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PROFESSOR STEVEN HIRSCH

Clinical Practice at The Priory Hospital, Priory Lane, Roehampton,
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Qualifications:

BA Hons (Philosophy) *Cum Laude*, Amherst College, Mass., USA, 1959
MD Johns Hopkins University, 1963
MPhil London University, Institute of Psychiatry, 1969
FRCPsych 1979 (Member from 1971)
FRCP London, 1983 (Member from 1966)

CURRENT APPOINTMENTS

2002-present Visiting Consultant, Priory Hospital

Professor Emeritus, Faculty of Medicine, Imperial College of Science, Technology and Medicine

PREVIOUS APPOINTMENTS

1975 – 2002 Professor of Psychiatry and Head of Department, Faculty of Medicine, Imperial
College of Science, Technology and Medicine (University of London)

AWARDS

Starkey Memorial Prize for 1976. Royal Society of Health.
BMA 1st Prize Book Award Competition 1996 for '*Schizophrenia*'
Honorary member, Psychiatric Section, Royal Society of Medicine, from 1994
Lifetime member of the *Collegium Internationale Neuro-Psychopharmacologicum*
2001 International Congress Award for Achievement in Schizophrenia, Whistler, Canada.

MEDICAL LEGAL EXPERIENCE

I have over 20 years' experience doing medical legal reports across the broad range of psychiatry, including medical negligence, wills and competency, and psychopharmacology, but more especially personal injury and employment related stress issues. I do about 25% as a joint expert, 20% for the Defence, and the rest for the Plaintiff but I endeavour to give an independent and fair opinion in all cases. I am experienced in giving evidence in court, and gave evidence at the Court of Appeals in *Green vs Deutches Bank* [2006 EWHC 1898 (QB)], and at appeal at the ET- [*Switalski v FC Asset management, 2007&8*] and [*Michalak v Mid Yorkshire NHS Trust, ET 2011*], and in cases for the Special Prosecutor's office, the police, medical defence organisations, and various public bodies, as well as private clients. I have kept up to date with Expert witnessed procedures by attending courses of Bond Saloon, Academy of Experts, CPD, and am a 'Checked Expert 2010/11 by Expert Witness, and on the APIL list of experts

CLINICAL EXPERIENCE

As a Consultant Psychiatrist in the NHS I led the implementation of community mental health services in Hammersmith and Fulham, London, and the evaluation of community mental health teams, and was the responsible psychiatrist for inpatients and outpatients, dealing with the full range of psychiatric conditions. I have an international reputation for my knowledge and contribution to research and treatment of schizophrenia, and the evaluation of needs of psychiatric services. I have been on the cutting edge of new treatments for schizophrenia during the evolution of the third generation atypical antipsychotic treatments. More latterly I ran, with Professor Isaac Marks, a clinic providing computer-assisted cognitive behavioural therapy for the treatment of neurotic disorders, a treatment which is now recognized by NICE for implementation in the NHS.

I am Section 12 approved and have an A+ Merit Award from the NHS.

RESEARCH

My research contribution is reflected in my *curriculum vitae* but can be summarised briefly as including:

1. The development of tests of new treatments for schizophrenia, including one of the first trials to establish the efficacy of depot neuroleptics to prevent relapse and the early phase two and three studies of Olanzapine, Risperidone, Quetiapine, Zolpidem and Ziprasidone for the treatment of schizophrenia.
2. I carried out the first random study of brief care supplemented by day hospital treatment on a catchment area basis.
3. I was the first person to use social demographic data to predict bed needs in psychiatry (in association with Prof B Jarman). I was one of the first to establish the importance of depression as part of the syndrome of schizophrenia, as opposed to a reaction to having the disorder or medication.
4. I developed research at Charing Cross into the biological basis of schizophrenia and the department identified a number of biological disturbances in the brains of patients with

