

Curriculum Vitae - Michael Lee

Employment

University of Technology, Sydney [2003 - present]

Administrative Officer [HEO6, full time] School of Marketing / Marketing Discipline Group from October 2007 to present

Administrative Assistant [HEO5, 50% fraction] from 2003 to 2007

(including *Acting School Manager* [HEO7, 80% fraction] from August 2006 to October 2006)

- Management of Discipline Group's research publication data (*ResearchMaster* and *Sedona* databases)
- Asset record management, local facilities coordination
- Discipline Group web site editing and coordination
- Employment contracts for casual academic and non-academic staff
- IT equipment purchasing, installation and maintenance
- Purchasing of stationary and office supplies
- Hire and supervision of administrative assistants employed through agency contract.
- Reception & enquiries

The University of Sydney [1985 - 2007]

Lecturer [50%, then 30% fraction] School of Exercise & Sport Science

- Teaching and subject coordination for postgraduate and undergraduate students in Physiotherapy, Occupational Therapy, Exercise & Sport Science
- School web site design, editing and coordination
- Chair of the School [academic] Board
- Student Disability Liaison Officer
- *University Committees:* Cumberland Advisory Committee on Equity, University Equity Advisory Committee, Campus Disability/Access Committee.
- *Research:* More than 30 journal papers, 30 conference papers, 5 book chapters, Invited Keynote Speaker, Conference Scientific Committee, academic journal reviewer, thesis examiner, grant reviewer, research student supervisor

Repatriation General Hospital, Concord [1985]

Physiotherapy Student Unit Supervisor

In this position I supervised small groups of students who were placed at the hospital for clinical experience in the area of respiratory medicine.

- **Management of students:** I arranged the placement of students into various relevant ward situations, liaised with other staff, such as nurses, medical officers, occupational therapists and ward clerks. I also evaluated the performance of the students.
- **Skill teaching:** I taught skills involved in the assessment and treatment of respiratory diseases. This involved a high level of knowledge of the range of medical tests and interpretation of their findings in terms of their significance for the physiotherapy treatment.

Prince of Wales Hospital [1982 - 1984]

Physiotherapist

I commenced at PoWH on a one-year internship on graduation and was invited to stay on in the respiratory medicine and oncology wards.

- **Intern year rotation:** General surgical wards, night roster [mostly surgical wards, paediatrics, adult and paediatric intensive care], outpatients, Armidale Hospital secondment, rehabilitation, medical wards, orthopaedics.
- **Respiratory medicine and Oncology:** Daily spirometry testing, patient training in use of inhalers, administering inhaled medications *via* nebuliser, physical treatments of chest, exercise therapy, palliative care, counselling in lifestyle choices, provision of certain disability aids.

Electricity Commission of NSW [1972 - 1978]

Professional Engineer [and *Junior Professional Officer* while a student at university]

I was initially employed as a *Junior Professional Officer* while attending university full-time, and employed on graduation as a *Professional Engineer*

- **Design:** Production of specification, tender analysis, and contract administration in relation to a variety of plant forming part of new power station generating systems.
- **Wallerawang Power Station - Generation and Maintenance:** Planning and implementation of scheduled and unscheduled maintenance tasks especially associated with coal plant, boilers and steam turbines. Liaison with foreperson and tradespersons.

Education

- PhD student - University of Sydney, Faculty of Engineering, 1994 - 2003 [withdrawn without completion]
- Master of Biomedical Engineering - University of New South Wales, 1991
- Bachelor of Applied Science (Physiotherapy) - Cumberland College of Health Sciences, 1982
- Bachelor of Engineering (Honours) - University of New South Wales, 1976
- Higher School Certificate - North Sydney Boys High School, 1971

Teaching

I have taught biomechanics and ergonomics to students of physiotherapy, occupational therapy and exercise & sport science, at all undergraduate levels and in postgraduate courses. As well as coordinating and teaching my own subjects, I have also been a part of other subjects' teaching teams.

