) and subcellular extracts -- thus indicating requirements for additional factors for RNA polymerase function and

paving the way for their biochemical purification and identification and for in vitro analyses of DNA regulatory elements.

5. Discovery of ubiquitous general initiation factors (including the TATA-binding factor TFIID) that are necessary and sufficient for accurate transcription of DNA templates by RNA polymerases II and III and elucidation of their roles in core promoter recognition and assembly of pre-initiation complexes -- thus indicating yet another level of control for synthesis of the major classes of RNA and leading to the prediction of both a general repression mechanism for the otherwise permissive general transcription machinery and factors that reverse this repression in a gene-specific manner.

6. Elucidation (in collaboration with Stephen Burley) of the atomic resolution structure of the the TATA-binding polypeptide (TBP) subunit of TFIID and the TATA-TBP-TFIIB complex that leads directly to RNA polymerase II recruitment to the promoter -- thus providing novel insights into structural features of transcription initiation and catalyzing further high resolution structural studies of the complex eukaryotic transcriptional machineries.

7. Discovery of the prototype gene-specific transcriptional regulatory factor (TFIIIA) in eukaryotes, as well as a mechanism involving site-specific promoter binding and recruitment of general initiation factors that in turn recruit the cognate RNA polymerase -- thus establishing the fundamentally important paradigm that gene-specific RNA production in eukaryotes involves selective gene transcription, rather than global transcription followed by selective RNA processing or stabilization, and a transcriptional activator mechanism distinct from that employed in prokaryotes (where direct activator-RNA polymerase interactions are observed).

8. Discovery of the human TRAP/Mediator coactivator complex, counterpart of yeast Mediator and a major conduit for direct communication between transcriptional activators and the general transcriptional machinery, and the first demonstration that Mediator function in any organism involves direct interactions with gene-specific transcriptional activators -- thus indicating (with studies of other coactivators) yet another
important pathway for the action of gene-specific transcriptional activators.

9. Discovery of the prototype cell-specific transcriptional co-activator, the B cell-specific OCA-B, and a gene-specific activation mechanism involving interactions with a ubiquitous DNA-binding protein -- thus indicating a novel mechanism for cell- and gene-specific transcription.

10. Demonstration that nucleosome assembly on a promoter prevents access to the general transcription machinery, whereas prior activator-enhanced formation of a pre-initiation complex with promoter-bound TFIID precludes nucleosome assembly-mediated repression -- thus providing critical evidence for a general transcriptional repressive function of histones (rather than just a DNA packaging function) and insights into the underlying repression and derepression mechanisms.

11. Discovery that transcriptional coactivators with histone acetyltransferase activity also effect functional modifications of DNA-binding transcriptional activators -- thus indicating a novel pathway for regulation of transcriptional activators (through lysine acetylation) and the need to critically revaluate the presumed functions of histone modifying factors.

12. Demonstration in systems reconstituted with recombinant chromatin templates that covalent histone modifications effected by transcriptional coactivators are indeed obligatory for, rather than simply correlated with, transcription from chromatin -- thus providing the first formal proof for the assumed role of histone modifications in gene activation.

13. Reconstruction of a biochemically defined system (with over 80 distinct polypeptides) that mediates transcription from repressed recombinant chromatin templates through the action of a gene-specific transcriptional activator, RNA polymerase II, cognate general initiation factors (TFIIA, -IIB, -IID, -IIE, -IIF and -IIH), general coactivators (PC4 and the Mediator complex), a histone acetyltransferase (p300), an ATP-dependent chromatin remodeling complex, a histone chaperone, and general elongation factors -- thus proving the feasibility of biochemical analyses of complex transcriptional machineries and providing an unparalleled and highly powerful system for detailed mechanistic studies.

CURRICULUM VITAE

Name: Robert Gayle Roeder

Place of Birth: Boonville, Indiana

Home Address: 504 East 63rd Street, Apt 33P, New York, NY 10065

Citizenship: U.S.A.

Education:

Wabash College, Crawfordsville, Indiana, 1960-1964
B.A., summa cum laude (Chemistry), 1964

University of Illinois, Urbana, Illinois, 1964-1965
M.S. in Chemistry, 1965

University of Washington, Seattle, Washington, 1965-1969
Ph.D. in Biochemistry, 1969 (graduate advisor: W.J. Rutter)

Carnegie Institution of Washington, Baltimore, Maryland, 1969-1971
Postdoctoral Fellow, Department of Embryology (mentor: Donald D. Brown)

Academic Appointments:

Washington University School of Medicine, St. Louis, Missouri
Assistant Professor of Biological Chemistry, 1971-1975
Associate Professor of Biological Chemistry, 1975-1976
Professor of Biological Chemistry, 1976-1982
James S. McDonnell Professor of Biochemical Genetics, 1979-1982

The Rockefeller University, New York, New York
Professor and Head, Laboratory of Biochemistry and Molecular Biology, 1982-Present
Arnold O. and Mabel S. Beckman Professor, 1985-Present

Honors and Awards:

Gilbert Scholar, Wabash College, 1960-1964
Phi Beta Kappa, 1964
USPHS Predoctoral Fellowship, 1965-1969
Eli Lilly Outstanding Biochemistry Graduate Student Award, U. of Washington, 1967
American Cancer Society Postdoctoral Fellow, 1969-1971
NIH Research Career Development Awardee, 1972-1978
Dreyfus Foundation Teacher-Scholar Award, 1976-1981
American Chemical Society Eli Lilly Award in Biological Chemistry, 1977
Chairperson of 1982 Gordon Research Conference on Nucleic Acids
Outstanding Investigator Award of the National Cancer Institute, 1986-2000
National Academy of Sciences-U.S. Steel Award in Molecular Biology 1986
Harvey Society Lecturer, 1988
President of the Harvey Society of New York, 1994-1995
Member, National Academy of Sciences, 1988
Honorary Doctor of Science, Wabash College, 1990
Fellow of the American Association for the Advancement of Science, 1992
Fellow of the American Academy of Microbiology, 1992
Fellow of the American Academy of Arts and Sciences, 1995

Fellow of the New York Academy of Sciences, 1995
Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Sciences (with R. Tjian), 1995
Passano Award (with R. Tjian), 1995
General Motors Cancer Research Foundation's Alfred P. Sloan Prize (with R. Tjian), 1999
Louisa Gross Horwitz Prize (with P. Chambon and R. Tjian), 1999
Gairdner Foundation International Award (with R. Kornberg), 2000
The Dickson Prize in Medicine, University of Pittsburgh, 2001
ASBMB-Merck Award (with R. Kornberg), 2002
Associate Member, European Molecular Biology Organization, 2003
Albert Lasker Award for Basic Medical Research, 2003
Honorary Doctor of Science, Washington University (St. Louis), 2005
Salk Institute Medal for Research Excellence, 2010
Albany Medical Center Prize in Medicine and Biomedical Research (with J. Darnell), 2012
Thomas Reuters Citation Laureate, 2014
Hope Funds for Cancer Research Award in Basic Science, 2015
ASBMB Herbert Tabor Research Award, 2016

Professional Societies:

American Association for the Advancement of Science
American Association for Cancer Research
American Chemical Society
American Society for Biochemistry and Molecular Biology
American Society for Microbiology
American Society for Virology
Endocrine Society
Society for Developmental Biology
The Harvey Society
The New York Academy of Sciences
The Protein Society

Past/Current Editorial Boards:

Journal of Biological Chemistry
Nucleic Acids Research
Molecular and Cellular Biology
Cell
Biological Chemistry Hoppe-Seyler
Molecular Cell
Proceedings of the National Academy of Science
Transcription

Past/Current Scientific Advisory Boards:

NIH Molecular Biology Study Section,
American Cancer Society, Nucleic Acids Review Panel
Roche Institute of Molecular Biology
Center for Biotechnology, Karolinska Institute
Howard Hughes Medical Institute, Scientific Review Board
Board of Scientific Counselors, Natl. Inst. of Child Health and Human Development
Center for Advanced Biotechnology and Medicine, Piscataway, NJ
International Scientific Advisory Board, Shanghai Research Center for Translational Medicine
Scientific Advisory Board, Shanghai Institute of Biochemistry and Cell Biology

Research Interests:

Regulation of gene expression during cell growth and proliferation, cell differentiation, homeostasis, and oncogenesis. Structure, function, mechanism of action, and regulation of RNA polymerases, cognate general transcription initiation factors, gene-specific regulatory factors, and both general and gene-specific cofactors acting either through the general transcription machinery or through chromosomal histone modifications.

Robet G. Roeder

PUBLICATIONS

1. R.G. Roeder. Multiple RNA polymerases and RNA synthesis in eukaryotic systems. Ph.D. Thesis, University of Washington (1969).

2. R.G. Roeder and W.J. Rutter. DNA dependent RNA polymerase in sea urchin development. Fed. Proc. 28:599, 1969 (abstract). [First public disclosure of discovery of RNA polymerases I, II and III]

3. R.G. Roeder and W.J. Rutter. Multiple forms of DNA-dependent RNA polymerase in eukaryotic organisms. Nature 224:234-237, 1969.

4. R.G. Roeder and W.J. Rutter. Specific nucleolar and nucleoplasmic RNA polymerases. Proc. Natl. Acad. Sci. USA 65:675-682, 1970.

5. R.G. Roeder and W.J. Rutter. Multiple RNA polymerases and RNA synthesis during sea urchin development. Biochemistry 9:2543-2553, 1970.

6. T.J. Lindell, F. Weinberg, P.W. Morris, R.G. Roeder and W.J. Rutter. Specific inhibition of nuclear RNA polymerase II by α-amanitin. Science 170:447-449, 1970.

7. R.G. Roeder, R.H. Reeder and D.D. Brown. Multiple forms of RNA polymerase in *Xenopus laevis*: Their relationship to RNA synthesis in vivo and their fidelity of transcription in vitro. Cold Spring Harbor Symposia on Quant. Biol. 35:727-735, 1970.

8. R.H. Reeder and R.G. Roeder. Ribosomal RNA synthesis in isolated nuclei. J. Mol. Biol. 67: 433-441, 1972.

9. R.G. Roeder. RNA polymerases during amphibian development. In: Molecular Genetics and Developmental Biology, ed. M. Sussman. Prentice Hall, New York (1972), pp. 163-172.

10. R.G. Roeder. Multiple forms of deoxyribonucleic acid-dependent ribonucleic acid polymerase in *Xenopus laevis*: Isolation and partial characterization. J. Biol. Chem. 249:241-248, 1974.

11. R.G. Roeder. Multiple forms of deoxyribonucleic acid-dependent ribonucleic acid polymerase in *Xenopus laevis*: Levels of activity during oocyte and embryonic development. J. Biol. Chem. 249:249-256, 1974.

12. L.B. Schwartz, V.E.F. Sklar, J. Jaehning, R. Weinmann and R.G. Roeder. Isolation and partial characterization of the multiple forms of deoxyribonucleic acid-dependent ribonucleic acid polymerase in mouse myeloma, MOPC 315. J. Biol. Chem. 249:5889-5897, 1974.

13. L.B. Schwartz and R.G. Roeder. Purification and subunit structure of deoxyribonucleic acid-dependent ribonucleic acid polymerase I from the mouse myeloma, MOPC 315. J. Biol. Chem. 249:5898-5906, 1974.

14. L.B. Schwartz, C. Lawrence, R.E. Thach, and R.G. Roeder. Encephalomyocarditis virus infection of mouse plasmacytoma cells II: Effect on host RNA synthesis and RNA polymerases. J. Virol. 14:611-619, 1974.

15. R. Weinmann and R.G. Roeder. Role of DNA-dependent RNA polymerase III in 5S and 4S RNA synthesis. Fed. Proc. 33: 1349, 1974 (abstract).

16. R. Weinmann and R.G. Roeder. Role of DNA-dependent RNA polymerase III in the transcription of the tRNA and 5S RNA genes. Proc. Natl. Acad. Sci. USA 71:1790-1794, 1974.

17. R. Weinmann, H.J. Raskas and R.G. Roeder. Role of DNA-dependent RNA polymerases II and III in transcription of the adenovirus genome late in productive infection. Proc. Natl. Acad. Sci. USA 71:3426-3430, 1974.

18. R. Weinmann, H.J. Raskas and R.G. Roeder. The transcriptional role of host DNA-dependent RNA polymerases In adenovirus-infected KB cells. Cold Spring Harbor Symposia on Quant. Biol. 39:495-499, 1974.

19. L.B. Schwartz and R.G. Roeder. Purification and subunit structure of deoxyribonucleic acid-dependent ribonucleic acid polymerase II from the mouse plasmacytoma, MOPC 315. J. Biol. Chem. 250:3221-3228, 1975.

20. R.G. Roeder, S.Chou, J.A. Jaehning, L.B. Schwartz, V.E.F. Sklar and R. Weinmann. Structure, function and regulation of RNA polymerases in animal cells. In: Isozymes III, Developmental Biology, ed. C .L. Markert. Academic Press, New York (1975), pp. 27-44.

21. J.A. Jaehning, C.C. Stewart and R.G. Roeder. DNA-dependent RNA polymerase levels during the response of human peripheral lymphocytes to phytohemagglutinin. Cell 4:51-57, 1975.

22. V.E.F. Sklar, L.B. Schwartz and R.G. Roeder. Distinct molecular structures of nuclear class I, II and III DNA-dependent RNA polymerases. Proc. Natl. Acad. Sci. USA 72:348-352, 1975.

23. V.E.F. Sklar and R.G. Roeder. Purification, characterization and structure of class III RNA polymerases. Fed. Proc. 34:650, 1975 (abstract).

24. R. Weinmann, J.A. Jaehning, H.J. Raskas and R.G. Roeder. Viral RNA synthesis and levels of DNA-dependent RNA polymerases during replication of adenovirus 2. J. Virology 17:114-126, 1976.

25. V.E.F. Sklar and R.G. Roeder. Purification and subunit structure of deoxyribonucleic acid-dependent ribonucleic acid polymerase III from the mouse plasmacytoma, MOPC 315. J. Biol. Chem. 251:1064-1073, 1976.

26. R. Weinmann, T.G. Brendler, H.J. Raskas and R.G. Roeder. Low molecular weight viral RNAs transcribed by RNA polymerase III during adenovirus 2 infection. Cell 7:557-566, 1976.

27. V.E.F. Sklar, J.A. Jaehning, L.P. Gage and R.G. Roeder. Purification and subunit structure of deoxyribonucleic acid-dependent ribonucleic acid polymerase III from the posterior silk gland of *Bombyx mori*. J. Biol. Chem. 251:3794-3800, 1976.

28. R.G. Roeder, L.B. Schwartz and V.E.F. Sklar. Function, structure, and regulation of eukaryotic nuclear RNA polymerases. In: Molecular Biology and Hormone Action, ed. J. Papaconstantinou. Academic Press, New York (1976), pp. 29-52.

29. V.E.F. Sklar, M. Yamamoto and R.G.Roeder. Molecular structures of eukaryotic class III RNA polymerases. In: RNA Polymerase, eds. R. Losick and M. Chamberlin. Cold Spring Harbor Laboratory (1976), pp. 803-817.

30. J.A. Jaehning, R. Weinmann, T.G. Brendler, H.J. Raskas and R.G. Roeder. Function and regulation of RNA Cold Spring Harbor Laboratory (1976), pp. 819-834.

31. R.G. Roeder. Eukaryotic nuclear RNA polymerases. In: RNA Polymerase, eds. R. Losick and M. Chamberlin. Cold Spring Harbor Laboratory (1976), pp. 285-329 (review).

32. R.G. Roeder. Selective transcription of genes by eukaryotic RNA polymerases. In: Organization and Expression of Chromosomes, eds. V.G. Allfrey, E.K.F. Bautz, B.J. McCarthy, R.T. Schimke, A. Tissieres. Dahlem Konferenzen, Berlin (1976), pp. 285-300 (review).

33. C.S. Parker, S.-Y. Ng and R.G. Roeder. Selective transcription of the 5S RNA genes isolated chromatin by RNA polymerase III. In: Molecular Mechanisms in the Control of Gene Expression, ed. D.P. Nierlich, W.J. Rutter and C.F. Fox. Academic Press, New York (1976), pp. 223-242.

34. R.G. Roeder, M.W. Golomb, J.A. Jaehning, S.-Y. Ng, C.S. Parker, L.B. Schwartz, V.E.F. Sklar and R. Weinmann. Animal nuclear RNA polymerases. In: Receptors and Hormone Action, vol. I, eds. B.W. O'Malley and L. Birnbaumer. Academic Press, New York (1977), pp. 195-236.

35. R.G. Roeder, C.S. Parker, J.A. Jaehning, S.-Y. Ng and V.E.F. Sklar. Structure and function of animal RNA polymerases and selective gene transcription in reconstructed systems. In: Cell Differentiation and Neoplasia, ed. Grady F. Saunders. Raven Press, New York (1978), pp. 305-324.

36. V.E.F. Sklar and R.G. Roeder. Transcription of specific genes in isolated nuclei by exogenous RNA polymerases. Cell 10: 405-414, 1977.

37. C.S. Parker and R.G. Roeder. Selective and accurate transcription of the *Xenopus laevis* 5S RNA genes in isolated chromatin by purifed RNA polymerase III. Proc. Natl. Acad. Sci. USA 74:44-48, 1977.

38. J.A. Jaehning and R.G. Roeder. Transcription of specific adenovirus genes in isolated nuclei by exogenous RNA polymerases. J. Biol. Chem. 252:8753-8761, 1977.

39. J.A. Jaehning, P.S. Woods and R.G. Roeder. Purification, properties, and subunit structure of deoxyribonucleic acid-dependent ribonucleic acid polymerase III from uninfected and adenovirus 2-infected KB cells. J. Biol. Chem. 252:8762-8771, 1977.

40. C.S. Parker, J.A. Jaehning and R.G. Roeder. Faithful gene transcription by eukaryotic RNA polymerases in reconstructed systems. Cold Spring Harbor Symposia on Quant. Biol. 42:577-587, 1978.

41. G.A. Bitter and R.G. Roeder. Transcription of viral genes by RNA Polymerase II in nuclei isolated from adenovirus 2 transformed cells. Biochem. 17:2198-2205, 1978.

42. B. Harris and R.G. Roeder. Structural relationships of low molecular weight viral RNAs synthesized by RNA polymerase III in nuclei from adenovirus 2-infected cells. J. Biol. Chem. 253:4120-4127, 1978.

43. S.-Y. Ng, C.S. Parker and R.G. Roeder. Transcription of cloned *Xenopus* 5S RNA genes by *X. laevis* RNA polymerase III in reconstituted systems. Proc. Natl. Acad. Sci. USA 76:136-140, 1979.

44. P.A. Weil, J. Segall, B. Harris, S.-Y. Ng and R.G. Roeder. Faithful transcription of eukaryotic genes by RNA polymerase III in systems reconstituted with purified DNA templates. J. Biol. Chem. 254:6163-6173, 1979.

45. P.A. Weil, D.S. Luse, J. Segall and R.G. Roeder. Selective and accurate initiation of transcription at the Ad2 major late promoter in a soluble system dependent on purified RNA polymerase II and DNA. Cell 18:469-484, 1979.