schizophrenia, reflected by changes in MRI and PET imaging studies (with Dr Sean Spence, Prof Peter Liddle and others); studies of gene expression (with Prof Jackie de Belloche and others) which has revealed abnormalities of cholecystinin and glutamate (with Prof Laurence Garey) reduced numbers of pyramidal cell neuron dendritic spines, increases in micro-glia and a deficiency of kainate receptors. With Dr Torsten Baldeweg and Sanya Krljes an abnormality of cellular plasticity as reflected in the abnormal Evoked Potential Response, MMN, which correlates with cognitive disturbance in schizophrenic patients, and distinguishes Schizophrenia from other disorders, and identifies an abnormality of auditory encoding in schizophrenias which correlates with memory deficits and distinguishes these patients from Alzheimer's patients. We identified abnormally expressed genes in schizophrenic brains and this is currently in publication.

TEACHING

I initiated and developed the medical student teaching programme at Charing Cross with the assistance of senior lecturers over the years and carried responsibilities for this teaching until recent years, when we combined with Imperial College. I developed the Rotational Training Scheme for General Psychiatry which now includes some 15 hospitals in North West London and over 130 trainees at the general and higher training levels. I was Chairman of the Tutors Committee and Director of Teaching Governance at the West London 'Mental Health Trust.

PROFESSIONAL

As reflected in my *curriculum vitae* I have been involved in a wide range of professorial committees, University and College, including President of Psychiatry Section of the Royal Society of Medicine, Chairman of the AUP, Chairman of the Division of Psychiatry from time to time at our local hospital; Chairman of the Professoriate of Charing Cross & Westminster Medical School, and Chairman of the Association of Clinical Teachers of Psychiatry.

OTHER APPOINTMENTS AND TITLES

Visiting Professor, Division of Psychological Medicine, Institute of Psychiatry (1 June 2002 – 31 May 2005)

Chairman, Association of Professors of Psychiatry, 1992-2002

President, Psychiatric Section of the Royal Society of Medicine (1987-1988). Previously Secretary and then honorary Vice President 1982-87.

Chairman, Association of University Teachers of Psychiatry, from November 1986-1990.

Honorary Psychiatric Tutor for the N.W. Thames Regional Postgraduate Medical Federation.

Temporary adviser to the World Health Organization on Psychopharmacological studies in different populations, and Head of participating centre (1977-1982)

Chairman, Psychopharmacology Sub-Committee, Royal College of Psychiatrists, 1991-1996

Administrative responsibilities:

Head, Department of Psychiatry, Imperial College Faculty of Medicine, to October 2002

Chairman of Division of Psychiatry: Queen Mary's Hospital, Roehampton 1974-75 and Charing Cross Hospital 1975-79, Vice Chairman from 1979-1983

Hon. Secretary, Psychiatry Section, Royal Society of Medicine 1982-84. Vice-President, 1984-1985, President Elect, 1986-1987, President 1987-88.

International representative and member of Council, 1989-1994

Convenor, Subject Panel on Psychiatry, University of London 1991 - to present.
External Special Advisor on Titles 1984-1987 - University of London Board of Advisors - Standing Panel of Experts on Chairs and Readerships from 1984 (closed).

Membership of special committees, and offices held:

University:

Special Advisory Committee in Sociology as applied to Medicine, University of London from 1977-1985.
Psychiatric Sub-Committee of the Board of Studies in Medicine, 1977 - 1992.
Chairman, Subject Committee for Psychiatry, University of London, 1993-2002.
Chairman, Special Advisory Committee in General Practice from 1984-1986.
Chairman, Professoriate, Charing Cross & Westminster Medical School, 1995-1996.
Chairman, Association of Clinical Professors of Psychiatry, 1995-2002
Sometime Examiner for: Collegiate Committee of Examiners of University of London for Basic Sciences and Pharmacology, and Medicine, from 1976; External examiner University of Southampton (MBBS) 1983-1985. St George's Medical School (MBBS) 1986-9. Sheffield University 1987 - 1991. University College London 1993-95. Internal Examiner and Assessor for Higher Degrees, University of London from 1984, Board of Advisors: Standing Panel of Experts in Psychiatry, University of London. Also sometime examiner for the Royal College of Psychiatry (MRCPsych) and Institute of Psychiatry (DPM).
School Council, Charing Cross & Westminster Medical School, from 1988-1993.
Executive Committee & Special Advisory Subcommittee, CX & WMS 1988 to 1997
University of London representative on Governing Body of Kings College School, Wimbledon

