

CURRICULUM VITAE

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Professional Experience

- 1970-72 Post-doctoral Fellow (in the European Programme of the Royal Society of Great Britain) with Professor Piet Borst, (University of Amsterdam).
- 1972-73 EMBO Postdoctoral Fellow with Prof. C. Weissmann of the Institut fur Molekularbiologie der Universitat Zurich.
- 1974-79 Instructor/Assistant Professor of Biochemistry (equivalent), University of Amsterdam.
- 1979-82 Head, Laboratory of Gene Structure and Expression at the National Institute for Medical Research, Mill Hill, London.
- 1982-88 President, Biogen Research Corporation, Cambridge, Massachusetts, USA.
- 1984-88 Chief Scientific Officer, Biogen N.V. Offices located in Cambridge Massachusetts, USA.
- 1988 Chairman and Professor of Immunobiology, Yale University School of Medicine.
Professor of Biology, Yale University.
- 1988 Investigator, Howard Hughes Medical Institute.
- 1995 Darwin Trust Visiting Professor, Department of Cellular and Molecular Biology, University of Edinburgh, Scotland (May through August, 1995).
- 2002 Sterling Professor of Immunobiology, Yale University School of Medicine.
- 2007 Honorary Professor, Wuhan University, China
- 2007 Honorary Professor, Nan Kai University, China
- 2009 Adjunct Professor, Scripps Research Institute, Florida
- 2010 Honorary Professor, Soochow University, China
- 2014-15 President, International Cytokine and Interferon Society

Education

- 1964-70 University of Hull, Great Britain. B.Sc. Biochemistry (Honors) 1967, Ph.D. (Biochemistry), Hull, Awarded October 1970. Title of Thesis: "Studies on the DNA of protozoa".

Awards and Memberships

- 1978 Elected member of EMBO
- 1980 FEBS Anniversary Prize
- 1980 1980 Colworth Medal (awarded for the most promising British biochemist under 35)
- 1984 Elected Fellow of The Royal Society
- 1984 Elected Member of the Royal Institution of Great Britain
- 1995 Darwin Trust Prize, University of Edinburgh
- 2000 Elected Fellow of the American Association for the Advancement of Science
- 2001 Distinguished Service Award, Miami Nature Biotechnology Winter Symposia
- 2002 Elected Member of the National Academy of Sciences
- 2006 Elected Member of the Institute of Medicine
- 2007 Elected Member of the Henry Kunkel Society

2008	The Rabbi Shai Shacknai Memorial Prize in Immunology and Cancer Research for 2008
2008	AAI Invitrogen Meritorious Career Award
2010	Honorary Professor, Soochow University, China
2011	Founding Member, European Academy for Tumor Immunology (EATI)
2011	Andrew Lazarovitz Award, Canadian Society of Transplantation, Quebec
2011	Honorary Professor, Division of Infection and Immunity, University College London
2011	Cell Signaling Networks 2011 in Merida, Yucatan, Mexico. The Gold Medal and Certificate of Honor for his outstanding contributions to understanding of the immune system using reverse genetics in the mouse.
2012	Board of Honorary Advisors of the IUBMB
2012	The William B. Coley Award for Distinguished Research in Basic and Tumor Immunology
2013	The Vilcek Prize in Biomedical Science
2013	Honorary Member, The Scandinavian Society for Immunology
2013	Honorary Director of the International Immunology Center of the Biomedical Translational Research Institute, Jinan University, Guangzhou
2014	Honorary Member of The British Society for Immunology
2014	President, International Cytokine and Interferon Society
2014	2014 Star of Hope Award, JDRF Connecticut Chapter
2016	2016 AAI Excellence in Mentoring Award, American Association of Immunologists
2016	Doctor of Science, <i>Honoris Causa</i> , University of Hull
2017	Hans Bloemendaal Medal, Radboud Institute for Molecular Life Science, The Netherlands
2017	2017 Seymour & Vivian Milstein Award for Excellence in Interferon and Cytokine Research, International Cytokine & Interferon Society (ICIS)

