CURRICULUM VITAE

NAME:	Meenakshi Mirakhur (nee Topa)
SEX:	Female
DATE OF BIRTH:	[redacted]
MARITAL STATUS:	[redacted]
NUMBER OF CHILDREN:	[redacted]
NATIONALITY:	[redacted]

DEGREES AND QUALIFICATIONS

MBBS - Lucknow University (India)	1969
MD (Path) - Postgraduate Institute, Chandigarh (India)	1974
MRCPath - London	1978

PREVIOUS APPOINTMENTS

Resident House Officer Obst & Gynae	Safdarjung Hospital, New Delhi	Feb '69 - June '69
Resident House Officer Anasthesia	Safdarjung Hospital, New Delhi	July '69 - Dec '69
Resident House Officer Obst & Gynae	Safdarjung Hospital, New Delhi	Jan '70 - Sept '70
Registrar in Anaesthesia	Safdarjung Hospital, New Delhi	Oct '70 - Mar '71
Resident Teaching Fellow, Pathology	Postgraduate Inst, Chandigarh, India	July '71 - June '74
SHO in Pathology	Royal Victoria Hospital, Belfast	Mar '75 - July '75
Registrar	Histopath/Neuropath, RVH	Aug '75 - Dec '76
Senior Registrar	Neuropathology, RVH	Dec '76 - July '77
Senior Registrar	Histopath/Neuropath, RVH	Aug '77 - Mar '80
Senior Registrar	Histopathology, RVH	Sept '83 - Aug '83
Sen Clinical Med Off	Neuropath/Histopath, RVH	Sept '83 - Aug '85
Consultant (Acting)	Neuropath/Histopath, RVH	Sept '85 - Jan '88

Consultant Neuropathologist and Head of Regional Neuropathology Service/Link Laboratories, Royal Group of Hospitals Trust, Belfast.

Feb 1988-Dec 2010

Retired since Dec 2010

EXPERIENCE

I provide service to the Regional Neuropathology Department and take part in the internal and external Quality control schemes running in the department. We had full Accreditation b y the CPA in 1996. We have recently (April 2003) been visited by the CPA and await outcome.

Neuropathology - Clinical, Biopsies and Post Mortems

I have been involved in the clinical and laboratory work in the Department of Neuropathology and Histopathology. This involves taking part in the ward rounds with clinical colleagues in Neurology and Neurosurgery. This is concerned directly with patient care as individual cases and their diagnostic problems. Investigations and further management are discussed. I am involved in the diagnostic work and its supervision with the trainees in the department. We deal with a variety of samples, which include CSF cytology and biochemistry, muscle biopsies, nerve biopsies, rectal biopsies and neuropathological biopsies. Now that we have some very sophisticated techniques like enzyme histochemistry, image analysis, immunocytochemistry, electron microscopy, available to us, we can take the interpretation of these biopsies very much further than in the past. I am also involved in supervising the post mortem service with the trainees in Neuropathology. This supervision usually takes two forms. One is a day to day supervision in the mortuary and discussion of the case with the trainees and some of the clinical colleagues involved. The other is in the form of a weekly organ review. Weekly post mortems are discussed with the trainees and the organs are reviewed after fixation. It also involves further examination of brains and full examination and review of the nervous system in the case of neurological and neurosurgical cases. Here we select cases for teaching purposes and for clinico-pathological conferences, only from those which are consented for research and training.

TEACHING EXPERIENCE

My teaching experience includes lectures to the undergraduate and post graduate medical students. The undergraduate teaching is undertaken as part of Neurosciences Block with the Neurologists and Neurosurgeons. This takes the form of lectures, practicals and clinico-path problem solving sessions. The undergraduate co-curriculum is currently being re-organised into modules. This now involves much closer and intense supervision and input from the Neuropathologist. In order to be able to do that I have attended various teaching and Communicative Skills training courses both within and outside the University. I also supervise the period of stay in the department for school 6th forms as part of their training programme for medical careers. This has become more formalized new on a regular basis.