National Health Service:

North West Thames Regional Advisory Committee on Higher Awards, 1996-1999.
Area Medical Committee (Ealing, Hammersmith and Hounslow Area Health Authority) (and its manpower sub-committee) 1978 to 1988.
Health Care Planning Team on Psychiatric Services (South Hammersmith Health District) from 1976 (ceased 1978).
Psychiatric Sub-Committee to Ealing, Hammersmith and Hounslow Area Health Authority 1976-1982.
Clinical Research Committee, Charing Cross Hospital from 1977 to 1982.
Psychiatric Sub-Committee to Regional Postgraduate Medical Federation, North West Thames Regional Health Authority, from 1978, and Higher Training Committee 1996-2002.
Regional Psychiatric Advisory Sub-Committee N.W. Thames Region from 1979 (ceased).
Unit Management Group, South Hammersmith Health Authority (1982-1986). Unit Management Team 1987- 1991. Unit Advisory Group from 1991, Unit Policy Committee from 1990, Unit Medical Committee throughout, Trust Clinical Advisory Board, Manpower Committee (all terminated)
Chairman, Charing Cross & Westminster Psychiatry Training Committee from 1980s Regional Postgraduate Committee

Professional:

Executive Standing Committee of the Royal College of Psychiatrists - Social and Community Section from 1976 to 1984.
Standing Committee, Association of University Teachers in Psychiatry from 1973 and Chairman from 1987 - 1990.
International Sociological Association - Research Committee on Mental Health, 1973 - 1979. Sub-Committee on staffing to Manpower Committee, Royal College of Psychiatrists, 1978 - 1979 and 1991 to 1997.

Council, Royal Society of Medicine (Psychiatric Section) from 1979, Hon. Sec. 1982-84, Vice President 1984/85, President Elect 1986-87, President 1987-88, Honorary Member from 1998.
Court of Electors, Royal College of Psychiatrists, 1980 - 1983.
Council, British Association of Psychopharmacology - from 1979 - 1983.
Member of the Medical Council on Alcoholism, 1983 - 1986.
Member of the Joint Committee on Higher Psychiatric Training and its General Psychiatry Sub Committee 1985- 1990.
Representative of Academic Medical School Clinical Academic staff to Conference of Medical Academic Representatives (COMAR), British Medical Association and elected member of the Medical Academic Staff Committee (MASC) (Standing committees) 1986- 1992.
North West Thames Research & Development Committee on Psychiatry 1995-present.
Deputy Chairman - Mental Health Committee, British Medical Association 1990-91.
Member of the Executive Committee of the General Psychiatry Section, Royal College of Psychiatrists. Chairman of the Psychopharmacology Sub-Committee from 1990-1996.
Board Member, Ealing, Hammersmith and Fulham NHS Mental Health Trust (1999-2001)
Convenor, Subgroup of the Royal College of Psychiatrists Working Party on Guidelines for Ethical Committees on Psychiatric Research Involving Human Subjects (1999).
Member of Council, Royal College of Psychiatrists from April 1995 to June 2001.
Member of Public Policy Committee, Royal College of Psychiatrists, 1995-2001.
Vice Chairman, Special Interest Group in Psychopharmacology, Royal College of Psychiatrists, 2000-2001.
Examiner, Royal College of Psychiatrists Research Prize and Bronze Medal, 2001.