Distinguished Lectures

1990	Harriman Lecture, National Institute for Medical Research, Mill Hill, London
1995	Ray A. and Robert L. Kroc Lectureship in Viral Immunobiology, The Scripps Research Institute
1997	Ray A. and Robert L. Kroc Lecturer, Elliott H. Joslin Research Laboratory
1998	Keynote Speaker (Conference Inaugural), Mexican Congress of Immunology, Xalapa, Veracruz
1999	Meeting Summary, Cold Spring Harbor Symposium on Quantitative Biology: Signaling Gene Expression in the Immune System, Cold Spring Harbor, NY
2000	Keynote Lecture, 8 th International TNF Congress, Trondheim, Norway
2000	Plenary Speaker, Keystone Symposia 2000
2000	Distinguished College of Medicine Immunology Lecturer, University of Iowa Interdisciplinary Program in Immunology
2001	J.S. and H.R. Blumenthal Lectureship
2001	Distinguished Lecture, Ohio State Univ. Cancer and Immunology Lecture Series, Columbus, OH
2001	Distinguished Lecture, Children's Hospital Medical Center Immunology Series, Cincinnati, OH
2001	Keynote Speaker, German Society of Immunology, Dresden
2002	Dean's Lecture Series, Mt. Sinai School of Medicine, New York
2002	Distinguished Lecture, AAI Meeting on Experimental Biology 2002, New Orleans, Louisiana
2002	Joy Faith Knapp Memorial Lecture, Distinguished Lecture, The University of Chicago, Committee on Immunology
2002	Keynote Speaker, 4 th Annual Vaccine Conference, Storrs, CT
2002	Keynote Speaker, 9 th International Conference on TNF α Related Cytokines, San Diego, CA
2002	Ernst Schering Research Foundation Lecture Series, Berlin, Germany
2002	Honors Program Lecture Series, 3 rd Lewis Thomas Lecture, New York University, New York, NY
2002	Keynote Lecture, Joint Meeting of the Belgium and Dutch Immunological Societies, Veldhoven, Holland
2003	University Lecture Series, University of Texas Southwestern Medical Center at Dallas

2003	Plenary Speaker, Keystone Symposia 2003: Transmission of Signals to the Nucleus: General Principles, Keystone, CO
2003	Plenary Speaker, Keystone Symposia 2003: Cell Biology of the Immune Response, Tahoe City, CA
2003	President's Research Seminar Series, Memorial Sloan-Kettering Cancer Center, New York, NY
2003	Guest Speaker, American Society for Clinical Pharmacology and Therapeutics Annual Symposium, Washington, DC
2003	Friedheim Lecture, The Rockefeller University Lecture Series, New York, NY
2003	Plenary Speaker, Federation of Clinical Immunology Societies, Paris, France
2003	Plenary Lecture, British Society for Immunology Summer School, 2003
2003	Plenary Lecture, International Cytokine Society Annual Meeting, Dublin, Ireland
2003	Keynote Talk, 29 th Annual LaJolla Immunology Conference, San Diego, CA
2004	Keynote Speaker, Inflammatory Bowel Diseases 2004 Conference, European Postgraduate Gastro-Surgical School, University of Amsterdam, The Netherlands
2004	Distinguished Immunologist Lecturer, Distinguished Immunologist Lecture Series, University of Alberta
2004	Mathilda and Terence Kennedy Visiting Professorship Lecture, Imperial College London
2004	Keynote Speaker, 12 th International Congress of Immunology and 4 th Annual Conference of FOCIS, Montreal, Canada
2004	Keynote Speaker, 8 th International Scleroderma Research Workshop
2004	2004 Boehringer Ingelheim Lecturer, Institut de Recherches Cliniques de Montreal
2004	Karolinska Research Lecture at Nobel Forum, Karolinska Institutet
2005	Concluding Address, Keystone Symposium, Keystone, CO
2005	Distinguished Lecture, Fox Chase Cancer Center, Philadelphia, PA
2005	Invited Speaker, Gordon Conference, Oxford, UK
2005	Plenary Speaker, International Symposium on Gene Regulation, Tokyo, Japan
2005	Edsell Lecture, Harvard, Cambridge, MA
2006	Keynote Speaker, 4 th EAACI Davos meeting, Germany
2006	Plenary Speaker, World Immune Regulation meeting
2006	Keynote Address, "Drugs, Bugs and Vaccines", Galveston, TX
2006	Keynote Speaker, University of Michigan Retreat
2006	Keynote Speaker, 9 th International Scleroderma Workshop
2006	Keynote Speaker, 3 rd International Symposium, Kiel, Germany
2006	Plenary Speaker, 6 th International Cytokine Conference, Vienna
2006	Plenary Speaker, Australian Health and Medicine Research Congress 2006
2006	Firkin Oration, National Scientific Conference, Australian Society for Medical Research
2006	Plenary Speaker, Australian Society of Immunology 2006, Auckland, New Zealand
2007	Nelson Medical Lectureship in the Humanities, University of California at Davis
2007	Plenary Speaker, Transatlantic Airway Conference 2007, Lucerne, Switzerland
2007	Keynote Speaker, Plenary Session, Symposium on Regulatory T-Cells, Vancouver, BC
2007	Plenary Speaker, Annual Meeting of the Israeli Society of Immunology, Weizmann Institute of Science
2007	Keynote Speaker, International Training Course on Molecular Immunology of Protozoan Infections, Buenos Aires, Argentina
2007	Keynote Speaker, ENII Immunology Summer School, Capo Caccia, Sardinia, Italy
2007	2007 Theobald Smith Annual Lecture, Albany Medical College
2007	Cornell University, University Lectureship Award
2007	Keynote Speaker, 6 th Annual Retreat, University of Michigan Interdepartmental Ph.D.-granting Graduate Program in Immunology
2007	Plenary Speaker, Thymus and T Cell Biology Meeting, Rolduc, Netherlands
2007	Keynote Speaker, FASEB Summer Research Conference, Vermont Academy, Saxtons River, VT
2007	Chair, Plenary Session, 15 th International Conference on Cytokines, San Francisco, CA
2007	2007 Peter Doherty Lecture, St. Jude Children's Research Hospital, Memphis, TN