TEACHING PROGRAMMES

I am involved in the following teaching programmes:-

1. Undergraduate teaching (medical students):
1st year – Communication Skills Course.
2nd year – Communication Skills Course.
3rd year – Neurosciences Course.
3rd year – Special Study Modules.
3rd year – Clinical Pathology Course.
Examiner of Communication Skill.

2. Postgraduate teaching and training:
Pathology trainees.
Neuropathology trainees/
Neurology trainees.
Neurosurgical trainees.

3. Non-Medical/Medical staff:
Laboratory staff
MSc student supervision
MD Supervision (F. Royal Fellowship)

4. Professions allied to medicine:
Psychology students and nursing staff

From time to time when there are BSc students in the department undertaking various projects with the scientific staff, I provide Neuropathologist input into their projects.

The postgraduate teaching includes neuropsychiatry courses and postgraduate trainees in Neuropathology, Histopathology, Neurology and Neurosurgery. I have also been involved in taking training courses and lectures for the nursing staff. As a part of the teaching programme I am also involved in organisation of various meetings in the Department of Neuropathology.

Tertiary Referral

The department is also a tertiary referral center from Paediatric, Forensic and other Histopathology laboratories.

Organ Retention Enquiry

Since the Alderhey enquiry, all hospitals in England, Wales, Scotland and Northern Ireland have been involved with the issues of human organ retention. In Northern Ireland, along with other Trusts, the Royal Group of Hospitals have been involved in cataloguing these. As Head of Neuropathology, I have been involved and in charge of issues related to organ retention. This has been very time consuming, especially being the only full-time Neuropathologist in the whole of the province. This has obviously been in addition to all other committments.

Implication of O'Hara's Report

Following the organ retention enquiry, chaired by John O'Hara, Q.C., I am now contributing to full implementation of the new guidelines.

Department of Health

I am on the sub-group, which is steering the implementation process. This group has been established by the Department of Health, Northern Ireland and working on the aspects of archiving, consent, information for both adult's and children's autopsies and also coroner's autopsies.

SUPERVISION

Bsc. in Biomedical Sciences. "Ultrastructural features of dementia and related neurodegenerative disorders".

I have supervised a joint MSc Thesis on Human Spongiform and Related Disorders.

I am currently supervising an MD Thesis on Brain Tumour Invasions.

RESEARCH

I am also interested in the research work in the department. The main research interest in the Department of Neuropathology is demyelinating and related viral disease of the central nervous system. I am involved in the clinico-pathological correlation of childhood tumours and pituitary tumours. Certainly techniques like tissue culture, immunohistochemistry and electron microscopy have very much advanced our knowledge and interpretation of these tumours. In the case of pituitary tumours, hormonal immunochemistry and electron microscopy are now beginning to provide a very good correlation with the clinical status of the patients. It is now possible to determine the specific hormone involved and follow this accurately with the serum hormone levels. This helps in determining the functional status of a particular tumour. We are also involved with work concerning head injuries and mental disorders. In future, I would further like to advance some of the aspects of neuropathology and histopathology mentioned above.

I am also very much interested in the CSF cytology and hope to achieve a better diagnostic correlation of brain tumours and cerebral lymphomas. Again immunocytochemistry plays a very important role in the assessment of these cases. I also hope to study some of the aspects of neuropathology of mental disorders, in association with our colleagues in neuropsychiatry. I have visited some of the neuropathological centres in this country and abroad. During my own training in neuropathology I have attended various courses organised by the Royal College of Pathologists and the Neuropathology centres in England and Ireland.

These include basic neuropathology courses for tainees, techniques in the investigation of brain tumours, interpretation of muscle biopsies and CSF cytology.

