Curriculum Vitae

CLINICAL PROFESSOR STEVEN C. BOYAGES

8 February 2012

STEVEN C. BOYAGES MB BS DDU FRACP FAFPHM PhD

Clinical Professor The University of Sydney Clinical Professor University of Western Sydney Director Menzies Centre for Health Research Chairman Global Health Institute Board Member Industry Training Advisory Board

ACADEMIC SUMMARY

Number of Papers: 117 Number of Citations: 2285 h-index: 26.

PRESENT POSITION

Chief Executive, Clinical Education and Training Institute (CETI) Senior Executive Service Level 7

IMMEDIATE PAST POSITIONS:

Professional Appointments

- Chief Executive, Sydney West Area Health Service Key Dimensions of the position Number of staff: 19,373 Gross operating budget: \$2,100 million dollars per annum Value of Capital Assets: \$1, 700 million dollars Responsible for 12 major acute care facilities, and 30 community health centres Population coverage: 1.2 million people
- Administrator, Western Sydney and Wentworth Area Health Services, July 2004-31/12/2004
- Chief Executive Officer, Western Sydney Area Health Service (WSAHS) 2002-2004
- Director, Clinical Operation, Western Sydney Area Health Service (WSAHS) 2001
- Acting Chief Health Officer NSW Health, July-August 2001
- Director, Centre for Research and Clinical Policy, NSW Health; 1999-October 2001
- Clinical Advisor to the Director General for the implementation of the Government Action Plan for Health 2000-2001
- Director, Department of Diabetes and Endocrinology
- Chairman, Western Sydney Area Diabetes Service
- Chairman, Diabetes West
- Clinical Stream Leader, Chronic and Continuing Medical Services, Western Sydney Area Health Service

Academic Appointments

•Clinical Associate Professor, Faculty of Medicine, University of Sydney 1995 •Part-Time Clinical Lecturer, Faculty of Health Sciences, University of Western Sydney.

Current and Past Honorary Appointments

Current

- Member, Medical Training and Education Council
- Member, for Chronic, Complex and Aged Care
- Member, Peak Information Management and Technology Executive Committee
- Member, Health Priority Task Force for Sustainable Access
- Senior Executive Advisory Board, NSW Health
- Member, Industrial Advisory Group, NSW Health
- Sydney West Area Health Advisory Council
- Member, Tasmanian Thyroid Advisory Committee
- Chair, Global Health Institute (GHI) Council
- Member, International Council on Flour Fortification Initiative
- Member, National Diabetes Strategy Group

Past Honorary Appointments

- Ministerial Advisory Committee to review health services in Tasmania (2004)
- Member of the executive Greater Metropolitan Transition Taskforce (GMTT²)
- Chair, Cabinet Interdepartmental group for Biotechnology strategy
- Member, Cabinet Committee on the Medical Uses of Cannabis
- Member, Ministerial Advisory Committee for Biotechnology
- Member, Ministerial Advisory Committee for Quality
- Member, Ministerial Advisory Committee for Health Workforce
- Chair, States Commonwealth Research Issues Forum
- Member, National Health Priorities Action Council
- Member, Clinical Council, NSW Health
- Co-chair, Chronic and Complex Health Care Implementation Group
- Member, Metropolitan Services Implementation Group
- Member, Teaching and Research Implementation Group
- Member, Models of Care Implementation Group
- Senior Departmental Officer, Information Management Implementation Group
- Chairman, Asia-Pacific Committee, RACP (completed end 2000)
- Chairman, Statewide Health Confidentiality and Ethics Committee, NSW Health
- Chairman, Health Information Exchange Committee, DOH, NSW Health
- Council Member, Royal Australasian College of Physicians
- Member, Adult Division of Medicine, RACP (completed end 2000)
- Member, Registration Committee, NSW Medical Board
- Member, National Health Advisory Council, NHMRC (completed end 2000)
- Member, National Health Priority Action Council, Executive

MAJOR PRIZES AIDAB Gold Award Iodine Deficiency Project, China 1988 Daichii Prize for scientific achievement (1997) Asia Oceania Thyroid Association, Osaka, Japan Healthy Hospital Award, Patient Care, October 1998

DEGREES AND DIPLOMAS:

•1980 M.B., B.S. (HONOURS II). University Of Sydney.

•1985 DIPLOMA OF DIAGNOSTIC ULTRASOUND (DDU). Australian Society of Ultrasound in Medicine.

•1990 DOCTOR OF PHILOSOPHY. UNIVERSITY OF SYDNEY. "Endemic Cretinism: Definition, pathogenesis and treatment"

HIGHER QUALIFICATIONS

•1986 Fellow Royal Australasian College Of Physicians (FRACP)

•1993 Fellow Australian Faculty Of Public Health Medicine (FAFPHM).

Career Highlights that demonstrate skills and attributes of the position

Career Highlights that demonstrate key accountabilities skills and attributes of the position

Clinical Leadership Analytical, conceptual and problem solving skills

1. Awarded highest academic achievement for the FRACP Part 1 examination

2. Appointed Director Department of Diabetes and Endocrinology in 1990 and during that time established an internationally recognised clinical and academic unit in the areas of diabetes, thyroid and pituitary disorders.

3. Recognised as an international authority on thyroid disease and brain development, in particular iodine deficiency disorders. These scientific activities including basic and epidemiological research over the last 20 years have led to new insights into the importance of maternal thyroid hormone for normal fetal brain development. This research has led to recommendations for iodine supplementation in many communities, including China, Indonesia, India, Italy and most recently Australia. This research is current and has led to the first ever National Iodine Nutrition Survey in Australia. This work has helped formulate views on the importance of a population health approach to endemic health conditions. I am only one of 2 Australian authors in the recently released edition of the most respected textbook of thyroidology, Thyroid. I have written over 150 research articles.

4. Epidemiological and population approaches applied to other micronutrient disorders such as folic acid deficiency. This approach includes innovative linkages with industry.

5. Designed innovative models of service delivery for diabetes and other chronic disorders. Established NSW Health Chronic Disease Strategy and negotiated with treasury for recurrent funding of \$15 million per annum.

6. Led the planning and writing for the National Service Improvement Frameworks for Diabetes and Cardiovascular Disease (2005).

7. I have supervised 12 postgraduate students

8. I have held numerous senior executive positions in academic, research, clinical and management roles.

9. I have chaired area-based, state, national and international groups to lead implementation, introduce change, develop policy, and set strategic direction.

Planning and Policy Experience in diverse large scale operations Ability to lead change management processes Outstanding leadership qualities Management skills to lead a large division

10. Established the first area wide integrated diabetes service structure in Australia. This required high level communication skills with General Practitioners, Aboriginal Medical Services, Nursing Services and Allied Health as well as service providers to achieve this objective. This platform was then successful in the establishment of the DiabetesWest project, funded jointly by the Commonwealth and State health departments. I have assisted ACT Health in the formulation, implementation and monitoring of their integrated Diabetes services. I have been asked by SA Health to assist in the development of integrated clinical services.

11. Formulated and assisted in the introduction of area wide clinical streams in Western Sydney. This process took 2 years of difficult negotiation with clinicians and other stakeholders. Subsequently, I have been involved in further organisational reform at Western Sydney as well as acting as a resource person to other AHS. I have recently presented to Mid North Coast AHS on the principles of clinical streaming. I have also provided advice to WA Health on clinical services streaming and integration.

12. Appointed as the first clinical stream leader for chronic and complex health care in Australia. Established area wide coordination structures and integrated 8 clinical services area wide. Developed principles of chronic disease management that have now been progressed into the statewide strategy. I had tactical responsibility for 108 clinical staff in the stream.

13. Conceptualized, designed, facilitated the development of the \$45 million chronic and complex care strategy for NSW Health.

Wide knowledge of contemporary international trends in health care

14. The scope and importance of these activities has been recognised internationally. I was invited as a keynote speaker to the International Forum on Diabetes Outcomes Research (IFDOR) and remain as a key advisor to the forum.

15. I had chaired the implementation committee of a major AUSAID project for services in PNG, MONAHP.

16. Appointed member Rural Clinical School of the University of Sydney. In this position I had formulated strategy for the clinical development of the clinical school at Broken Hill. I have spent several weeks in the Far West Area Health Service liaising with clinicians, aboriginal medical service, public health unit and management to develop strategies to improve education and teaching, research and chronic disease management.

17. Invited speakers to numerous forums, national and international on a wide range of health policy matters, in particular health services research, information technology, health technology, chronic and complex health care systems.

Wide Experience in Policy Development & Service Planning Processes

18. Appointed medical stream leader for the structural efficiency principle (SEP) NSW Health (1990). Negotiated with industrial organisations, area health services and clinicians to achieve implementation strategy.

19. Appointed Chairman of the NSW Committee of College Chairmen. As Chairman liaised with NSW Health and ministers

- 20. Elected Chairman NSW State Committee RACP
- 21. Elected Council and Adult Division Member, RACP
- 22. Appointed, Health Advisory Committee, NHMRC
- 23. Appointed Priority Setting Committee, SRDC of NHMRC

24. In these positions I have worked actively with Commonwealth and State Health Departments on a range of policy and service planning issues. For example, in the areas of mental health, aboriginal health, complementary medicine, pressure ulcer prevention, quality and patient safety, anabolic steroid abuse, infectious disease management guidelines, diabetes, cardiovascular disease, asthma and the general development of guidelines through NHMRC. I have also been actively involved in the process of priority setting for health services research.

25. Established State Commonwealth Research Issues Forum (SCRIF), a key subcommittee of AHMAC responsible for Priority Driven Research Program. As chair of SCRIF I successfully negotiated and secured funding for PDR (\$15 million dollars).

Detailed knowledge of the Australian and New South Wales Health Systems Knowledge of the structure and process in Australia and New South Wales.