46. R.G. Roeder, D.R. Engelke, S. Ng, J. Segall, B. Shastry and P.A. Weil. Factors involved in the transcription of purified genes by RNA polymerase III. ICN-UCLA Symposium on Gene Regulation in Eukaryote, eds. R. Axel and T. Maniatis. Academic Press, New York (1979), pp. 521-540.

47. R.G. Roeder, D.R. Engelke, D.S. Luse, S. Ng, J. Segall, B.S. Shastry and P.A. Weil. Studies of the transcription of specific class II and class III eukaryotic genes in reconstituted cell-free systems. In: Genetics and Evolution of RNA Polymerase, tRNA and Ribosomes, eds. S. Osawa, H. Ozeki, H. Uchida, and T. Yura. University of Tokyo Press, Tokyo (1980), pp. 147-169.

48. M.R. Green, R.M. Lebovitz and R.G. Roeder. Expression of the autonomous parvovirus H1 genome: evidence for a single transcriptional unit and multiple spliced polyadenylated transcripts. Cell 17:967-977, 1979.

49. G.A. Bitter and R.G. Roeder. Transcription of viral genes in chromatin from adenovirus 2 transformed cells by exogenous eukaryotic RNA polymerases. Nucleic Acids Res. 7:433-452, 1979.

50. D.R. Engelke, S.-Y. Ng, B.S. Shastry and R.G. Roeder. Specific interaction of a purified transcription factor with an internal control region of 5S RNA genes. Cell 19:717-728, 1980.

51. D.S. Luse and R.G. Roeder. Accurate transcription initiation on a purified mouse β-globin DNA fragment in a cell-free system. Cell 20:691-699, 1980.

52. M.R. Green, S.E. Straus and R.G. Roeder. Transcripts of the adenovirus-associated virus genome: Multiple polyadenylated RNAs including a potential primary transcript. J. Virology 35:560-565, 1980.

53. M.R. Green and R.G. Roeder. Transcripts of the adeno-associated virus genome: Mapping of the major RNAs. J. Virology 36:79-92, 1980.

54. M.R. Green and R.G. Roeder. Definition of a novel promoter for the major adenovirus-associated virus mRNA. Cell 22:231-242, 1980.

55. J. Segall, T. Matsui and R.G. Roeder. Multiple factors are required for the accurate transcription of purified genes by RNA polymerase III. J. Biol. Chem. 255:11986-11991, 1980.

56. T. Matsui, J. Segall, P.A. Weil and R.G. Roeder. Multiple factors required for accurate initiation of transcription by purified RNA polymerase II. J. Biol. Chem. 255:11992-11996, 1980.

57. B.M. Honda and R.G. Roeder. Association of a 5S gene transcription factor with 5S RNA and altered levels of the factor during cell differentiation. Cell 22:119-126, 1980.

58. D.S. Luse, T. Matsui, J.R. Haynes, E.A. Schon, P. Rosteck, Jr., J.B. Lingrel and R.G. Roeder. Accurate transcription initiation on purified b-globin DNA fragments in a reconstituted cell-free system. In: Organization and Expression of Globin Genes, eds. A. Neinhuis and G. Stamatoyannopoulous. Alan R. Liss, Inc., New York (1981), pp 127-137.

59. M. Zernik, N. Heintz, I. Boime and R.G. Roeder. *Xenopus laevis* histone genes: Variant H1 genes are present in different clusters. Cell 22:807-815, 1980.

60. S. Sakonju, D.D. Brown, D.R. Engelke, S.-Y. Ng, B.S. Shastry and R.G. Roeder. The binding of a transcription factor to deletion mutants of a 5S ribosomal RNA gene. Cell 23:665-669, 1981.

61. D.C. Lee and R.G. Roeder. Transcription of adenovirus type 2 genes in a cell-free system: Apparent heterogeneity of initiation at some promoters. Mol. Cell. Biol. 1:635-651, 1981.

62. N. Heintz, M. Zernik and R.G. Roeder. The structure of the human histone genes: Clustered but not tandemly repeated. Cell 24:661-668, 1981.

63. R.G. Roeder, D.C. Lee, B.M. Honda and B.S. Shastry. Analysis of eukaryotic gene transcription in vitro. ICN -UCLA Symposium on Developmental Biology Using Purified Genes, ed. D.Brown. Academic Press, New York (1981), pp. 429-446.

64. D.S. Luse, J.R. Haynes, D. VanLeeuwen, E.A. Schon, M.L. Cleary, S.G. Shapiro, J.B. Lingrel and R.G. Roeder. Transcription of the β-like globin genes and pseudogenes of the goat in a cell-free system. Nucleic Acids Res. 9: 4339-4354, 1981.

65. D.C. Lee, R.G. Roeder and W.S.M. Wold. DNA sequences affecting specific initiation of transcription *in vitro* from the EIII promoter of adenovirus 2. Proc. Natl. Acad. Sci. USA 79:41-45, 1982.

66. N. Heintz and R.G. Roeder. Transcription of eukaryotic genes in soluble cell-free systems. In: Genetic Engineering, Vol. 4., eds. J.K. Setlow and A. Hollaender. Plenum Press, New York (1982), pp. 57-89.

67. B.S. Shastry, S.-Y. Ng and R.G. Roeder. Multiple factors involved in the transcription of class III genes in *Xenopus laevis*. J. Biol. Chem. 257:12979-12986, 1982.

68. D.R. Engelke, B.S. Shastry and R.G. Roeder. Multiple forms of DNA-dependent RNA polymerases in *Xenopus laevis*: rapid purification and structural and immunological properties. J. Biol. Chem. 258:1921-1931, 1983.

69. R.G. Roeder. Multiple forms of DNA-dependent RNA polymerases in *Xenopus laevis*: properties, purification, and subunit structure of class III RNA polymerases. J. Biol. Chem. 258:1932-1941, 1983.

70. J.D. Dignam, P.L. Martin, B.S. Shastry and R.G. Roeder. Eukaryotic gene transcription with purified components. Methods Enzymol. 101:582-598, 1983.

71. E. Slattery, J.D. Dignam, T. Matsui and R.G. Roeder. Purification and analysis of a factor which suppresses nick-induced transcription by RNA polymerase II and its identity with poly(ADP-ribose) polymerase. J. Biol. Chem. 258:5955-5959, 1983.

72. J.D. Dignam, R.M. Lebovitz and R.G. Roeder. Accurate transcription initiation by RNA polymerase II in a soluble extract from isolated mammalian nuclei. Nucleic Acids Res. 11:1475-1489, 1983.

73. N. Heintz, H.L. Sive and R.G. Roeder. Regulation of human histone gene expression: kinetics of accumulation and changes in the rate of synthesis and in the half-lives of individual histone mRNAs during the HeLa cell cycle. Mol. Cell. Biol. 3:539-550, 1983.

74. D. Strayer, N. Heintz, R.G. Roeder and D. Gillespie. Three organizations of human DNA. Proc. Natl. Acad. Sci. USA 80:4770-4774, 1983.

75. A. Kramer and R.G. Roeder. The use of monoclonal antibodies for the characterization of a 5S gene-specific transcription factor (IIIA) from Xenopus laevis. J. Biol. Chem. 258: 11915-11923, 1983.

76. R. Zhong, R.G. Roeder and N. Heintz. The primary structure and expression of four cloned human histone genes. Nucleic Acids Res. 11:7409-7425, 1983.

77. A.B. Lassar, P.L. Martin and R.G. Roeder. Transcription of class III genes: formation of preinitiation complexes. Science 222:740-748, 1983.

78. B.M. Emerson and R.G. Roeder. Isolation and genomic arrangement of active and inactive forms of mammalian 5S RNA genes. J. Biol. Chem. 259:7916-7925, 1984.

79. B.M. Emerson and R.G. Roeder. DNA sequences and transcription factor interactions of active and inactive forms of mammalian 5S RNA genes. J. Biol. Chem. 259:7926-7935, 1984.

80. M. Sawadogo and R.G. Roeder. Energy requirement for specific transcription initiation by the human RNA polymerase II system. J. Biol. Chem. 259:5321-5326, 1984.

81. N. Heintz and R.G. Roeder. Transcription of human histone genes in extracts from synchronized HeLa cells. Proc. Natl. Acad. Sci. USA 81:2713-2717, 1984.

82. J.J. Bieker and R.G. Roeder. Physical properties and DNA-binding stoichiometry of a 5S gene-specific transcription factor. J. Biol. Chem. 259:6158-6164, 1984.

83. B.S. Shastry, B.M. Honda and R.G. Roeder. Altered levels of a 5S gene-specific transcription factor (TFIIIA) during oogenesis and embryonic development of Xenopus laevis. J. Biol. Chem. 259:11373-11382, 1984.

84. H.L. Sive, N. Heintz and R.G. Roeder. Regulation of human histone gene expression during the HeLa cell cycle requires protein synthesis. Mol. Cell. Biol. 4:2723-2734, 1984.

85. A.M. Ginsberg, B.O. King and R.G. Roeder. Xenopus 5S gene transcription factor, TFIIIA: characterization of a cDNA clone and measurement of RNA levels throughout development. Cell 39:479-489, 1984.

86. A.B. Lassar, D.H. Hamer and R.G. Roeder. Stable transcription complex on a class III gene in a minichromosome. Mol. Cell. Biol. 5:40-45, 1985.

87. J.J. Bieker, P.L. Martin and R.G. Roeder. Formation of a rate-limiting intermediate in 5S RNA gene transcription. Cell 40:119-127, 1985.

88. W.K. Hoeffler and R.G. Roeder. Enhancement of RNA polymerase III transcription by the E1A gene product of adenovirus. Cell 41:955-963, 1985.

89. D.K. Hawley and R.G. Roeder. Separation and partial characterization of three functional steps in transcription initiation by human RNA polymerase II. J. Biol. Chem. 260:8163-8172, 1985.

90. M. Sawadogo and R.G. Roeder. Factors involved in specific transcription by human RNA polymerase II: analysis by a rapid and quantitative in vitro assay. Proc. Natl. Acad. Sci. USA 82:4394-4398, 1985.

91. M. Perry, G.H. Thomsen and R.G. Roeder. Genomic organization and nucleotide sequence of two distinct histone gene clusters from *Xenopus laevis*: Identification of novel conserved upstream sequence elements. J. Mol. Biol. 185:479-499, 1985.

92. M. Sawadogo and R.G. Roeder. Interaction of a gene-specific transcription factor with the adenovirus major late promoter upstream of the TATA box region. Cell 43:165-175, 1985.

93. M. Sawadogo and R.G. Roeder. DNA-binding specificity of USF, a human gene-specific transcription factor required for maximum expression of the major late promoter of adenovirus. In: Cancer Cells 4/DNA Tumor Viruses, T. Grodzicker, P. Sharp, M. Botchaneds., Cold Spring Harbor Laboratory (1986), pp. 147-154.

94. S.M. Abmayr, L.D. Feldman and R.G. Roeder. In vitro stimulation of specific RNA polymerase II-mediated transcription by the pseudorabies virus immediate early protein. Cell 43:821-829, 1985.

95. M. Perry, G.H. Thomsen and R.G. Roeder. Major transitions in histone gene expression do not occur during development in Xenopus Laevis. Developmental Biology 116:532-538, 1986.

96. R.M. Lebovitz and R.G. Roeder. Parvovirus H-1 expression: mapping of the abundant cytoplasmic transcripts and identification of promoter sites and overlapping transcription units. J. Virology 58:271-280, 1986.

97. J.J. Bieker and R.G. Roeder. Characterization of the nucleotide requirement for elimination of the rate-limiting step in 5S RNA gene transcription. J. Biol. Chem. 261:9732-9738, 1986.

98. G.H. Thomsen, M. Perry and R.G. Roeder. The structure and developmental expression of Xenopus laevis histone genes. In: Molecular Approaches to Developmental Biology, UCLA Symposia on Molecular and Cellular Biology, New Series, Vol. 51, R.A. Firtel and E.H. Davidson eds., Alan R. Liss, Inc., New York (1986), pp. 279-290.

99. H.L. Sive, N. Heintz and R.G. Roeder. Multiple sequence elements are required for maximal in vitro transcription of a human histone H2B gene. Mol. Cell. Biol. 6:3329-3340,1986.

100. H.L. Sive and R.G. Roeder. Interaction of a common factor with conserved promoter and enhancer sequences in histone H2B, immunoglobulin, and U2 small nuclear RNA (snRNA) genes. Proc. Natl. Acad. Sci. USA 83:6382-6386, 1986.

101. L. Dailey, S.M. Hanly, R.G. Roeder and N. Heintz. Distinct transcription factors bind specifically to two regions of the human histone H4 promoter. Proc. Natl. Acad. Sci. USA 83:7241-7245, 1986.

102. J. Mizushima-Sugano and R.G. Roeder. Cell-type-specific transcription of an immunoglobulin κ light chain gene *in vitro*. Proc. Natl. Acad. Sci. USA 83:8511-8515, 1986.

103. R. Prywes and R.G. Roeder. Inducible binding of a factor to the c-fos enhancer. Cell 47:777-784, 1986.

104. T. Pieler, J. Hamm and R.G. Roeder. The 5S gene internal control region is composed of three distinct sequence elements, organized as two functional domains with variable spacing. Cell 48:91-100, 1987.

105. D.K. Hawley and R.G. Roeder. Functional steps in transcription initiation and reinitiation from the major late promoter in a HeLa nuclear extract. J. Biol. Chem. 262:3452-3461, 1987.

106. D. Reinberg and R.G. Roeder. Factors involved in specific transcription by mammalian RNA polymerase II: Purification and functional analysis of initiation factors IIB and IIE. J. Biol. Chem. 262:3310-3321, 1987.

107. D. Reinberg, M. Horikoshi and R.G. Roeder. Factors involved in specific transcription in mammalian RNA polymerase II: Functional analysis of initiation factors IIA and IID and identification of a new factor operating at sequences downstream of the initiation site. J. Biol. Chem. 262:3322-3330, 1987.

108. D. Reinberg and R.G. Roeder. Factors involved in specific transcription by mammalian RNA polymerase II: transcription factor IIS stimulates elongation of RNA chains. J. Biol. Chem. 262:3331-3337, 1987.

109. H.M. Alkhatib, D. Chen, B. Cherney, K. Bhatia, V. Notario, C. Giri, G. Stein, E. Slattery, R.G. Roeder and M.E. Smulson. Cloning and expression of cDNA for human poly(ADP-ribose) polymerase. Proc. Natl. Acad. Sci. USA 84:1224-1228, 1987.

110. M.W. Van Dyke and R.G. Roeder. Multiple proteins bind to VA RNA genes of adenovirus type 2. Mol. Cell. Biol. 7:1021-1031, 1987.

111. P.V.C. Hough, I.A. Mastrangelo, J.S. Wall, J.F. Hainfeld, M. Sawadogo and R.G. Roeder. The gene-specific initiation factor USF (upstream stimulatory factor) bound at the adenovirus type 2 major late promoter: Mass and three-dimensional structure. Proc. Natl. Acad. Sci. USA 84:4826-4830, 1987.

112. M.W. Van Dyke and R.G. Roeder. Novobiocin interferes with the binding of transcription factors TFIIIA and TFIIIC to the promoters of class III genes. Nucleic Acids Res. 15:4365-4374, 1987.

113. M.W. Van Dyke and R.G. Roeder. Two forms of transcription factor TFIIIC in extracts from HeLa Cells. Nucleic Acids Res. 15:5031-5039, 1987.

114. R. Prywes and R.G. Roeder. Purification of the c-fos enhancer-binding protein. Mol. Cell. Biol. 7:3482-3489, 1987.

115. T.M. Fisch, R. Prywes and R.G. Roeder. c-fos sequences necessary for basal expression and induction by epidermal growth factor, 12-0-tetradecanoyl phorbol-13-acetate, and the calcium ionophore. Mol. Cell. Biol. 7:3490-3502, 1987.

116. J.L. Workman and R.G. Roeder. Binding of transcription factor TFIID to the major late promoter during in vitro nucleosome assembly potentiates subsequent initiation by RNA polymerase II. Cell 51:613-622, 1987.

117. C. Fletcher, N. Heintz and R.G. Roeder. Purification and characterization of OTF-1, a transcription factor regulating cell cycle expression of a human histone H2b gene. Cell 51:773-781, 1987.

118. C. Scheidereit, A. Heguy and R.G. Roeder. Identification and purification of a human lymphoid-specific octamer-binding protein (OTF-2) that activates transcription of an immunoglobulin promoter in vitro. Cell 51:783-793, 1987.

119. F. LaBella, H.L. Sive, R.G. Roeder and N. Heintz. Cell-cycle regulation of a human histone H2b gene is mediated by the H2b subtype-specific consensus element. Genes Dev. 2:32-39, 1988.

120. S.M. Abmayr, J.L. Workman and R.G. Roeder. The pseudorabies immediate early protein stimulates in vitro transcription by facilitating TFIID: promoter interactions. Genes Dev. 2:542-553, 1988.

121. W.K. Hoeffler, R. Kovelman and R.G. Roeder. Activation of transcription factor IIIC by the adenovirus E1A protein. Cell 53:907-920, 1988.

122. D.-H. Huang and R.G. Roeder. Delineation of DNA sequences that are important for in vitro transcription from the adenovirus EIIa late promoter. Mol. Cell. Biol. 8:1906-1914, 1988.

123. D.-H. Huang, M. Horikoshi and R.G. Roeder. Activation of the adenovirus EIIa late promoter by a single-point mutation which enhances binding of transcription factor IID. J. Biol Chem. 263:12596-12601, 1988.

124. M. Sawadogo, M.W. Van Dyke, P.D. Gregor and R.G. Roeder. Multiple forms of the human gene-specific transcription factor USF: I. Complete purification and identification of USF from HeLa cell nuclei. J. Biol. Chem. 263:11985-11993, 1988.

125. K. Kawakami, C. Scheidereit and R.G. Roeder. Identification and purification of a human immunoglobulin enhancer-binding protein (NF-kB) that activates transcription from a human immuno-deficiency virus type 1promoter in vitro. Proc. Natl. Acad. Sci. USA 85:4700-4704, 1988.

126. N. Nakajima, M. Horikoshi and R.G. Roeder. Factors involved in specific transcription by mammalian RNA polymerase II: Purification, genetic specificity and TATA box-promoter interactions of TFIID. Mol. Cell. Biol. 8:4028-4040, 1988.

127. T. Gerster and R.G. Roeder. A herpesvirus trans-activating protein interacts with transcription factor OTF-1 and other cellular proteins. Proc. Natl. Acad. Sci. USA 85:6347-6351, 1988.

128. M.W. Van Dyke, R.G. Roeder and M. Sawadogo. Physical analysis of transcription preinitiation complex assembly on a class II gene promoter. Science 241:1335-1338, 1988.

129. M. Horikoshi, T. Hai, Y.-S. Lin, M.R. Green and R.G. Roeder. Transcription factor ATF interacts with the TATA factor to facilitate establishment of a preinitiation complex. Cell 54:1033-1042, 1988.

130. T. Hai, M. Horikoshi, R.G. Roeder and M.R. Green. Analysis of the role of the transcription factor ATF in the assembly of a functional preinitiation complex. Cell 54:1043-1051, 1988.