Membership of other committees and organisations:

American Psychiatric Association (Corresponding Fellow)
Member, Advisory Board, International Congress on Schizophrenia Research
Association for the Study of Medical Education (past)
Association of University Teachers of Psychiatry
Association of University Professors of Psychiatry
Biological Psychiatry Association
British Association of Psychopharmacology
British Medical Association
Collegium International Neuropharmacology, European College of Psychopharmacology
European Psychiatry Association
Psychophysiological Group, British Association of Psychology (Past)
Royal College of Physicians (Fellow)
Royal College of Psychiatrists (Fellow)
Royal Society of Medicine (Fellow)
University of London, North Thames Department of Postgraduate Medicine, Academic Representative, North Thames (West) Specialty Training Committee (STC) in Psychiatry, to October 2002.

Editorial responsibilities, assessor for journals, and research committees:

Assessor for British Journal of Psychiatry, Archives of General Psychiatry (past), British Medical Journal, British Journal of Medical Psychology, Social Psychiatry, Nature, the Journal of European College of Neuropsychopharmacology and Schizophrenia Research. Research grants assessor for the Medical Research Council of the U.K The Department of Health Research Liaison Group, Mental Health Research Council of Australia, Mental Health Research Fund, Swiss National Research Council, Wellcome Trust. Also, Department of Health and Social Services Research liaison group for Mental Health. Editorial Board of Postgraduate Doctor (Past),

Human Psychopharmacology (Past). Mental Health Advisor, and Schizophrenia Research. Co-editor Neuropsychiatrie-Zeitschrift für Klinik Diagnostik, Therapie und Rehabilitation - Dusterl-Verlag Dr. Feistle, Munich. International Advisory Board Verschoor, Amsterdam and Neuropsychiatrie, and Neurology Psychiatry and Brain Research. Advisory Board member of Neuropsychobiology. Assessor for various Regional R & D Committees.
Editorial Board, Doctor Online

BOOKS AND MONOGRAPHS

Author

Hirsch SR, Leff J (1975) Abnormalities in Parents of Schizophrenics: Review of the Literature and an investigation of communication defects and deviances. *Maudsley Monograph Services; No.22* (Oxford University Press)

Hirsch SR, Leff J (1976) Abnormalità nei genitori schizofrenici. *Piccola Biblioteca Di Neurologia E Psichiatria*, Rome (Also translated into Japanese).

Platt S, **Hirsch SR**, Weyman A (1983) Social Behaviour Assessment Schedule. Training Manual and Rating Guide. (NFER-Nelson).

Sensky TE, **Hirsch SR**, Thompson C *et al* (1988) Learning Psychiatry through MCQ: a comprehensive text. (Wiley, Chichester).

Hirsch SR (1988) Co-Author Report on the World Health Organisation Collaborative Study on the effects of benzodiazepines and therapeutic counselling in different populations. (Springer, Heidelberg).

Hirsch SR Weinberger, Dn Schizophrenia, 2nd Edition
Steven R. Hirsch (Editor), Daniel R. Weinberger (Editor)
ISBN: 978-1-4051-4010-2
Adobe E-Book
768 pages
April 2008, Wiley-Blackwell

Editor

Hirsch SR, Shepherd M (1974) Themes and Variations in European Psychiatry. An anthology. (John Wright and Sons, Bristol).

Farmer R, **Hirsch SR** (1980) The Suicide Syndrome. Croome Helm Ltd, London (Cambridge University Press).

Hirsch SR (1984) Schizophrenia. Seminar Series; 27-30. (Update Publications).

Hirsch SR, Bradley PB (1986) The Psychopharmacology and Treatment of Schizophrenia. (Oxford University Press).

Hirsch SR, Harris J (1988) Consent and the Incompetent Patient: Ethics, Law and Medicines. (Gaskell Press, London).

Hirsch SR, Weinberger D (1996) *Schizophrenia* (Blackwell Scientific Publications, London). Second edition completely revised, 2003

JOURNAL publications (Refereed contributions)

Money J, Hirsch SR (1963) Chromosome anomalies, mental deficiency and schizophrenia. *Archives of General Psychiatry*; 7: 242-251.