26. As Director, for the Centre of Research and Clinical Policy I have had detailed exposure and first hand knowledge of the workings of the various health systems of Australia and of the government processes. During this position I had also completed the Australian and New Zealand Health Leadership Program that allowed me to develop local contacts in each state and the Commonwealth, as well as observing directly the successes and short comings of respective health care systems. I sit on senior state health committees as well as senior national health committees.

27. As Director of CRCP I had extensive involvement in the policy setting and implementation of strategies related to education and training, research and development and clinical service development.

Active teacher and postgraduate supervisor

28. Despite limited time due to the heavy demands of the administrative role as CE, I continue to actively teach. I contribute to endocrine teaching at the Western Clinical School as well as postgraduate teaching to registrars. I continue to undertake regular teaching sessions for General Practitioners at least once per month.

29. I continue to supervise PhD students in the research domains of diabetes and cytochrome P450 polymorphism.

30. Strong advocate for education, teaching and Research within the AHS and a state level. Member of the Medical Training and Education Council.

Key Outputs in the last 8 yrs as CEO of Western Sydney Area Health Service and CE of Sydney West Area Health Service

- successfully managed the transition from 2 area health services into a new larger AHS.
- Developed a new organisational structure that promotes clinical networking
- promoted a patient centred organisational structure for Western Sydney that divides the organisation into 17 clinical streams rather than hospital based structures
- enhanced linkage with General Practice and Primary Care
- promoted the development of research and established new research centres, eg Centre for Research into Adolescent Health (CRASH), the Diversity Health Institute (DHI), and HealthCITE (Health Centre for IT Excellence)
- established an education stream
- created a Directorate for Clinical Systems and Quality
- developed a robust set of board indicators for quality
- developing a set of KPIs for all clinical streams
- established effective communication systems for all staff
- maintained excellent financial performance indicators
- achieved all key objectives of performance contract
- spearheaded major innovations in Health IT infrastructure, hardware and applications
- Developed state and national systems for business intelligence tools
- Over sighted major capital works across al major facilities
- Developed new models of care such as OPERA, SARA, MAU

Key Outputs in the 2 years as Director Centre for Research and Clinical Policy, NSW Health

Research

- Doubled the research infrastructure budget to \$18.5 million per year
- Increased the research moiety to 65c in the dollar for stream 1 institutes
- Negotiated with key stakeholders for the development of research clusters and hubs
- Developed a framework for funding capital development for research institutes
- Established a heath sector specific Intellectual Property Unit in NSW Health, IP health.
- Established the States/Commonwealth Research Issues Forum (SCRIF)
- Negotiated with the Commonwealth to appoint SCRIF as the management board for priority driven research
- Developed mechanisms to determine priorities for PDR funding
- Activated the NSW Cabinet subcommittee on biotechnology
- Led the Cabinet interdepartmental group to develop the biotechnology strategy, *BioFirst* for the state of NSW.
- Implemented Round 2 of Streams 1,2,& 3 for Infrastructure funding for Research and Development
- Chaired and streamlined procedures for the State Health Confidentiality & Ethics Committee.

Medical Education and Training

- Developed the Vocational Training Framework for medical workforce
- Established the Medical Training and Education Council
- Negotiated with key colleges the implementation of changes to medical training structures
- Facilitated implementation and change workshops for the establishment of MTEC
- Worked with the commonwealth to facilitate new concepts of medical education and training
- Worked with the Commonwealth on a pilot study for training in the private sector
- Presented at international medical workforce conference
- Led policy development on Area of Need and medical board reform for processes of conditional registration
- Acted as a resource person for advice to the NSW postgraduate medical council
- Provided advice for the location and nature of rural clinical schools

Quality and Clinical Policy

- Implemented recommendations to establish a Quality Branch in NSW Health
- Appointed the Director of the Quality Branch
- Secured budget for the Quality Branch
- Streamlined processes for SCIDUA and SCIDAWS
- Supported the maternal and perinatal committees
- Established guidelines for pressure ulcer prevention
- Established guidelines for gastroenteritis management in children
- Developed policy and legislation for complementary health practitioners
- Assisted in the drafting of circulars for drug medication.
- Overseen the policy development for blood and blood products

Information Management

- Led the development of the Chronic Disease Management System (CDMS) with HIC and IBM Health
- Was the senior departmental officer to oversight the implementation of the IM&T strategy
- Negotiated that the CDMS be the first prototype for the EHR strategy

- Participated in negotiations with Health Connect
- Worked with leaders of the NSW TeleHealth initiative
- Participated in Information Strategy workshops

Chronic and Complex Care

- Developed a Chronic Disease Framework for service redevelopment for people with chronic and complex health care needs
- Designed the implementation matrix for the Government Action Plan for Health
- Established Coordinated Care Trial, Connect, in three Area health Services
- Launched patient guidelines for cardiac rehabilitation and stroke services
- Launched, implemented, rolled out and developed evaluation systems for chronic and complex care strategy
- Negotiated with treasury for funding to be secured for the chronic and complex care strategy.

REFEREES

1. **Professor Stephen Leeder, Chairman Western Sydney Local Health District,** Director Menzies Centre for Health Policy, Faculty of Medicine, University of Sydney. Email: <u>Stephen.leeder@sydney.edu.au</u>

2. **Professor Glen Maberly**, Director Centre for Health Innovation and Partnership, Western Sydney formerly Professor of International Health, University of Emory, Atlanta, USA. Email: <u>Glen_maberly@wsahs.nsw.gov.au</u>

3. **Dr Mark Dexter**, Head of Neurosurgical Services, Westmead Hospital, Westmead. Email: Mark.Dexter@swahs.health.nsw.gov.au

4. **Professor Hemmo A. Drexhage**, Professor of Immunology, Erasmus University, Rotterdam, The Netherlands, PO Box 1738 3000 DR; Telephone: (10) 408 8093; Fax: 010-4362841.

5. **Professor Janice Reid**, Vice Chancellor, University of Western Sydney. Email: <u>vc@uws.edu.au</u>

6. **Professor Bruce Barraclough**, Dean of Education, The Royal Australasian College of Surgeons. Email: <u>bbarra@ozemail.com.au</u>

7. **Professor Bruce Robinson**, Dean of the Faculty of Medicine, The University of Sydney. Email: <u>bgr@med.usyd.edu.au</u>

8. **Mr Alber Goller**, Managing Director Siemens Australia. Email: <u>albert.goller@siemens.com</u>

9. The Right Honourable **Morris lemma**, Chairman of the South Eastern Sydney Local Health District, Chairman of the Cancer Institute, formerly Premier of NSW.

MANAGEMENT TRAINING

| 1990 | RACMA SYMPOSIUM, November 1990, |
|------|--|
| | Management for Clinicians. |
| 1991 | Management For Clinicians Course, University |
| | Of Western Sydney And Westmead Hospital |
| 1991 | ACHS QUALITY MANAGEMENT COURSE 2 |
| 1996 | COVEY LEADERHIP COURSE |
| 1997 | Quality Workshop, WSAHS, November 1997 |
| 1997 | Programme Budgeting and Marginal Analysis Workshop, 1997 |
| 1998 | - |
| 1999 | Australian and New Zealand Health Leadership Program |
| 2000 | Advisory Committee, Management for Clinicians Program |
| 2001 | Web Authoring Course |
| 2003 | Media Training |
| | |

| DATE 1999 | LOCATION | PRESENTATION |
|--------------|---|---|
| 15 April | Royal Hospital for Women | Teaching for Research into Practice Module |
| 13 May | Perth | Integrated Diabetes Systems |
| 1 June | Aged Care Forum, Level 11 | The Future of Aged Care |
| 3 June | Wagga Gilmore Centre | Clinical Research Workshop |
| 9 June | Mt Druitt Branch of Diabetes Conference Room Mt Druitt | Patient Education session |
| 9 July | Future Directions for Health Panel, Novotel Brighton Beach | Clinical Governance |
| 16 July | Bowral | Diabetes Disease Management |
| 21 July | Integrating the Elements - Rydges Lakeside | Health Outcomes Conference |
| 22 July | Diabetes Australia, Glebe | Future Therapies |
| 5 August | Nursing Unit Managers Forum Swiss Grand Hotel. Bondi | Quality & Clinical Care |
| 14 August | ACRA 9th Annual Conference Panthers Convention Centre, Penrith | Diabetes and Cardiac Rehabilitation |
| 16 August | SESAHS Dolls Point | Future Directions for Research |
| 18 August | Tony Cunningham, Westmead | Future Directions for Research |
| 19 August | Southern Highlands Divisions of General practice | Initiation & Insulin therapy in patients with Type 2 Diabetes |
| 23 August | Sam Breit, Immunology Grand Rounds | Future Directions for Research |
| 24 August | Bayer International Conference Carlton Crest Haymarket | Urine screening for micro albumin |
| 24 | New Dimensions in Type 2 | |