131. M. Horikoshi, M.F. Carey, H. Kakidani and R.G. Roeder. Mechanism of action of a yeast activator: Direct effect of GAL4 derivatives on mammalian TFIID-promoter interactions. Cell 54:665-669, 1988.

132. S. Ruben, H. Poteat, T.-H. Tan, K. Kawakami, R.G. Roeder, W. Haseltine and C.A. Rosen. Cellular transcription factors and regulation of IL-2 receptor gene expression by HTLV-I tax gene product. Science 241:89-92, 1988.

133. R. Prywes, A. Dutta, J.A. Cromlish and R.G. Roeder. Phosphorylation of a serum response factor, a factor that binds to the serum response element of the c-fos enhancer. Proc. Natl. Acad. Sci. USA 85:7206-7210, 1988.

134. J.L. Workman, S.M. Abmayr, W.A. Cromlish and R.G. Roeder. Transcriptional regulation by the immediate early protein of pseudorabies virus during in vitro nucleosome assembly. Cell 55:211-219, 1988.

135. E.A. O'Neill, C. Fletcher, C.R. Burrow, N. Heintz, R.G. Roeder and T.J. Kelly. Transcription factor OTF-1 is functionally identical to the DNA replication factor NF-III. Science 241:1210-1213, 1988.

136. C. Scheidereit, J.A. Cromlish, T. Gerster, K. Kawakami, C.-G. Balmaceda, R.A. Currie and R. G. Roeder. A human lymphoid-specific transcription factor that activates immunoglobulin genes is a homeobox protein. Nature 336:551-557, 1988.

137. M.W. Van Dyke, M. Sawadogo and R.G. Roeder. Stability of transcription complexes on class II genes. Mol. Cell. Biol. 9:342-344, 1989.

138. L.M. Boxer, R. Prywes, R.G. Roeder and L. Kedes. The sarcomeric actin CArG-binding factor is indistinguishable from the c-fos serum response factor. Mol. Cell. Biol. 9:515-522, 1989.

139. L. Poellinger and R.G Roeder. Octamer transcription factors 1 and 2 each bind to two different functional elements in the immunoglobulin heavy-chain promoter. Mol. Cell. Biol. 9:747-756, 1989.

140. L. Poellinger, B.K. Yoza and R.G. Roeder. Functional cooperativity between protein molecules bound at two distinct sequence elements of the immunoglobulin heavy-chain promoter. Nature 337:573-576, 1989.

141. T.M. Fisch, R. Prywes, M.C. Simon and R.G. Roeder. Multiple sequence elements in the c-fos promoter mediate induction by cAMP. Genes Dev. 3:198-211, 1989.

142. T.M. Fisch, R. Prywes and R.G. Roeder. An AP1-binding site in the c-fos gene can mediate induction by epidermal growth factor and 12-0-tetradecanoyl phorbol-13-acetate. Mol. Cell. Biol. 9:1327-1331, 1989.

143. T.-H. Tan, M. Horikoshi and R.G. Roeder. Purification and characterization of multiple nuclear factors that bind to the TAX-inducible enhancer within the human T-cell leukemia virus type 1 long terminal repeat. Mol. Cell. Biol. 9:1733-1745, 1989.

144. R. Kovelman, W.K. Hoeffler and R.G. Roeder. Characterization of two forms of TFIIIC regulated by the adenovirus E1A protein. In: DNA-Protein Interactions in Transcription, UCLA Symposium on Molecular and Cellular Biology, New Series, Vol. 95. J.D. Gralla, editor, Alan R. Liss, Inc., New York (1989) pp. 151-160.

145. R. Prywes, T.M. Fisch and R.G. Roeder. Transcriptional regulation of c-fos. Cold Spr. Harb. Symp. Quant. Biol. 53:739-748, 1988.

146. T.-H. Tan and R.G. Roeder. Identification and purification of multiple HTLV-I tax-inducible enhancer binding proteins. Ann. N.Y. Acad. Sci. 567:288-290, 1989.

147. T.-H. Tan, R. Jia and R.G. Roeder. The HTLV-I tax-inducible enhancer is responsive to various inducing agents. Ann. N.Y. Acad. Sci. 567:291-294, 1989.

148. W. A. Cromlish, S.M. Abmayr, J.L. Workman, M. Horikoshi and R.G. Roeder. Transcriptionally active immediate-early protein of pseudorabies virus binds to specific sites on class II gene promoters. J. Virology 63:1869-1876, 1989.

149. K.W. Scotto, H. Kaulen and R.G. Roeder. Positive and negative regulation of the gene for transcription factor IIIA in *Xenopus laevis* oocytes. Genes Dev. 3:651-662, 1989.

150. M. Horikoshi, C.K. Wang, H. Fujii, J.A. Cromlish, P.A. Weil and R.G. Roeder. Purification of a yeast TATA box-binding protein that exhibits human transcription factor IID activity. Proc. Natl. Acad. Sci. USA 86:4843-4847, 1989.

151. M. Horikoshi, C.K. Wang, H. Fujii, J.A. Cromlish, P.A. Weil and R.G. Roeder. Cloning and structure of a yeast gene encoding a general transcription initiation factor TFIID that binds to the TATA box. Nature 341:299-303, 1989.

152. B.-Z. Levi, J.W. Kasik, P.A. Burke, R. Prywes, R.G. Roeder, E. Appella and K. Ozato. Neonatal induction of a nuclear protein that binds to the c-fos enhancer. Proc. Natl. Acad. Sci. USA. 86:2262-2266, 1989.

153. T.-H. Tan, R. Jia and R.G. Roeder. Utilization of signal transduction pathway by the human T-cell leukemia virus type I transcriptional activator *tax*. J. Virology 63:3761-3768, 1989.

154. J.A. Cromlish and R.G. Roeder. Human transcription factor IIIC (TFIIIC). Purification, polypeptide structure, and the involvement of thiol groups in specific DNA binding. J. Biol. Chem. 264:18100-18109, 1989.

155. P.A. Sherman, P.V. Basta, A. Heguy, M. K. Wloch, R.G. Roeder and J.P.-Y. Ting. The octamer motif is a B-lymphocyte-specific regulatory element of the HLA-DR gene promoter. Proc. Natl. Acad. Sci. USA 86:6739-6743, 1989.

156. R.A. Currie and R.G. Roeder. Identification of an octamer-binding site in the mouse kappa light-chain immunoglobulin enhancer. Mol. Cell. Biol. 9:4239-4247, 1989.

157. S. Murphy, A. Pierani, C. Scheidereit, M. Melli and R.G. Roeder. Purified octamer binding transcription factors (OTFs) stimulate RNA polymerase III-mediated transcription of the 7SK RNA gene. Cell 59:1071-1080, 1989.

158. R.G. Roeder. Factors and mechanisms involved in the transcriptional regulation of eukaryotic genes. In: Influence of Molecular Biology on Drug Discovery, eds. K. Udaka, Y. Furuichi and J. Drews. W. Zuckschwerdt Verlag, San Francisco, (1989), pp. 95-101.

159. B.K. Yoza and R.G. Roeder. Identification of a novel factor that interacts with an immunoglobulin heavy chain promoter and stimulates transcription in conjunction with the lymphoid cell specific factor OTF-2. Mol. Cell. Biol. 10:2145-2153, 1990.

160. J.L. Workman, R.G. Roeder and R.E. Kingston. An upstream transcription factor, USF (MLTF), facilitates the formation of preinitiation complexes during in vitro chromatin assembly. EMBO J. 9:1299-1308, 1990.

161. T. Gerster, C.-G. Balmaceda and R.G. Roeder. The cell type-specific octamer transcription factor OTF-2 has two domains required for the activation of transcription. EMBO J. 9:1635-1643, 1990.

162. Y. Ohkuma, M. Horikoshi, R.G. Roeder and C. Desplan. Engrailed, a homeodomain protein, can repress in vitro transcription by competition with the TATA box-binding protein transcription factor IID. Proc. Natl. Acad. Sci. USA. 87:2289-2293, 1990.

163. Y. Ohkuma, M. Horikoshi, R.G. Roeder and C. Desplan. Binding site dependent direct activation and repression of in vitro transcription by Drosophila homeodomain proteins. Cell 61:475-484, 1990.

164. R. Kovelman and R.G. Roeder. Sarkosyl defines three intermediate steps in transcription initiation by RNA polymerase III: application to stimulation of transcription by E1A. Genes Dev. 4:646-659, 1990.

165. M. Horikoshi, T. Yamamoto, Y. Ohkuma, P.A. Weil and R.G. Roeder. Analysis of structure-function relationships of yeast TATA box binding factor TFIID. Cell 61:1171-1178, 1990.

166. A. Hoffmann, M. Horikoshi, C.K. Wang, S. Schroeder, P.A. Weil and R.G. Roeder. Cloning of the *Schizosaccharomyces pombe* TFIID gene reveals a strong conservation of functional domains present in *Saccharomyces cerevisiae* TFIID. Genes Dev. 4:1141-1148, 1990.

167. A. Hoffmann, E. Sinn, T. Yamamoto, J. Wang, A. Roy, M. Horikoshi and R. G. Roeder. Highly conserved core domain and unique N terminus with presumptive regulatory motifs in a human TATA factor (TFIID). Nature 346:387-390, 1990.

168. A. Gasch, A. Hoffmann, M. Horikoshi, R.G. Roeder and N.-H. Chua. Arabidopsis thaliana contains two genes for TFIID. Nature 346:390-394, 1990.

169. M. L. Muhich, C.T. Iida, M. Horikoshi, R.G. Roeder and C.S. Parker. cDNA clone encoding *Drosophila* transcription factor TFIID. Proc. Natl. Acad. Sci. USA 87:9148-9152, 1990

170. Y. Nakatani, M. Horikoshi, M. Brenner, T. Yamamoto, F. Besnard, R.G. Roeder and E. Freese. A downstream initiation element required for efficient TATA box binding and in vitro function of TFIID. Nature 348:86-88, 1990.

171. P.D. Gregor, M. Sawadogo and R.G. Roeder. The Adenovirus major late transcription factor USF is a member of the helix-loop-helix group of regulatory proteins and binds to DNA as a dimer. Genes Dev. 4:1730-1740, 1990.

172. F. Katagiri, K. Yamazaki, M. Horikoshi, R.G. Roeder and N.-H. Chua. A plant DNA-binding protein increases the number of active preinitiation complexes in a human in vitro transcription system. Genes Dev. 4:1899-1909, 1990.

173. A. Pierani, A. Heguy, H. Fujii and R.G. Roeder. Activation of octamer-containing promoters by either Octamer-Binding Transcription Factor 1 (OTF-1) or OTF-2 and requirement of an additional B-cell-specific component for optimal transcription of immunoglobulin promoters. Mol. Cell. Biol. 10:6204-6215, 1990

174. C. Abate, D. Luk, E. Gagne, R.G. Roeder and T. Curran. Fos and Jun cooperate in transcriptional regulation via heterologous activation domains. Mol. Cell. Biol. 10:5532-5535, 1990.

175. Y. Ohkuma, H. Sumimoto, M. Horikoshi and R. G. Roeder. Factors involved in specific transcription by mammalian RNA polymerase II: purification and characterization of general transcription factor TFIIE. Proc. Natl. Acad. Sci. USA 87:9163-9167, 1990.

176. H. Sumimoto, Y. Ohkuma, T. Yamamoto, M. Horikoshi and R. G. Roeder. Factors involved in specific transcription by mammalian RNA polymerase II: Identification of general transcription factor TFIIG. Proc. Natl. Acad. Sci. USA 87:9158-9162, 1990.

177. M. Meisterernst, M. Horikoshi and R. G. Roeder. Recombinant yeast TFIID, a general transcription factor, mediates activation by the gene-specific factor USF in a chromatin assembly assay. Proc. Natl. Acad. Sci. USA 87:9153-9157, 1990.

178. H. Kaulen, P. Pognonec, P.D. Gregor and R.G. Roeder. The *Xenopus* B1 factor is closely related to the mammalian activator USF and is implicated in the developmental regulation of TFIIIA gene expression. Mol. Cell. Biol. 11:412-424, 1991.

179. W.H. Reeves, A. Pierani, C.-H. Chou, T. Ng, C. Nicastri, R.G. Roeder and Z.M. Sthoeger. Epitopes of the p70 and p80 (Ku) lupus autoantigens. J. Immunology 146:2678-2686, 1991.

180. E. Ponce, J.A. Lloyd, A. Pierani, R.G. Roeder and J.B. Lingrel. Transcription factor OTF-1 interacts with two distinct DNA elements in the ^{A}-globin gene promoter. Biochemistry 30:2961-2967, 1991.

181. H. Zhu, A.L. Roy, R.G. Roeder and R. Prywes. Serum response factor affects preinitiation complex formation by TFIID *In Vitro*. The New Biologist 3:455-464, 1991.

182. H. Kato, M. Horikoshi and R.G. Roeder. Repression of HIV-1 transcription by a cellular protein. Science 251:1476-1479, 1991.

183. D. Poon, S. Schroeder, C.K. Wang, T. Yamamoto, M. Horikoshi, R.G. Roeder and P.A. Weil. The conserved carboxy-terminal domain of *Saccharomyces cerevisiae* TFIID is sufficient to support normal cell growth. Mol. Cell. Biol. 11:4809-4821, 1991.

184. T. Tamura, K. Sumita, I. Fujino, A. Aoyama, M. Horikoshi, A. Hoffmann, R.G. Roeder , M. Muramatsu and K. Mikoshiba. Striking homology of the 'variable' N-terminal as well as the 'conserved core' domains of the mouse and human TATA-factors (TFIID). Nucleic Acids Res. 19:3861-3865, 1991.

185. P. Pognonec and R.G. Roeder. Recombinant 43-kDa USF binds to DNA and activates transcription in a manner indistinguishable from that of natural 43/44-kDa USF. Mol. Cell. Biol. 11:5125-5136, 1991.

186. U. Chen, R.H. Scheuermann, T. Wirth, T. Gerster, R.G. Roeder, K. Harshman, and C. Berger. Anti-IgM antibodies down modulate mu-enhancer activity and OTF2 levels in LPS-stimulated mouse splenic B-cells. Nucleic Acids Res. 19:5981-5989, 1991.

187. M. Meisterernst, A.L. Roy, H.M. Lieu and R.G. Roeder. Activation of class II gene transcription by regulatory factors is potentiated by a novel activity. Cell 66:981-993, 1991.

188. M. Meisterernst and R.G. Roeder. A family of proteins that interact with TFIID and regulate promoter activity. Cell 67:557-567, 1991.

189. A.L. Roy, M. Meisterernst, P. Pognonec and R.G. Roeder. Cooperative interaction of an initiator-binding transcription initiation factor and the helix-loop-helix activator USF. Nature 354:245-248, 1991.

190. R.G. Roeder. The complexities of eukaryotic transcription initiation: regulation of preinitiation complex assembly. Trends in Biochemical Sciences 16:402-408, 1991.

191. S. Malik, K. Hisatake, H. Sumimoto, M. Horikoshi and R.G. Roeder. Sequence of general transcription factor TFIIB and relationships to other initiation factors. Proc. Natl. Acad. Sci. USA 88:9553-9557, 1991.

192. K. Hisatake, S. Malik, R.G. Roeder and M. Horikoshi. Conserved structural motifs between *Xenopus* and human TFIIB. Nucleic Acids Res. 19:6639, 1991.

193. Y. Ohkuma, H. Sumimoto, A. Hoffmann, S. Shimasaki, M. Horikoshi and R.G. Roeder. Structural motifs and potential σ homologies in the large subunit of human general transcription factor TFIIE. Nature 354:398-401, 1991.

194. H. Sumimoto, Y. Ohkuma, E. Sinn, H. Kato, S. Shimasaki, M. Horikoshi and R.G. Roeder. Conserved sequence motifs in the small subunit of human general transcription factor TFIIE. Nature 354:401-404, 1991.

195. M. Horikoshi, H. Fujita, J. Wang, R. Takada and R.G. Roeder. Nucleotide and amino acid sequence of RAP30. Nucleic Acids Res. 19:5436, 1991.

196. A. Hoffmann and R.G. Roeder. Purification of his-tagged proteins in non-denaturing conditions suggests a convenient method for protein interaction studies. Nucleic Acids Res. 19:6337-6338, 1991.

197. P. Pognonec, H. Kato, H. Sumimoto, M. Kretzschmar and R.G. Roeder. A quick procedure for purification of functional recombinant proteins over-expressed in *E. Coli*. Nucleic Acids Res. 19:6650, 1991.

198. J.L. Workman, I.C.A. Taylor, R.E. Kingston and R.G. Roeder. Control of class II gene transcription during in vitro nucleosome assembly. In: Methods in Cell Biology, Volume 35, eds. B.A. Hamkalo and S.C.R. Elgin. Academic Press, New York (1991), pp. 419-447.

199. D.K. Lee, M. Horikoshi and R.G. Roeder. Interaction of TFIID in the minor groove of the TATA element. Cell 67:1241-1250, 1991.

200. L.A. Chang, T. Smith, P. Pognonec, R.G. Roeder and H. Murialdo. Identification of USF as the ubiquitous murine factor that binds to and stimulates transcription from the immunoglobulin l2-chain promoter. Nucleic Acids Res. 20:287-293, 1992.

201. M. Horikoshi, C. Bertuccioli, R. Takada, J. Wang, T. Yamamoto and R.G. Roeder. Transcription factor IID induces DNA bending upon binding to the TATA element. Proc. Natl. Acad. Sci. USA 89:1060-1064, 1992.

202. T. Yamamoto, M. Horikoshi, J. Wang, S. Hasegawa, P.A. Weil and R.G. Roeder. A bipartite DNA binding domain composed of direct repeats in the TATA box binding factor TFIID. Proc. Natl. Acad. Sci. USA 89:2844-2848, 1992.

203. S. Yamashita, K. Wada, M. Horikoshi, D. Gong, T. Kokubo, K. Hisatake, N. Yokotani, S. Malik, R.G. Roeder and Y. Nakatani. Isolation and characterization of a cDNA encoding *Drosophila* transcription factor TFIIB. Proc. Natl. Acad. Sci. USA 89:2839-2843, 1992.

204. S. Hashimoto, H. Fujita, S.Hasegawa, R.G. Roeder and M. Horikoshi. Conserved structural motifs within the N-terminal domain of TFIIDt from Xenopus, mouse and human. Nucleic Acids Res. 20:3788, 1992.

205. Y. Ohkuma, S. Hashimoto, R.G. Roeder and M. Horikoshi. Structural conservation of putative functional motifs between *Xenopus* and human TFIIE-β. Nucleic Acids Res. 20:4363, 1992.

206. T. Yoganathan, M. Horikoshi, S. Hasegawa, R.G. Roeder and B.H. Sells. Yeast transcription factor IID participates in cell-free transcription of a mammalian ribosomal protein TATA-less promoter. Biochem. J. 285:721-723, 1992.

207. M. Kretzschmar, M. Meisterernst, C. Scheidereit, G. Li and R.G. Roeder. Transcriptional regulation of the HIV-1 promoter by NF-κB in vitro. Genes Dev. 6:761-774, 1992.