- 2007 Keynote Speaker, Centre d'Immunologie de Marseille-Luminy, Marseille, France
- 2008 The Rabbi Shai Shacknai Memorial Prize and Lectureship in Immunology and Cancer Research for 2008
- 2008 Distinguished Lecture, NIH/NIEHS, Innate and Adaptive Immunity, Chapel Hill, NC
- 2008 Keynote Speaker, Shacknai Lectureship, Hebrew University/Hadassah Medical Center, Israel
- 2008 Plenary Speaker, Keystone Symposium, TGF- β in Homeostasis and Disease, Santa Fe, New Mexico
- 2008 AAI-Invitrogen Meritorious Career Award
- 2008 Ernest Witebsky Memorial Lecturer, University of Buffalo, SUNY, Buffalo, NY
- 2009 Keynote Speaker, Th17 Cells in Health and Disease, Vancouver, Canada
- 2009 Grand Lecture, NVVI Course
- 2009 Abbott 20th Anniversary Symposium, Worcester, MA
- 2009 Plenary Speaker, ISDCI Meeting, Prague, Czech Republic
- 2009 Keynote Speaker, 4th Aegean Conference, Crete, Greece
- 2009 Keynote Speaker, 13th Australian Autoimmunity Workshop, Adelaide, South Australia
- 2009 Plenary Speaker, Korean Association of Immunologists, Seoul, Korea
- 2010 Keynote Speaker, Rosenstiel Awards, Brandeis University, Waltham MA
- 2010 Keynote Speaker, National Academy of Science, Washington, DC
- 2010 Special Lecture, Summer School, Juliusruh, Rugen, Germany
- 2010 Keynote Speaker, American Transplant Congress, San Diego, CA
- 2010 Plenary Speaker, American Aging Association, Portland, OR
- 2010 Keynote Speaker, Heidelberger-Kabat Lecture, Columbia University, New York, NY
- 2010 Keynote Speaker, FASEB, Carefree, AZ
- 2010 Keynote Speaker, 4th Miltenyi Biotec, Paris, France
- 2010 Keynote Lecture: ICS/Cytokines 2010, Chicago, IL
- 2010 Keynote Speaker, IDS, Incheon, South Korea
- 2010 Keynote Speaker, Cold Spring Harbor Asia, Shanghai, China
- 2010 Keynote Speaker, 5th esIMID Workshop, Sitges-Barcelona, Spain
- 2011 Keynote Speaker, TGF β Meeting, Snowbird, Utah
- 2011 Keynote Speaker, 2011 Annual Scientific Meeting, Mont-Tremblant, Quebec
- 2011 Keynote Speaker, Microbiota/Mucosal Immunology Meeting, San Francisco, CA
- 2011 Dean's Distinguished Lecture Series, University of Kentucky, Lexington, KY
- 2011 Plenary Lecture, 13th International Union of Biochemistry and Molecular Biology, Mérida, Yucatán, México
- 2011 Senior Science Lecture, University College London, UK
- 2011 Plenary Speaker, Australasian Society for Immunology, Adelaide, Australia
- 2012 Keynote Speaker, University College London, UK
- 2012 Keynote Speaker, European Association for the Study of Diabetes, Oxford University
- 2012 Keynote Speaker, Immuno 2012, XXXVII Congress of the Brazilian Immunology Society, São Paulo, Brazil
- 2012 Beirne B. Carter Lecture in Immunology, University of Virginia
- 2013 Keynote Speaker, Royal Netherlands Academy of Arts and Sciences, NVVI Symposium Lunteren, Netherlands
- 2013 Keynote Speaker, Instituto Gulbenkian de Ciencia, Oeiras, Portugal
- 2013 Keynote Speaker, Medcon Breakthroughs in immune-mediated diseases 2013, Amsterdam, Netherlands
- 2013 Keynote Speaker, Metabolic Control of Inflammation and Immunity, Keystone Symposia, Breckenridge, CO
- 2013 Keynote Speaker, 41st Scandinavian Society for Immunology, Copenhagen, Denmark
- 2013 Plenary Lecture, 78th Meeting of the Japanese Society for Interferon and Cytokine Research-21st International Symposium of Macrophage Molecular and Cellular Biology, Tokyo, Japan
- 2013 Keynote Speaker, Autoimmunity Day, Johns Hopkins University, Baltimore, MD
- 2013 Fourth Annual George M. O'Brien Kidney Center at Yale Symposium
- 2013 Plenary Session, 14th IUBMB Conference "Host-microbe interactions," Marrakech, Morocco
- 2014 Plenary Session, World Immune Regulation Meeting VIII, Davos, Switzerland
- 2014 Distinguished Lecture, Centro Nacional de Investigaciones Oncológicas, Madrid, Spain