Publications

Journals

1. Lee M (1989) Mechanics of spinal joint manipulation in the thoracic and lumbar spine: a theoretical study of posteroanterior force techniques. *Clinical Biomechanics* **4**: 249-251.
2. Lee M, Moseley A, Refshauge K (1990) Effect of feedback on learning a vertebral joint mobilization skill. *Physical Therapy* **70**: 97-104.
3. Lee M, Svensson NL (1990) Measurement of stiffness during simulated spinal physiotherapy. *Clinical Physics and Physiological Measurement* **11**: 201-207.
4. Ginn K, Eastburn G, Lee M (1993) Evaluation of a buckle force transducer for measuring tissue tension. *Australian Journal of Physiotherapy* **39**: 31-38.
5. Shirley D, Lee M (1993) A preliminary investigation of the relationship between lumbar postero-anterior mobility and low back pain. *Journal of Manual and Manipulative Therapy* **1**: 22-25.
6. Lee M, Esler M-A, Mildren J, Herbert R (1993) Effect of extensor muscle activation on response to lumbar posteroanterior forces. *Clinical Biomechanics*, **8**: 115-119.
7. Lee M, Svensson NL (1993) Effect of frequency on response of the spine to lumbar posteroanterior forces. *Journal of Manipulative and Physiological Therapeutics*, **16**: 439-446.
8. Lee M, Latimer J, Maher C (1993) Manipulation - investigation of a proposed mechanism. *Clinical Biomechanics* **8**: 302-306.
9. Lee M, Lau T, Lau H (1994) Sagittal plane rotation of the pelvis during lumbar posteroanterior loading. *Journal of Manipulative and Physiological Therapeutics*, **17**: 149-155.
10. Lee M, Liversidge K (1994) Posteroanterior stiffness at three locations in the lumbar spine. *Journal of Manipulative and Physiological Therapeutics*. **17**: 511-516.
11. Lee M, Hill S, Scullin J (1994) Ribcage compressibility in living subjects. *Clinical Biomechanics* **9**: 379-380.
12. Refshauge K, Goodsell M, Lee M (1994) The relationship between surface contour and vertebral body measures of upper spine curvature. *Spine* **19**: 2180-2185.
13. Refshauge KM, Goodsell M, Lee M (1994) Consistency of natural cervical and cervicothoracic posture in standing. *Australian Journal of Physiotherapy* **40**: 235-240.
14. Viner A, Lee M (1995) Direction of manual force applied during assessment of stiffness in the lumbosacral spine. *Journal of Manipulative and Physiological Therapeutics* **18**(7): 441-447.
15. Lee M, Kelly D.W., Steven G.P. (1995) A model of spine, ribcage and pelvic responses to a specific lumbar manipulative force in relaxed subjects. *Journal of Biomechanics* **28**: (11) 1403-1408.
16. Latimer J, Goodsell M, Lee M, Maher C, Wilkinson B, Moran C (1996) Evaluation of a new device for measuring responses to posteroanterior forces in a patient population. Part 1: Reliability testing. *Physical Therapy* **76**: 158-165.
17. Latimer J, Lee M, Goodsell M, Maher C, Wilkinson B, Adams R (1996) Instrumented measurement of spinal stiffness. *Manual Therapy* **1**: 204-209.
18. Lee M, Steven GP, Crosbie J, Higgs RJED. (1996) Towards a theory of lumbar mobilisation - the relationship between applied manual force and movements of the spine. *Manual Therapy* **2**: 67-75.