208. H. Kato, H. Sumimoto, P. Pognonec, C.-H. Chen, C.A. Rosen and R.G. Roeder. HIV-1 Tat acts as a processivity factor in vitro in conjunction with cellular elongation factors. Genes Dev. 6:655-666, 1992.

209. S. Murphy, J.-B. Yoon, T. Gerster and R.G. Roeder. Oct-1 and Oct-2 potentiate functional interactions of a transcription factor with the proximal sequence element of snRNA genes. Mol. Cell. Biol. 12:3247-3261, 1992.

210. B.J. Kirschbaum, P. Pognonec and R.G. Roeder. Definition of the transcriptional activation domain of recombinant 43-kDa USF. Mol. Cell. Biol. 12:5094-5101, 1992.

211. Y. Luo, H. Fujii, T. Gerster and R.G. Roeder. A novel B cell-derived coactivator potentiates the activation of immunoglobulin promoters by octamer-binding transcription factors. Cell 71:231-241, 1992.

212. P. Pognonec, H. Kato and R.G. Roeder. The helix-loop-helix/leucine repeat transcription factor USF can be functionally regulated a redox dependent manner. J. Biol. Chem. 267:24563-24567, 1992.

213. R. Kovelman and R.G. Roeder. Purification and characterization of two forms of human transcription factor IIIC. J. Biol. Chem. 267:24446-24456, 1992.

214. D.K. Lee, J. DeJong, S. Hashimoto, M. Horikoshi and R.G. Roeder. TFIIA induces conformational changes in TFIID via interactions with the basic repeat. Mol. Cell. Biol. 12:5189-5196, 1992.

215. R. Takada, Y. Nakatani, A. Hoffmann, T. Kokubo, S. Hasegawa, R.G. Roeder and M. Horikoshi. Identification of human TFIID components and direct interaction between a 250 kDa polypeptide and the TATA box-binding protein (TFIIDτ). Proc. Natl. Acad. Sci. USA 89:11809-11813, 1992.

216. D. B. Nikolov, S.-H. Hu, J. Lin, A. Gasch, A. Hoffmann, M. Horikoshi, N.-H. Chua, R.G. Roeder and S.K. Burley. Crystal structure of TFIID TATA-box binding protein. Nature 360:40-46, 1992.

217. Y. Ohkuma, S. Hashimoto, R.G. Roeder and M. Horikoshi. Identification of two large subdomains in TFIIE-α on the basis of homology between *Xenopus* and human sequences. Nucleic Acids Res. 20:5838, 1992.

218. D-W. Gong, S. Hashimoto, K. Wada, R.G. Roeder, Y. Nakatani and M. Horikoshi. Imperfect conservation of a sigma factor-like subregion in *Xenopus* general transcription factor RAP30. Nucleic Acids Res. 20:6414, 1992.

219. D-W. Gong, S. Hasegawa, K. Wada, R.G. Roeder, Y. Nakatani and M. Horikoshi. Elucidation of three putative structural subdomains by comparison of primary structure of Xenopus and human RAP74. Nucleic Acids Res. 20:6736, 1992.

220. H. Du, A.L. Roy and R.G. Roeder. Human transcription factor USF stimulates transcription through the initiator elements of the HIV-1 and the Ad-ML promoters. EMBO J. 12:501-511, 1993.

221. T. Kokubo, R. Takada, S. Yamashita, D.-W. Gong, R.G. Roeder, M. Horikoshi and Y. Nakatani. Identification of TFIID components required for transcription activation by upstream stimulatory factor. J. Biol. Chem. 268:17554-17558, 1993.

222. K. Hisatake, S. Hasegawa, R. Takada, Y. Nakatani, M. Horikoshi and R.G. Roeder. The p250 subunit of native TATA box-binding factor TFIID is the cell-cycle regulatory protein CCG1. Nature 362:179-181, 1993.

223. T. Kokubo, D.-W. Gong, S. Yamashita, M. Horikoshi, R.G. Roeder and Y. Nakatani. Drosophila 230-kDa TFIID subunit, a functional homologue of the human cell cycle gene product, negatively regulates DNA binding of the TATA box-binding subunit of TFIID. Genes Dev. 7:1033-1046, 1993.

224. T. Kokubo, D.-W. Gong, R.G. Roeder, M. Horikoshi and Y. Nakatani. The Drosophila 110 kDa transcription factor TFIID subunit directly interacts with the N-terminal region of the 230 kDa subunit. Proc. Natl. Acad. Sci. USA 90:5896-5900, 1993.

225. C.-M. Chiang and R.G. Roeder. Expression and purification of general transcription factors by FLAG epitope-tagging and peptide elution. Peptide Research 6:62-64, 1993.

226. C.-M. Chiang, H. Ge, Z. Wang, A. Hoffmann and R.G. Roeder. Unique TATA-binding protein-containing complexes and cofactors involved in transcription by RNA polymerase II and III. EMBO J. 12:2749-2762, 1993.

227. D. Poon, R.A. Knittle, K.A. Sabelko, T. Yamamoto, M. Horikoshi, R.G. Roeder and P.A. Weil. Genetic and biochemical analyses of yeast TATA-binding protein mutants. J. Biol. Chem. 268:5005-5013, 1993.

228. T. Yoganathan, M. Horikoshi, R.G. Roeder and B.H. Sells. Direct binding of yeast transcription factor (TFIID) to the ribosomal protein L32 (rpL32) TATA-less promoter sequence. FEBS 326:1,2,3, 163-166, 1993.

229. K. Hisatake, R.G. Roeder and M. Horikoshi. Functional dissection of TFIIB domains required for TFIIB-TFIID-promoter complex formation and basal transcription activity. Nature 363:744-747, 1993.

230. S. Malik, D.K. Lee and R.G. Roeder. Potential RNA polymerase II-induced interactions of transcription factor TFIIB. Mol. Cell. Biol. 13:6253-6259, 1993.

231. S. Yamashita, K. Hisatake, T. Kokubo, K. Doi, R.G. Roeder, M. Horikoshi and Y. Nakatani. Transcription factor TFIIB sites important for interaction with promoter-bound TFIID. Science 261:463-466, 1993.

232. A.L. Roy, S. Malik, M. Meisterernst and R.G. Roeder. An alternative pathway for transcription initiation involving TFII-I. Nature 365:355-359, 1993.

233. A.L. Roy, C. Carruthers, T. Gutjahr and R.G. Roeder. Direct role for *Myc* in transcription initiation mediated by interactions with TFII-I. Nature 365:359-361, 1993.

234. J.D. Fondell, A.L. Roy and R.G. Roeder. Unliganded thyroid hormone receptor inhibits formation of a functional preinitiation complex: implications for active repression. Genes Dev. 7:1400-1410, 1993.

235. J. DeJong and R.G. Roeder. A single cDNA, hTFIIA/α, encodes both the p35 and p19 subunits of human TFIIA. Genes Dev. 7:2220-2234, 1993.

236. T.K. Kim and R.G. Roeder. Transcriptional activation in yeast by the proline-rich activation domain of human CTF1. J. Biol. Chem. 268:20866-20869, 1993.

237. M. Kretzschmar, M. Meisterernst and R.G. Roeder. Identification of human DNA topoisomerase I as a cofactor for activator-dependent transcription by RNA polymerase II . Proc. Natl. Acad. Sci. USA 90:11508-11512, 1993.

238. A.R. Ferre-D'Amare, P. Pognonec, R.G. Roeder and S.K. Burley. Structure and function of the b/HLH/Z domain of USF. EMBO J. 13:180-189, 1994.

239. T. Kokubo, D.-W. Gong, S. Yamashita, R.G. Roeder, M. Horikoshi and Y. Nakatani. Molecular Cloning, Expression, and Characterization of the Drosophila 85-Kilodalton TFIID subunit. Mol. Cell. Biol. 13:7859-7863, 1993.

240. A.L. Roy and R.G. Roeder. Initiator element binding protein TFII-I: A tale of two sites. Indian J. Biochem. and Biophy. 31:14-19, 1994.

241. T.K. Kim and R.G. Roeder. Involvement of the basic repeat domain of TATA-binding protein (TBP) in transcription by RNA polymerases I, II, and III. J. Biol. Chem. 269:4891-4894, 1994.

242. T.K. Kim, S. Hashimoto, R.J. Kelleher III, P.M. Flanagan, R.D. Kornberg, M. Horikoshi and R.G. Roeder. Effects of activation-defective TBP mutations on transcription initiation in yeast. Nature 369:252-255, 1994.

243. T. Kokubo, S. Yamashita, M. Horikoshi, R.G. Roeder and Y. Nakatani. Interaction between the N-terminal domain of the 230 kDa subunit and the TATA box-binding subunit of TFIID negatively regulates TATA-box binding. Proc. Natl. Acad. Sci. USA 91:3520-3524, 1994.

244. T. Kokubo, D.-W. Gong, J.C. Wooton, M. Horikoshi, R.G. Roeder and Y. Nakatani. Molecular cloning of *Drosophila* TFIID subunits. Nature 367:484-487, 1994.

245. J.-B. Yoon, G. Li and R.G. Roeder. Characterization of a family of related cellular transcription factors which can modulate human immunodeficiency virus type 1 transcription in vitro. Mol. Cell. Biol. 14:1776-1785, 1994.

246. M. Kretzschmar, G. Stelzer, R.G. Roeder and M. Meisterernst. RNA polymerase II cofactor PC2 facilitates activation of transcription by GAL4-AH in vitro. Mol. Cell. Biol. 14:3927-3937, 1994.

247. J. Wang, M. Satoh, A. Pierani, J. Schmitt, C-H. Chou, H.G. Stunnenberg, R.G. Roeder and W.H. Reeves. Assembly and DNA binding of recombinant Ku (p70/p80) autoantigen defined by a novel monoclonal antibody specific for p70/p80 heterodimers. J. Cell Science 107:3223-3233, 1994.

248. Y. Ohkuma and R.G. Roeder. Regulation of TFIIH ATPase and kinase activities by TFIIE during active initiation complex formation. Nature 368:160-163, 1994.

249. T.K. Kim and R.G. Roeder. CTD-like sequences are important for transcriptional activation by the proline-rich activation domain of CTF1. Nucleic Acids Res. 22:251, 1994.

250. G. Lagna, R. Kovelman, J. Sukegawa and R.G. Roeder. Cloning and characterization of an evolutionary divergent DNA-binding subunit of mammalian TFIIIC. Mol. Cell. Biol. 14:3053-3064, 1994.

251. T.K. Kim and R.G. Roeder. Proline-rich activator CTF1 targets the TFIIB assembly step during transcriptional activation. Proc. Natl. Acad. Sci. USA 91:4170-4174, 1994.

252. F. Kashanchi, G. Piras, M.F. Radonovich, J.F. Duvall, A. Fattaey, C.-M. Chiang, R.G. Roeder and J.N. Brady. Direct interaction of human TFIID with the HIV-1 transactivator Tat. Nature 367:295-299, 1994.

253. B. Moorefield and R.G. Roeder. Purification and characterization of human transcription factor IIIA. J. Biol. Chem. 269: 20857-20865, 1994.

254. H. Ge and R.G. Roeder. The high mobility group protein HMG1 can reversibly inhibit class II gene transcription by interaction with the TATA binding protein. J. Biol. Chem. 269:17136-17140, 1994.

255. H. Ge and R.G. Roeder. Purification, cloning, and characterization of a human coactivator, PC4, that mediates transcriptional activation of Class II genes. Cell 78:513-523, 1994.

256. H. Ge, Y.-M. Zhao, B.T. Chait and R.G. Roeder. Phosphorylation negatively regulates the function of coactivator PC4. Proc. Natl. Acad. Sci. USA 91:12691-12695, 1994.

257. R. Bernstein, J.DeJong and R.G. Roeder. Characterization of the highly conserved TFIIA small subunit from Drosophila melanogaster. J. Biol. Chem. 269:24361-24366, 1994.

258. E. Martinez, C.-M. Chiang, H. Ge and R.G. Roeder. TATA-binding protein-associated factor(s) in TFIID function through the initiator to direct basal transcription from a TATA-less class II promoter. EMBO J. 13:3115-3126, 1994.

259. E. Martinez, G. Lagna and R.G. Roeder. Overlapping transcription by RNA polymerases II and III of the *Xenopus* TFIIIA gene in somatic cells. J. Biol. Chem. 269:25692-25698, 1994.

260. X.-F. Qin, Y. Luo, H. Suh, J. Wayne, Z. Misulovin, R.G. Roeder and M.C. Nussenzweig. Transformation by homeobox genes can be mediated by selective transcriptional repression. EMBO J. 13:5967-5976, 1994.

261. G. Mizuguchi, C. Kanei-Ishii, T. Sawazaki, M. Horikoshi, R.G. Roeder, T. Yamamoto and S. Ishii. Independent control of transcription initiations from two sites by an initiator-like element and TATA box in the human c-erbB-2 promoter. FEBS Lett. 348:80-88, 1994.

262. C.A. Parada, J.-B. Yoon and R.G. Roeder. A novel LBP-1-mediated restriction of HIV-1 transcription at the level of elongation in vitro. J. Biol. Chem. 270:2274-2283, 1995.

263. C.-M. Chiang and R.G. Roeder. Cloning of an intrinsic human TFIID subunit that interacts with multiple transcriptional activators. Science 267:531-536, 1995.

264. E. Sinn, Z. Wang, R. Kovelman and R.G. Roeder. Cloning and characterization of a TFIIIC2 subunit (TFIIICβ) whose presence correlates with activation of RNA polymerase III-mediated transcription by adenovirus E1A expression and serum factors. Genes Dev. 9:675-685, 1995.

265. J.-B. Yoon, S. Murphy, L. Bai, Z. Wang and R.G. Roeder. Proximal sequence element-binding transcription factor (PTF) is a multisubunit complex required for transcription of both RNA

polymerase II- and RNA polymerase III-dependent small nuclear RNA genes. Mol. Cell. Biol. 15:2019-2027, 1995.

266. J. DeJong, R. Bernstein and R.G. Roeder. Human general transcription factor TFIIA: Characterization of a cDNA encoding the small subunit and requirement for basal and activated transcription. Proc. Natl. Acad. Sci. USA 92:3313-3317, 1995.

267. T.K. Kim, Y. Zhao, H. Ge, R. Bernstein and R.G. Roeder. TATA-binding protein residues implicated in a functional interplay between negative cofactor NC2 (Dr1) and general factors TFIIA and TFIIB. J. Biol. Chem. 270:10976-10981, 1995.

268. Y. Ohkuma, S. Hashimoto, C. K. Wang, M. Horikoshi and R.G. Roeder. Analysis of the role of TFIIE in basal transcription and TFIIH-mediated Carboxy-Terminal Domain phosphorylation through structure-function studies of TFIIEα. Mol. Cell. Biol. 15:4856-4866, 1995.

269. Y. Luo and R.G. Roeder. Cloning, functional characterization, and mechanism of action of the B-cell-specific transcriptional coactivator OCA-B. Mol. Cell. Biol. 15:4115-4124, 1995.

270. Z. Wang and R.G. Roeder. Structure and function of a human transcription factor TFIIIB subunit that is evolutionarily conserved and contains both TFIIB- and high-mobility-group protein 2-related domains. Proc. Natl. Acad. Sci. USA 92:7026-7030, 1995.

271. F. Sauer, J.D. Fondell, Y. Ohkuma, R.G. Roeder and H. Jackle. Control of transcription by *Kruppel* through interactions with TFIIB and TFIIEβ. Nature 375:162-164, 1995.

272. K. Hisatake, T. Ohta, R. Takada, M. Guermah, M. Horikoshi, Y. Nakatani and R.G. Roeder. Evolutionary conservation of human TATA-binding-polypeptide-associated factors $TAF_{II}31$ and $TAF_{II}80$ and interactions of $TAF_{II}80$ with other TAFs and with general transcription factors. Proc. Natl. Acad. Sci. USA 92:8195-8199, 1995.

273. D.B. Nikolov, H. Chen, E.D. Halay, A.A. Usheva, K. Hisatake, D.K. Lee, R.G. Roeder and S.K. Burley. Crystal structure of a TFIIB-TBP-TATA-element ternary complex. Nature 377:119-128, 1995.

274. D.M. Kovacs, W. Wasco, J. Witherby, K.M. Felsenstein, F. Brunel, R.G. Roeder and R.E. Tanzi. The upstream stimulatory factor functionally interacts with the Alzheimer amyloid b-protein precursor gene. Human Molecular Genetics 4:1527-1533, 1995.

275. E. Martinez, Q. Zhou, N.D. L'Etoile, T. Oelgeschlager, A.J. Berk and R.G. Roeder. Core promoter-specific function of a mutant transcription factor TFIID defective in TATA box binding. Proc. Natl. Acad. Sci. USA. 92:11864-11868, 1995.

276. J.-B. Yoon and R.G. Roeder. Cloning of two proximal sequence element-binding transcription factor subunits (γ and δ) that are required for transcription of small nuclear RNA genes by RNA polymerases II and III and Interact with the TATA-Binding Protein. Mol. Cell. Biol. 16:1-9, 1996.

277. J.D. Fondell, F. Brunel, K. Hisatake and R.G. Roeder. Unliganded thyroid hormone receptor α can target the TATA-binding protein for transcriptional repression. Mol. Cell. Biol. 16:281-287, 1996.

278. M. Bellorini, J.C. Dantonel, J.-B. Yoon, R.G. Roeder, L. Tora and R. Mantovani. The Major Histocompatibility Complex Class II Ea promoter requires TFIID binding to an initiator sequence. Mol. Cell Biol. 16:503-512, 1996.

279. K. Kawakami, K. Masuda, K. Nagano, Y. Ohkuma and R.G. Roeder. Characterization of the core promoter of the Na^+/K^+-ATPaseα1 subunit gene: Elements required for transcription by RNA polymerase II and RNA polymerase III *in vitro*. Eur. J. Biochem. 237:440-446, 1996.

280. K. Kawakami, H. Ohto, K. Ikeda and R.G. Roeder. Structure, function and expression of a murine homeobox protein AREC3, a homologue of *Drosophila sine oculis* gene product, and implication in development. Nucleic Acids Res. 24:303-310, 1996.

281. S.K. Burley and R.G. Roeder. Biochemistry and structural biology of transcription factor IID (TFIID). Annu. Rev. Biochem. 65:769-799, 1996.

282. D.B. Nikolov, H. Chen, E.D. Hallay, A. Hoffmann, R.G. Roeder and S.K. Burley. Crystal structure of a human TATA box-binding protein/TATA element complex. Proc. Natl. Acad. Sci. USA 93:4956-4961, 1996.

283. X. Xie, T. Kokubo, S.L. Cohen, U.A. Mirza, A. Hoffmann, B.T. Chait, R.G. Roeder, Y. Nakatani and S.K. Burley. Structural similarity between TAFs and the heterotetrameric core of the histone octamer. Nature 380:316-322, 1996.

284. A. Hoffmann, C.-M. Chiang, S.K. Burley, Y. Nakatani and R.G. Roeder. A histone octamer-like structure within FIID. Nature 380:356-359, 1996.

285. A. Hoffmann and R.G. Roeder. Cloning and characterization of human TAF20/15: multiple interactions suggest central role in TFIID complex formation. J. Biol. Chem. 271:18194-18202, 1996.