2014	Marsh Lecture in Molecular Medicine, Feinstein Institute for Medical Research
2014	The Carl F. Schmidt Honorary Lecture, University of Pennsylvania
2014	American Society for Microbiology Division E Lecturer, 114 th General Meeting, Boston, MA
2014	Keynote Speaker, Metabolism and Immunity: A Rediscovered Frontier Meeting, Trinity College Dublin, Ireland
2014	Plenary Session, British Society for Immunology's International Inflammation and Disease Conference, Manchester Institute of Biotechnology, University of Manchester, UK
2014	Plenary Session, XXXIX Congress of the Brazilian Society of Immunology (SBI), Rio de Janeiro, Brazil
2014	Plenary Session, KAST's 20th Anniversary International Symposium, Seoul, South Korea
2014	Keynote Address, BSI Congress 2014, British Society for Immunology, Brighton, UK
2015	Keynote Lecture, Midwinter Conference 2015, Advances in Immunology, Seefeld, Tyrol, Austria
2015	Keynote Lecture, Sociedad Cinetifica Argentina, Buenos Aires, Argentina
2015	Keynote Lecture, Antimicrobial Peptides, Gordon Research Conferences, Lucca (Barga) Italy
2015	Keynote Lecture, Mechanisms of Pro-Inflammatory Diseases, Keystone Symposia, Olympic Valley, CA
2015	Keynote Lecture, Forum on Advancements in Immunology Research, Tsinghua Immunology Institute, Shanghai, China
2015	Keynote Lecture, Progress in the fight against Inflammatory Diseases and Cancer, Weizmann Institute, Rehovot, Israel
2015	Keynote Lecture, Immunocolumbia 2015, ALAI and ACAAI, Medellin, Columbia
2015	Plenary Lecture, International Symposium on Molecular Targets in Renal Disease, Bamberg, Germany
2016	Plenary Lecture, Next Gen Immunology, EMBO Conference at the Weizmann Institute of Science, Rehovot, Israel
2016	Keynote Lecture, FOCIS 2016, Boston, MA, USA
2016	Plenary Lecture, 16 th International Congress of immunology (ICI), Melbourne, Australia
2016	Plenary Lecture, CRI Paris-Montmartre Symposium on Inflammation, Centre de recherche sur l'inflammation, Paris, France
2017	Plenary Lecture, 15 th International Congress of the Immunology of Diabetes Society, San Francisco, CA
2017	Keynote Lecture, EMBO Metabolic Disorders - Palma de Mallorca, Spain
2017	Plenary Lecture, World Congress of Nephrology, Mexcio City, Mexico
2017	Plenary Lecture, ASN Kidney Week 2017, New Orleans, Louisiana