I have been involved with the main research schemes in the department. Currently we have:-

a) Demyelinating/Neurovirology Group within the Centre for Infection and Repair (IRC)

This is regarded as one of the core groups in the University research groupings. We have reorganised this group since 1997 jointly with QUB Centre for Inflammation and Repair. However we have recently been successful in obtaining grants, largely Brain Banking. (see text for grants).

b) Neuro-oncology

This is a sub-group under Cancer, headed by Professor Johnston and currently is involved in studying the invasion of brain tumours in the understanding of biology of brain tumours leading to the indication of potential therapeutic strategies. Involvement of Scientists and Neuropathologists together has strengthened brain tumour research which is internationally recognised. This has resulted in successfully obtaining grants from the prestigious Brain and Spine Foundation. Also we were successful in obtaining a Royal Research Fellowship. This Research Fellow is currently working on Tumour Invasion.

c) Clinical Neuropathology

Various projects with different clinical departments are underway. Study of muscle biopsies to assess different histochemical types and capillary blood in diabetes.

I am also involved in the various research and development schemes running in the laboratory:-

- Assessment of proliferative indices and cell kinetics in brain tumours
- Immunocytochemical profiles of dementias and related neurodegenerative disorders
- Survey of atypical dementias and spongiform encephalopathies in Northern Ireland. This survey has to begin in January 1998 as part of a Department of Health Survey in the entire UK. We have been successful in obtaining a grant from the Department of Health towards it.
- Study of patterns of dystrophin staining in Duchenne and other muscular dystrophies Assessment of MHC class I and II antigens in inflammatory disorders of muscle.
- I am currently involved with Professor Atkinson and Dr Heaney of the Department of Endocrinology, Royal Victoria Hospital in a study of chromogranin in pituitary tumours.
- I spent six weeks in Park Memorial Hospital and Cancer Institute, Dallas, Texas in July-August 1991 studying Diagnostic profiles of Alzheimer's Disease and related neurodegenerative disorders and brain tumours.

d) I am affiliate member of the Neurosciences RRG.

e) Review of scientific work

- Review of Journals – Journal of Pathology
  Scientific papers Neuropathology and Applied Neurobiology
  Ulster Medical Journal
- Book reviews for various Journals.

MEMBERSHIP OF SOCIETIES

Member of Ulster Society of Pathologists
Member of Laboratory Directorate, Royal Hospitals Trust
Member of British Neuropathological Society
Member of Irish Neurological Society
Member of Neurosciences Directorate, Royal Hospitals Trust
Member of Pathological Society of Great Britain and Northern Ireland
Member of International Academy of Pathology
Membership of International Society of Neuropathologists
Council Member of Irish Institute of Neurosciences

ORGANISATION OF MEETINGS

I Regional:

I co-ordinate the organisation of the following local meetings:-

- Monthly Tuesday morning clinical neuropathology meetings.
- Quarterly Muscle Meetings.
- Quarterly Rectal Biopsy Meeting related to Hirschprung's and allied neuronal disorders.

II Local Meetings:

- Irish Neuromuscular Association. These meetings take place on an annual basis between the North and South of Ireland.
- CPC meeting with Neuroscientists in Dublin.
- Irish Neuropathology Group
- Irish Neurological Association
- Mental Healthy Neurosciences meeting jointly with Queen's

III National Meeting:

- I had successfully organised the British Neuropathological Society meeting in Belfast which took place from Wednesday 26 June to Friday 28 June 1996. This included a national and international Brain Bank Symposium and the Society Meeting at Queen's University.
- I attend regular meetings of the British, European and whenever possible International Neuropathological Society.

AUDIT IN NEUROPATHOLOGY

I represent Neuropathology on the Committee of Organisers of Audit in Small Specialties. As a result I organise the audit activities in the Department.

ADMINISTRATION

- I am currently the Head of the Regional Neuropathology Service within the Lab Directorate
- I am currently serving as a Committee member for the British Neuropathological Society
- Audit in Neuropathology
- I have successfully completed the Management course for Clinicians in Management run by the Royal Group of Hospitals Trust.
- I am appointed committee member of Ulster Neuropsychiatry.
- I am currently a Council member of the Irish Institute of Neurosciences.