286. T. Oelgeschlager, C.-M. Chiang and R.G. Roeder. Topology and reorganization of a human TFIID-promoter complex. Nature 382:735-738, 1996.

287. J.D. Fondell, H. Ge and R.G. Roeder. Ligand induction of a transcriptionally active thyroid hormone receptor coactivator complex. Proc. Natl. Acad. Sci. USA 93:8329-8333, 1996.

288. R.G. Roeder. The role of general initiation factors in transcription by RNA polymerase II. Trends in Biochemical Sciences 21:327-335, 1996.

289. R.G. Roeder. Nuclear RNA polymerases: Role of general initiation factors and cofactors in eukaryotic transcription. Methods Enzymol. 273:165-171, 1996.

290. H. Ge, E. Martinez, C.-M. Chiang and R.G. Roeder. Activator-dependent transcription by mammalian RNA polymerase II: In vitro reconstitution with general transcription factors and cofactors. Methods Enzymol. 274:57-71, 1996.

291. U. Kim, X.-F. Qin, S. Gong, S. Stevens, Y. Luo, M. Nussenzweig and R.G. Roeder. The B-cell-specific transcription coactivator OCA-B/OBF-1/Bob-1 is essential for normal production of immunoglobulin isotypes. Nature 383:542-547, 1996.

292. K.E. Clemens, G. Piras, M.F. Radonovich, K.S. Choi, J. Duvall, J. DeJong, R.G. Roeder and J.N. Brady. Interaction of the human T-cell lymphotropic virus type-1 Tax transactivator with transcription factor IIA. Mol. Cell. Biol. 16:4656-4664, 1996.

293. L. Bai, Z. Wang, J.-B. Yoon and R.G. Roeder. Cloning and characterization of the b subunit of human proximal sequence element-binding transcription factor and its involvement in transcription of small nuclear RNA genes by RNA polymerases II and III. Mol. Cell. Biol. 16:5419-5426, 1996.

294. N. Segil, M. Guermah, A. Hoffmann, R.G. Roeder and N. Heintz. Mitotic regulation of TFIID: inhibition of a activator-dependent transcription and changes in subcellular localization. Genes Dev. 10:2389-2400, 1996.

295. C.A. Parada and R.G. Roeder. Enhanced processivity of RNA polymerase II triggered by Tat-induced phosphorylation of its carboxy-terminal domain. Nature 384:375-378, 1996.

296. Z. Wang and R.G. Roeder. TFIIIC1 acts through a downstream region to stabilize TFIIIC2 binding to RNA polymerase III promoters. Mol. Cell. Biol. 16:6841-6850, 1996.

297. J. Nishikawa, T. Kokubo, M. Horikoshi, R.G. Roeder and Y. Nakatani. Drosophila $TAF_{II}230$ and the transcriptional activator VP16 bind competitively to the TATA box-binding domain of the TATA box-binding protein. Proc. Natl. Acad. Sci. USA 94:85-90, 1997.

298. Y. Tao, M. Guermah, E. Martinez, T. Oelgeschlager, S. Hasegawa, R. Takada, T. Yamamoto, M. Horikoshi and R.G. Roeder. Specific interactions and potential functions of human $TAF_{II}100$. J. Biol. Chem. 272:6714-6721, 1997.

299. T.K. Kim and R.G. Roeder. Critical role of the second stirrup region of the TATA-binding protein for transcriptional activation both in yeast and human. J. Biol. Chem. 272:7540-7545, 1997.

300. W. Gu, X.-L. Shi and R.G. Roeder. Synergistic activation of transcription by CBP and p53. Nature 387:819-823, 1997.

301. M. Meisterernst, G. Stelzer and R.G. Roeder. Poly (ADP-ribose) polymerase enhances activator-dependent transcription *in vitro*. Proc. Natl. Acad. Sci. USA 94:2261-2265, 1997.

302. Y. Suzuki-Yagawa, M. Guermah, and R.G. Roeder. The ts13 mutation in the $TAF_{II}250$ subunit (CCG1) of TFIID directly affects transcription of D type cyclin genes in cells arrested in G_1 at the non-permissive temperature. Mol. Cell. Biol. 17:3284-3294, 1997.

303. Z. Wang and R.G. Roeder. Three human RNA polymerase III-specific subunits form a subcomplex with a selective function in specific transcription initiation. Genes Dev. 11:1315-1326, 1997.

304. Z. Wang, T. Luo and R.G. Roeder. Identification of an autonomously initiating RNA polymerase III holoenzyme containing a novel factor that is selectively inactivated during protein synthesis inhibition. Genes Dev. 11:2371-2383, 1997.

305. M. Bellorini, D.K. Lee, J.C. Dantonel, K. Zemzoumi, R.G. Roeder, L. Tora and R. Mantovani. CCAAT binding NF-Y-TFIID interactions: NF-YB and NF-YC require short domains adjacent to their histone fold motifs for association with TBP basic residues. Nucleic Acids Res. 25:2174-2181, 1997.

306. W.-M. Chu, Z. Wang, R.G. Roeder and C.W. Schmid. RNA polymerase III transcription repressed by Rb through its interactions with TFIIIB and TFIIIC2. J. Biol. Chem. 272:14755-14761, 1997.

307. A. Vilalta, A. Trivedi, Z. Wang, R.G. Roeder and D.L. Johnson. An RNA polymerase III-defective mutation in TATA-binding protein disrupts its interaction with a transcription factor IIIB subunit in *Drosophila* cells. J. Biol. Chem. 272:18087-18092, 1997

308. A. Hoffmann, T. Oelgeschlager and R.G. Roeder. Considerations of transcriptional control mechanisms: Do TFIID-core promoter complexes recapitulate nucleosome-like functions? Proc. Natl. Acad. Sci. USA 94:8928-8935, 1997.

309. D.K. Lee, K.C. Wang and R.G. Roeder. Functional significance of the TATA element major groove in transcription initiation by RNA polymerase II. Nucleic Acids Res. 25:4338-4345, 1997.

310. M. Kundu, M. Guermah, R.G. Roeder, S. Amini and K. Khalili. Interaction between cell cycle regulator, E2F-1, and NF-kappa B mediates repression of HIV-1 gene transcription. J. Biol. Chem. 272:29468-29474, 1997.

311. A.L. Roy, H. Du, P.D. Gregor, C.D. Novina, E. Martinez and R.G. Roeder. Cloning of an Inr and E-box binding protein TFII-I that interacts physically and functionally with USF. EMBO J. 16:7091-7104, 1997.

312. W. Gu and R.G. Roeder. Activation of p53 sequence-specific DNA binding by acetylation of its C-terminal domain. Cell 90:595-606, 1997.

313. S. Inamoto, N. Segil, Z.-Q. Pan, M. Kimura and R.G. Roeder. The CAK assembly factor, MAT1, targets and enhances kinase activity on the POU domains of octamer transcription factors. J. Biol. Chem. 272:29852-29858, 1997.

314. M. Purrello, C. DiPietro, A. Rapisarda, A. Viola, S. Stevens, M. Guermah, Y. Tao, C. Bonaiuto, A. Arcidiacono, A. Messina, K.-H. Grzeschik, G. Sichel and R.G. Roeder. Genomics and transcriptional analysis of human TFIID. Oncogene 16:1633-1638, 1998.

315. J. Ong, S. Stevens, R.G. Roeder and L.A. Eckhardt. 3' IgH enhancer elements shift synergistic interactions during B-cell development. J. Immunol. 160:4896-4903, 1998.

316. S. Malik, M. Guermah and R.G. Roeder. A dynamic model for PC4 coactivator function in RNA polymerase II transcription. Proc. Natl. Acad. Sci. USA 95:2192-2197, 1998.

317. H. Xiao, Y. Tao, J. Greenblatt and R.G. Roeder. A cofactor, TIP30, specifically enhances HIV-1 Tat-activated transcription. Proc. Natl. Acad. Sci. USA 95:2146-2151, 1998.

318. A. Pombo, P. Cuello, W. Schul, J. Yoon, R.G. Roeder, P.R. Cook and S. Murphy. Regional and temporal specialization in the nucleus: a transcriptionally-active nuclear domain rich in PTF and Oct1 associates with specific chromosomes early in the cell cycle. EMBO J. 17:1768-1778, 1998.

319. M. Guermah, S. Malik and R.G. Roeder. Involvement of TFIID and USA components in transcriptional activation of the HIV promoter by NFκB and Sp1. Mol. Cell. Biol. 18:3234-3244, 1998.

320. Z. Wang and R.G. Roeder. DNA topoisomerase I and PC4 can interact with human TFIIIC to promote both accurate termination and transcription reinitiation by RNA polymerase III. Mol. Cell 1:749-757, 1998.

321. T. Oelgeschlager, Y. Tao, Y. K. Kang and R.G. Roeder. Transcriptional activation via enhanced preinitiation complex assembly in a human cell free system lacking TAF_{II}s. Mol. Cell 1:925-931, 1998.

322. Y. Luo, S. Stevens, H. Xiao, H. Ge and R.G. Roeder. Coactivation by OCA-B: definition of critical regions and synergism with general cofactors. Mol. Cell. Biol. 18:3803-3810, 1998.

323. C.-X. Yuan, M. Ito, J.D. Fondell, Z.-Y. Fu and R.G. Roeder. The TRAP220 component of a thyroid hormone receptor-associated protein (TRAP) coactivator complex interacts directly with nuclear receptors in a ligand-dependent fashion. Proc. Natl. Acad. Sci. USA 95:7939-7944, 1998.

324. X.-F. Qin, A. Reichlin, Y. Luo, R.G. Roeder and M.C. Nussenzweig. OCA-B integrates B cell antigen receptor-, CD40L- and IL 4-mediated signals for the germinal center pathway of B cell development. EMBO J. 17:5066-5075, 1998.

325. T. Okamoto, S. Yamamoto, Y. Watanabe, T. Ohta., P. van der Spek, F. Hanaoka, R. G. Roeder and Y. Ohkuma. Analysis of the role of TFIIE in transcriptional regulation through structure-function studies of the TFIIEβ subunit. J. Biol. Chem. 273:19866-19876, 1998.

326. E. Martinez, H. Ge, Y. Tao, C.-X. Yuan, V. Palhan and R.G. Roeder. Novel cofactors (TICs) and TFIIA mediate functional core promoter selectivity by the human $TAF_{II}150$-containing TFIID complex. Mol. Cell. Biol. 18:6571-6583, 1998.

327. E. Martinez, T.K. Kundu, J. Fu and R.G. Roeder. A human SPT3-$TAF_{II}31$-GCN5-L acetylase complex distinct from TFIID. J. Biol. Chem. 273: 23781-23785, 1998.

328. Y. Lin, H. Tang, T. Nomura, D. Dorjsuren, N. Hayashi , W. Wei, T. Ohta, R.G. Roeder and S. Murakami. The hepatitus B virus X protein is a co-activator of activated transcription that modulates the transcription machinery and distal binding activators. J. Biol. Chem. 273:27097-27103, 1998.

329. S.K. Burley and R.G. Roeder. TATA box mimicry by TFIID: autoinhibition of pol II transcription. Cell 94:551-553, 1998.

330. R.G. Roeder. The role of general and gene-specific cofactors in the regulation of eukaryotic transcription. Cold Spr. Harb. Symp. Quant. Biol. Vol. LXIII: 201-218, 1998.

331. H. Ge, Y. Si and R.G. Roeder. Isolation of cDNA encoding novel transcription coactivators p52 and p75 reveals an alternate regulatory mechanism of transcriptional activation. EMBO J. 17:6723-6729, 1998.

332. T. Kundu, Z. Wang and R.G. Roeder. Human TFIIIC relieves chromatin-mediated repression of RNA polymerase III transcription and contains an intrinsic histone acetyltransferase activity. Mol. Cell. Biol. 19:1605-1615, 1999.

333. J.D. Fondell, M. Guermah, S. Malik and R.G. Roeder. Thyroid receptor-associated proteins and general positive cofactors mediate thyroid receptor function in the absence of the TATA box-binding protein-associated factors of TFIID. Proc. Natl. Acad. Sci. USA 96:1959-1964, 1999.

334. W. Gu, S. Malik, M. Ito, C.-X. Yuan, J. D. Fondell, X. Zhang, E. Martinez, J. Qin and R.G. Roeder. A novel human SRB/MED-containing cofactor complex (SMCC) involved in transcription regulation. Mol. Cell 3:97-108, 1999.

335. H. Xiao, Y. Tao and R.G. Roeder. The human homologue of Drosophila TRF-proximal protein is associated with an RNA polymerase II-SRB complex. J.Biol.Chem. 274:3937-3940, 1999.

336 A. Pombo, D.A. Jackson, M. Hollinshead, Z. Wang, R.G. Roeder and P.R. Cook. Regional specialization in human nuclei: visualization of discrete sites of transcription by RNA polymerase III. EMBO J. 18:2241-2253, 1999.

337 M. Ito, C.-X. Yuan, S. Malik, W. Gu, J.D. Fondell, S. Yamamura, Z.-Y. Fu, X. Zhang, J. Qin and R.G. Roeder. Identity between TRAP and SMCC complexes indicates novel pathways for the function of nuclear receptors and diverse mammalian activators. Mol. Cell 3:361-370, 1999.

338 Y.-J. Hsieh, Z. Wang, R. Kovelman and R.G. Roeder. Cloning and characterization of two evolutionary-conserved subunits (TFIIIC102 and TFIIIC63) of human TFIIIC and their involvement in functional interactions with TFIIIB and RNA polymerase III. Mol. Cell. Biol. 19:4944-4952, 1999.

339. R.G. Roeder. Regulation of transcription through general and gene-specific coactivators. Transcription Regulation in Eukaryotes, Eds. P. Chambon, T. Fukasawa, R. Kornberg, and C. Coath. Human Frontiers Science Program, Strasbourg (1999), 106-121.

340. C.A. Parada and R.G. Roeder. A novel RNA polymerase II-containing complex potentiates Tat-enhanced HIV-1 transcription. EMBO J. 18:3688-3701, 1999.

341. H. Kimura, Y. Tao, R.G. Roeder and P. Cook. Quantitation of RNA polymerase II and its transcription factors in an HeLa cell: little soluble holoenzyme but significant amounts of polymerases attached to the nuclear substructure. Mol. Cell. Biol. 19:5383-5392, 1999.

342. Y.-J. Hsieh, T. Kundu, Z. Wang, R. Kovelman and R.G. Roeder. The TFIIIC90 subunit of TFIIIC interacts with multiple components of the RNA polymerase III machinery and contains a histone-specific acetyl-transferase activity. Mol. Cell. Biol. 19:7697-7704, 1999.

343. M. Teichmann, Z. Wang, E. Martinez, A. Tjernberg, D. Zhang, F. Vollmer, B. Chait and R.G. Roeder. Human TATA-binding protein-related factor-2 (hTRF2) stably associates with hTFIIA in HeLa cells. Proc. Natl. Acad. Sci. USA 96:13720-13725, 1999.

344. Y. Makino, S. Yogosawa, K. Kayukawa, F. Coin, J.-M. Egly, Z.-X. Wang, R.G. Roeder, K. Yamamoto, M. Muramatsu and T.-A. Tamura. TATA-binding protein-interacting Protein 120, TIP120, stimulates three classes of eukaryotic transcription via a unique mechanism. Mol. Cell. Biol. 19:7951-7960, 1999.

345. Y. Luo and R.G. Roeder. B-cell-specific Coactivator OCA-B: Biochemical Aspects, role in B-Cell Development and Beyond. Cold Spring Harbor Symposia on Quantitative Biology. 119-131, 1999.

346. E. Jones, H. Kimura, M. Vigneron, Z. Wang, R.G. Roeder and P.R. Cook. Isolation and characterization of monoclonal antibodies directed against subunits of human RNA polymerases I, II and III. Exp. Cell Res. 254:163-172, 2000.

347. O.D. Lau, T.K. Kundu, R.E. Soccio, S. Ait-Si-Ali, E.M. Khalil, A. Vassilev, A.P. Wolffe, Y. Nakatani, R.G. Roeder and P.A. Cole. HATs off: selective synthetic inhibitors of the histone acetyltransferases p300 and PCAF. Mol. Cell 5:589-595, 2000.

348. M. Ito, C.-X. Yuan, H.J. Okano, R.B. Darnell and R.G. Roeder. Involvement of the TRAP220 component of the TRAP/SMCC coactivator complex in embryonic development and thyroid hormone action. Mol. Cell 5:683-693, 2000.

349. H. Xiao, V. Palhan, Y. Yang and R.G. Roeder. TIP30 has an intrinsic kinase activity required for up-regulation of a subset of apoptotic genes. EMBO J. 19:956-963, 2000.

350. S. Malik, W. Gu, W. Wu, J. Qin and R.G. Roeder. The USA-derived transcriptional coactivator PC2 is a submodule of TRAP/SMCC and acts synergistically with other PCs. Mol. Cell 5:753-760, 2000.

351. S. Malik and R.G. Roeder. Transcriptional regulation through mediator-like complexes in yeast and metazoan cells. Trends Biochem. Sci. 25:277-283, 2000.

352. A. Knutson, E. Castaño, T. Oelgeschlager, R.G. Roeder, and G. Westin. Downstream promoter sequences facilitate the formation of a specific transcription factor IID-promoter complex topology required for efficient transcription from the megalin/low density lipoprotein receptor-related protein 2 promoter. J. Biol. Chem. 275:14190-14197, 2000.

353. S. Stevens, J. Ong, U. Kim, L.A. Eckhardt and R.G. Roeder. Role of OCA-B in 3' IgH enhancer function. J. Immunol. 164:5306-5312, 2000.

354. S. Stevens, L. Wang and R.G. Roeder. Functional analysis of the OCA-B promoter. J. Immunol. 164:6372-6379, 2000.

355. U. Kim, C. Gunther and R.G. Roeder. Genetic Analyses of NFKB1 and OCA-B Function: Defects in B-1 and B-2 cells, IgM level, and antibody responses in *Nfkb1*$^{-/-}$ *Oca-b*$^{-/-}$ mice. J. Immunol. 165:6825-6832, 2000.

356. E. Castaño, P. Gross, Z. Wang, R.G. Roeder and T. Oelgeschläger. The C-terminal domain-phosphorylated IIO form of RNA polymerase II is associated with the transcription repressor NC2

(Dr1/DRAP1) and is required for transcription activation in human nuclear extracts. Proc. Natl. Acad. Sci. USA 97:7184-7189, 2000.

357. T.K. Kundu, V. B. Palhan, Z. Wang, W. An, P.Cole and R.G. Roeder, Activator-dependent transcription from chromatin in vitro involving targeted histone acetylation by p300. Mol. Cell 6:551-561, 2000.

358. M. Teichmann, Z. Wang and R.G. Roeder. A stable complex of a novel transcription factor IIB-related factor, human TFIIIB50, and associated proteins mediate selective transcription by RNA polymerase III of genes with upstream promoter elements. Proc. Natl. Acad. Sci. USA 97:14200-14205, 2000.

359. M.R. Dotson, C.-X. Yuan, R.G. Roeder, L.C. Myers, C.M. Gustafsson, Y.W, Jiang, Y. Li, R.D. Kornberg and F.J. Asturias. Structural organization of yeast and mammalian mediator complexes. Proc. Natl. Acad. Sci. USA 97:14307-14310, 2000.