Scientific Meetings Organized

9 Scientific meetings including: Jane Coffin Childs Symposium, 1998; Biogen Symposium, 2002; 4 Cold Spring Harbor Symposia, 2002, 2004, 2006, 2008; 2 Keystone Symposia, 2003, 2009; International Cytokine Society Conference, 2005; 15th International Conference on Cytokines, 2007

2008	Cold Spring Harbor Laboratory, Regulation for Lymphocyte Function, New York
2009	Keystone Symposia, Pattern Recognition Molecules and Immune Sensors of Pathogens, Keystone CO (Co-Organizer with J.P. Ting and L. O'Neill).
2010	Cold Spring Harbor Asia, The Inflammasome in Health and Disease, Shanghai, China
2011	Keystone Symposia, TGF-beta in Immune Responses: From Bench to Bedside, Snowbird, Utah (Co-organizer with W. Chen and H. Weiner).
2012	Cold Spring Harbor Asia, Microbiota, Inflammasomes and Chronic Disease, Shanghai, China
2014	Keystone Symposia, Inflammatory Diseases: Recent Advances in Basic and Translational Research and Therapeutic Treatments, Vancouver, BC, Canada (Co-organizer with C. Dong and T. Kishimoto)
2014	Cold Spring Harbor Asia, Frontiers of Immunology in Health and Diseases, Suzhou, China (Co-organizer with X. Cao and T. Taniguchi).

- 2016 Cold Spring Harbor Asia, Frontiers of Immunology in Health & Disease, Awaji, Japan (Co-organizer with X. Cao and T. Taniguchi).
- 2017 Keystone Symposia, TGF-beta in Immunity, Inflammation and Cancer, Taos, New Mexico (Co-organizer with W. Chen and J.E. Konkel).
- 2017 Keystone Symposia, Integrating Metabolism and Immunity, Dublin, Ireland (Co-organizer with H. Chi, E.L. Pearce and L.A.J. O'Neill).

Scientific Advisory Functions

Member of numerous (16) Scientific Advisory Boards, Panels and Committees from 1979 to the present; served on NIH review group, NIH AAI Finance Committee and NIH Reviewers Reserve from 1991-95; Member, EMBO Council 1981-82; National Academy of Sciences Committee on Biotechnology 1988-91; Board of Scientific Overseers, Jackson Laboratory 1991-99; Scientific Review Committee, DKFZ 1996; Imperial Cancer Research Fund Scientific Advisory Committee 2001-02. Currently ongoing Scientific Advisory Functions are listed below.

- 1997- International Scientific Advisory Board of the Netherlands Cancer Institute/Antoni van Leeuwenhoek Hospital
- 2005- Member, Cancer Research United Kingdom London Research Institute Science Advisory Group
- 2006- Scientific Advisory Board, Kennedy Institute of Research
- 2007- International Scientific Advisory Council, The Walter and Eliza Hall Institute of Medical Research, Australia
- 2010- Advisory Board, International Congress of Immunology, Kobe, Japan
- 2008- Scientific Advisory Group, Netherlands Cancer Institute- Antoni van Leeuwenhoek Ziekenhuis, Amsterdam, Netherlands
- 2008- Scientific Advisory Board, Alliance for Lupus Research, Hospital for Special Surgery, New York, NY
- 2008- External Advisory Committee, Mt. Sinai School of Medicine, New York, NY
- 2008- Scientific Advisory Board, IDI
- 2009- Scientific Advisory Board, Research Center for Molecular Medicine of the Austrian Academy of Science, Vienna, Austria
- 2010- Advisory Board, International Congress of Immunology, Kobe, Japan
- 2010- Founding Member of the European Research Institute for Integrated Cellular Pathology (ERI-ICP)
- 2011- Scientific Advisory Board, GSK, London, UK
- 2012- Scientific Advisory Board, MD Anderson, Houston, TX
- 2012- Scientific Advisory Board, Gladstone Institute, San Francisco, CA
- 2012- Scientific Advisory Board, Generon: Therapeutic IL22, Washington, DC
- 2012- Scientific Advisory Board, Tempero Pharmaceuticals, Inc, Cambridge, MA
- 2012- Scientific Advisory Board, Centenary Institute, Australia
- 2013- Scientific Advisory Council, Cancer Research Institute
- 2013- Board of Scientific Counselors (BSC), Department of Health and Human Services