RECENT INVITED PRESENTATIONS

| August | Diabetes Symposium, Star City | |
|---------|--|---|
| 16 Sept | Health Council, Level 11 | Chronic Disease Management |
| 17 Sept | International Clinical Trials Symposium, Sydney Hilton | Role of Government for Clinical Trials |
| 8 Oct | Allied Health Alliance, St George Community Centre | Integrated Care Systems |
| 8 Oct | Health Care Research & Practice Conference, Uni Sydney | Shifting health care dollars? |

| Date 2000 | Place | Presentation |
|-------------|------------------------------|---|
| 1 February | Diabetes Australia | part of expert panel for TV interview |
| 3 February | Facilitator | Western Sydney Multicultural health Strategic Planning Workshop |
| 8 February | Port Macquarie | Clinical Streaming Workshop, invited by Area Executive |
| 11 February | Coffs Harbour | NSW Institute Nurse Executive Workshop - Clinical Governance |
| 29 February | Organ Donation | Opening of Organ Donation |
| 4 April | Motor Neurone | Opening of Motor Neurone Disease + Blue Day at Concord Repatriation Hospital |
| 4 April | Health Informatics | Health Informatics Association El Rancho Hotel Marsfield |
| May | Hellenic Diaspora Conference | Invited Guest of the Greek Government |
| 12 May | Copenhagen | The International Forum for Diabetes Outcome Research- Building Better health Care Systems to Improve Outcomes for people with chronic & Complex Health Care Needs |
| 23 May | CCAHS | Divisional Business Planning Workshop How can Central Coast Health Better Manage the Chronic Conditions of Cardiovascular Disease, Respiratory Illness & Cancer |
| 1 June | Sydney | Aushealth International - VIP |

| | | Delegation from China - A State Perspective on Community Health |
|-------------|---------------------------|---|
| 6 June | Sydney | Presentation - GPAC Mtg - Sydney Hospital Board Room |
| 16 June | Westmead | Presentation to Cancer Stream Executive Group - as Div of Medicine |
| 20 June | Wentworth Area Board Room | Participation in a rural Clinical School workshop |
| 24 June | Bankstown | Divisional General Practice |
| 25 June | Maroochydore | NovoNorm Launch Scientific Program Presenting - Key Messages |
| 27 June | University of Sydney | Education Committee for the Cardiac Rehabilitation Association - How disadvantage is being addressed at a government policy level |
| 28 June | Sydney | GHAAP Seminar, Grace Hotel, The NSW GAP for Health - Clinical Governance in relation to Chronic Care |
| 10 July | Westmead | Peak Nursing Forum, |
| 15 July | Victoria | Physicians Postgraduate Meeting - Presentation on Metabolic Syndrome and to moderate a case study |
| 27 July | College of Nursing | Open Forum for Nurses, To Open and Present - Update on GAP |
| 31 July | Sydney | Clinical Council Meeting - SB and RP |
| 2 August | Canberra | International Health Outcomes Conference 2000 - 6th Annual Conference - Integrated Diabetes Services - Building better health care systems to improve outcomes for people with chronic and complex health care needs Panel discussion : National Health Priorities Areas : Do they make a difference to health Outcomes |
| 1 September | Sydney | 10th Annual St Vincents Campus One Day Symposium - Keynote speaker |
| | | |

| 7 September | Penrith, Nepean Hospital | Chronic Complex presentation |
|-------------|---|---|
| 12 October | Landmark Parkroyal | MTEC - Postgraduate Medical Council Symposium |
| 13 October | Sydney Le Meriden | Diabetes in the 21 st Century - towards more physiological control |
| 2 November | Sydney | NSW Telehealth Symposium - How Telehealth would support Chronic Care - Stamford Sydney Airport Mascot |
| 16 November | The Rocks | 5th International Medical Workforce Conference - ANA Hotel, "Dilemmas around the Junior Medical Workforce" |
| 20 November | Canberra | The Future of Specialist Medical Training - MTEC |
| 8 December | NSW CC Taronga Park Zoo | NSW Health Departments Policy and Plans for Clinical Trials Infrastructure |
| 14 December | Kempsey | Government Action Plan with an emphasis on Chronic Care. Invited Speaker to Annual General Meeting |
| DATE 2001 | Venue | Presentation |
| 22 March | National Demonstration Hospitals Program – Integrating Results NDHP3, Darling Harbour | Management of Chronic Illness |
| 3 April | Motor Neurone Conference, Main Lecture Theatre, Concord Hospital | NSW Health & progress of Chronic & Complex Care |
| 15 May | Royal Australasian College of Physicians 2001, Novotel Darling Harbour, | Abnormal Thyroid Function Tests |
| 25 May | University of Technology, Eton Road, Lindfield | Masters Group Presentation The Politics of Chronic Care |
| 30 May | AHMAC | Priority Driven Research |
| 18 December | Chinese Health Delegation, Westmead Hospital | |

| DATE 2002 | Venue | Presentation |
|-------------|--|---|
| 14 February | Auburn Hospital | The New Structure for Quality |
| 13 February | Doctoral Candidates, Lindfield UTS Campus | Politics of Chronic and Complex Care |

| 13 March | Parramatta Leagues Club | Thyroid |
|----------|---|---|
| 14 March | NSW HFA Conference, Hotel Nikko, Sydney | |
| 23 March | Nuclear Medicine, Westmead Hospital | Neuroendocrine Tumours |
| 27 March | Australian Pain Society, Sydney Convention Centre, Darling Harbour | |
| 6 April | Endocrine Society Annual Seminar, Hobart | lodine Deficiency – A continuum of Neurological Damage |
| 9 April | Community Care Conference, Wentworth Hotel, Sydney | |
| 9 April | Post Graduate Education, Sydney University | Pregnancy/ Physiology and Medical Complications/Endocrinology Diabetes and Thyroid Disease in Pregnancy |
| 10 April | Breakfast Forum, Westmead Hospital | |
| 17 April | Third Year Medical Students, Westmead Hospital | Thyroid Swellings |
| 30 April | The role of ciglatozones in the management of type 2 diabetes | Avandia |
| 3 May | Mt Druitt Health, Mt Druitt Shopping Centre | Launch of Heart Awareness |
| 3 May | Australian College of Health Service Executive Conference, Novotel, Brighton Le Sands | |
| 10 May | International Cardiac Rehabilitation, Wentworth Hotel, Sydney | |
| 14 May | Abbott Pharmaceuticals, Courtney's Brasserie, Parramatta | Reductil Presentation |
| 30 May | WSAHS Community Health Services Planning Day, Blacktown Hospital | WSAHS "vision" for quality |
| 28 June | Westmead Hospital | Opening of RMO's quarters |
| 8 August | Telehealth Symposium, Stamford Airport Hotel, Mascot | From the Ward to the Board: Role of Telehealth |

| 31 August | Northern Rivers Area Health Service Board Education/Evaluation Workshop, Ballina | |
|---------------------|---|---|
| 25 September | ESA & SRB Annual Scientific Meeting, Adelaide | |
| 2 October | ETS and Kids Campaign, Parramatta | Keynote Speaker |
| 3 October | Learning and Development Cumberland Hospital | Opening Frontline Management Course |
| 14 October | Disease Management Association, Millennium Hotel, Sydney | Disease Management Approach: Adopting Guidelines for Clinical Areas – Case Study |
| 15 October | Birmingham Delegation, Westmead Hospital | |
| 18 October | HCF Board Executive Management Conference, Bowral | Chronic Disease Management – trends and directions in Australia and the implications for health funds |
| 29 October | Australian College of Health Services Executives, Northern Sydney Education Centre, North Ryde | Clinical Involvement in the Management of Health Services – lessons and benefits from the Western Sydney Model |
| DATE 2003 | Venue | Presentation |
| 16 May 2003 | Westmead International Update: Controversies in Perinatal Care | Iodine deficiency in pregnancy and childhood: an insult to Australian Children's intelligence? |
| 24 July 2003 | Ambulatory Care Australia's Acute Care Disease Management Conference. (Melbourne) | |
| 7 August 2003 | Royal North Shore Hospital Breakfast Forum – Information Technology | "Riding the Technology Wave" |
| 8 August 2003 | HIMAA - Health Information Management Association of Australia (Sydney) | |
| 12 August 2003 | HIC 2003 (Sydney) | "Building Strategic Relationships to Deliver IT Strategies" |
| 1 Sept 2003 | NSW Telehealth Initiative Symposium 2003 (Sydney) | Key Speaker |
| 5 October 2003 | Australian Arabic Medical Association Conference (Sydney) | "Diabetes Update" |
| 8 October 2003 | University of Sydney Foundation for Information Technology (Sydney) | |
| 27 November 2003 | AFR Summitt (Sydney) | "Wirelss Communications within Australian Hospitals" |

| DATE 2004 | Venue | Presentation |
|---------------|---|--|
| 5 February | Wi-Fi Technology Conference | "Wi Fi Solutions within Australian |
| 2004 | (Sydney) | Healthcare" |
| 13 February | 2 nd National Disease Management | |
| 2004 | Conference (Singapore) | |
| 21 February | 13 th Annual Health Informatics in | |
| 2004 | NSW (Hunter Valley) | |
| 26 February | Management of Chronic and | "Improving Clinical Care for |
| 2004 | Complex Diseases (Perth) ARCHI | Chronic and Complex Disease in NSW" |
| 3 March 2004 | Australian Wireless Summitt | "Wireless in Health Care |
| | (Sydney) | Environment Lessons Learnt from |
| | | Earlier Doctors" |
| 30 March 2004 | M-Health Conference (Sydney) | "Reaping the Benefits of |
| | | Developing WiFi Technology & |
| | | Architecture" |
| 1 May 2004 | AMA Clinical Conference (Lisbon) | |
| 10 May 2004 | Priority Research for Policy Making | |
| | Project (Sydney) | |
| 13 July 2004 | Diabetic Management & | "Lipitor and Cards Clinical Trials" |
| | Cholestoral Lowering (Sydney) | |
| 26 July 2004 | Australian Telecommunication | "21 st Century Healthcare and the |
| | Summitt 2004 (Sydney) | role of ICT Technology" |

Media Interviews (Television, Radio, Newspaper and Magazines)

| DATE | LOCATION | DISCUSSION TOPIC |
|------|-------------|---|
| | Radio - SBS | Discussions on Migrant Wards and Global Health Institute. |

CLINICAL AND TEACHING APPOINTMENTS ACADEMIC RECORD OTHER MANAGEMENT ACTIVITIES

| CLINICAL AN | ID TEACHING | APPOINTMENTS |
|-------------|-------------|---------------------|
|-------------|-------------|---------------------|

| YEAR | APPOINTMENTS |
|------------------------|--|
| March 2002-Present Day | Visiting Medical Practitioner Endocrinology Westmead Hospital |
| 2001- March 2002 | Visiting Medical Practitioner Endocrinology Westmead Hospital |
| 1999-2001 | Staff Specialist on secondment to NSW Health |
| 1998-1999 | Clinical Stream Leader, Chronic and Continuing Medical Service, Western Sydney Health |
| 1998-ongoing | Director, Clinical Executive Group, Chronic and Continuing Medical Service |
| 1995-ongoing | Director, DiabetesWest Program |
| 1995-ongoing | Director, Western Sydney Area Diabetes Service |
| 1995-ongoing | Clinical Associate Professor, University of Sydney |
| 1991-ongoing | Director, Department of Diabetes and Endocrinology |
| 1992-1995 | Clinical Senior Lecturer in Medicine, University of Sydney |
| 1993-ongoing | Part-Time Clinical Lecturer, University of Western Sydney |
| 1990-1993 | Director of Clinical Training, Westmead Hospital |
| 1990- | Staff Specialist in Endocrinology, Westmead Hospital |
| 1989-1990 | VMO in Endocrinology, Westmead Hospital |
| 1988-1989 | Research Fellow in Endocrinology, Free University Hospital, Amsterdam, The Netherlands |
| 1986-1988 | NHMRC postgraduate medical research fellow, Westmead Hospital. |
| 1985-1986 | Advanced Trainee in Endocrinology, Westmead Hospital |
| 1984-1985 | Advanced Trainee in Nuclear Medicine, Westmead Hospital |
| 1980-1983 | Junior Medical Officer, Westmead Hospital |

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TEACHING

1. Current and Recent Teaching Responsibilities and Practice.

Undergraduate Teaching.