360. Z. Wang, L. Bai, Y-J Hsieh and R.G. Roeder. Nuclear factor 1 (NF1) affects accurate termination and multiple-round transcription by human RNA polymerase III. EMBO J. 19:6823-6832, 2000.

361. M. Ito and R.G. Roeder. The TRAP/SMCC/Mediator complex and thyroid hormone receptor function Trends Endocrin. Met. 12:127-134, 2001.

362. M. Naghavi, M. Estable, S. Schwartz, R.G. Roeder and A. Vahlne. USF affects HIV-1 LTR-directed transcription in a cell-specific manner, independently of the HIV-1 subtype and core-NRE. J. Gen. Virol. 82:547-559, 2001.

363. C.M. Browning, M.J. Smith, N.M. Clark, B.R. Lane, C. Parada, M. Montano, V. Kewalramani, D. Littman, M. Essex, R.G. Roeder and D.M. Markovitz. Human GLI-2 is Tat activation response element-independent Tat cofactor. J. Virol. 75:2314-2323, 2001.

364. K. Kamada, J. DeAngelis, R.G. Roeder and S.K. Burley. Crystal structure of the C-terminal domain of the RAP74 subunit of human TFIIF. Proc. Natl. Acad. Sci. USA 98:3115-3120, 2001.

365. X.Yu, L.Wang, Y.Luo and R.G. Roeder. Identification and characterization of a novel OCA-B Isoform: Implications for a role in B cell signaling pathways. Immunity 14:157-167, 2001.

366. X.Yu, P. Li, R.G. Roeder and Z.Wang. Inhibition of androgen receptor-mediated transcription by amino-terminal enhancer of split. Mol. Cell Biol. 21:4614-4625, 2001.

367. D. Zhang, T.L. Penttila, P.L. Morris, M. Teichmann and R.G. Roeder. Severe spermiogenesis deficiency in mice lacking the T*rf*2 gene. Science 292:1153-1155, 2001.

368. D. Zhang, T.L. Penttila, P.L. Morris and R.G. Roeder. Cell- and stage-specific high level expression of TBP-related factor 2 (TRF2) during mouse spermatogenesis. Mech. Devel. 106:203-205, 2001.

369. K. Kamada, F. Shu, H. Chen, S. Malik, G. Stelzer, R.G. Roeder, M. Meisterernst and S.K. Burley. Crystal structure of negative cofactor 2 recognizing the TBP-DNA transcription complex. Cell 106:71-81, 2001.

370. M. Guermah, Y. Tao and R.G. Roeder. Positive and negative TAF_{II} functions that suggest a dynamic TFIID structure and elicit synergy with TRAPs in activator-induced transcription. Mol. Cell. Biol. 21:6882-6894, 2001.

371. E. Martinez, V. Palhan, A. Tjernberg, E. Lymar, A. Gamper, T. Kundu, B. Chait and R.G. Roeder. Human STAGA complex is a chromatin-acetylating transcription coactivator that interacts with pre-mRNA splicing and DNA damage-binding factors in vivo. Mol. Cell. Biol. 21:6782-6795, 2001.

372. M. Purello, C. Di Pietro, A. Rapisarda, V. Amico, V. Giunta, H. Engel, S. Stevens, Y. Hsieh, M. Teichmann, Z. Wang, G. Sichel, R. Roeder and K.H. Grzeschik. Genes for human general transcription initiation factors TFIIIB, TFIIIB-associated proteins, TFIIIC2 and PTF/SNAPC: functional and positional candidates for tumour predisposition or inherited genetic diseases? Oncogene 20:4877-4883, 2001.

373. H. Kato, A. Tjernberg, W. Zhang, A.N. Krutchinsky, W. An, T. Takeuchi, Y. Ohtsuki, S. Sugano, D.R. de Bruijn, B.T. Chait and R.G. Roeder. SYT associates with human SNF/SWI complexes and the C-terminal region of its fusion partner SSX1 targets histones. J.Biol.Chem. 277:5498-5505, 2002.

374. M. Estable, M.H. Naghavi, H.Kato, H. Xiao, J. Qin, A. Vahlne and R.G. Roeder. MCEF, the newest member of the AF4 family of transcription factors involved in leukemia, is a positive transcription elongation factor-b-associated protein. J. Biomed. Sci. 9:234-245, 2002.

375. Y.K. Kang, M. Guermah, C.-X. Yuan and R.G. Roeder. The TRAP/Mediator coactivator complex interacts directly with estrogen receptors a and b through the TRAP220 subunit and directly enhances estrogen receptor function *in vitro*. Proc. Natl. Acad. Sci. USA 99:2642-2647, 2002.

376. H.J. Baek, S. Malik, J. Qin and R.G. Roeder. Requirement of TRAP/Mediator for both activator-independent and activator-dependent transcription in conjunction with TFIID-associated TAF_{II}s. Mol. Cell. Biol. 22:2842-2852, 2002.

377. W. An, V.B. Palhan, M.A. Karymov, S.H. Leuba and R.G. Roeder. Selective requirements for histone H3 and H4 N termini in p300-dependent transcriptional activation from chromatin. Mol. Cell 9:811-821, 2002.

378. J. Zhang, M. Kalkum, B.T. Chait and R.G. Roeder. The N-CoR-HDAC3 nuclear receptor corepressor complex inhibits the JNK pathway through the integral subunit GPS2. Mol. Cell 9:611-623, 2002.

379. K. Ge, M. Guermah, C.-X. Yuan, M. Ito, A.E. Wallberg, B.M. Spiegelman and R.G. Roeder. Transcription coactivator TRAP220 is required for PPARg2-stimulated adipogenesis. Nature 417:563-567, 2002.

380. S. Malik, A.E. Wallberg, Y.K. Kang and R.G. Roeder. TRAP/SMCC/Mediator-dependent transcriptional activation from DNA and chromatin templates by orphan nuclear receptor hepatocyte nuclear factor 4. Mol. Cell. Biol. 22:5626-5637, 2002.

381. M. Ito, H.J. Okano, R.B. Darnell and R.G. Roeder. The TRAP100 component of the TRAP/Mediator complex is essential in broad transcriptional events and development. EMBO J. 21:3464-3475, 2002.

382. C.S. Brower, S. Sato, C. Tomomori-Sato, T. Kamura, A. Pause, R. Stearman, R.D. Klausner, S. Malik, W.S. Lane, I. Sorokina, R.G. Roeder, J.W. Conaway and R.C. Conaway. Mammalian mediator subunit mMED8 is an elongin BC-interacting protein that can assemble with Cul2 and Rbx1 to reconstitute a ubiquitin ligase. Proc. Natl. Acad. Sci. USA 99:10353-10358, 2002.

383. R. Zhou, N. Bonneaud, C-X. Yuan, P. de Santa Barbara, B. Boizet, S. Tibor, G. Scherer, R.G. Roeder, F. Poulat and P. Berta. SOX9 interacts with a component of the human thyroid hormone receptor-associated protein complex. Nucleic Acids Res. 30:3245-3252, 2002.

384. R. Casellas, M. Jankovic, G. Meyer, A. Gazumyan, Y. Luo, R.G. Roeder and M.C. Nussenzweig. OcaB is required for normal transcription and V(D)J recombination of a subset of immunoglobulin κ genes. Cell 110:575-585, 2002.

385. E. Mueller, S. Drori, A. Aiyer, J. Yie, P. Sarraf, H. Chen, S. Hauser, E.D. Rosen, K. Ge, R.G. Roeder and B.M. Spiegelman. Genetic analysis of adipogenesis through peroxisome proliferator-activated receptor g isoforms. J. Biol. Chem. 277:41925-41930, 2002.

386. A.E. Wallberg, K. Pedersen, U. Lendahl and R.G. Roeder. p300 and PCAF can act cooperatively to mediate transcriptional activation from chromatin templates by notch intracellular domains in vitro. Mol. Cell. Biol. 22:7812-7819, 2002.

387. P. Li, X. Yu, K. Ge, J. Melamed, R.G. Roeder and Z. Wang. Heterogeneous expression and functions of androgen receptor co-factors in primary prostate cancer. Am. J. Pathol. 161:1467-1474, 2002.

388. C. Murphy, Z. Wang, R.G. Roeder and J.G. Gall. RNA polymerase III in cajal bodies and lampbrush chromosomes of the *Xenopus* oocyte nucleus. Mol. Bio. Cell 13:3466-3476, 2002.

389. Y.-H. Goo, Y.C. Sohn, D.-H. Kim, S.-W. Kim, M.-J. Kang, D.-J. Jung, E. Kwak, N.A. Barlev, S.L. Berger, V.T. Chow, R.G. Roeder, D.O. Azorsa, P.S. Meltzer, P.-G. Suh, E.J. Song, K.-J. Lee, Y.C. Lee and J.W. Lee. Activating signal cointegrator 2 belongs to a novel steady-state complex that contains a subset of trithorax group proteins. Mol. Cell. Biol. 23:140-149, 2003.

390. W. An and R.G. Roeder. Direct association of p300 with unmodified H3 and H4 N termini modulates p300-dependent acetylation and transcription of nucleosomal templates. J. Biol. Chem. 278:1504-1510, 2003.

391. K.M. Leach, K.F. Vieira, S.-H. L. Kang, A. Aslanian, M. Teichmann, R.G. Roeder and J. Bungert. Characterization of the human b-globin downstream promoter regions. Nucleic Acids Res. 31:1292-1301, 2003.

392. Y. Gwack, H.J. Baek, H. Nakamura, S.H. Lee, M. Meisterernst, R.G. Roeder and J.U. Jung. Principal role of TRAP/Mediator and SWI/SNF complexes in Kaposi's Sarcoma-Associated Herpesvirus RTA-mediated lytic reactivation. Mol. Cell. Biol. 23:2055-2067, 2003.

393. K. Kamada, R.G. Roeder and S.K. Burley. Molecular mechanism of recruitment of TFIIF-associating CTD phosphatase (FCP1) phosphatase recruitment by transcription factor IIF. Proc. Natl. Acad. Sci. USA 100:2296-2299, 2003.

394. S. Malik and R.G. Roeder. Regulation of basal transcription by RNA polymerase II. Handbook of Cell Signaling. Vol. 3, Chapter 271, 2003

395. S. Malik and R.G. Roeder. Isolation and functional characterization of the TRAP/Mediator complex. Methods Enzymol. 364:257-284, 2003

396. U. Kim, R. Siegel, X. Ren, C.S. Gunther, T. Gaasterland and R.G. Roeder. Identification of transcription coactivator OCA-B-dependent genes involved in antigen-dependent B cell differentiation by cDNA array analyses. Proc. Natl. Acad. Sci. USA 100:8868-8873, 2003.

397. L. Zheng, R.G. Roeder and Y. Luo. S phase activation of the histone H2B promoter by OCA-S, a coactivator complex that contains GAPDH as a key component. Cell 114:255-266, 2003.

398. H. Wang, W. An, R. Cao, L. Xia, H. Erdjument-Bromage, B. Chatton, P. Tempst, R.G. Roeder and Y. Zhang. mAM facilitates conversion by ESET of dimethyl to trimethyl lysine 9 of histone H3 to cause transcriptional repression. Mol. Cell 12:1-20, 2003.

399. K. Hosohata, P. Li, Y. Hosohata, J. Qin, R.G. Roeder and Z. Wang. Purification and identification of a novel complex which is involved in androgen receptor-dependent transcription. Mol. Cell. Biol. 23:7019-7029, 2003.

400. M. Guermah, K. Ge, C.-M.Chiang, and R.G. Roeder. The TBN protein, which is essential for early embryonic mouse development, is an inducible TAF_{II} implicated in adipogenesis. Mol. Cell 12:991-1001, 2003

401. A.E. Wallberg, S. Yamamura, S. Malik, B.M. Spiegelman and R.G. Roeder. Coordination of p300-mediated chromatin remodeling and TRAP/Mediator function through coactivator PGC-1a. Mol. Cell 12:1137-1149, 2003

402. N. Zakharova, E.S. Lymar, E. Yang, S. Malik, J.J. Zhang, R.G. Roeder, and J.E. Darnell, Jr. Distinct transcriptional activation functions of STAT1a and b on DNA and chromatin templates. J. Biol. Chem. 278:43067-43073, 2003

403. M. Ito, C. Jiang, K. Krumm, X. Zhang, J. Pecha, J. Zhao, Y. Guo, R.G. Roeder and H. Xiao. TIP30 deficiency increases susceptibility to tumorigenesis. Cancer Res. 63:8763-8767, 2003

404. R.G. Roeder. Lasker Basic Medical Research Award, The eukaryotic transcriptional machinery: complexities and mechanisms unforeseen. Nature Medicine 9:1239-1244, 2003

405. W. An and R.G. Roeder. Reconstitution and transcriptional analysis of chromatin in vitro. Methods Enzymol. 377:460-474, 2004

406. J. Luo, M. Li, Y. Tang, M. Laszkowska, R.G. Roeder and W. Gu. Acetylation of p53 augments its site-specific DNA binding both in vitro and in vivo. Proc. Natl. Acad. Sci. USA 101:2259-2264, 2004

407. S. Wang, K. Ge, R.G. Roeder and O. Hankinson. Role of Mediator in Transcriptional Activation by the Aryl Hydrocarbon Receptor. J. Biol. Chem. 279:13593-13600, 2004

408. P.R. Thompson, D. Wang, L. Wang, M. Fulco, N. Pediconi, D. Zhang, W. An, Q. Ge, R.G. Roeder, J. Wong, M. Levrero, V. Sartorelli, R.J. Cotter, P.A. Cole. Regulation of the p300 HAT domain via a novel activation loop. Nature Struct. Mol. Biol. 11:308-315, 2004

409. W. An, J. Kim and R.G. Roeder. Cooperative ordered functions of p300, PRMT1 and CARM1 in transcriptional activation by p53. Cell 117:735-748, 2004

410. Henri-Marc Bourbon, Andres Aguilera, Aseem Z. Ansari, Francisco J. Asturias, Arnold J. Berk, Stefan Bjorklund, T. Keith Blackwell, Tilman Borggrefe, Michael Carey, Marian Carlson, Joan W. Conaway, Ronald C. Conaway, Scott W. Emmons, Joseph D. Fondell, Leonard P. Freedman, Toshio Fukasawa, Claes M. Gustafsson, Min Han, Xi He, Paul K. Herman, Alan G. Hinnebusch, Steen Holmberg, Frank C. Holstege, Judith A. Jaehning, Young-Joon Kim, Laurent Kuras, Achim Leutz, John T. Lis, Michael Meisterernest, Anders M. Naar, Kim Nasmyth, Jeffrey D. Parvin, Mark Ptashne, Danny Reinberg, Hans Ronne, Ivan Sadowski, Hiroshi Sakurai, Matthias Sipiczki, Paul W. Sternberg, David J. Stillman, Randy Strich, Kevin Struhl, Jasper Q. Svejstrup, Simon Tuck, Fred Winston, Robert G. Roeder and Roger D. Kornberg. A Unified Nomenclature for Protein Subunits of Mediator Complexes Linking Transcriptional Regulators to RNA Polymerase II. Mol. Cell 14:553-557, 2004

411. C. Jiang, M. Ito, V. Piening, K. Bruck, R.G. Roeder and H. Xiao. TIP30 interacts with an ERα-interacting coactivator CIA and regulates *c-myc* Transcription. J Biol. Chem. 279:27781-27789, 2004.

412. S. Weser, C. Gruber, H.M. Hafner, M. Teichmann, R.G. Roeder, K.H. Seifart, and W. Meissner. Transcription Factor-like Nuclear Regulator, the 250-kDa form of Homo sapiens TFIIIB double prime, is an essential component of human TFIIIC1 activity. J. Biol. Chem. 279:27022-27029, 2004.

413. J. Zhang, M. Kalkum, S. Yamamura, B.T. Chait and R.G. Roeder. E protein silencing by the leukemogenic AML1-ETO fusion protein. Science 305:1286-1289, 2004

414. D. Angelov, A. Verdel, W. An, V. Bondarenko, F. Hans, C.-M. Doyen, V.M. Studitsky, A. Hamiche, R.G. Roeder, P. Bouvet and S. Dimitrov. SWI/SNF remodeling and p300-dependent transcription of histone variant H2ABbd nucleosomal arrays. EMBO J. 23:3815-3824, 2004.

415. S. Malik, M. Guermah, C.-X. Yuan, W. Wu, S. Yamamura and R.G. Roeder. Structural and functional organization of TRAP220, the TRAP/Mediator subunit that is targeted by nuclear receptors. Mol. Cell. Biol. 24:8244-8254, 2004.

416. Y. Wang, J. Wysocka, J. Sayegh, Y.H. Lee, J.R. Perlin, L. Leonelli, L.S. Sonbuchner, C.H. McDonald, R.G. Cook, Y. Dou, R.G. Roeder, S. Clarke, M.R. Stallcup, C.D. Allis and S.A. Coonrod. Human PAD4 regulates histone arginine methylation levels via demethylimination. Science 306:279-283, 2004.

417. T.A. Milne, C.M. Hughes, R. Lloyd, Z. Yang, O. Rozenblatt-Rosen, Y. Dou, R.W. Schnepp, C. Krankel, V.A. Livolsi, D. Gibbs, X. Hua, R.G. Roeder, M. Meyerson and J.L. Hess. Menin and MLL cooperatively regulate expression of cyclin-dependent kinase inhibitors. Proc. Natl. Acad. Sci. USA 102:749-754, 2005.

418. S. Malik, H.J. Baek, W. Wu, and R.G. Roeder. Structural and functional characterization of PC2 and RNA polymerase II-associated subpopulations of metazoan Mediator. Mol. Cell Biol. 25:2117-2129, 2005

419. K.L. Abbott, J. Archambault, H. Xiao, B.D. Nguyen, R.G. Roeder, J. Greenblatt, J.G. Omichinski, and P. Legault. Interactions of the HIV-1 Tat and RAP74 Proteins with the RNA Polymerase II CTD Phosphatase FCP1. Biochemistry 44: 2716-2731, 2005.

420. R.G. Roeder. Transcriptional regulation and the role of diverse coactivator in animal cells. FEBS Letters 579:909-915, 2005

421. J.A. Chong, M.M. Moran, M. Teichmann, J.S. Kaczmarek, R.G. Roeder, and D.E. Clapham. TLF is a Functional Regulator of Transcription: Reciprocal regulation of the Neurofibromatosis type 1 and *c-fos* genes by TLF/TRF2 and TBP. Mol. Cell. Biol. 25:2632-2643, 2005.

422. S. Malik and R.G. Roeder. Dynamic regulation of RNA polymerase II transcription by the mammalian Mediator complex. TiBS 30:256-263, 2005

423. J. Chen, T. Malcolm, M.C. Estable, R.G. Roeder and I. Sadowski. TFII-I regulates induction of chromosomally integrated human immunodeficiency virus type 1 long terminal repeat in cooperation with USF. J. Virol. 79:4396-4406, 2005.

424. V.B. Palhan, S. Chen, G.H. Peng, A. Tjernberg, A.M. Gamper, Y. Fan, B.T. Chait, A.R. La Spada and R.G. Roeder. Polyglutamine-expanded ataxin-7 inhibits STAGA histone acetyltransferase activity to produce retinal degeneration. Proc. Natl. Acad. Sci. USA 102:8472-8477, 2005.