19. Latimer J, Lee M, Adams R. (1996) The effect of training with feedback on physiotherapy students' ability to judge lumbar stiffness. *Manual Therapy* 2: 266-270.
20. Latimer J, Lee M, Adams R, Moran C (1996) An investigation of the relationship between low back pain and lumbar posteroanterior stiffness. *Journal of Manipulative and Physiological Therapeutics* 19:(9) 587-91.
21. Lee M, Latimer J, Maher C (1997) Normal response to large postero-anterior lumbar loads - a case study approach. *Journal of Manipulative and Physiological Therapeutics*. 20 (6): 369-371.
22. Latimer J, Holland M, Lee M, Adams R. (1997) Plinth padding and measures of posteroanterior lumbar stiffness. *Journal of Manipulative & Physiological Therapeutics*. 20 (5): 315-9.
23. Viner A, Lee M, Adams R. (1997) Postero-anterior stiffness in the lumbosacral spine: The relationship of stiffness between adjacent vertebral levels. *Spine*. 22 (23): 2724-2730.
24. Latimer J, Adams R, Lee M (1998) Training with feedback improves judgements of non-biological linear elastic stiffness. *Manual Therapy*. 3 (2): 85-89.
25. Latimer J, Lee M, Adams R (1998) The effects of high and low loading forces on measured values of lumbar stiffness. *Journal of Manipulative and Physiological Therapeutics* 21 (3):157-163.
26. Lee M, Steven GP, Crosbie J, Higgs RJED. (1998) Variations in posteroanterior stiffness in the thoraco-lumbar spine: Preliminary observations and proposed mechanisms. *Physical Therapy*. 78: 1277-1287.
27. Shirley D, Lee M, Ellis E (1999) The relationship between submaximal activity of the lumbar extensor muscles and lumbar posteroanterior stiffness. *Physical Therapy*. 79: 278-285
28. Goodsell M, Lee M, Latimer J. (2000) The short term effects of lumbar posteroanterior mobilization in individuals with low back pain. *Journal of Manipulative and Physiological Therapeutics* 23: 332-42.
29. Caling B, Lee M (2001) Effect of direction of applied mobilisation force on the posteroanterior response in the lumbar spine. *Journal of Manipulative and Physiological Therapeutics*. 24: 71-8.
30. Chansirinukor W, Lee M, Latimer J (2001) Contribution of pelvic rotation to lumbar posteroanterior movement. *Manual Therapy*. 6: 242-249.
31. Shirley D, Ellis E, Lee M (2002) The response of posteroanterior lumbar stiffness to repeated loading. *Manual Therapy*. 7: 19-25.
32. Petty NJ, Maher C, Latimer J, Lee M. (2002) Manual examination of accessory movements--seeking R1. *Manual Therapy*. 7:39-43.
33. Chansirinukor W, Lee M, Latimer J (2003) Contribution of ribcage movement to thoraco-lumbar posteroanterior stiffness. *Journal of Manipulative and Physiological Therapeutics*. 26: 176-183

Conference Proceedings

1. Lee M (1988) Assessment of the glenohumeral joint through passive accessory movements. *Proceedings of symposium "Current Concepts in the Management of Shoulder Region Dysfunction"*, Manipulative Therapists Association of Australia, Sydney, p. 41-46.
2. Lee M, Esler M-A, Mildren J (1989) The effect of extensor muscle activity on the response to physiotherapy in the lumbar spine, in Torode M and Balnave R (Eds) *Motor Disturbances; Mechanisms and Implications for Therapy*. Cumberland College of Health Sciences, Sydney.
3. Lee M, Moseley A, Refshauge K (1989) The use of feedback in teaching joint mobilisation. *Proceedings of the 6th Biennial Conference of the Manipulative Therapists Association of Australia*, Adelaide, p.113-118
4. Lee M, Hill S, Scullin J (1991) In vivo measurement of ribcage stiffness. *Proceedings of the XIIIth International Congress on Biomechanics*, p.537-539.
5. Latimer J, Lee M, Maher C (1991) The effect of manipulation on the stiffness of the thoracic spine - Part A: Normal subjects. *Proceedings of the World Congress of Physical Therapy*, London, 371-373.
6. Maher C, Latimer J, Lee M (1991) The effects of manipulation on the stiffness of the thoracic spine. *Proceedings of the 7th Biennial Conference of the Manipulative Physiotherapists Association of Australia*, pp. 232-237.
7. Viner A, Mackey K, Porter D, Lee M (1991) Perception of stiffness in spinal assessment. *Proceedings of the 7th Biennial Conference of the Manipulative Therapists Association of Australia*, pp. 238-243.
8. Beaumont A, McCrum C, Lee M (1991) The effects of tidal breathing and breath-holding on the postero-anterior stiffness of the lumbar spine. *Proceedings of the 7th Biennial Conference of the Manipulative Therapists Association of Australia*, pp. 244-251.
9. Refshauge K, Goodsell M, Lee M (1992) Measurement of cervicothoracic posture. *Proceedings of 5th International Conference of International Federation of Orthopaedic Manipulative Therapists*, Colorado, 196-199.