- Involved in all levels of undergraduate teaching at Westmead Hospital since 1981.
- Previously responsible for ensuring teaching standards of the Department.
- Previous Coordinator for Med IV Endocrinology teaching at the Westmead Hospital Campus.
- Term Mentor for Med IV student attachments.
- Conduct and coordinate Endocrinology and Diabetes lectures for Med IV students at the Westmead Hospital Campus.
- Supervised 9 option term students in the last 5 years who elected to work in the Department.
- In my previous roles as Director of Clinical Training, and in my current capacity as Chairman of the Workforce and Allocation Committee of the NSW Postgraduate Medical Council, I promote a close working relationship with final year medical students to ensure a smooth transition from undergraduate years to junior medical officer training.
- Examiner of Med VI GP letter task; 1993, 1994, 1995.

Graduate Medical Program

- 1. Member of the Endocrine Sciences and Metabolism Planning Unit.
- 2. Case Coordinator for Endocrine Sciences Block 7
- 3. Member of the Personal and Professional Development Planning Unit.
- Participated in Workshop on the Structured interview in the Admissions Procedure (17/6/1994).
- 5. Participated in PBL Workshops at Sydney University and at Westmead Hospital; 1994.
- 6. Chairman, Pre-Internship Committee, Western Clinical School, 1996
- 7. Member, Year 3 & 4 Curriculum Committee, 1996
- 8. Endocrinology Undergraduate clinical teaching, Westmead Clinical School 2011
- 9. Year 1 Foundation Skills Westmead Clinical School 2012
- 10. Endocrinology Undergraduate clinical teaching, Westmead Clinical School 2012

2. Post-graduate Supervision.

• 1. Dr Peter Smerdely (PhD candidate, commenced 1990). *The regulatory effects of iodide on thyroid cell function and proliferation*. Awarded PhD, University of Sydney, 1994

• 2. Dr. Yan-Ping Fiona Zhu (MM Candidate). *The effects of selenium deficiency on thyroid function, antioxidant enzymes, and morphology in Wistar and BB/W rats.* Awarded Master Medicine, University of Sydney, 1994

• 3. Ms V. Pitsiavis (PhD candidate, commenced 1990; Part-time candidature). *Signal regulatory pathways that affect thyroid function and growth*. PhD awarded 1998

• 4. Dr. Wah Cheung (PhD candidate commenced 1992). Somatostatin and its effects on cellular proliferation. Awarded PhD 1996

• 5. Dr Jane Holmes-Walker (PhD candidate commenced 1995). *Characterisation of the nature of diabetes mellitus in patients with mitochondrial gene deletions*. PhD awarded 2000

• 6. Ms Janine Stennett (PhD candidate, Macquarie University, 1994) Co-supervisor with Professor John Collins (Macquarie University). *Psychosocial determinants of normal and delayed puberty*. PhD awarded 2000

• 7. Dr Roger Chen (PhD candidate,University of Sydney, 1996) *Effects of recombinant GH in catabolic states.* PhD awarded 2002

• 8. Dr Kris Park (PhD candidate,University of Sydney, 1998) Vacular dysfunction in diabetes mellitus. PhD currently being examined

• 9. Dr Sheela Brambhatt (PhD candidate,University of Sydney, 1998) *Iodine deficiency disorders in Western India.* PhD awarded 2004

• 10. Dr Kamala Guttikonda (PhD candidate,University of Sydney, 1999) Effects of phytoestrogens on estrogen responsive tissues. PhD suspended

• 11. Mr Neil Orr (PhD candidate,University of Sydney, 2000) Health Care Utlisation of People with Diabetes. PhD to be submitted May 2005

• 12. Dr Vincent Wong (PhD candidate,University of Sydney, 2003) Associate Supervisor; Hyperglycemia and its effects on cellular metabolism.

• 13. Kellie Billesnksi PhD Supervisor; The role of vitamin D in health and illness. The University of Sydney 2010

3. Other Teaching Responsibilities Junior Medical Officers

• Term Mentor for interns. Direct and coordinate training in the early postgraduate years when basic medical education is completed. Emphasis is placed on practical experience so that competence is attained through the caring of patients with a broad range of medical and surgical conditions.

Basic Physician Trainees

Supervise and coordinate a weekly tutorial for basic physician trainees.

Advanced Trainees in Endocrinology

Act as supervisor for 2 advanced trainees in Endocrinology

3. Evaluation of teaching

(a) Student evaluation

• Med IV students have consistently assessed the level of teaching provided by the Department at a very high standard.

(b) Peer evaluation

• Professor David Harris will provide referee's comments on undergraduate teaching and **postgraduate supervision.**

4. Scholarship in Teaching

- Invited Professor, University of Pisa, April 1994
- Invited Professor, University of Queensland, May 1995
- Chairman, Workforce and Allocation Committee, NSW Postgraduate Medical Council.
- Director of Clinical Training, Westmead Hospital, Westmead 1990-1993.
- Part-time Clinical Lecturer, University of Western Sydney, Diploma of Clinical Chemistry, 1994, 1995.
- Senior Examiner, Australian Medical Council 1993-ongoing
- Member Board of Examiners, Australian Medical Council, 1993-1994
- Board of Continuing Education, RACP, 1993-1994
- Invited Professor, University of Malaysia, November 1995
- Facilitator, Teaching and Training in the Private Sector, Royal North Shore Hospital, 1996
- Invited Speaker, National Medical Workforce Forum, Sydney, NSW, 1996
- Invited Member, Quality Workshop, Western Sydney Area Health Service, Nov, 1997
- Lecturer, Master of Clinical Epidemiology Course, 1997 & 1998
- Member, Sydney Steering Committee, Faculty of Rural Medicine, University of Sydney, 1997
- Member, Advisory Group, Epidemiology Course, Faculty of Medicine, University of Sydney, 1997
- Invited Professor, University of Tokyo, November 1997
- Invited Speaker, American Thyroid Association, 2003
- Invited Speaker, International Thyroid Congress, 2005

RESEARCH

1. GRANTS

| Year | Source | Chief Investigator | Amount |
|-----------|--|---|-----------|
| Past | | | |
| 1986 | Westmead Hospital Initiating Grant | Boyages, SC | \$25,000 |
| 1987-1988 | National Health and Medical Research Council Postgraduate Medical Scholarship | Boyages, SC | \$55,000 |
| 1989-1990 | Westmead Foundation Supplementary Grant "Effects of goitrogens in iodine excess goitre" | Boyages, SC | \$10,000 |
| 1991-1992 | Westmead Foundation Grant "Characterisation of thyroid hormone receptors in rat brain" | Boyages, SC | \$12,000 |
| 1993-1995 | National Health and Medical Research Council Project Grant "Neonatal TSH monitoring as an index of the severity of iodine deficiency" | Boyages SC, Halpern J-P, Eastman CJ. | \$141,000 |
| 1995-1996 | Westmead Foundation Grant "Thyroid hormone receptor changes in hypothyroid rat brain" | Boyages SC | \$12,000 |
| 1992-1995 | Pharmacia GH replacement in GH deficient adults | Boyages SC | \$70,000 |
| 1995-1997 | Pharmacia GH extension trial KIMS | Boyages SC | \$20,000 |
| 1995-1997 | Eli-Lilly Lyspro Adolescent Study | Poon C & Boyages SC | \$45,000 |
| 1995-1997 | Eli-Lilly Lyspro Adolescent Study (Addendum) | Boyages SC & Stennett J | \$13,000 |
| 1995-1997 | Eli-Lilly Lyspro Oral Agent Failure Study | Boyages SC & Holmes- Walker J | \$42,000 |
| 1995-1997 | Novo-Nordisk Repaglinide Study | Boyages SC | \$55,000 |
| 1996-1997 | GH Drug Interaction Study | Liddle C & Boyages SC | \$45,000 |
| Current | | | |
| 1996- | NSW Health Diabetes Outcomes Project | Boyages SC | \$664,000 |
| 1996- | Economic Evaluation of Diabetes | Boyages SC | \$65,000 |
| 1996- | Accounting for Health | Boyages SC | \$59,000 |
| 1996- | Ibersartan Trial | OConnell P & Boyages SC | \$55, 000 |
| 1997- | Q fever Vaccine Trial in Recent Onset Type 1 diabetes | Multicentre Trial, Boyages SC | \$65,000 |

| 1997 | Investigation of the Safety and Efficacy of Human Growth Hormone Replacement Therapy in Adults in relation to Diagnostic Criteria and Different Dosage Algorithms | Multicentre Trial, Boyages SC | \$56, 000 |
|-----------|---|--|-----------------------------|
| 2002-2004 | NHMRC Aboriginal Diabetes Study | Chief Investigator | \$135,000 |
| 2010-2012 | The effect of a coordinated care intervention, Care Navigation, on the readmission rate of chronically ill patients at Nepean Hospital. National Health and Medical Research Council Project Grant | Leeder S, Gillespie J, Usherwood T, Boyages S | (\$702,630 over 4 years) |
| Total | | | \$ 2,532,000 |