425. Y. Dou, T.A. Milne, A.J. Tackett, E.R. Smith, A. Fukuda, J. Wysocka, C.D. Allis, B.T. Chait, J.L. Hess and R.G. Roeder. Physical Association and Coordinate Function of the H3 K4 Methyltransferase MLL1 and the H4 K16 Acetyltransferase MOF. Cell 121:873-885, 2005.

426. J. Wysocka, T. Swigut, T.A. Milne, Y. Dou, X. Zhang, A.L. Burlingame, R.G. Roeder, A.H. Brivanlou and C.D. Allis. WDR5 Associates with Histone H3 Methylated at K4 and Is essential for H3 K4 Methylation and Vertebrate Development. Cell 121:859-872, 2005.

427. X. Zhang, A. Krutchinsky, A. Fukuda, W. Chen, S. Yamamura, B.T. Chait and R.G. Roeder. MED1/TRAP220 exists predominantly in a TRAP/Mediator subpopulation enriched in RNA polymerase II and is required for ER-mediated transcription. Mol. Cell 19:89-100, 2005.

428. S.W. Park, G. Li, Y-P. Lin, K. Ge, M.J. Barrero, R.G. Roeder and L-N. Wei. Thyroid hormone-induced juxtaposition of proximal and distal transcriptional regulatory elements/factors and chromatin remodeling of *Crabp1* dependent on MED1/TRAP220. Mol. Cell 19:643-653, 2005.

429. T.A. Milne, Y. Dou, M.E. Martin, H.W. Brock, R.G. Roeder and J.L. Hess. MLL associates specifically with a subset of transcriptionally active target genes. Proc. Natl. Acad. Sci. U S A 102:14765-14770, 2005.

430. J. Kim, S.B. Hake and R.G. Roeder. The human homolog of yeast BRE1 functions as a transcriptional coactivator through direct activator interactions. Mol. Cell 20:759-770, 2005.

431. N. Urahama, M. Ito, A. Sada, K. Yakushijin, K. Yamamoto, A. Okamura, K. Minagawa, A. Hato, K. Chihara, R.G. Roeder and T. Matsui. The role of transcriptional coactivator TRAP220 in myelomonocytic differentiation. Genes to Cells 10:1127-1137, 2005.

432. C.-M. Doyen, W. An, D. Angelov, V. Bondarenko, F. Mietton, V.M. Studitsky, A. Hamiche, R.G. Roeder, P. Bouvet and S. Dimitrov. Mechanism of Polymerase II Transcription Repression by the Histone Variant macroH2A. Mol. Cell Biol. 26:1156-1164, 2006.

433. M. Guermah, V.B. Palhan, A.J. Tackett, B.T. Chait and R.G. Roeder. Synergistic functions of SII and p300 in effecting productive activator-dependent transcription of chromatin templates. Cell, 125:275-286, 2006.

434. X. Yu, R. Siegel and R.G. Roeder. Interaction of the B cell-specific transcriptional coactivator OCA-B and galectin-1 and a possible role in regulating BCR-mediated B cell proliferation. J. Biol. Chem., 281:15505-15516, 2006.

435. R. Siegel, U. Kim, A. Patke, X. Yu, X. Ren, A. Tarakhovsky and R.G. Roeder. Non-transcriptional regulation of SYK by the coactivator OCA-B is required at multiple stages of B cell development. Cell, 125:761-774, 2006.

436. J.H. Park and R.G. Roeder. GAS41 is required for repression of the p53 tumor suppressor pathway during normal cellular proliferation. Mol. Cell. Biol., 26:4006-4016, 2006.

437. H.J. Baek, Y.K. Kang and R.G. Roeder. Human mediator enhances basal transcription by facilitating recruitment of TFIIB during preinitiation complex assembly. J. Biol. Chem., 281, 15172-15181, 2006.

438. Y. Dou, T. Milne, A.J. Ruthenburg, S. Lee, J.W. Lee, G.L. Verdine, C.D. Allis and R.G. Roeder. Regulation of MLL1 H3 K4 methyltransferase activity by its core components. Nature Struct. & Molec. Biol., 13:713-719, 2006.

439. X. Hu, S. Malik, C.C. Negroiu, K. Hubbard, C.N., Velalar, B. Hampton, D. Grosu, J. Catalano, R.G. Roeder and A. Gnatt. A Mediator-responsive form of metazoan RNA polymerase II. Proc. Natl. Acad. Sci. USA 103, 9506-9511, 2006.

440. M.J. Plevin, J. Zhang, C. Guo, R.G. Roeder* and M. Ikura*. The acture myeloid leukemia fusion protein AML1-ETO targets E-proteins via a paired amphipathic helix-like TBP-associated factor homology domain. Proc. Natl. Acad. Sci. USA 103:10242-10247, 2006. (* co-corresponding authors)

441. M. Vermeulen, W. Walter, X. Le Guezennec, J. Kim, R.S. Edayathumangalam, E. Lasonder, K. Luger, R.G. Roeder, C. Logie, S.L. Berger and H.G. Stunnenberg. A feed forward repression mechanism anchors the Sin3/HDAC and N-CoR/SMRT co-repressors on chromatin. Mol. Cell Biol., 26:5226-5236, 2006.

442. R.R. Shen, D.O. Ferguson, M. Renard, K.K. Hoyer, U. Kim, X. Hao, F.W. Alt, R.G. Roeder, H.C. Morse III and M.A. Teitell. Dysregulated TCL1 requires the germinal center and genome instability for mature B cell transformation. Blood, 108:1991-1998, 2006.

443. S. Lee, D.-K. Lee, Y. Dou, J.-K. Lee, B. Lee, E. Kwak, Y.Y. Kong, S.-K. Lee, R.G. Roeder and J.W. Lee. A Coactivator as a Target Gene Specificity Determinant for Histone H3-Lysine 4 Methyltransferases. Proc. Natl. Acad. Sci. U. S. A. 103:15392-15397, 2006.

444. X. Wang, N. Yang, E. Uno, R.G. Roeder and S. Guo. A subunit of the mediator complex regulates vertebrate neuronal development. Proc. Natl. Acad. Sci U S A 103:17284-17289, 2006.

445. M. Stumpf, C. Waskow, M. Krötschel, D. van Essen, P. Rodriguez, B. Guyot, R.G. Roeder and T. Borggrefe. The Mediator Complex Functions as a Coactivator for GATA-1 in Erythropoiesis via Subunit Med1/TRAP220. Proc. Natl. Acad. Sci. U S A 103:18504-18509, 2006

446. W. Chen and R.G. Roeder. The Mediator Subunit MED1/TRAP220 is required for optimal glucocorticoid receptor-mediated transcription activation. Nucleic Acids Res., 35:6161-6169, 2007.

447. K. Ge, Y-W. Cho, H. Guo, T. B. Hong, M. Guermah, M. Ito, H. Yu, M. Kallum and R.G. Roeder. Alternative mechanisms by which Mediator subunit MED1/TRAP220 regulates peroxisome proliferators-activated receptor gamma-stimulated adipogenesis and target gene expression. Mol. Cell Biol., 28:1081-1091, 2008.

448. A.M. Gamper, and R.G. Roeder. Multivalent binding of p53 to the STAGA complex mediates coactivator recruitment after UV Damage. Mol. Cell Biol., 28:2517-2527, 2008.

449. Y. Peng, F. Chen, J. Melamed, L. Chiriboga, J. Wei, X. Kong, M. Mcleod, Y. Li, C. X. Li, A. Feng, M. J. Garabedian, Z. Wang, R. G. Roeder and P. Lee. Distinct nuclear and cytoplasmic functions of androgen receptor cofactor p44 and association with androgen-independent prostate cancer. Proc. Natl. Acad. Sci. U. S. A., 105:5236-5241, 2008.

450. A. Woiwode, S.A. Johnson, S. Zhong, C. Zhang, R.G. Roeder, M. Teichmann, and D.L. Johnson. PTEN represses RNA polymerase III-dependent transcription by targeting the TFIIIB complex. Mol Cell Biol., 28:4204-4216, 2008.

451. R.K. McGinty, J. Kim, C. Chatterjee, R.G. Roeder and T.W. Muir. Chemically ubiquitylated histone H2B stimulates hDot1L-mediated intranucleosomal methylation. Nature, 453:812-816, 2008.

452. C. Mertens and R.G. Roeder. Different Functional Modes of p300 in Activation of RNA Polymerase III Transcription from Chromatin Templates. Mol. Cell Biol., 28:5764-5776, 2008.

453. P.J. Robinson, W. An, A. Routh, F. Martino, L. Chapman, R.G. Roeder and D. Rhodes. 30 nm chromatin fibre decompaction requires both H4-K16 acetylation and linker histone eviction. J. Mol. Biol., 381, 816-825, 2008.

454. S. Malik and R.G. Roeder. Epigenetics? Mediator does that too! Mol. Cell 31:305-306, 2008.

455. J.H. Kim, C.K. Yang, K. Heo, R.G. Roeder, W. An and M.R. Stallcup. CCAR1, a key regulator of mediator complex recruitment to nuclear receptor transcription complexes. Mol. Cell, 31:510-519, 2008.

456. A. El-Osta, D. Brasacchio, D. Yao, A. Pocai, P.L. Jones, R.G. Roeder, M.E. Cooper and M. Brownlee. Transient high glucose causes persistent epigenetic changes and altered gene expression during subsequent normoglycemia. J. Exp. Med. 205:2409-2417, 2008.

457. A.M. Gamper, J. Kim, and R.G. Roeder. The STAGA subunit ADA2b is an important regulator of human GCN5 catalysis. Mol. Cell Biol., 29:266-280, 2009.

458. J. Lee, P.K. Saha, Q.-H. Yang, S. Lee, J.Y. Park, Y. Suh, S.-K. Lee, L. Chan, R.G. Roeder* and J.W. Lee*. Targeted inactivation of MLL3 histone H3-Lys-4 methyltransferase activity in the mouse reveals vital roles for MLL3 in adipogenesis. Proc. Natl. Acad. Sci. U. S. A., 105:19229-19234, 2008. (* co-corresponding authors)

459. F. Ozsolak, L.L. Poling, Z. Wang, H. Liu, X.S. Liu, R.G. Roeder, X. Zhang, J.S. Song and D.E. Fisher. Chromatin structure analyses identify miRNA promoters. Genes Dev. 22:3172-3183, 2008

460. S. Lee, R.G. Roeder and J.W. Lee. Roles of histone H3-lysine-4 methyltransferase complexes in nuclear receptor-mediated gene transcription. Prog. Mol. Biol. Transl. Sci. 87C 343-382, 2009.

461. M. Guermah, J. Kim and R.G. Roeder. Transcription of in vitro assembled chromatin templates in a highly purified RNA polymerase II system. Methods, 48:353-360, 2009.

462. R. Fujiki, T. Chikanishi, W. Hashiba, H. Ito, I. Takada, R.G. Roeder, H. Kitagawa and S. Kato. GlcNAcylation of a histone methyltransferase in retinoic-acid-induced granulopoiesis. Nature, 459:455-459, 2009.

463. J. Kim, M. Guermah, R.K. McGinty, J.-S. Lee, Z. Tang, T.A. Milne, A. Shilatifard, T.W. Muir and R.G. Roeder. RAD6-mediated transcription-coupled H2B ubiquitylation directly stimulates H3K4 methylation in human cells. Cell, 137:459-471, 2009.

464. J. Lee, D.H. Kim, S. Lee, Q.-H. Yang, D.K. Lee, S.-K. Lee, R.G. Roeder* and J.W. Lee*. A tumor suppressive coactivator complex of p53 containing ASC-2 and histone H3-lysine-4 methyltransferase MLL3 or its paralogue MLL4. Proc. Natl. Acad. Sci. U. S. A., 106:8513-8518, 2009. (* co-corresponding authors)

465. J. Kim and R.G. Roeder. Direct Bre1-Paf1 complex interactions and RING finger-independent Bre1-Rad6 interactions mediate histone H2B ubiquitylation in yeast. J. Biol. Chem., 284:20582-20592, 2009.

466. W. Chen, Q. Yang and R.G. Roeder. Dynamic interactions and cooperative functions of PGC-1alpha and MED1 in TRalpha-mediated activation of the brown-fat-specific UCP-1 gene. Mol. Cell, 35:755-768, 2009.

467. J.L. Ruas, U. Berchner-Pfannschmidt, S. Malik, K. Gradin, J. Fandrey, R.G. Roeder, T. Pereira, and L. Poellinger. Complex regulation of the transcactivation function of hypoxia-inducible factor-1alpha by direct interaction with two distinct domains of the creb-binding protein/p300. J. Biol. Chem., 285:2601-2609, 2009.

468. V. Haurie, S. Durrieu-Gaillard, H. Dumay-Odelot, D. Da Silva, C. Rey, M. Prochazkova, R.G. Roeder*, D. Besser and M. Teichmann*. Two isoforms of human RNA polymerase III with specific functions in cell growth and transformation. Proc. Natl. Acad. Sci. U. S. A., 107: 4176-4181, 2010. (* co-corresponding authors)

469. J. Kim, M. Guermah and R.G. Roeder. The human PAF1 complex acts in chromatin transcription elongation both independently and cooperatively with SII/TFIIS. Cell, 140:491-503, 2010.

470. L. Grøntved, M. Børgesen, M. S. Madsen, R.G. Roeder and S. Mandrup. MED14 tethers Mediator to the N-terminal domain of PPARγ and is required for full transcriptional activity and adipogenesis. Mol. Cell Biol., 30:2155-2169, 2010.

471. J. Park, X.-J. Sun and R.G. Roeder. The SANT domain of p400 ATPasse represses acetyltransferase activity and coactivator function of TIP60 in basal p21 gene expression. Mol. Cell Biol., 30: 2750-2761, 2010.

472. P. Jiang, Q. Hu, S. Meyer, S. Waltz, S. Khan, M. Ito, R.G. Roeder* and X. Zhang*. Key roles for MED1 LxxLL motifs in pubertal mammary gland development and luminal-cell differentiation. Proc. Natl. Acad. Sci. U. S. A., 107: 6765-6770, 2010 (* co-corresponding authors)

473. W. Chen, X. Zhang, K. Birsoy and R.G. Roeder. A muscle-specific knockout implicates nuclear receptor coactivator MED1 in the regulation of glucose and energy metabolism. Proc. Natl. Acad. Sci. U. S. A., 107: 10196-10201, 2010.

474. T.A. Milne, J. Kim, G.G. Wang, S.C. Stadler, V. Basrur, S.J. Whitcomb, Z. Wang, A.J. Ruthenburg, K.S. Elenitoba-Johnson, R.G. Roeder and C.D. Allis. Multiple interactions recruit MLL1 and MLL1 fusion proteins to the *HOXA9* locus in leukemogenesis. Mol. Cell, 38: 853-863, 2010.

475. A. Sumitomo, R. Ishino, N. Urahama, K. Inoue, K. Yonezawa, N. Hasegawa, O. Horie, H. Matsuoka, T. Kondo, R.G. Roeder and M. Ito. The Transcriptional Mediator Subunit MED1/TRAP220 in Stromal Cells Is Involved in Hematopoietic Stem/Progenitor Cell Support through Osteopontin Expression. Mol. Cell Bio., 30: 4818-4827, 2010.

476. H. Dumay-Odelot, S. Durrieu-Gaillard, D. Da Silva, R.G. Roeder and M. Teichmann. Cell growth- and differentiation-dependent regulation of RNA polymerase III transcription. Cell Cycle, 9: 3687-3699, 2010.

477. S. Malik and R.G. Roeder The metazoan Mediator co-activator complex as an integrative hub for transcriptional regulation. Nat Rev Genet, 11: 761-762, 2010.

478. X. Liu, D. Wang, Y. Zhao, B. Tu, Z. Zheng, L. Wang, H. Wang, W. Gu, R.G. Roeder* and W.G. Zhu*. Methyltransferase Set7/9 regulates p53 activity by interacting with Sirtuin 1 (SIRT1). Proc. Natl. Acad. Sci. U. S. A., 108: 1925-1930, 2011. (* co-corresponding authors)

479. J.H. Park, R.J. Smith, S.-Y. Shieh and R.G. Roeder. The GAS41-PP2Cβ complex dephosphorylates p53 at serine 366 and regulates its stability. J. Biol. Chem. 286:10911-10917, 2011.

480. H. Jiang, A. Shulka, X. Wang, W.-Y. Chen, B. E. Bernstein and R.G. Roeder. Role for Dpy-30 in ES Cell Fate Specification by Regulation of H3K4me3 within Bivalent Domains. Cell, 144: 513-525, 2011.

481. J. Kim and R.G. Roeder. Nucleosomal H2B Ubiquitylation with Purified Factors. Methods, 54: 331-338, 2011.

482. X. Ren, R. Siegel, U. Kim and R.G. Roeder. Direct Interactions of OCA-B and TFII-I Regulate Immunoglobulin Heavy-Chain Gene Transcription by Facilitating Enhancer-Promoter communication. Mol. Cell, 42: 342-355, 2011.

483. E. Shema, J. Kim, R.G. Roeder and M. Oren. RNF20 inhibits TFIIS-facilitated transcriptional elongation to suppress pro-oncogenic expression. Mol. Cell, 42: 477-488, 2011.

484. A.L. Roy, R. Sen and R.G. Roeder. Enhancer-promoter communication and transcriptional regulation of *Igh*. Trends Immunol., 32:532-539, 2011.

485. W. Chen and R.G. Roeder. Mediator-dependent Nuclear Receptor Functions. Seminars Cell Devel. Biol., 22:749-758, 2011.

486. L. Wang, A. Gural, X-J. Sun, X. Zhao, F. Perna, G. Huang, M. Hatlen, L. Vu, F. Liu, H. Xu, T. Asai, H. Xu, T. Deblasio, S. Menendez, F. Voza, Y. Jiang, P. Cole, J. Zhang, A. Melnick, R.G. Roeder, and S. Nimer. The leukemogenicity of AML1-ETO is dependent on site-specific lysine acetylation. Science 333:765-769, 2011.

487. D. Biswas, T.A. Milne, V. Basrur, J. Kim, K.S. Elenitoba-Johnson, C.D. Allis and R.G. Roeder. Function of leukemogenic mixed lineage leukemia 1 (MLL) fusion proteins through distinct partner protein complexes. Proc. Natl. Acad. Sci. U. S. A. 108:15751-15756, 2011.

488. R. Fujiki, W. Hashiba, H. Sekine, A. Yokoyama, T. Chikanishi, S. Ito, Y. Imai, J. Kim, H.H. He, K. Igarashi, J. Kanno, F Ohtake, H. Kitagawa, R.G. Roeder, M. Brown and S. Kato. GlcNAcylation of histone H2B facilitates its monoubiquitination. Nature 480:557-560, 2011.

489. T. Jääskeläinen, H. Makkonen, T. Visakorpi, J. Kim, RG. Roeder and J.J. Palvimo. Histone H2B ubiquitin ligases RNF20 and RNF40 in androgen signaling and prostate cancer cell growth. Mol Cell Endocrinol. 350:87-98, 2012.