Pollitt E, **Hirsch SR**, Money J (1964) Priapism, impotence and human figure drawings. *Journal of Nervous and Mental Disease*; **139**: 161-168.

Money J, **Hirsch SR** (1965) After priapism. *Journal of Urology*; **94**: 152-157.

Hirsch SR, Leff J (1971) Parental abnormalities of verbal communication in the transmission of schizophrenia. *Psychological Medicine*; 1: 118-127.

Leff J, **Hirsch SR** (1972) The effects of sensory deprivation in verbal communication. *Journal of Psychiatric Research*; **9**: 329-336.

Steinberg D, **Hirsch SR**, Overall S, William K, Sutton R (1972) Influenza infection causing manic psychosis. *British Journal of Psychiatry*; **120**: 531-535.

Hirsch SR, Gaind R, Rohde PD, Stevens BC, Wing JK (1973) Outpatient maintenance of chronic schizophrenic patients with long-acting fluphenazine: double-blind placebo trial. *British Medical Journal*; 1: 633-637.

Leff J, **Hirsch SR**, Rohde P, Gaind R, Stevens BC (1973) Life Events and maintenance therapy in schizophrenic relapse. *British Journal of Psychiatry*; **123**: 637-659.

Hirsch SR (1974) The management of schizophrenia outside hospital: research findings and underlying principles. *Indian Journal of Psychiatry*; **16**: 145-158.

Hirsch SR (1976) Die Versorgung schizophrener Patienten ausserhalb des Krankenhauses: Forschungsergebnisse und Grundprinzipien. *Nervenarzt*; **47**: 469-476.

Spiers J, **Hirsch SR** (1978) Severe lithium toxicity with 'normal' serum levels. *British Medical Journal*; **1**: 815-817.

Sandler, Goodwin, King, Petit, Reynolds, Tyrer, Weller, **Hirsch** (1978) Raised cerebro-spinal fluid in pentaacetic acid concentration preliminary support for the phenylethylamine hypothesis of schizophrenia. *Communications in Pharmacology*; **2**: 199-202.

Okasha M, **Hirsch SR**, Knights AC (1978) Flupenthixol and fluphenazine decanoate - a comparative review. *Psychiatric Annals*; **8**: 350-355.

Hirsch SR, Platt S, Knights AC, Weyman A (1979) Shortening hospitalisation: the effect on patients and their families. *British Medical Journal*; 1: 442-446.

Hirsch SR (1979) Eltern als Verursacher der Schizophrenie - der wissenschaftliche Stand einer Theorie. *Nervenarzt*; **50**: 337-345.