10. Shirley D, Lee M (1992) An investigation of the relationship between lumbar spine stiffness and low back pain. *Proceedings of 5th International Conference of International Federation of Orthopaedic Manipulative Therapists*, Colorado, 210.
11. Lee M, Kelly DW, Steven GP (1993) A finite element model to simulate spinal manipulation, in Valliappan S, Pulmano V.A., Tin-Loi F. (Eds) *Computational Mechanics. From Concepts to Computations*. A.A.Balkema, Rotterdam, pp. 1207-1212.
12. Latimer J, Wilkinson B, Tetley I, Maher C, Lee M (1993) A new device for measuring lumbar stiffness in a patient population. (Abstract) *The Art and Science of Physiotherapy*, Hong Kong, p.44.
13. Shirley D, Lee M (1993) The relationship between lumbar extensor muscle activity, low back pain and posteroanterior stiffness. In Singer KP (Ed) *Integrating Approaches. Proceedings of the Eighth Biennial Conference of the Manipulative Physiotherapists Association of Australia*, Perth, pp. 83-87.
14. Latimer J, Maher C, Goodsell M, Lee M (1994) The effect of manipulation on the stiffness of the thoracic region in subjects with thoracic spine pain - a preliminary report. *Proceedings of Symposium of Manipulative Physiotherapists Association of Australia*, Sydney.
15. Latimer J, Maher C, Goodsell M, Lee M (1994) The effect of manipulation on the stiffness of the thoracic region in subjects with thoracic spine pain - a preliminary report, in *The Forgotten Thoracic Spine - Current Concepts in the Assessment and Management of the Thoracic Region*, Manipulative Physiotherapists Association of Australia (NSW Chapter), Sydney.
16. Shirley D, Lee M, Moran C (1995) The electromyographic response of lumbar extensor muscles to an applied PA force. *Proceedings of 12th International Congress of World Confederation for Physical Therapy*, Washington, p. 79.
17. Goodsell M, Lee M (1995) The effect of spinal mobilisation on pain and range of motion in patients with low back pain. *Proceedings of 12th International Congress of World Confederation for Physical Therapy*, Washington, p. 945.
18. Lee M (1995) Mechanics of lumbar mobilisation. *Proceedings of 9th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Gold Coast, pp. 84-85.
19. Lee M, Kelly DW, Steven GP (1995) A model of lumbar mobilisation. *Proceedings of 9th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Gold Coast, pp. 86-87.
20. Viner A, Lee M (1995) Direction of manual force applied during assessment of stiffness in the lumbosacral spine. *Proceedings of 9th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Gold Coast, pp. 157-158.
21. Latimer J, Lee M, Moran C. (1995) An investigation of the relationship between low back pain and lumbar posteroanterior stiffness. *Proceedings of 9th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Gold Coast, pp. 72-73.
22. Shirley D, Lee M. (1995) Muscle activity as a possible contributing factor to lumbar posteroanterior stiffness. *Proceedings of 9th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Gold Coast, pp. 145-146.
23. Lee M, Kelly DW, Steven GP (1996) Lumbar spine manual therapy: Effect of choice of target vertebra. *Proceedings of the First Australasian Biomechanics Conference*, Sydney, pp: 104-105.
24. Shirley D, Lee M, Ellis E (1997): Clinical implications of the behaviour of properties of lumbar spine PA stiffness with repeated loading. *Proceedings of 10th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Melbourne, pp196-198.
25. Latimer J, Adams R, Lee M (1997): Teaching physiotherapy students to judge stiffness: an overview of two studies. *Proceedings of 10th Biennial Conference of the Manipulative Physiotherapists Association of Australia* MPAA, Melbourne, pp97-98.
26. Lee, M, Steven GP (1998) Modelling the trunk responses to lumbar manipulative forces. Middleton J, Jones ML, Pande GN (Eds) *Computer Methods in Biomechanics and Biomedical Engineering - 2*, Gordon and Breach Science Publishers, Amsterdam, pp: 371-378.
27. Ogata Y, Lee M, Sinclair P, Maher C (1999). Skin displacement during measurement of lumbar/thoracic movements. *Proceedings of the 13th International Congress of the World Confederation for Physical Therapy*, WCPT, Yokohama, p.162.
28. Shirley D, Lee M, Ellis E (1999). The response of the lumbar spine to repeated postero-anterior loading. *Proceedings of the 13th International Congress of the World Confederation for Physical Therapy*, WCPT, Yokohama, p. 182.
29. Chansirinukor W, Lee M, Latimer J (2000) Effect of pelvic rotation on lumbar posteroanterior stiffness. *Proceedings of the Sixth International Physiotherapy Congress*, Australian Physiotherapy Association, Canberra, 24-27 May, pp. 219-220.