490. M. Xu, P. Sharma, S. Pan, S. Malik, R.G. Roeder and E. Martinez. Core promoter-selective function of HMGA1 and Mediator in Initiator-dependent transcription. Genes Dev. 25:2513-2524, 2011.

491. H. Kim, K. Kim, J. Choi, K. Heo, H.J. Baek, R.G. Roeder and W. An. p53 Requires an Intact C-Terminal Domain for DNA Binding and Transactivation. J. Mol. Biol. 415:843-854, 2012.

492. M. Jishage, S. Malik, U. Wagner, B. Uberheide, Y. Ishihama, X. Hu, B.T. Chait, A. Gnatt, B. Ren and R.G. Roeder. Transcriptional Regulation by Pol II(G) involving Mediator and Competitive Interactions of Gdown1 and TFIIF with Pol II. Mol. Cell, 45:51-63, 2012.

493. M. Yu, T. Mazor, H. Huang, H.-T. Huang, K.L. Keithrein, A.J. Woo, C.R. Chouinard, A. Labadorf, T.E. Akie, T.B. Moran, H. Xie, S. Zacharek, I. Tanuichi, R.G. Roeder, C.F. Kim, L.I. Zon, E. Fraenkel, and A.B. Cantor. Direct Recruitment of Polycomb Repressive Complex 1 (PRC1) to Chromatin by Core Binding Transcription Factors. Mol. Cell, 45:330-343, 2012.

494. N. Hasegawa, A. Sumitomo, A. Fujita, N. Aritome, S. Mizuta, K. Matsui, R. Ishino, K. Inoue, N. Urahama, J. Nose, T. Mukohara, S. Kamoshida, R.G. Roeder and M. Ito. Mediator subunits MED1 and MED24 cooperatively contribute to pubertal mammary gland development and growth of breast carcinoma cells. Mol. Cell Bio, 32:1483-1495, 2012.

495. I. Marazzi, J. Ho, J. Kim, B. Manicassamy, S. Dewell, R. Albrecht, R. K. Prinja, K. Jeffrey, K. Lee, A. Garcia-Sastre, R.G. Roeder and A.Tarakhovsky. Suppression of the antiviral response by an influenza histone mimic. Nature, 483:428-433, 2012.

496. J. Zaborowska, A. Taylor, R.G. Roeder and S. Murphy. A novel TBP-TAF complex on Pol II-transcribed snRNA genes. Transcription, 3:92-104, 2012.

497. A. Akalin, F.E. Garret-Bakelman, M. Kormaksson, J. Busuttil, L. Zhang, I. Khrebtukova, T.A. Milne, Y. Huang, D. Biswas, J.L. Hess, C.D. Allis, R.G. Roeder, P.J. Valk, B. Löwenberg, R. Delwel, H.F. Fernandez, E. Paietta, M.S. Tallman, G.P. Schroth, C.E. Mason, A. Melnick, and M.E. Figueroa. Base-pair resolution DNA methylation sequencing reveals profoundly divergent epigenetic landscapes in Acute Myeloid Leukemia. PLoS Genetics, 8:e1002781, 2012.

498. H. Geng, S. Brennan, T.A. Milne, W.-Y. Chen, Y. Li, S.-M. Kweon, L. Zickl, S. Shojaee, D. Neuberg, C. Huang, D. Biswas, Y. Xin, J. Racevskis, R. Ketterling, S. Richards, S. Luger, H. Lazarus, M.S. Tallman, J. Rowe, M. Litzow, M.L. Guzman, C. D. Allis, R.G. Roeder, M. Müschen, E. Paietta, O. Elemento and

A. Melnick. Integrative epigenomic analysis of adult B-acute lymphoblastic leukemia identifies biomarkers and therapeutic targets. Cancer Discov. 2:1004-1023, 2012.

499. S.D. McCullough, X. Xu, S.R. Dent, S. Bekiranov, R.G. Roeder* and P.A. Grant*. Reelin is a target of polyglutamine expanded ataxin-7 in human SCA7 astrocytes. Proc. Natl. Acad. Sci. U. S. A., 109:21319-21324, 2012. (*co-corresponding authors)

500. A.C. Wilkinson, E. Ballabio, H. Geng, P. North, M. Tapia, J. Kerry, D. Biswas, R.G. Roeder, C.D. Allis, A. Melnick, M.F.T.R. de Bruijn and T.A. Milne. RUNX1 is a key target gene in t(4;11) leukemias and contributes to gene activation by interacting with the AF4-MLL complex. Cell Reports, 3:116-127, 2013.

501. S. M. Lauberth, T. Nakayama, X. Wu, A. Ferris, Z. Tang, S. H. Hughes and R.G. Roeder. H3K4me3 interactions with TAF3 regulate preinitiation complex assembly and selective gene activition. Cell, 152:1021-1036, 2013.

502. E. Wang, S. Kawaoaka, M. Yu, J. Shi, T. Ni, W. Yang, J. Zhu, R.G. Roeder* and C.R. Vakoc*. The histone H2B ubiquitin ligase RNF20 is required for MLL fusion-mediated leukemogenesis. Proc. Natl. Acad. Sci. U. S. A., 110:3901-3906, 2013. (*co-corresponding authors)

503. J. Kim, J.A. Kim, R.K. McGinty, U.T.T. Nguyen, T. Muir, C.D. Allis* and R.G. Roeder*. The n-SET domain of Set1 regulates H2B ubiquitylation-dependent H3K4 methylation. Molecular Cell, 49:1121-1133, 2013. (*co-corresponding authors)

504. C. Deng, Y. Li, S. Liang, K. Cui, T. Salz, H. Yang, Z. Tang, P.G. Gallagher, Y. Qiu, R. Roeder, K. Zhao, J. Bungert and S. Huang. USF1 and hSET1A mediated epigenetic modifications regulate lineage differentiation and *HoxB4* transcription. PLOS Genetics, 9:e1003524, 2013.

505. W.-Y. Chen, J. Zhang, H. Geng, Z. Du, T. Nakadai and R.G. Roeder. A TAF4 coactivator function for E proteins that involves enhanced TFIID binding. Genes & Development, 27:1596-1609, 2013.

506. Z. Tang, W.-Y. Chen, M. Shimada, U.T.T. Nguyen, J. Kim, X.-J. Sun, T. Sengoku, R.K. McGinty, J.P. Fernandez, T.W. Muir and R.G. Roeder. SET1 and p300 act synergistically, through coupled histone modifications, in transcriptional activation by p53. Cell, 154:297-310, 2013.

507. X-J. Sun, Z. Wang, L. Wang, Y. Jiang, T.D. Soong, N. Kost, W-Y. Chen, O. Elemento, W. Fischle, A. Melnick, D. J. Patel, S.D. Nimer and R.G. Roeder. A stable transcription factor complex nucleated by dimerized AML1-ETO controls gene expression and leukemogenesis. Nature, 500:93-97, 2013.

508. F. Casadio, X. Lu, S.B. Pollock, G. LeRoy, B.A. Garcia, T.W. Muir, R.G. Roeder and C.D. Allis. H3R42me2a is a histone modification with positive transcriptional effects. Proc. Natl. Acad. Sci. U. S. A., 110:14894-14899, 2013.

509. H. Jiang, X. Lu, M. Shimada, Y. Dou, Z. Tang, and R. G. Roeder. Regulation of transcription by the MLL2 complex and MLL complex associated AKAP95. Nat Struct. Mol. Biol. 20:1156-1163, 2013.

510. R. Ishino, K. Minami, S. Tanaka, M. Nagai, K. Matsui, N. Hasegawa, R.G. Roeder, S. Asano and M. Ito. FGF7 supports hematopoietic stem and progenitor cells and niche-dependent myeloblastoma cells via autocrine action on bone marrow stromal cells in vitro. Biochem. Biophys. Res. Commun. 440:125-131, 2013.

511. K. Matsui, K. Oda, S. Mizuta, R. Ishino, N. Urahama, N. Hasegawa, R.G. Roeder and M. Ito. Mediator subunit MED1 is a T3-dependent and T3-independent coactivator on the thyrotropin β gene promoter. Biochem. Biophys. Res. Commun. 440:184-189, 2013.

512. S. Malik and R.G. Roeder. Biochemistry, Have your PIC! Science. 342:706-707, 2013.

513. D.H. Kim, Z. Tang, M. Shimada, B. Fierz, B. Houck-Loomis, M. Bar-Gagen, S. Lee, S.K. Lee, T.W. Muir, R.G. Roeder and J.W. Lee. Histone H3K27 trimethylation inhibits H3 binding and function of SET1-like H3K4 methyltransferase complexes. Mol Cell Biol. 33:4936-4946, 2013.

514. S. Mizuta, T. Minami, H. Fujita, C. Kaminaga, K. Matsui, R. Ishino, A. Fujita, K. Oda, A. Kawai, N. Hasegawa, N. Urahama, R.G. Roeder and M. Ito. CCAR1/CoCoA pair-mediated recruitment of the Mediator defines a novel pathway for GATA1 function. Genes Cells. 19:28-51, 2014.

515. J. Shi, W.A. Whyte, C.J. Zepeda-Mendoza, J.P. Milazzo, C. Shen, J.S. Roe, J.L. Minder, F. Mercan, E. Wang, M.A. Eckersley-Maslin, A.E. Campbell, S. Kawaoka, S. Shareef, Z. Zhu, J. Kendall, M. Muhar, C. Haslinger, M. Yu, R.G. Roeder, M.H. Wigler, G.A. Blobel, J. Zuber, D.L. Spector, R.A. Young and C.R. Vakoc. Role of SWI/SNF in acute leukemia maintenance and enhancer-mediated Myc regulation. Genes Dev. 27:2648-2662, 2013.

516. K. Kim, B. Lee, J. Kim, J. Choi, J.M. Kim, Y. Xiong, R.G. Roeder and W. An. Linker Histone H1.2 Cooperates with Cul4A and PAF1 to Drive H4K31 Ubiquitylation-Mediated Transactivation. Cell Rep. 5:1690-1703, 2013.

517. P. Zhang, B. Tu, H. Wang, Z. Cao, M. Tang, C. Zhang, B. Gu, Z. Li, L. Wang, Y. Yang, Y. Zhao, H. Wang, J. Luo, C.X. Deng, B. Gao, R.G. Roeder* and W.G. Zhu*. Tumor suppressor p53 cooperates with SIRT6 to regulate gluconeogenesis by promoting FoxO1 nuclear exclusion. Proc. Natl. Acad. Sci. U. S. A. 111:10684-10689, 2014. (*co-corresponding authors)

518. M. A. Cevher, Y. Shi, D. Li, B.T. Chair, S. Malik and R.G. Roeder. Reconstitution of a transcriptionally active human core Mediator complex reveals a pivotal role of the MED14 subunit. Nature Struct. Mol. Biol. 21:1028-1034, 2014.

519. A.J. Deshpande, A.A. Deshpande, A.U. Sinha, L. Chen, J. Chang, A. Cihan, M. Fazio, C. Chen, N. Zhu, R. Koche, L. Dzhekieva, G. Ibáñez, S. Dias, D. Banka, A. Krivtsov, M. Luo, R.G. Roeder, J.E. Bradner, K.M. Bernt and S.A. Armstrong. AF10 regulates progressive H3K79 methylation and HOX gene expression in diverse AML subtypes. Cancer Cell 26:896-908, 2014.

520. A. L. Roy and R. G. Roeder. Chromatin and transcription tango on the immune dance floor. Front. Immunol. 5:631, 2014.

521. S. Iida, W. Chen, T. Nakadai, Y. Ohkuma, and R.G. Roeder. PRDM16 enhances nuclear receptor-dependent transcription of the brown fat-specific *Ucp1* gene through interactions with Mediator subunit MED1. Genes Dev. 29: 308-321, 2015.

522. H. Geng, C. Hurtz, K. B. Lenz, Z. Chen, D. Baumjohann, S. Thompson, N. Goloviznina, W.-Y. Chen, J. Huan, D. LaTocha, E. Ballabio, G. Xiao, J.-W. Lee, A. Deucher, Z. Qi, E. Park, C. Huang, R. Nahar, S.-M. Kweon, S. Shojaee, L. N. Chan, J. Yu, S. M. Kornblau, J. A. Burger, J. J. Bijl, B. H. Ye, M. Ansel, E. Paietta, A. Melnick, S. P. Hunger, P. Kurre, J. W. Tyner, M. L. Loh, R. G. Roeder, B. J. Druker, T. A. Milne, B. H. Chang and M. Müschen. Self-enforcing feedback activation between *BCL6* and pre-B cell receptor signaling defines a distinct subtype of acute lymphoblastic leukemia. Cancer Cell 27:409-425, 2015.

523. B.R. Sabari, Z. Tang, H. Huang, V. Yong-Gonzalez, H. Molina, H.E. Kong, L. Dai, M. Shimada, J.R. Cross, Y. Zhao, R.G. Roeder and C.D. Allis. Intracellular Crotonyl-CoA stimulates Transcription through p300-Catalyzed Histone Crotonylation. Molecular Cell 58:203-215, 2015

524. M.T. Holt, Y. David, S. Pollock, Z. Tang, J. Jeon, J. Kim, R.G. Roeder and T.W. Muir. Identification of a functional hotspot on ubiquitin required for stimulation of methyltransferase activity on chromatin. Proc Natl Acad Sci U. S. A. 112:10365-10370, 2015.

525. X. Yao, Z. Tang, X. Fu, J. Yin, Y. Liang, C. Li, H. Li, Q. Tian, R.G. Roeder and G. Wang. The Mediator subunit MED23 couples H2B mono-ubiquitination to transcriptional control and cell fate determination. EMBO J., 34:2885-2902, 2015.

526. N. Minsky and R.G. Roeder. PGC-1α directly links metabolic regulation and HSF1-dependent transcriptional programs. Proc. Natl. Acad. Sci. U.S.A. 112:E5669-78, 2015.

527. M. Chen, N. Zhu, X. Liu, R. Eng, S.A. Armstrong and R.G. Roeder. JMJD1C is required for the survival of acute myeloid leukemia by functioning as a co-activator for key transcription factors. Genes Dev. 29:2123-2139, 2015.

528. M. Yu, W. Yang, T. Ni, Z. Tang, T. Nakadai, J. Zhu and R.G. Roeder. RNA Polymerase II-associated factor 1 regulates the release and phosphorylation of paused RNA Polymerase II. Science 350:1383-1386, 2015.

529. N. Zhu, M. Chen, R. Eng, J. DeJong, A. U. Sinha, N. F. Rahnamay, R. Koche, F. Al-Shahrour, J. C. Minehart, C.-W. Chen, A. J. Deshpande, H. Xu, S. H. Chu, B. L. Ebert, R. G. Roeder, and S. A. Armstrong. MLL-AF9 and HOXA9-mediated acute myeloid leukemia stem cell self-renewal requires JMJD1C. J. Clin. Invest. 126:997-1011, 2016.

530. A. Goudarzi, D. Zhang, H. Huang, S. Barral, O. K. Kwon, S. Qi, Z. Tang, T. Buchou, A. L. Vitte, T. He, Z. Cheng, E. Montellier, J. Gaucher, S. Curtet, A. Debernardi, G. Charbonnier, D. Puthier, C. Petosa, D. Panne, S. Rousseaux, R. G. Roeder, Y. Zhao, S. Khochbin. Dynamic competing histone H4 K5K8 acetylation and butyrylation are hallmarks of highly active gene promoters. Mol. Cell 62:169-180, 2016.

531. Y. Li, B. R. Sabari, T. Panchenko, H. Wen, D. Zhao, H. Guan, L. Wan, H. Huang, Z. Tang, Y. Zhao, R. G. Roeder, X. Shi, C. D. Allis, and H. Li. Molecular coupling of histone crotonylation and active transcription by AF9 YEATS domain. Mol. Cell 62:181-193, 2016

532. Z. Xie, D. Zhang, D. Chung, Z. Tang, H. Huang, L. Dai, S. Qi, J. Li, G. Colak, Y. Chen, C. Xia, C. Peng, H. Ruan, M. Kirkey, D. Wang, L. M. Jensen, O. K. Kwon, S. Lee, S. D. Pletcher, M. Tan, D. B. Lombard, K. P. White, H. Zhao, Jia Li, R. G. Roeder, X. Yang, and Y. Zhao. Metabolic regulation of gene expression by histone lysine β-Hydroxybutyrylation. Mol. Cell 62:194-206, 2016.

533. S. Tanaka, A. Maekawa, L. Matsubara, A. Imanishi, M. Yano, R. G. Roeder, N. Hasegawa, S. Agano and M. Ito. Periostin supports hematopoietic progenitor cells and niche-dependent myeloblastoma cells in vitro. Biochem. Biophys. Res. Commun. 478:1706-1712, 2016.

534. Y. Jiang, A. Ortega-Molina, H. Geng, H.Y. Ying, K. Hatzi, S. Parsa, D. McNally, L. Wang, A.S. Doane, X. Agirre Ena, M. Teater, C. Meydan, Z. Li, D. Poloway, S. Wang, D. Ennishi, D.W. Scott, K.R. Stengel, J.E. Kranz, E. Holson, S. Sharma, J.W. Young, C.S. Chu, R.G. Roeder, R. Shaknovich, S.W. Hiebert, R.D. Gascoyne, W. Tam, O. Elemento, H.G. Wendel and A.M. Melnick. CREBBP Inactivation Promotes the Development of HDAC3 Dependent Lymphomas. Cancer Discov. 2016 Oct 12. pii: CD-16-0975. [Epub ahead of print]

535. S. Z. Josefowicz, M. Shimada, A. Armache, C. H. Li, R. M. Miller, S. Lin, A. Yang, B. D. Dill, H. Molina, H.-S. Park, B. A. Garcia, J. Taunton, R. G. Roeder*, C. D. Allis*. Chromatin kinases act on transcription factors and histone tails to regulate inducible transcription. Mol. Cell, 20:347-361, 2016.
* co-corresponding authors.

536. S. Malik and R. G. Roeder. Mediator: A Drawbridge across the Enhancer-Promoter Divide, Mol. Cell, 433-434, 2016.

537. N. Minsky and R. G. Roeder. Inhibition of adhesion molecule gene expression and cell adhesion by the metabolic regulator PGC-1α. PLoS ONE, accepted for publication.

538. N. Minsky and R. G. Roeder. Control of secreted protein gene expression and the mammalian secretome by the metabolic regulator PGC-1α. J. Biol. Chem., in revision.

539. M. Yamaji, M. Jishage, C. Meyer, A. Garcia, H. Suryawanshi, E. Der, M. Yamaji, S. Manickavel, H. L. McFarland, P. Morozov, R. G. Roeder, M. Hafner, and T. Tuschl. The cell type-specific RNA-binding protein DND1 maintains primordial germ and spermatogonial stem cells via recruitment of the CCR4-NOT deadenylation complex to its target mRNAs. Nature, in revision.

540. S. P. Wang, Z. Tang, C. W. Chen, M. Shimada, R. P. Koche, L. H. Wang, T. Nakadai, A. Chramiec, A. V. Krivtsov, S. A. Armstrong and R. G. Roeder. UTX activates transcription by coupling enhancer-associated chromatin modifications. Mol. Cell, in revision.