- Newson-Smith JGB, **Hirsch SR** (1979) A Comparison of social workers and psychiatrists in evaluating suicide. *British Journal of Psychiatry*, **134**: 331-334.
- Newson-Smith JGB, **Hirsch SR** (1979) Psychiatric symptoms in self-poisoning patients. *Psychological Medicine*; **9**: 493-500.
- Jauhar P, Weller M, **Hirsch SR** (1979) Electroconvulsive therapy for patients with cardiac pacemaker. *British Medical Journal*; **1**: 90-91.
- Knights AC, **Hirsch SR**, Salih MA, Okasha MS (1979) A trial of Fluphenazine versus Flupenthixol in Maintenance of Schizophrenic Outpatients. *British Journal of Psychiatry*, **135**: 515-523.
- Gruzelier JH, **Hirsch SR**, Weller M, Murphy C (1979) Influence of d or d1-propranolol and chlorpromazine on habituation of phasic electrodermal responses in schizophrenia. *Acta Psychiatrica Scandinavica*; **60**: 241-248.
- Platt S, Weyman A, **Hirsch SR**, Hewett S (1980) The Social Behaviour Assessment Schedule (SBAS): Rationale, Contents, Scoring and Reliability of a new interview Schedule. *Social Psychiatry*, **15**: 43-55.
- Knights AC, **Hirsch SR**, Platt SD (1980) Clinical change as a Function of Brief Admission to Hospital in a Controlled Study using the Present State Examination. *British Journal of Psychiatry*, **137**: 170-180.
- Fenton GW, Fenwick PBC, Dolamore J, Dunn TL, **Hirsch SR** (1980) EEG Spectral analysis in Schizophrenia. *British Journal of Psychiatry*, **136**: 445-445.
- Hirsch SR** (1980) Use of antidepressants in Schizophrenia. Editorial: *British Medical Journal*; **237**: 1037-1038.
- Platt SD, Knights AC, **Hirsch SR** (1980) Caution and Conservatism in the use of a Psychiatric Day Hospital: Evidence from a Research Project that failed. *Psychiatric Research*; **3**: 123-132.
- Hirsch SR**, Manchanda R, Weller MPI (1981) Dextro-propranolol in Schizophrenia. *Progress in Neuropsychopharmacology*; **4**: 633-637.
- Yorkston NJ, Zaki SA, Weller MPI, Gruzelier J, **Hirsch SR** (1981) A controlled Comparison of d1 Propranolol and Chlorpromazine following admission for Schizophrenia. *Acta Psychiatrica Scandinavica*; **63**: 13-27.
- Knights A, Hirsch SR** (1981) 'Revealed' Depression and Treatment for Schizophrenia. *Archives of General Psychiatry*; **38**: 806-811.
- Gruzelier JH, Connolly JF, Eves F, **Hirsch SR**, Zaki SA, Weller MPI, Yorkston NJ (1981) Effect of Propranolol and Phenothiazines on Electrodermal Orienting and Habituation in Schizophrenia. *Psychological Medicine*; **11**: 93-108.
- Hirsch SR** (1981) Postgraduate Training for Overseas Doctors in the United Kingdom. *Postgraduate Doctor*, **4(2)**: 57-64.

- Platt SD, **Hirsch SR**, Knights AC (1981) Effects of Brief hospitalisation on psychiatric patients' behaviour and social functioning. *Acta Psychiatrica Scandinavica*; **63**: 117-128.
- Platt SD, **Hirsch SR** (1981) The effects of brief hospitalisation upon the psychiatric patient's household. *Acta Psychiatrica Scandinavica*; **64**: 199-216.
- Gruzelier JH, Connolly JF, **Hirsch SR** (1981) Altered brain functional organisation in psychosis: Brain behaviour relationships. *Advances in Biological Psychiatry*, **66**: 54-59.
- Manchanda R, **Hirsch SR** (1981) (Des-Tyr)-Gamma-Endorphin in the treatment of Schizophrenia. *Psychological Medicine*; **11**: 401-404.
- Manchanda R, **Hirsch SR** (1982) (Des-Tyr)-Gamma-Endorphin for Schizophrenia. A Critical Review. *International Pharmacopsychiatry*, **17**: 147-152.
- Hirsch SR** (1982) Depression 'Revealed' in schizophrenia. *British Journal of Psychiatry*; **140**: 421-424.
- Hirsch SR**, Walsh C, Draper R (1982) Parasuicide - A review of treatment interventions. *Journal of Affective Disorders*; **4**: 299-311.
- Hirsch SR**, Walsh C, Draper R (1983) The Concept and Efficacy of the Treatment of Parasuicide. *British Journal of Clinical Pharmacology*; **15**: 189S-194S.
- Connolly JF, Gruzelier JH, Manchanda R, Hirsch SR (1983) Visual Evoked Potentials in Schizophrenia: Intensity Effects and Hemispheric asymmetry. *British Journal of Psychiatry*; **142**: 152-155.
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- Hirsch SR** (1983) The Role of the Social Environment in the Management and Outcome of Schizophrenia. *Hospital Update*; **June 1983**: 789-742.
- Hirsch SR** (1983) Bed Requirements for Acute Psychiatry Units - The Concept of a Norm. *The Bulletin of the Royal College of Psychiatrists*; **7(7)**: 118-122.
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- Jutai JW, Gruzelier JH, Connolly JF, Manchanda R, **Hirsch SR** (1984) Schizophrenia and Spectral Analysis of the Visual Evoked Potential. *British Journal of Psychiatry*; **145**: 496-501.
- Horder J, Ellis Sir John, **Hirsch SR**, Laurence D, Marinker M, Murray D, Wakeling A, Yudkin JS (1984) An important opportunity: An open letter to the General Medical Council. *British Medical Journal*; **288**: 1507-1511.
- Connolly JF, Manchanda R, Gruzelier JH, **Hirsch SR** (1985) Pathway and Hemispheric differences in the event-related potential (ERP) to monaural stimulation: A comparison of schizophrenic patients with normal controls. *Biological Psychiatry*; **20**: 293-303.