GRANTS AWARDED

- Grant of £75,000 from Department of Health. Surveillance of Spongiform Encephalopathies and Atypical Dementia (over a period of 3 years) Dr M Mirakhur, Dr S McQuaid.

- Grant of £3,500 from local Multiple Sclerosis Society.

- Grant of £10,000 from the Multiple Sclerosis Society. Blood brain barrier Studies in MS tissue bank cases. A pilot study.Dr J Kirk, Dr M Mirakhur, Dr S McQuaid.

- Grant of £25,000 from the Irish Brain Research Institute. Abnormal Blood Brain Barrier - a Light, Electron and Confocal Laser Microscopic Study. Dr M Mirakhur Dr S McQuaid, Dr J Kirk.

- Grant of £65,000. Three year grant from MS Ireland for trainee clinical scientist. Immunopathological studies on normal appearing white matter in Multiple Sclerosis. Dr M Mirakhur, Dr S McQuaid.

- Grant for Tissue micro-assay work in MS. National MS Society £10,000. Dr M Mirakhur, Dr J Kirk, Dr S McQuaid.

- Neuro-oncology – Glioma Invasion. Royal Hospitals Trust Fellowship and Irish Brain Research Foundation.

INVITED TALKS

Recent Advances in Biology of Brain Tumours. Royal Update 1989, Belfast.

Cerebral Sarcoidosis - Clinicopathological Conference. Irish College of Physicians.

Intracranial Ependymomas. Irish Neurological Association Belfast 1991.

Cerebral Palsy. Bobath Course 1992.

Brain Stem Gliomas - A Review. Irish Neurological Society 1993.

Clinicopathoological Study on Pineal Tumours Using Immunocytochemistry and Electron Microscopy. British Neuropathological Society 1993.

Neuropathology of Alzheimer's Disease. Current Issues in Biological Society. Department of Health, Queen's University of Belfast. March 1994.

CJD and Related Human Enceopalopathies. Association of Clinical Pathologists. Craigavon 1994.

Pathology of Demyelinating Disorders. Irish College of Physicians 1995.

Mad Humans, Sane Cows - Spongiform Encephalopathies, where we are? Royal Update 1996.

Muscular Dystrophies - Irish Neuromuscular Association 1996.

Blood Barrier in Health and Disease. Multiple Sclerosis Society 1996.

What is New in Dementias - Alzheimer's Disease Society 1998.

Diarrhoea and Weak Legs. Royal Update March 2000.

National Neuropsychiatric course, Belfast. Recent update in Neuropathology. 6 June 2001.

New Classification and Characterisation of Brain Tumours.

Joint Neurosciences Group 2001.

-α Synucleopathies an update – Postgraduate Neurosciences Trainees – 2002.

JOINT SUPERVISION OF FELLOWSHIPS

Chromogranin A in pituitary tumours.

Vascular changes in skeletal muscle in diabetic and non-diabetic patients.

Characterisation of the influence of veinous drainage in skeletal muscle images on experimental model of lower limb combined major vessel trauma.

Cytokines in cardiac muscle and rectus abdominis after ischaemia.

Royal Fellowship. Cathepsin S expression in astrocytomas – it's clinical relevance and role in invasion.

JOINT SUPERVISION OF B.MED. SCI. LABORATORY PROJECTS

Ultrastructural features of dementia and related neurodegenerative disorders.

Desmin Myopathy.

Role of oligodendrocytes in MS - Culture CNS cell lines.

JOINT SUPERVISION OF MSC. THESIS (CURRENT)

Immunopathological Studies in Human Spongiform Encephalopathies including vCJD.