Editorial Functions

Editor: Nucleic Acids Research 1979-82, Eukaryotic Genes (Butterworths) 1980, Techniques in the Life Sciences 1981, Journal of Molecular and Applied Genetics 1983-87, EMBO Journal 1990-93, Immunity 1999-2003

- Senior Editor: Genes and Function 1996-98
- Managing Editor: Biochimica et Biophysica Acta 1980-85
- Assoc. Editor: Immunity 1994-pres., Genes to Cells 1998-pres., Gene Screen 2000-01
- Transmitting Editor: Intl. Immunology 2001-05
- Editorial Boards: Journal of Autoimmunity 2002-05; Proceedings of the National Academy of Sciences 2002-07; Journal of Experimental Medicine 2006-pres.; Epigenetics and Chromatin 2008-pres.; International Immunology 2013-pres.

Advisory Editorial Bd. Molecular Medicine Today 1995-00, EMBO Journal 2005-pres.
Board Member Oxford Surveys on Eukaryotic Genes 1983-95
Consulting Editor Journal of Clinical Investigation 2010-

Research Accomplishments

Richard Flavell uses transgenic and gene-targeted mice to study Innate and Adaptive immunity, T cell tolerance and activation in immunity and autoimmunity, apoptosis, and regulation of T cell differentiation.

Richard Flavell is co-discoverer of introns in cellular genes: he showed DNA methylation correlates inversely with, and prevents gene expression. He was the first to develop and employ reverse genetics as a postdoc with Weissmann and in his own lab continued in this field throughout his career; he is a pioneer in the use of this approach *in vivo* to study function. Dr. Flavell's laboratory studies the molecular and cellular basis of the immune response. He has been instrumental in discovering the molecular basis of T-cell differentiation from precursor cells into differentiated subsets and provided the first example of gene regulation *in trans* via "kissing chromosomes". Moreover his laboratory has elucidated the mechanisms of immunoregulation that prevent autoimmunity and overaggressive responses to pathogens. Finally, Dr. Flavell's laboratory has discovered the role of several receptor families in the innate immune response, including Toll-like receptors and intracellular Nod-like receptor families (NLRs). This has recently led to the elucidation of function of Nod2 in inflammatory bowel diseases and Nalp proteins in the production of IL-1. Most recently he has established the connection between inflammasomes, microbial homeostasis and chronic diseases. He showed that dysbiosis of the microbiota leads to IBD and Metabolic Syndrome, including Obesity, Fatty Liver disease and Type 2 diabetes.

Finally, Dr. Flavell's laboratory has studied the role of TGF- β in the regulation of immune response. This work is of relevance both to the control of autoimmune disease as well as evasion of immune response by tumors.

Peer-Reviewed Publications

1. **Flavell RA**, Jones G.
Kinetic complexity of *Tetrahymena pyriformis* nuclear deoxyribonucleic acid. Biochem. J. **116**:155-157 (1970). PMC1185335
2. **Flavell RA**, Jones IG.
Mitochondrial deoxyribonucleic acid from *Tetrahymena pyriformis* and its kinetic complexity. Biochem. J. **116**:811-817 (1970). PMC1185503
3. **Flavell RA**.
Studies on the DNA of Protozoa. Ph.D. Thesis, University of Hull (1970).
4. **Flavell RA**, Follett EAC.
Size and configuration of *Tetrahymena* mitochondrial deoxyribonucleic acid. Proc. Biochem Soc. **119**:61P-62P (1970). PMC1179543
5. **Flavell RA**, Jones IG.
Paramecium mitochondrial DNA. Renaturation and hybridization studies. Biochim. Biophys. Acta **232**:255-260 (1971).
6. **Flavell RA**, Jones IG.
Base sequence distribution in Tetrahymena mitochondrial DNA. FEBS Lett. **14**:354-356 (1971).