2. Professional Personnel

A. Postgraduate Students

•1. Dr Peter Smerdely (PhD candidate, commenced 1990). *The regulatory effects of iodide on thyroid cell function and proliferation*. Awarded PhD, University of Sydney, 1994

•2. Dr Yan-Ping Fiona Zhu (MM Candidate). *The effects of selenium deficiency on thyroid function, antioxidant enzymes, and morphology in Wistar and BB/W rats.* Awarded Master Medicine, University of Sydney, 1994

•3. Ms V. Pitsiavis (PhD candidate, commenced 1990; Part-time candidature). *Signal regulatory pathways that affect thyroid function and growth*. Awarded 2001

•4. Dr. Wah Cheung (PhD candidate commenced 1992). Somatostatin and its effects on cellular proliferation. Awarded 1996

•5. Dr Jane Holmes-Walker (PhD candidate commenced 1995). Characterisation of the nature of diabetes mellitus in patients with mitochondrial gene deletions. Awarded 2000

•6. Ms Janine Stennett (PhD candidate, Macquarie University, 1994) Co-supervisor with Professor John Collins (Macquarie University). *Psychosocial determinants of normal and delayed puberty*. Awarded 2000

•7. Dr Roger Chen (PhD candidate, University of Sydney, 1996) Effects of recombinant GH on catabolic states. Awarded 2002

• 8. Dr Kris Park (PhD candidate, University of Sydney, 1998) Vacular dysfunction in diabetes mellitus, current

• 9. Dr Sheela Brambhatt (PhD candidate,University of Sydney, 1998) *Iodine deficiency disorders in South West India; completed and submitted*

- 10. Mr Neil Orr (PhD candidate, University of Sydney, 2000). Impact of health systems on the delivery of health care. Awarded 2005
- 11. Dr Kamala Guttikonda (PhD candidate, University of Sydney, 2000). Iodine deficiency in developed communities, current
- 12. Kellie Billesnksi PhD Supervisor; The role of vitamin D in health and illness. The University of Sydney 2010

B. Post-doctoral Fellows

• Dr Li Mu. MD PhD. Thyroid Hormone receptors in rat brain.

C. Research Associates

- 1. Professor Hemmo Drexhage, Immunology Department, Erasmus University, Rotterdam, Postbus 1738, 3000DR Rotterdam, The Netherlands.
- Dr Alessandro Antonelli; Istituto de Clinica Medica;Universita de Pisa; Via Roma N67;56100-Pisa; Italy.
- 3. Professor Shin-Ichiro Takahashi, University of Tokyo, Tokyo, Japan.

D. Overseas Fellows in Endocrinology

- Dr Gia Wassmer, Manila, The Phillipines 1996-1997
- Dr Ilja Hulinsky, The Czech Republic, 1996
- Dr Jalila Al A'ali, Bahrain 1996-1998.

3. RESEARCH EXPERIENCE

•Westmead Hospital, Department Of Medicine, 1986-1988 •supervisors. Prof P.A. Castaldi, Dr. C.J. Eastman

•Academic Hospital Free University, Department Of Immunopathology, Amsterdam. Supervisor DR. H.A. DREXHAGE, 1986.

•Academic Hospital Free University, Department Of Immunopathology, Amsterdam. Supervisor DR. H.A. DREXHAGE, 1988.

| • | FIELD SURV | EYS IN CHINA: | | | |
|---|------------|---------------|----------|------|------|
| | MAY | 1986 | NOVEMBER | 1986 | |
| | MAY | 1987 | OCTOBER | | 1988 |
| | APRIL | 1989 | JULY | | 1990 |
| | | | | | |

 FIELD SURVEYS IN NORTHERN ITALY: APRIL 1994

4. CURRENT AND PREVIOUS AREAS OF RESEARCH ACTIVITY

1. Characterisation of thyroid hormone receptor abnormalities in developing rat and human brain. This will provide an insight into the pathogenesis of the neurological deficit of congenital hypothyroidism and endemic cretinism.

2. **Clinical Aspects of Iodine Deficiency Disorders.** Further field work will be undertaken in Italy, Vietnam and China to (i) further characterise the clinical features of iodine deficiency disorders; (ii) refine the monitoring tools used in iodine deficiency endemias; (iii) and to assess the complications of iodine replacement.

3. **Regulation of thyroid growth and thyroid autoimmunity.** This area of work will continue to determine the role of various growth factors in the regulation of thyroid cell proliferation, particularly the interaction of iodide on thyroid cell proliferation. The effects of iodide and selenium on thyroid autoimmunity will also be examined.

4. Effects of Growth Hormone (GH) and Somatostatin on cell proliferation in vitro and in vivo. This area of work will continue to explore the role of GH in adults, particularly the effects of this agent on tumour induction, drug metabolism and in catabolic states. The role of somatostatin and its analogues on GH hypersecretion will continue to be explored.

5. The pathophysiology of diabetes mellitus in patients with mitochondrial disorders. Clinical studies will be undertaken to determine whether diabetes in these patients results from insulin resistance or insulin deficiency. In addition, a study will be undertaken to determine the prevalence of mitochondrial disorders in patients presenting with diabetes mellitus.

6. Improving health outcomes in patients with diabetes through integrated service **models.** This project will be jointly funded by NSW Health and the Federal department of health to investigate new models of diabetes service delivery that will maximise health outcomes.

Other areas of research interest.

- 1. Heat shock proteins and the development of autoimmune thyroid disease.
- 2. Flow cytometric analysis of thyroid cell proliferation.
- 3. Maternal thyroid function and its impact on brain development of the neonate.
- 4. Thyroid ultrasonography and assessment of thyroid size.
- 5. Fine needle aspiration cytology of the thyroid.
- 6. Audit of thyroid cancer treatment at Westmead Hospital.
- 7. The use of recombinant GH in brain injury patients
- 8. The use of insulin analogues in adolescent patients with IDDM
- 9. The use of insulin analogues in NIDDM patients who fail oral agents

PUBLICATIONS LIST

Published papers and refereed conferenced papers

- Cheung NW, Lou JCJ, Boyages SC. Growth hormone does not increase thyroid size in the absence of TSH: a study in adults with hypopituitarism. Journal of Clinical Endocrinology and Metabolism.81: 1179-1183, 1986
- 2. **Boyages SC,** J. Collins, J. Jupp, J. Morris, G.F. Maberly, C.J. Eastman. Congenital iodine deficiency disorders (endemic cretinism)- history and description. Australian and New Zealand Journal of Developmental Disabilities. 13 (1); 3-11, 1987.
- Boyages SC, G. Ma, G.F. Maberly, C.J. Eastman. Evidence for neuroendocrine factors in the development of the sick euthyroid state. In : Recent Progress in Thyroidology. Eds: Vichayanrat A, Nitiynant W, Eastman C, Nagataki S. pp 43-47 Crystal House Press. Thailand. 1987.
- Li Mu, Liu Derun, Qu Chengyi, Zhang Peiying, Qian Qidong, Zhang Chunde, Jia Qingzhen, Wang Huaixing, C.J. Eastman, **Boyages SC**, J. Collins, J. Jupp, G.F. Maberly. Endemic goitre in Central China caused by excessive iodine intake. The Lancet 257-260; 1987.
- Maberly G, Boyages SC, Mu L. et al. Intellectual deficits persist in an iodine deficient population in China Given iodised salt and oil prophylaxis. In : Recent Progress in Thyroidology. Eds: Vichayanrat A, Nitiynant W, Eastman C, Nagataki S. pp 407-411. Crystal House Press. Thailand. 1987.
- 6. **Boyages SC,** JP Halpern, GF Maberly, CJ Eastman, JG Morris, JK Collins, JJ Jupp, Jin Chen, Wang Zhen-Hua and You Chuan-yi. A comparative study of neurological and myxoedematous endemic cretinism in Western China. Journal of Clinical Endocrinology and Metabolism, 1988, 67; 1262-1271.
- 7. **Boyages SC,** GF Maberly, CJ Eastman, J-P Halpern, J Collins, J. Jupp, Y Chuan -Yi, Z-L Wang, C Jin. Features of endemic cretinism in Qinghai, China. In : The Thyroid 1988, eds. S. Nagataki, K. Torizuka, 1988, pp 311-314, Elsevier, Amsterdam.
- 8. **Boyages SC,** J-P Halpern, G Ma, GF Maberly, CJ Eastman, C You, C Jin, Z-L Wang. Iodised oil injections fail to benefit myxedematous cretins, Qinghai, China. In : The Thyroid 1988, eds. S. Nagataki, K. Torizuka, 1988, pp 329-332, Elsevier, Amsterdam.
- Boyages SC, J-P Halpern, GF Maberly, CJ Eastman, D Yu, C You, C Jin, Z-L Wang. A high prevalence of pituitary tumour in myxœdematous endemic cretins. In: The Thyroid 1988, eds. S. Nagataki, K. Torizuka, 1988, pp 315-318, Elsevier, Amsterdam.
- Li M, Boyages SC, Liu DR, QD Qian, CD Zhang, HX Wang, QZ Jia, YY Yang, GF Maberly and CJ Eastman. Further studies of endemic goitre in Central China caused by excessive iodine intake. Exp. Clin Endocrinol. (Life Sci Adv.) 7: 165-167, 1988.
- HA Drexhage, MM Wilders, JW Lens, Boyages SC. Immunoglobulins stimulating the growth of thyrocytes. In: H. Imura, K. Shizume, S. Yoshida (eds) Progress in Endocrinology. Amsterdam: Excerpta Medica. pp 1077-1089, 1988.
- Boyages SC, J-P Halpern, G.F. Maberly, C.J. Eastman, C. Jin, Z-H Wang, R. van der Gaag, HA Drexhage. Endemic cretinism: possible role for thyroid autoimmunity. The Lancet ii, 529-532, 1989.