DR MEENAKSHI MIRAKHUR - PUBLICATIONS AND PRESENTATIONS

Amyloidosis - M.D. Thesis (1973 - 1974)

Amyloid disease, classification and review of autopsy cases - Indian Journal of Pathology (1974)

Possible Stewart's nasal granuloma with dissemination to central nervous system - The Journal of Pathology (1983)

A quantitative assessment of glutamine synthetase in intracranial tumours - Neuropath Applied Neurobiol (1984)

Presented paper on 'Stewart's Nasal Granuloma with dissemination to CNS' to British Neuropath Society, Oxford.

Primary Appendiceal Lymphoma - Ulster Medical Journal Vol 55 No 2, October 1986.

Primary malignany lymphoma of the appendix. Mirakhur M, Sleimont RJ et al. Ulster Medical Journal, Oct 55 (2) 187-9. Oct 1986. PMID 3811021:U:87121809.

Presented Paper to British Neuropath Society January 1987 - Cranial Nerve Palsies in an eight year old male.

Presented Paper to ACP. Irish Branch - Omphalo Mesenteric duct, a clinicopathological study. Dr M Heatley, Dr M Mirakhur

Clinicopathological Conference in Dublin - Cerebral Sarcoidosis.

Poster Presentation in British Neuropathological Society, January 1988. Centronuclear myotubular myopathy.

Cutaneous recurrence of vitelloin) A clinicopathological study of 19 cases. Heatley, M, Mirakhur M. Ulster Medical Journal, 57 (2) 181 - 183, October 1988. PMID 3266043:U:89162961.

Clinicopathological review of spinal ependymomas in Northern Ireland - Journal of Pathology (Abstract) January 1990. Dr M Mirakhur, Dr M K Heatley, Mr I C Bailey.

Giant Serpentine Aneurysm of Basilar artery - Irish Neurological Association. Dr R K Vasishta, Mr S. McKinstry, Dr M Mirakhur.

Royal Update on brain tumours - recent developments and diagnosis - January 1990.

Behcet's disease presenting with momentary multiplex. Walker LJ, Mirakhur M et al. Ulster Medical Journal 59 (2) 206 - 210. Oct 1990. PMID 2177579:U:91118622.

Co-relation of clinicopathological appearances including ultrastructural appearances with survival in intracranial ependymomas - Irish Neurological Association, Belfast 1991.

Desmin associated myopathy with cardiomyopathy. Poster presentation. British Neuropathological Society. Dr C H S Cameron, Dr M Mirakhur, Professor I V Allen, Dr V H Patterson.

Recurrent Malignant Fibrous malignant fibrous histiocytoma of liver.
Dr M Mirakhur, Dr B J McGrady. Histopathology, volume 21, number 3. September 1992.

Central pontine myelinolysis. Dr A Droogan, Dr M Mirakhur, Dr J Kirk, Professor I V Allen. Ulster Medical Journal, April 1992. Vol 61, No 1.

Lectures to physiotherapy students during Bobath course in cerebral palsy. June 1992

Desmin associated myopathy with cardiomyopathy. Acta Neuropath. (In Press).

Pineal region tumours - A clinicopathological study using immunochemistry and electron microscopy - British Neuropathological Society, December 1993.
Dr M Mirakhur, Dr B Herron, Mr B Mathews.

A case of radiation necrosis - case presentation, Irish Neurological Association, May 1993, Belfast. Dr B Herron, Dr M Mirakhur, Mr D P Byrnes.

Clinical presentation of brain stem glioma - presentation to Irish Neurological Association, May 1993, Belfast. Dr M Mirakhur, Dr B Herron, Dr M Gibson.

Distal Myopathy with rimmed vacuoles - An Irish Family.
Dr V H Patterson, Dr J Hughes, Dr M Mirakhur. - Presentation Neuromuscular meeting, Tokyo, Japan.

Organisation and presentation of cases to Irish Neuromuscular Group, Dublin, October 1993.