7. **Flavell RA**, Jones IG.
DNA from isolated pellicles of Tetrahymena. J. Cell Sci. 9:719-726 (1971).
8. ter Schegget J, **Flavell RA**, Borst P.
DNA synthesis by isolated mitochondria, III. Characterization of D-loop DNA, a novel intermediate in mtDNA synthesis. Biochim. Biophys. Acta 254:1-14 (1971).
9. Williamson R, McShane T, Grunstein M, **Flavell RA**.
"Cytoplasmic" DNA from primary embryonic cell cultures is not informational. FEBS Lett. 20:108-110 (1972).
10. **Flavell RA**, Borst P, ter Schegget J.
DNA synthesis by isolated mitochondria. IV. Isolation of a new intermediate containing newly synthesized DNA in full-length light strands. Biochim. Biophys. Acta 272:341-349 (1972).
11. Arnberg AC, VanBruggen EFJ, Schutgens RBH, **Flavell RA**, Borst P.
Multiple D-loops in Tetrahymena mitochondrial DNA. Biochim. Biophys. Acta 272:487-493 (1972).
12. Hollenberg CP, Borst P, **Flavell RA**, VanKreijl CF, VanBruggen EFJ, Arnberg AC.
The unusual properties of mtDNA from a "low-density" petite mutant of yeast. Biochim. Biophys. Acta 277:44-58 (1972).
13. Van Kreijl CF, Borst P, **Flavell RA**, Hollenberg CP.
Pyrimidine tract analysis of mtDNA from a "low-density" petite mutant of yeast. Biochim. Biophys. Acta 277:61-70 (1972).
14. **Flavell RA**, Trampe PO.
The absence of an integrated copy of mitochondrial DNA in the nuclear genome of *Tetrahymena pyriformis*. Biochim. Biophys. Acta 308:101-105 (1973).
15. Arnberg AC, VanBruggen EFJ, **Flavell RA**, Borst P.
DNA synthesis by isolated mitochondria. V. Electron microscopy of replicative intermediates. Biochim. Biophys. Acta 308:276-284 (1973).
16. Sanders JPM, **Flavell RA**, Borst P, Mol JN.
Nature of the base sequence conserved in the mitochondrial DNA of a low-density petite. Biochim. Biophys. Acta 312:441-457 (1973).
17. **Flavell RA**, Birlfelder EJ, Sanders JPM, Borst P.
DNA-DNA hybridization on nitrocellulose filters. I. General considerations and non-ideal kinetics. Eur. J. Biochem. 47:535-543 (1974).
18. **Flavell RA**, Borst P, Birlfelder EJ.
DNA-DNA hybridization on nitrocellulose filters. II. Concatenation effects. Eur. J. Biochem. 47:545-548 (1974).
19. **Flavell RA**, Sabo DL, Bandle EF, Weissmann C.
Site-directed mutagenesis: Generation of an extracistronic mutation in bacteriophage Q β RNA. J. Mol. Biol. 89 255-272 (1974).
20. Groot GSP, **Flavell RA**, VanOmmen GJB, Grivell LA.
Yeast mitochondrial RNA does not contain poly(A). Nature 252:167-169 (1974).