- 13. **Boyages SC.** Endemic cretinism: a role for thyroid autoimmunity? In: Thyroid Gland, Environment and Autoimmunity, 1989; Elsevier, Amsterdam.
- Boyages SC, JP Halpern, GF Maberly, CJ Eastman, P. Carr, Yu Dezhong, You Chuan-Yi and Jin Chenen. Effects of protracted hypothyroidism on pituitary function in endemic cretinism. Clinical Endocrinology 1989, 30, 1-12.
- Boyages SC, A.M. Bloot, G.F. Maberly, C.J. Eastman, L. Mu, Q. Qian, L. Derun, R. van der Gaag, HA Drexhage. Thyroid autoimmunity in endemic goitre caused by excessive iodine intake. Clinical Endocrinology, 31: 453-465, 1989.
- Boyages SC, J-P Halpern, G.F. Maberly, C.J. Eastman, J.K. Collins, C. You, C. Jin, Z-H Wong. Redefinition of endemic cretinism into goitrous and atrophic types. In: M. Lee, C-S Koh, C. J. Eastman, S. Nagataki (eds) Progress in Thyroidology 1989, Korea Medical Publishing Company, Korea, 83-86, 1989.
- 17. Smerdely P, A Lim, **Boyages SC,** K. Waite, D Wu, C.J. Eastman. Topical iodine antiseptics cause hypothyroidism in very low birth weight infants. The Lancet, ii: 661-664, 1989.
- Boyages SC, Collins J, Maberly GF, Jupp J, Morris J, Eastman CJ. Iodine deficiency impairs intellectual and neuromotor development in apparently normal people: a study of rural inhabitants from North Central China. Medical Journal of Australia 150: 676-682, 1989.
- Boyages SC, J-P Halpern, G.F. Maberly, C.J. Eastman, J.K. Collins, D.Yu, C. You, C. Jin, Z-H Wong. Outcome of substitution therapy with L-thyroxine on myxedematous cretins from Qinghai Province, China. Redefinition of endemic cretinism into goitrous and atrophic types. In: M. Lee, C-S Koh, C. J. Eastman, S. Nagataki (eds) Progress in Thyroidology 1989, Korea Medical Publishing Company, Korea, 473-476, 1989.
- Boyages SC, JW Lens, R van der Gaag, GF Maberly, CJ Eastman, HA Drexhage. Sporadic and endemic congenital hypothyroidism: evidence for autosensitization. In: F. Delange, D.A. Fisher, D. Glinoer (eds) "Research in Congenital Hypothyroidism, New York: Plenum Press; pp 123-132, 1989.
- Halpern, J Morris, Boyages SC, G.F. Maberly, CJ Eastman, D Yu, C You, C Jin, Z-L Wang, L-L Liu. Neurological aspects of cretinism in Qinghai Province. In: "Iodine and the Brain" (eds) G.R. Delong, J. Robbins, P.G. Condliffe Plenum Press, New York. pp 239-247, 1989
- 22. André M. Bloot, Boyages SC, Hemmo A. Drexhage. IgGs of patients with endemic iodine excess goitre stimulate thyroid cell growth in vitro: comparison of cytochemical bioassay with a modified FRTL-5 mitotic index assay. In: Ambsei-Impiombato & Perrild (eds), FRTL-5 Today, Elsevier Press: Amsterdam, 217-218, 1989.
- Boyages SC, J-P Halpern, G.F. Maberly, C.J. Eastman, J. Collins, J. Jupp, C. J. Eastman, C. Jin, Y-H Gu, L. Zhou. Supplementary iodine fails to reverse hypothyroidism in adolescents and adults with endemic cretinism Journal of Clinical Endocrinology and Metabolism. 70: 336-341, 1990.
- Halpern J-P, Boyages SC, Morris J, Collins JK, Maberly GF, Eastman CJ. The neurology of endemic cretinism. A comparison of two endemias. Brain 114, 825-841. 1991

- Cheung W, Boyages SC. Failure of somatostatin analogue (SMS 201-995) to control steroid excess caused by ectopic ACTH producing carcinoid in two patients. Clinical Endocrinology 1992, 36:361-367.
- 26. Pendlebury SC, **Boyages SC**, Koutts J, Boyages J. Thymic hyperplasia associated with Hodgkin disease and thyrotoxicosis. Cancer 70: 1985-1987, 1992.
- 27. Greenberg M & **Boyages SC**. Fine needle biopsy in the management of thyroid disorders. Patient Management 1992
- 28. Boyages SC & Greenberg M. Investigation of thyroid nodules. Modern Medicine 1992
- 29. **Boyages SC**. Thyroid disorders in Children. In: Lecture Notes, Pediatric Growth and Endocrinology Symposium for Health Professionals. Ray Williams Institute of Paediatric Endocrinology, Diabetes and Metabolism. 1992.
- 30. Smerdely PS, Pitsiavis V, **Boyages SC**. Evidence for functional thyroid peroxidase activity in FRTL5 rat thyroid cells. Submitted Acta Endocrinologica 1992
- Smerdely PS, Pitsiavis V, Boyages SC. FRTL-5 thyroid cell proliferation: analysis of cell cycle kinetics using flow cytometric techniques. Journal of Endocrinological Investigation, 6 (supple 3):51, 1992
- 32. C Sue, DJ Holmes-Walker, JGL Morris, **SC Boyages**, DS Crimmens, E Byrne. Mitochondrial gene mutations and diabetes mellitus. Lancet (letter) 341:437-438, 1992
- 33. **Boyages SC** & Halpern JP. Endemic cretinism: Toward a Unifying Hypothesis? Thyroid 3: 59-69, 1993
- 34. Li M, Eastman CJE, **Boyages SC**. lodine induced lymphocytic thyroiditis in the BB/W rat: early and late immune phenomena. Autoimmunity 14: 181-187, 1993
- 35. **Boyages SC**. Clinical Review 49: Iodine Deficiency Disorders. Journal of Clinical Endocrinology and Metabolism 77:587-591, 1993
- Sue CM, Holmes-Walker DJ, Morris JG, Boyages SC, Crimmins DS, Byrne E. Mitochondrial encephalomyopathy and diabetes. Lancet Feb 13, 341 (8842) 437-438, 1993.
- Smerdely P, Pitsiavis V, Boyages SC. Methimazole inhibits FRTL5 thyroid cell proliferation by inducing S-phase arrest of the cell cycle. Endocrinology 133:2403-2406, 1993.
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- 43. Li Mu and **Boyages SC**. lodine induced lymphocytic thyroiditis in the BB/W rat: evidence of direct toxic effects of iodide on thyroid subcellular structure. Autoimmunity 18:31-40, 1994.
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- 45. Irie Y, Tatsumi K, Kusuda S, Kawawaki H, **Boyages SC**, Nose O, Ichiba Y, Katsumata N, Amino N. PCR-direct sequencing method for screening PIT1 abnormality. Thyroid. 5: 207-211. 1995
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- 47. **Boyages SC** & Cheung NW. Goitre in Australia. Review. Medical Journal of Australia. 162: 488-489. 1995
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- 51. Smerdely P, Pitsiavis V, **Boyages SC**. The G2M arrest caused by iodide is unrelated to the effects of iodide at adenylate cyclase. Thyroid. 5, 325-329; 1995
- 52. Zhu F, Bilous M, **Boyages SC**. Excess iodine induces the expression of thyroid solid cell nests in lymphocytic thyroiditis-prone BB/W rats. Autoimmunity 20: 201-206. 1995
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- 54. Cheung NW & **Boyages SC**. Somatostatin-14 and its analog octreotide exert a cytostatic effect upon GH3 rat pituitary tumour cell proliferation via a transient G0/G1 cell cycle block. Endocrinology. 136:4174-4181. 1995.
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- 56. Sue C, Halpern J-P, **Boyages SC**, Yiannikas C. A case of Hashimoto's encephalopathy. Journal of Neurosciences. In Press. 1996.
- 57. Cheung NW, Coverdale S, Lou J, Liddle C, **Boyages SC**. Growth hormone treatment increases cytochrome P450-mediated antipyrine clearance in man. Journal of Clinical Endocrinology and Metabolism.81: 1999-2001, 1996
- 58. Li Mu & **Boyages SC**. Detection of widespread distribution of TR□2 mRNA in rat brain using cRNA in situ hybridisation histochemistry. Endocrinology 137: 1272-1275, 1996.
- 59. **Boyages SC** & Medeiros-Neto G. Pathogenesis of myxedematous endemic cretinism. . Journal of Clinical Endocrinology and Metabolism. 1996
- 60. Boyages SC. Book Review, The Thyroid and its disorders. 165, 444, 1996.
- 61. Caterson I, **Boyages SC** Turtle J et al., ,. Thyroid disorders. Avery's Drug Treatment, Adis Press. 1997
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- 68. Holmes-Walker, J and **Boyages SC**. Syndrome X: a syndrome of increasing importance to general practice and to the community. Treating Diabetes 1997 In Press
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- Boyages SC. Endemic iodine deficiency: progress in our understanding of the clinical consequences of iodine deficiency. Current Opinion in Endocrinology and Diabetes 4:(6) 320-327, October 1997.
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- 73. Sue C, Morris J, Boyages SC, Deafness and mitochondrial mutations, In press, 1997
- 74. DJ Holmes-Walker, P Mitchell, SC Boyages Does mitochondrial genome mutation in subjects with Maternal Inheritance Diabetes and Deafness (MIDD) decrease the severity of diabetic retinopathy?. Diabetic Medicine 15:946-952, 1998
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- 77. KE Park, **SC Boyages**, J Koutts. The effect of Lipids and glucose on the Platelet activation; Markers CD62 (p-selectin) and Activated GPII/IIIa. Diabetes, 48 suppl.1, A0582, 1999
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- 80. DJ Holmes-Walker, GM Ward, and **SC Boyages.** Non-diabetic subjects from Maternal Inheritance Diabetes and Deafness families demonstrate abnormalities of insulin dependent and insulin-independent glucose disposal.. Resubmitted with revisions to *Diabetic Medicine* September, 2000
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- 108. Holmes-Walker DJ, Mitchell P, Sue CM, Morris JGL & **Boyages SC.** Decreased prevalence of diabetic retinopathy but increased prevalence of pigmentary retinopathy in diabetes due to a mitochondrial mutation. 16th IDF Congress, Helsinki, July 1997.
- 109. Holmes-Walker DJ, Ward GM, Barton J & **Boyages SC.** Nondiabetic subjects from maternal inheritance diabetes and deafness families demonstrate insulin resistance on IV glucose tolerance testing. 16th IDF Congress, Helsinki, July 1997.
- 110. DJ Holmes-Walker, GM Ward, J Barton, **SC Boyages.** Non diabetic subjects from maternal inheritance diabetes and deafness families have evidence of insulin resistance with normal insulin secretion. Australian Diabetes Society, Canberra, October 1997
- 111. V Pitsavis, M Li, P Smerdely, SC Boyages. Amiodarone induces a different pattern of ultrastructural change in the thyroid to iodine excess alone in 2 rat models: analysis by light and electron microscopy. In proceedings of the Endocrine Society of Australia, Canberra, 1997
- 112. Moses R, Slobodniuk R, **Boyages SC**, Colagiuri S, Kidson W, Carter J, Donnelly T, Moffitt P, Hopkins H. Additional treatment with Repaglinide provides significant improvement in glycemic control in NIDDM patients poorly controlled on Metformin. 16th IDF Congress, Helsinki, July 1997.
- 113. Non diabetic subjects form maternal inheritance diabetes and deafness families have evidence of insulin resistance with normal insulin secretion. D.J.Holmes-Walker, GM Ward, J Barton, SC Boyages. Australian Diabetes Society Canberra, October, 1997
- 114. Excess of maternal inheritance in an Australian NIDDM population is not explained by mutations of mitochondrial DNA. DJ Holmes-Walker, SC Boyages. Australian Diabetes Society, Perth, August, 1998
- 115. RCY Chen, C Liddle, SC Boyages. Divergence of Effects of Growth Hormone in Growth Hormone Deficient and Growth Hormone Replete Adults. The Endocrine Society Scientific Meeting, New Orleans, USA 1998
- 116. S Brahmbhatt, RM Brahmbhatt, **SC Boyages**. Assessment of severity of iodine deficiency disorders (IDD) in rural and tribal schoolchildren from Gujarat, Western India, using all prevalent indicators with special stress on thyroid ultrasound and its comparison with European reference. Endocrine Society of Australia, Melbourne, September 1999