- Hunt AE, Smith RM, Lee M (2001) Ankle joint moments during walking in normal and symptomatic pes planus males. *XVIIIth Congress of the International Society of Biomechanics*, Zurich, 8-13 July, p. 305

Books/Chapters

- Lee M (1997), *Dynamics of the Human Body* (4th Edn) Zygal, Sydney.
- Lee M (1999) *Introduction to the Analysis of Human Movement* (3rd Edn) Zygal, Sydney.
- Lee M (1995) Biomechanics of Joint Movements, in Refshauge K, Gass E. (Eds) *Musculoskeletal Physiotherapy: Clinical Science and Practice*. Butterworth-Heinemann, pp. 19-23.
- Lee M, Gilleard W, Sinclair P, Smith R, Swain D (Eds) (1996) *Proceedings of the First Australasian Biomechanics Conference*, Sydney.
- Lee M, Gal J, Herzog W (2000) Biomechanics of Manual Therapy, in Dvir Z (Ed) *Clinical Biomechanics*. Churchill Livingstone, New York, pp. 209-238.

Miscellaneous published material

- Lee M. (1992) Terminology may be inappropriate. [Letter to the editor.] *Australian Journal of Physiotherapy* 38: 311-313.
- Lee M. (1993) The manual therapists' dilemma...continued. [Letter to the editor.] *Australian Journal of Physiotherapy* 39: 59.
- Maher C, Lee M (1995) Spinal models [Letter to the editor] *Physical Therapy*. 75: 638-639.

Unpublished Presentations

Lee M. (1997) Mechanical aspects of lumbar mobilisation. *National Physiotherapy Students Symposium*, Sydney.

Research Grants

- 1988 - \$2520 - **Cumberland College Research Grant** for: Lee M, *Response of the spine to a physiotherapy procedure in normal subjects.*
- 1991 - \$1885 - **Cumberland College Research Grant** for: Lee M, Barry K, Goodsell M, *A device to measure the strength of the muscles of the pelvic floor.*
- 1992 - \$3800 - **University of Sydney Research Grant** for Lee M, *Model analysis of effect of intervertebral restrictions on lumbar postero-anterior movement.*
- 1992 - \$2000 - **Cumberland College Research Grant** for Maher C, Lee M, Latimer J, *The effect of manipulation on thoracic spine stiffness.*
- 1992 - \$2200 - **University of Sydney Research Grant** for Maher C, Lee M, Latimer J for *The effect of manipulation on the PA stiffness of the thoracic spine; Part B: Symptomatic subjects.*
- 1992 - \$4800 - **University of Sydney National Staff Development Fund Grant** for Lee M, Steven GP for *Model Analysis of the Effect of Intervertebral Restrictions on Lumbar Postero-anterior Movement: Model Development, Evaluation and Simulation of the Effect of Joint Stiffness Variations*
- 1993 - \$7000 - **University of Sydney Research Grant** for Lee M, in association with Steven GP, for *Evaluation of the accuracy of model predictions of responses to manipulative forces*
- 1993 - \$10 337 - **University of Sydney Mechanism B Grant** for Lee M, Steven GP for *A Theoretical Investigation of the Clinical Relevance of Non-linear Responses to Lumbar Spine Manipulative Forces.*
- 1995 - \$6000 - **Cumberland Research Grant** for Lee M. for *Determinants of the normal responses to spinal postero-anterior forces.*