21. Talen JL, Sanders JPM, **Flavell RA**.
Genetic complexity of mitochondrial DNA from *Euglena gracilis*. *Biochim. Biophys. Acta* 374:129-135 (1974).
22. **Flavell RA**, Sabo DLO, Bandle EF, Weissmann C.
Site-directed mutagenesis: Effect of an extracistronic mutation on the *in vitro* propagation of bacteriophage Q β RNA. *Proc. Natl. Acad. Sci. USA* 72:367-371 (1975). PMC432306
23. Groot GSP, **Flavell RA**, Sanders JPM.
Sequence homology of nuclear and mitochondrial DNAs of different yeasts. *Biochim. Biophys. Acta* 378:186-194 (1975).
24. **Flavell RA**, VanDenBerg FM.
The isolation of duplex DNA containing (dA.dT) clusters by affinity chromatography on poly(U) sephadex. *FEBS Lett.* 58:90-93 (1975).
25. Domingo E, **Flavell RA**, Weissmann C.
In vitro site-directed mutagenesis: Generation and properties of an infectious extracistronic mutant of bacteriophage Q β . *Gene* 1:3-25 (1976).
26. Mol JN, **Flavell RA**, Borst P.
The presence of (dA.dT)20-25 tracts in the DNA of primitive eukaryotes. *Nucleic Acids Res.* 3:2367-2377 (1976). PMC343091
27. Sabo DL, Domingo E, Bandle EF, **Flavell RA**, Weissmann C.
A guanosine to adenosine transition in the 3' terminal extracistronic region of bacteriophage Q β RNA leading to loss of infectivity. *J. Mol. Biol.* 112:235-252 (1977).
28. Jeffreys AJ, **Flavell RA**.
A physical map of the DNA regions flanking the rabbit β -globin gene. *Cell* 12:429-439 (1977).
29. **Flavell RA**, VanDenBerg FM, Grosveld GC.
Isolation and characterization of the oligo(dA-dT) clusters and their flanking DNA segments in the rabbit genome. *J. Mol. Biol.* 115:715-735 (1977).
30. Jeffreys AJ, **Flavell RA**, VanDenBerg FM.
Appendix: Theoretical analysis of (dA.dT) cluster distributions in DNA. *J. Mol. Biol.* 115:735-741 (1977).
31. Jeffreys AJ, **Flavell RA**.
The rabbit β -globin gene contains a large insert in the coding sequence. *Cell* 12:1097-1108 (1977).
32. VanVoorthuizen WF, Dinsart C, **Flavell RA**, DeVijlder JJM, Vassart G.
Abnormal cellular localization of thyroglobulin mRNA associated with hereditary congenital goiter and thyroglobulin deficiency. *Proc. Natl. Acad. Sci. USA* 75:74-78 (1978). PMC411186
33. **Flavell RA**, Glover DM, Jeffreys AJ.
Discontinuous genes. *TIBS* 3:241-244 (1978).
34. Tabak HF, **Flavell RA**.
A method for the recovery of DNA from agarose gels. *Nucleic Acids Res.* 5:2321-2332 (1978). PMC342166

35. Zuidema D, VanDenBerg FM, **Flavell RA**.
The isolation of duplex DNA fragments containing (dG.dC) clusters by chromatography on poly(rC)-Sephadex. *Nucleic Acids Res.* 5:2471-2483 (1978). PMC342177
36. **Flavell RA**, Kooter JM, DeBoer E, Little PFR, Williamson R.
Analysis of the β - δ -globin gene loci in normal and Hb lepore DNA: Direct determination of gene linkage and intergene distance. *Cell* 15:25-41 (1978).
37. Waalwijk C, **Flavell RA**.
Mspl, an isoschizomer of Hpall which cleaves both unmethylated and methylated Hpall sites. *Nucleic Acids Res.* 5:3231-3236 (1978). PMC342244
38. VanDenBerg J, VanOoyen A, Mantei N, Schambock A, Grosveld G, **Flavell RA**, Weissmann C.
Comparison of cloned rabbit and mouse β -globin genes showing strong evolutionary divergence of two homologous pairs of introns. *Nature* 275:37-44 (1978).
39. Waalwijk C, **Flavell RA**.
DNA methylation at a CCGG sequence in the large intron of the rabbit β -globin gene: Tissue-specific variations. *Nucleic Acids Res.* 5:4631-4641 (1978). PMC342778
40. Little PFR, Kooter JM, DeBoer E, Annison G, **Flavell RA**.
Recombinant deoxyribonucleic acid and the study of human genetic disease: The haemoglobinopathies. *Biochem. Soc. Symp.* 44:57-64 (1979).
41. Little PFR, **Flavell RA**, Kooter JM, Annison G, Williamson R.
Structure of the human fetal globin gene locus. *Nature* 278:227-231 (1979).
42. **Flavell RA**, Bernards R, Kooter JM, DeBoer E, Little PFR, Annison G, Williamson R.
The structure of the human β -globin gene in β -thalassaemia. *Nucleic Acids Res.* 6:2749-2760 (1979). PMC327890
43. Bernards R, Kooter JM, **Flavell RA**.
Physical mapping of the globin gene deletion in $(\delta\beta)^0$ thalassaemia. *Gene* 6:265-280 (1979).
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