- 117. S Brahmbhatt, RM Brahmbhatt, SC Boyages. Effect of malnutrition, goitrogens and iodine deficiency on the expression of Iodine Deficiency Disorders (IDD) in Gujarat (Western India). Endocrine Society of Australia, Melbourne, September 1999
- 118. KE Park, L Beutler, SC Boyages, J Koutts. Do Platelets Circulate in an Activated state in People with Diabetes? 4th Intenational Diabetes Federation Congress, Western Pacific Region, 1999
- 119. V Pitsiavas, P Smerdely, **SC Boyages**. Amiodarone Induced Thyroid Disease: Potential role of FAS and FAS-LIGAND Expression in Humans. ICE Meeting Sydney, Australia 2000
- 120. S Brahmbhatt, RM Brahmbhatt, SC Boyages. Thyroid Ultrasound is the best prevalence indicator for the assessment of Iodine Deficiency Disorders: A study of tribal/rural schoolchildren from Gujarat. Annual Conference of Association of Physicians of India. Baroda, India, January 2000
- 121. S Brahmbhatt, RM Brahmbhatt, SC Boyages. Effect of Malnutrition and goitrogens on the expression of IDD in Gujarat, Western India. Annual Conference of Association of Physicians of India. Baroda, India, January 2000
- 122. S Brahmbhatt, RM Brahmbhatt, **SC Boyages**. Thyroid ultrasound is the best prevalence indicator for the assessment of IDD in Gujarat (Western India). Annual Westmead Hospital Week, Sydney, August 2000
- 123. S Brahmbhatt, RM Brahmbhatt, **SC Boyages**. Impact of Primary Protein Energy Malnutrition on thyroid size in iodine deficient schoolchildren and adults of Gujarat (India). Annual Westmead Hospital Week, Sydney, August 2000
- 124. S Brahmbhatt, RM Brahmbhatt, **SC Boyages**, CJ Eastman. Thyroid ultrasound is the best prevalence indicator for the assessment of IDD at field conditions in adult population. International Congress of Endocrinology, Sydney, October 2000
- RCY Chen, S Takahashi, S Seki, SC Boyages. Growth Hormone Stimulates 5' Monodeiodinase Activity in FRTL-5 Cells. Endocrine Society Scientific Meeting, Toronto, Canada 2000
- 126. S Brahmbhatt, RM Brahmbhatt, SC Boyages, CJ Eastman. Thyroid size is increased in an iodine replete and well nourished Indian schoolchildren population: Possible causative role for dietary goitrogens. European Thyroid Association, Warsaw, Poland August 2001
- 127. S Brahmbhatt, RM Brahmbhatt, SC Boyages, CJ Eastman. Thyroid size is increased despite sufficient iodine intake and good nutrition: can be due to the effect of goitrogens or just a residual effect of IDD for a prolonged period. American Thyroid Association, Washington DC, November 2001
- 128. S Brahmbhatt, RM Brahmbhatt, SC Boyages, CJ Eastman. Thyroid size determination by traditional palpation method points to "no goitre" endemia whereas ultrasonography consistently identifies goitre in well-nourished iodine replete adults: possible role of flavonoids. American Thyroid Association, Washington DC, November 2001
- 129. KE Park, K Chambers, C Ting, J Koutts, SC Boyages. "Stress Hyperglycaemia" is common in Acute Coronary Syndrome. 44th Annual Scientific Meeting of the Endocrine Society of Australia, 2001

- KE Park, K Chambers, C Ting, J Koutts, SC Boyages. "Stress Hyperglycaemia" reflects Pancreatic Beta-cell failure. Australian Diabetes Society Annual Scientific Meeting, 2001
- 131. KE Park, V Wong, NW Cheung, SC Boyages. Correlation between Admission Blood Glucose levels with Outcomes in Patients with Acute Myocardial Infarction. Australian Diabetes Society Annual Scientific Meeting 2001
- 132. S Brahmbhatt, RM Brahmbhatt, **SC Boyages**, CJ Eastman. Normative thyroid volume reference data for Indian schoolchildren: A survey in sub-Himalayan belt. European Thyroid Association, Goteborg, Sweden September 2002
- 133. TM Hng, SC Boyages, NW Cheung, D Chipps, R coles, J Hazel, J Holmes-Walker, J Marks, H Smith and M McLean. Use of Long Actign Somatostatin in Acromegaly: An Audit. Endocrine Society of Australia 46th Annual Scientific Meeting, 2002
- 134. **SC Boyages.** Iodine Deficiency: A continuum of Neurological Damage. Endocrine Society of Australia, April 2002
- 135. V Wong, K Park, SC Boyages, NW Cheung. Hyperglycaemia predicts adverse outcomes following acute myocardial infarction. International Diabetes Federation, Western Pacific Region, May 2002
- 136. V Wong, M McLean, K Park, E White, SC Boyages, NW Cheung. Effect of Insulindextrose infusion on free fatty acid levels following Acute Myocardial Infarction: Preliminary fundings from the Hi-5 Study. ADS & ADEA Annual Scientific Meeting, September 2002
- 137. RCY Chen, **SC Boyages**. Growth Hormone Decrease Cytochrome P450 Activity In Health Subjects. University Hospital Rotterdam "Somatostatin receptor physiology and targets for Somatostatin analogue therapy young investigator meeting", Barcelona 2002

INVITED LECTURES

NATIONAL AND INTERNATIONAL MEETINGS

| 1986 | WUXIANG HOSPITAL , SHANXI PROVINCE, CHINA "Thyroid Growth Immunoglobulins" |
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| 1986 | SECOND TEACHING HOSPITAL, SHANXI PROVINCE, CHINA"Endocrine Ultrasound" |
| 1986 | ENDOCRINE SOCIETY OF AUSTRALIA, BRISBANE. Seminar: "Clinical Aspects Of Endemic Cretinism" |
| 1986 | WEEKEND ENDOCRINE CONFERENCE, RANELAGH HOUSE, ROBERTSON. " Memory Glucometer Project" |
| 1986 | WESTMEAD ASSOCIATION REUNION WEEK, POKOLBIN. "Neurological lodine Deficiency Syndrome- Definition Of The Subclinical State" |
| 1987 | SHANXI MEDICAL COLLEGE, SHANXI, CHINA. "Iodine And Its Influence On The Development Of Autoimmune Thyroid Disease." |
| 1987 | LINFEN ANTIENDEMIC INSTITUTE, SHANXI, CHINA. "Iodine Excess Disorders" |
| 1987 | AUSTRALIAN SOCIETY OF LABORATORY ANIMAL SCIENCE, ANNUAL MEETING, WESTMEAD CENTRE "The BB/W Rat And Its Influence On The Understanding Of Human Diabetes And Iodine Induced Goitre." |
| 1987 | NEUROSURGICAL SOCIETY OF AUSTRALASIA- TRAINEE SEMINAR." Hyperfunctioning Pituitary Diseases, Diagnosis And Treatment. |
| 1988 | IODINE AND THE BRAIN, International Symposium At National Institute Of Health, Washington D.C., USA- March 21-23rd, 1988. " Pituitary Tumours In Endemic Cretinism" |
| 1988 | RESEARCH IN CONGENITAL HYPOTHYROIDISM, Nato Advanced Research Workshop, Brussells, May 16-18, 1988. Oral Symposia Session: "Endemic Congenital Hypothyroidism And Thyroid Autoimmunity" |
| 1988 | AMSTERDAM THYROID CLUB, June 1988 Invited Speaker "Endemic Cretinism" |
| 1988 | AUSTRALIA-CHINA SCIENTIFIC CONFERENCE, October 4-5th, Beijing. Oral Communication: 1. "Endocrine Aspects Of Endemic Cretinism" 2. "Thyroid Autoimmunity And Endemic Cretinism" |
| 1988 | WESTMEAD ASSOCIATION REUNION WEEK, November 9-11 Th, Sydney. " Somatostatin Analogues" |
| 1989 | SANDOZ PRE-LAUNCH MEETING OF SANDOSTATIN, GOLD COAST, February, 9th-11th: "Sandostatin: A Personal Experience" |
| 1989 | THE ROYAL AUSTRALIAN COLLEGE OF GENERAL PRACTITIONERS, ANNUAL REVISION SEMINAR, February, 12-18; "Thyroid Disease" |
| 1989 | KURINGAI DISTRICT MEDICAL ASSOCIATION, AUTUMN MEETING; Monte Pio, Maitland, March 3-5th; Hirsutism- Current Therapeutic Management" |
| 1989 | 4TH ASIA-OCEANIA THYROID ASSOCIATION MEETING, SEOUL, SOUTH KOREA, April 19-21, 1989. Symposium Speaker: "Redefinition Of Endemic Cretinism Into Goitrous And Atrophic Types" |