Shrikhande S, **Hirsch SR**, Coleman JC, Reveley MA, Dayton R (1985) Cytomegalovirus and Schizophrenia - a test of the virological hypothesis. *British Journal of Psychiatry*, **146**: 503-506.

Curson DA, Barnes TRE, Bamber RW, Platt SD, **Hirsch SR**, Duffy JC (1985) Long-term Depot Maintenance of Chronic Schizophrenic Out-patients: The Seven-Year Follow-up of the Medical Research Council Fluphenazine/Placebo Trial. I. Course of illness, Stability of Diagnosis and the Role of a Special Maintenance Clinic. II. The Incidence of Non-Compliance Problems, Side-effects, Neurotic Symptoms and Depression. III Relapse Postponement or Relapse Prevention? The Implications for Long-Term Outcome. *British Journal of Psychiatry*, **146**: 464-480.

Gruzelier J, Jutai JF, Connolly HJF, **Hirsch SR** (1985) Cerebral asymmetries in unmedicated schizophrenic patients in EEG spectra and their relation to clinical and autonomic parameters. *Advances in Biological Psychiatry*, **15**: 12-19.

Manchanda R, **Hirsch SR** (1986) Does Propranolol have an antipsychotic effect? A Placebo controlled study in acute schizophrenia. *British Journal of Psychiatry*, **148**: 701-707.

Manchanda R, **Hirsch SR** (1986) Low Dose Medication for Schizophrenia. Editorial *British Medical Journal*, **293**: 515.

Manchanda R, **Hirsch SR** (1986) Des-Tyrl Gamma endorphin in the treatment of depression: a double blind placebo controlled trial. *Human Psychopharmacology*, **1**: 99-102.

Horder J, **Hirsch SR**, Marinker M, Slack W, Tinker J, Wakeling A, Yudkin JS, Ellis J (1986) A Second Open Letter to the GMC. *Medical Education*; **20**: 366-370.

Curson DA, **Hirsch SR et al** (1986) Does Short-Term Placebo Treatment of Chronic Schizophrenia Produce long term harm? *British Medical Journal*; **293**: 726-728.

Manchanda R, Saupe R, **Hirsch SR** (1986) Comparison between the Brief Psychiatric Rating Scale and The Manchester Scale for the rating of Schizophrenic symptomatology. *Acta Psychiatrica Scandinavica*; **74**: 63-68.

Das I, de Bellerocche J, **Hirsch SR** (1986) Stimulation of inositol Phospholipid Hydrolysis by Propranolol in human neutrophils. *Biochem. Soc. Trans*; **14**: 115-1156.

Edhem I, Das I, de Bellerocche J, **Hirsch SR** (1986) Simultaneous assessment of cAMP and cGMP turnover by muscarinic and glutamate receptor agonist in rat brain cortical slices by high performance thin-layer chromatography. *Biochem. Soc Trans*; **14**: 1151-1152.

Reverley MA, de Bellerocche J, Recordati A, **Hirsch SR** (1987) Increased CSF amino acids in ventricular enlargement in schizophrenia. *Biological Psychiatry*, **22**: 413-420.