Invited Keynote Speaker

Manipulative Physiotherapists Association of Australia 9th Biennial Conference, Gold Coast, Queensland, 1995. Presented keynote address and additional paper and seminar (with J.Latimer, C.Maher, and D.Shirley): *Biomechanical and perceptual aspects of manipulative therapy techniques*

Conference Organisation

Scientific Committee, World Congress of Physical Therapy, Sydney, 1988

Scientific Program Coordinator, First Australasian Biomechanics Conference, Sydney, 1996

Higher degree theses examined

- Master of Applied Science, University of Sydney, 1998
- Master of Manipulative Physiotherapy, La Trobe University, 1996
- Master of Biomedical Engineering, University of NSW, 1993

External Grant Reviews

Australian Sports Commission, 1992
Physiotherapy Research Foundation, 1994
Physiotherapy Research Foundation, 1999
Physiotherapy Research Foundation, 1999

Journal Article Reviewer

Physiotherapy Theory and Practice, 1994
Manual Therapy, 1997 - 2002
Spine, 1998 – 2002
Australian Journal of Physiotherapy, 2000

Post-graduate research student supervision

Masters:

Michalene Goodsell
1992-1996
The short term effect of spinal mobilisation on posteroanterior stiffness, pain and range of movement in individuals with low back pain.

Alison Viner
1992-1997
Posteroanterior stiffness in the lumbosacral spine. The relationship between stiffness at adjacent intervertebral levels.

Kim Gerber
2001- 2003
Effect on female trunk muscles when wearing a baby pouch on the front.

PhD :

Adrienne Hunt (Associate Supervisor)
August 2000 – December 2001
Control/Dynamics of the foot and ankle during walking

Wunpen Chansirinukor
1998- 2001 (Transferred candidature to School of Physiotherapy 2001)
Some mechanisms involved in determining the responses to lumbar spine mobilisation

Yoetsu Ogata
1997- 2007 (withdrawn 2007)
Lumbar rotation manipulative treatment

Debra Shirley (Associate Supervisor)
1990- 2002 (converted from Masters in 1993)
Posteroanterior stiffness in subjects with low back pain - the influence of muscle activation.

Jane Latimer (Associate Supervisor)
1992-1997 (converted from Masters in 1995)
An investigation of the relationship between low back pain and lumbar stiffness

Attended Post-Graduate Supervision Workshop, University of Sydney Centre for Teaching and Learning, November, 1994.

Administration

1996	Chair of the Board of the Department of Biomedical Sciences
1995/6	World Wide Web Manager for Dep't of Biomedical Sciences
1997-2002	Chair of the meetings of the Board of the School of Exercise & Sport Science and of the Staff of the School
1997-2002	World Wide Web Manager for School of Exercise & Sport Science
1997-2000	Cumberland Advisory Committee on Equity (Acting Chair latter 1998, Chair 1999)
1997-2002	School of Exercise & Sport Science Academic Liaison Officer

1997, June-Dec

Faculty Disability/Access Committee

1997-2002

Alternate representative to Faculty Undergraduate Studies Committee

1997-2002

Alternate representative to Faculty Research Committee

1999-2002

Member of University's Equity Advisory Committee