Chromogranin, A derivative in human pituitary tumours.
Dr A P Heaney, Dr W J Curry, Dr M Mirakhur, Dr A B Atkinson - Endocrinology meeting, London, September 1993.

Neuropathology of Alzheimer's disease - talk presentation on current issues in biological psychiatry to Department of Mental Health, Queen's University of Belfast, March 1994.

Primary cerebral T cell lymphoma in an 11 year old boy.
Mirakhur M, Cameron S, Allen IV. (1995) Journal of Neuro-Oncology. 24, 1.

A new glycoprotein compared by human astrocytoma cells in vivo and vitro.
Mulligan K, McCormick D, and Mirakhur M. Neuro-oncology. September 1995.

Desmin myopathy with cardiomyopathy. Cameron S, Mirakhur M, Allen IV. Acta Neuropath (1995) 89, 560-566.

Focal myositis of floor of mouth. Report of two cases and review of literature.
McCluggage WG, Mirakhur M. Journal of Oral Surgery, Oral Medicine and Oral Pathology.

Deficiency of respiratory chain complex I is a common cause of Leigh disease. Morris AAM, Leonard JV, Brown GK, Bidouki SK, Bindoff LA, Woodward CE, Harding AE, Lake BD, Harding BN, Farrell MA, Bell JE, Mirakhur M, Turnbull DM. Annals of Neurology (1996)

Focal myositis of the floor of the mouth:report of two cases and review of literature. McCluggage WG, Mirakhur M et al. Oral Surgery Oral Medicine, Oral Pathology, Oral Radiology. 81 (5) 573-575 May 1996. PMID 8734304:U:96322513.

Expression of BCL-2 oncoprotein in pituitary tumours: comparison with C-MYC. Wang DG, Atkinson, AB, Mirakhur M et al. Journal of Clinical Pathology 1996, 47: 795-797.

Differential processing of chromogranin A in human pituitary adenomas: an immunocytic chemical study using site specific polyclonal antisera. Heany AP, Curry WS, Mirakhur M. Proceedings of Neuropathology and Applied Neurobiology Vol 22: 5 October 1996.

An integrated information system for Neuropathology. Allen IV, Ware RJ, Herron B, Mirakhur M. Proceedings of Neuropathology and Applied Neurobiology Vol 22: 2, October 1996.

Desmin Myopathy in a child presenting as restrictive cardiomyopathy. Hicks EM, Craig B, Mirakhur M. Poster presentation British Paediatric Neurology Association. January 1997 3-5th.

Choroid Plexus Carcinoma: a case report with CT and MRI findings. Paterson A, Mirakhur M, Bell KE. Journal of Neuroradiology.

Intensive Care Myopathy - Presentation to the Irish Neuromuscular Group. March 1997.

Clinical illness myopathy - clinical, pathological and ultrastructural aspects. Mirakhur M, Cameron CHS, and Craig Journal of Applied Neuropathology and Neurobiology.

Lack of correlation between repeat size and phenotype in Kennedy syndrome. Morrison P, Mirakhur M, and Patterson VH. Clinical Genetics.

Human Prion Diseases from Neuropathology to Pathobiology and Molecular Genetics. Final report of all consortium. Neuropath and Applied Neurobiology. Vol 23, No. 5 pp 416-422. 1997.

The blood brain barrier (BBB) and interface in neural and MS brain. A pilot confocal microscopic autopsy study. Kirk J, McQuaid S, Mirakhur M. Frontiers in Science. April 1998. Multiple Sclerosis Society.

Immunopathological analysis of Spongiform Encephalopathies from the files of the Department of Neuropathology, Belfast. (up to July 1997). Presented at the Irish Neurological Association, 8 - 9 May 1998, Belfast.

A confocal immunocytochemical demonstration and ulstrastructural demonstration of Blood Brain Barrier in MS and normal neurological controls. Presented at the Irish Neurological Association, 8 - 9 May 1998, Belfast.