Hirsch SR, Richardson-Andrews R, Costall P, de Bellerocche J, Kelly ME, Naylor RJ (1987) The effects of some polyamines on putative behavioural indices of mesolimbic versus striatal dopaminergic function. *Psychopharmacology*; **93**: 101-104.

Das I, de Bellerocche J, **Hirsch SR** (1987) Inhibitory action of spermidine on formyl-methionyl-leucyl-phenylalanine stimulated inositol phosphate production in human neutrophils. *Life Sciences*; **41**: 1037-1041.

Manchanda R, **Hirsch SR**, Barnes TRE (1987) Criteria for Evaluating Improvement in Schizophrenia in Psychopharmacological Research (With special reference to Gamma Endorphin Fragments). *British Journal of Psychiatry*, **153**: 354-358.

Hirsch SR (1987) Planning for Bed Needs and Resource Requirements in Acute Psychiatry - A report of the Royal College of Psychiatrists on Psychiatric Beds and Resources. *Bulletin RCP*, **11**: 398-407.

Gruzelier J, Seymour K, Wilson L, Jolley A, **Hirsch SR** (1988) Impairments on neurological tests of Temporo-hippocampal and fronto-hippocampal functions and word fluency in remitting schizophrenia and affective disorders. *Archives General Psychiatry*, **45**: 623-629.

Das I, de Bellerocche J, **Hirsch SR** (1988) Stimulation of inositol phosphate production by propranolol in human neutrophils. *Prog Neuropsychopharmacolo & Biological Psychiatry*, **12**: 721-726.

Hirsch SR (1988) Essential aspects of the research problem in Schizophrenia. *Journal of Royal Society of Medicine*; **81**: 691-697.

Manchanda R, **Hirsch SR**, Barnes TRE (1988) Criteria for evaluating improvement in Schizophrenia in psychopharmacological research (with special reference to gamma endorphin fragments). *British Journal of Psychiatry*, **153**: 354-358.

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Fenton GW, Fenwick PBC, Armstrong GA, **Hirsch SR**, Dunn TL (1988) Left hemisphere dysfunction of negative symptoms in schizophrenia: Some EEG evidence. *Schizophrenia Research*; **6(2-3)**: 184-185.

Das I, de Bellerocche J, Jolley AG, Essali MA, **Hirsch SR** (1989) Inositol phosphates formation in chemotactic peptide activated neutrophils obtained from normal and schizophrenic subjects. *Biochem. Soc. Trans*; **17**: 709-710.

Jolley AG, **Hirsch SR**, McRink A, Manchanda R (1989) Trial of brief intermittent prophylaxis for selected schizophrenic outpatients: clinical outcome at one year. *British Medical Journal*; **298**: 985-990.

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Jolley AG, **Hirsch SR**, McRink A, Manchanda R (1990) Trial of brief intermittent neuroleptic prophylaxis for selected schizophrenic outpatients: clinical outcome at one year. *British Medical Journal*; **298**: 985-990.

Jolley AG, **Hirsch SR**, Morrison E, McRink A, Wilson L (1990) Trial of brief intermittent

neuroleptic prophylaxis for selected schizophrenic outpatients: clinical and social outcome at two years. *British Medical Journal*; **301**: 837-842.

Essali MA, Das I, de Belleruche J, **Hirsch SR** (1990) The platelet phosphoinositide system in schizophrenia: The effects of neuroleptic treatment. *Biological Psychiatry*; **28**: 475-487.

Adams CE, Riccio M, McCarthy D, Barnes TRE, **Hirsch SR** (1990) Agranulocytosis induced by Clozapine with the early addition of Trifluoperazine: a Case Report. *International Clinical Psychopharmacology*; **5**: 287-290.

Sensky T, Hughes T, **Hirsch SR** (1991) Compulsory Psychiatric treatment in the community I. A controlled study of compulsory community treatment with extended leave under the Mental Health Act: Special characteristics of patients treated and impact of treatment. *British Journal of Psychiatry*; **5**: 792-799.

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