Primary cerebral lymphomas from the biopsy records of the Department of Neuropathology, Belfast. Clinico-pathological correlation with CT and MRI imaging with survival and follow up. Presented at the Irish Neurological Association, 8 - 9 May 1998, Belfast.

Discordant repeat size and phenotype in Kennedy Syndrome. Morrison P, Mirakhur M and Patterson V. Clinical Genetics 1998 53: 276-277.

An unusual frontal lobe tumour with divergent differentiation. Mirakhur M. and Cameron CHS. J. Ultrastructural Pathology. August 1998.

An immunopathological Surveillance of CJD including new variant CJD from the files of the Department of Neuropathology, Belfast. Presented at the British Neuropathological Society meeting, 17/18 December 1998. Mirakhur M, McQuaid S, Kennedy K. Neuropathology and Applied Neurobiology.

Pleomorphic xanthoastrocytoma - phenbotypic variation and histogenesis. A clinico-pathological study. Presented at the British Neuropathological Society meeting 17/18 December 1998. Mirakhur M, Cameron CHS, Flannery T. Neuropathology and Applied Neurobiology.

A new glioma associated cell surface glycoprotein. Milliken K, Mirakhur M, McCormick D. British Journal of Cancer, Vol 78, No. 2, 1998.

Discordant repeat size and phenotype in Kennedy Syndrome. Clin. Genetics, 53, 1998. Morrison PJ, Mirakhur M, Patterson, VH.

Prevalence of the 4977bp mitochondrial DNA (mtDNA) deletion in myotonic dystrophy (MyD) and aging. Presented at the AANP meeting, Portland Oregon, 1999. Gallagher P, Brett FM, Hardiman O, Patterson V, Magee A, Tubridy N, Mirakhur M, Farrell MA.

New weakness in critically ill patient. Postgrad. Med. J. (883) 301-303. May 75 1999. Mirakhur M, Craig JJ, Patterson VH.

Expression of the MQ1 cell surface glycoprotein in human astrocytomas. Presented at the Irish Association for Cancer Research and Medical Oncology. April 1999. Mulligan K, Radotra B, Mirakhur M, McCormick D.

Characterisation of the influence of venous drainage on skeletal muscle injuries on experimental model of lower limb combined major vessel trauma. Harkin DW, Barros D'Sa AAB, Mirakhur M. British Journal of Surgery.

Diarrhoea and weak legs. Clinicopathological Conference. Royal Update, Belfast. 23 February 2000.

Acute respiratory failure in a middle aged woman. McGuigan C, McDowel GV, Mirakhur M, Morrow JI. Posgraduate Medical Journal. Ref. No. PMJ 2000/392.

Distribution of tight junction markers in multiple sclerosis tissues - an immunocytochemical and CSLM investigation. McQuaid S, Kirk J, Hill M, Mirakhur M. (submitted to Acta Neuropathologica September 2000).

Immunohistochemical evaluation of the post-translational processing of chromogranin A in human pituitary adenomas. Heaney, AP., Curry WJ, Pogue KM., Armstrong Valeria Lyn, Mirakhur M., Sheridan B., Johnston CF., Buchanan KD., Atkinson AB. Pituitary 2000:3 677 – 75.

Dual immunofluorescent studies on the localisation of prion protein in human CNS tissues using confocal scanning laser microscopy. Mirakhur M. Kennnedy K, McQuaid S. Neuropathology and Applied Neurobiology, Col. 27, No. 2, April 2001.

Astroblastoma, pathological features in two case with reviedw of the literature. Hussaini Al, M., Cameron S., Mirakhur M, Herron B. Irish Neurological Association 18 May 2001, Belfast. (Abstract).

Abnormal tight junctions in the microvasculature of sub-acute plaques in multiple sclerosis: Qualitative and quantitative findings of a confocal microscopic study. Plumb J., McQuaid, S., Kirk J., Mirakhur M. Irish Neurological Association, 19 May 2001, Belfast (platform presentation).

Abnormal endothelial tight junctions and BBB leakage in lesions and normal appearing white matter in MS. (Benzou Symposium) MS genetics, pathogenesis and therapy. August 2002. Copenhagan.

Tight junctional abnormalities in MS white matter affect all calibers of vessels and is associated with blood brain barrier leakage and active demyelination. Kirk, J., Mirakhur, M., Plumb, J., McQuaid S. Journal of Pathology, September 2002 (In Press).

Experience and significance of Catepsin S in human astrocytomas. Mirakhur, M., Flannery, T., McCormick, D. Journal of Pathology (In Press).

Plasmacytoma an unusual case of a pituitary mass lesion.
McLaughlin D, Mirakhur M, Gray WJ, James FGC.
In previous Postgraduate Medical Journal

Abnormal endothelial tight junctions in active lesions and normal-appearing white matter in multiple sclerosis.
S McQuaid, J Plumb, M Mirakhur and J Kirk.
Neuropathology and Applied Neurobiology.
Proceedings of the 102nd Meeting of the British Neuropathological Society, 9-11 January 2002, London.

The role of the cysteine proteinase cathepsin S in astrocytoma invasion.
D Gibson, T Flannery, K Mulligan, M Mirakhur and D McCormick
Neuropathology and Applied Neurobiology.
Proceedings of the 102nd Meeting of the British Neuropathological Society, 9-11 January 2002, London.

Characterization of a novel oncofetal cell surface glycoprotein.
KA Mulligan, H Gillespie, M Mirakhur and D McCormick
Neuropathology and Applied Neurobiology.
Proceedings of the 102nd Meeting of the British Neuropathological Society, 9-11 January 2002, London.

Current status of laboratory diagnosis of subarachnoid haemorrhage in Northern Ireland.
I Wallace, P Sharpe and M Mirakhur
Neuropathology and Applied Neurobiology.
Proceedings of the 102nd Meeting of the British Neuropathological Society, 9-11 January 2002, London.

CD38-positive dendritic cells are present in occasional perivascular cuffs in multiple sclerosis lesions.
J Plumb, M Armstrong, M Mirakhur and S McQuaid
Multiple Sclerosis Journal 2003, 00 1-6.

Pathological abnormalities in normal appearing white matter. J. Neurological Sciences 200 1: 22, 141 – 144. Mirakhur M., McQuaid S. et al.

Plasmacytoma: an unusual cause of a pituitary mass lesion. A case report and review of literature (In Press)?

Superficial siderosis of the central nervous system many years after neurosurgical procedures. Journal of Neurology, Neurosurgery and Psychiatry 2003, 74: 1 – 3.

Tight junctional abnormality in MW white matter affects all calibres of vessel and is associated with blood-brain barrier leakage and active demyelination – accepted March 2003 for Journal of Pathology.

The clincal Significance of Cathepsin S Expression in Human Astrocytomas. American Journal of Pathology, Volume 163 No. 1, July 2003.

Plasmacytoma: an Unusual Cause of a Pituitar Mass Lesion. A Case Report and Review of the Literature. Pituitary.

Cutaneous metastasis from glioblastoma. British Journal of Neurosurgery.

Up-regulation of osteopontin and αB-crystallin in the normal-appearing white matter of multiple sclerosis: an immunohistochemical study utilizing tissue microarrays. Neuropathology and Applied Neurobiology (2005) 31, 292-303.

M. Mirakhur, T. Flannery, S. McQuaid, R.S. McConnell. The use of cerebral microdialysis to detect Cathepsin S cysteine protease in brain tumour *in vivo*. Neuropathology and Applied Microbiology 32, Jan. 2006.

Detection of cathepsin S cysteine protease in human brain tumours.
T. Flannery, R.S. McConnell, S. McQuaid & M. Mirakhur et al. British Journal of Neurosurgery, February 2007; 21(1): 1-6.