| 1989 | AOTA SYMPOSIUM On Iodine Deficiency Disorders, Tianjin, China, April 24-25, 1989. Symposia Presentations: Intramuscular Iodized Oil Failed To Reverse Biochemical And Clinical Hypothyroidism In Endemic Cretins From Qinghai, China. Pituitary Disorders In Endemic Cretinism L-Thyroxine Replacement Therapy Reverses Biochemical And Clinical |
|------|---|
| | Hypothyroidism In Myxoedematous Cretins Without Toxicity Thyroid Atrophy Demonstrated By Portable Real-Time Ultrasound Is The Hallmark Of Myxoedematous Cretins |
| 1989 | AOTA SYMPOSIUM On Iodine Deficiency Disorders, Tianjin, China, April 24-25, 1989. Symposia. "Endocrinological Features Of Endemic Cretinism In Qinghai, |
| 1989 | China" AOTA SYMPOSIUM On Iodine Deficiency Disorders, Tianjin, China, April 24-25, 1989. Meet The Professor's Session "Regulation Of Thyroid Growth" |
| 1989 | INTERNATIONAL SYMPOSIUM THYROID GLAND, ENVIRONMENT AND AUTOIMMUNITY 1989. |
| | Invited Speaker: Endemic Congenital Hypothyroidism: A Role For Autoimmunity? October 18-20th, 1989. |
| | CLINICAL DAY Invited Speaker: Endemic Goiter And Cretinism: The Chinese Experience. |
| 1989 | WESTMEAD REUNION WEEK "The Spectrum Of Iodine Deficiency Disorders" November 8th, 1989. |
| 1990 | IODINE AND THE THYROID Invited Symposium Speaker: September 1990, Athens, Greece. |
| 1990 | ASIA OCEANIA CONGRESS OF ENDOCRINOLOGY Invited Speaker: Regulation Of Thyroid Growth December 1990, Jakarta, |
| 1001 | |
| 1991 | INTERNATIONAL THYROID CONGRESS Invited Symposium Speaker: Endemic Cretinism February 1991, The |
| | Hague, The Netherlands. |
| 1991 | ACROMEGALY: DIAGNOSIS AND PATIENT MANAGEMENT IN 1991, |
| | Ramada Renaissance Hotel, 31st August 1991 |
| 1992 | PAEDIATRIC GROWTH AND ENDOCRINOLOGY SYMPOSIUM FOR HEALTH PROFESSIONALS. 12th June 1992. Thyroid Disorders In Childhood. |
| 1993 | RACGP REVISION SEMINAR. Thyroid Disorders. |
| 1993 | Invited Speaker, Symposium On The Management Of Acromegaly, Sydney |
| 1993 | Acromegaly: Therapeutic Strategies; Workshop, Invited Speaker Long Term Sandostatin Therapy-The Westmead Experience, 28th March 1993. |
| 1993 | Invited Grand Rounds Speaker, John Hunter Hospital |
| 1993 | Invited Grand Rounds Speaker, RAHC, Camperdown |
| 1993 | Invited Grand Rounds Speaker, Wollongong Hospital |
| 1993 | Invited Speaker: Iodine And The Damaged Brain Conference, |
| 1994 | Philadelphia, USA, April 1993. Invited Grand Rounds Speaker, Royal Prince Alfred Hospital " lodine Deficiency Disorders" |
| 1994 | Invited Visiting Professor, University Of Pisa, April 11 To 20th. |
| 1995 | Invited Speaker, Brisbane Endocrine Group, 8th May " Thyroid Hormone And The Brain: Clinical And Molecular Aspects". |
| 1995 | Invited Grand Rounds Speaker, Princess Alexandra Hospital, Brisbane, 8th May. " Iodine Deficiency Disorders In The First And Third Worlds" |

1995 Invited Grand Rounds Speaker, Concord Hospital, "Measuring Health Outcomes In Diabetes", May 6th. 1995 Invited Panel Expert. International Cytology Workshop. Leura, 1995 Invited Speaker, Clinical Symposium On Thyroid Disease. 1995 Invited Symposia Speaker. International Thyroid Congress. Toronto. 1995 Canada. 10th-15th September, "Iodine Deficiency Disorders In The Year 2000" 1995 Invited Visiting Professor, World Diabetes Day, Kuala Lumpur, Malyasia (November) Invited Symposia Speaker, International Congress Of Endocrinology, San 1996 Franscico, USA, June 1996. 1997 Invited World Expert Diabetes, Tighter Control without Tears, London, May 1997 1997 Invited Speaker, Australian Business Health Seminar, Research Institute of Asia and the Pacific, October 1997 Daichii Prize Plenary Lecture, Asia Oceania Thyroid Association, Osaka, 1997 November, 1997 Invited Visiting Professor, University of Tokyo, November 1997 1997 Invited Visiting Professor, Endocrine Rounds, Royal Prince Alfred Hospital, 1997 November 1997 1998 Invited Speaker, Health Outcomes Conference, March 1998 Invited Visiting Professor, Faculty of Rural Medicine, Broken Hill, April 1998 1998 Invited Facilitator, Integrated Diabetes Care Workshop, Toowoomba, July, 1998 1999 Invited Speaker, Endocrine Rounds, Royal Prince Alfred Hospital, July, 1998 Invited Speaker, Acromegaly Symposium, Sydney and Melbourne, May and 1998 June 1998 Invited Speaker, Diabetes Symposium, Port Macquarie, September, 1998 1998 Invited Speaker, Diabetes Workshop, Southern Tablelands Division of 1998 General Practice, September, 98 1998 Invited Speaker, Diabetes Workshop, Bathurst Division of General Practice, Julv. 98 1998 Invited Visiting Professor, University of Tokyo, November 1998 See detailed listing on pages 13 to 18 1999 2002 Invited Speaker American Thyroid Association, USA Invited Speaker, International Thyroid Congress, Argentina 2005

Participation at other meetings

| 1988 | EUROPEAN THYROID ASSOCATION, Montpellier, September 11-16th, 1988. |
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| 1991 | AMERICAN THYROID ASSOCIATION MEETING Boston, USA, September 1991. |
| 1993 | EUROPEAN THYROID ASSOCATION, |
| 1993 | Cardiff, Wales, September 1993 American Diabetes Association, Consensus |
| 1994 | Conference On Hyperlipidemia, Dallas, Texas January. INTERNATIONAL DIABETES FEDERATION, KOBE, JAPAN. |
| 1997 | Novmber, 1994. Programme Budgeting and Marginal Analysis (PBMA) Workshop, |
| | November, 1997 |

ADMINISTRATION

COMMITTEE SERVICE

| 1987-1988 | Foundation Committee for the Medical Graduates Association of the University of Sydney. |
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| 1988-1992 | Foundation Member of the Medical Medical Graduates |
| 1000 1002 | Association of the University of Sydney; Convenor of the |
| | New Members/Social Committee 1988 |
| 1988- | State Committee of the Royal Australian College of Physicians; |
| 1989 | Temporary World Health Organisation Consultant on Iodine |
| | Deficiency Disorders, October, 1989, Geneva. |
| 1989-1991 | Animal Care and Ethics Committee, Westmead Hospital. |
| 1990-1992 | Westmead Association; Convenor of the Scientific Programme |
| | Committee |
| 1990-1994 | Honorary Secretary of the NSW State Committee of the Royal |
| | Australian College of Physicians. |
| 1990-1993 | Director of Clinical Training, Westmead Hospital. |
| 1990-1991 | Convenor of the Endocrine Society of Australia 1991 |
| | Clinical Weekend Endocrine Symposium. |
| 1990-1993 | Medical Staff Council Representative on the Quality Management and Patient Care Committee. |
| 1990- | Chairman of the Management Committee of the Staff Specialists |
| | Clinic. |
| 1991-1992 | Team leader for Structural Efficiency Principle for the Medical |
| | Stream, NSW Department of Health. |
| 1991-1993 | Convenor for the 1993 Scientific Meeting of the Royal |
| | Australasian College of Physicians |
| 1992 | Review of Resident Medical Staffing Southern Sydney Area |
| | Health Service, Team Member |
| 1992 | RACP Committee for In-Training Assessment |
| 1992 | Postgraduate Medical Council, Meeting organiser for |
| | Communications Skills Workshop |
| 1992 | Postgraduate Medical Council, Meeting organiser for |
| 4000 | Performance Appraisal Workshop |
| 1993 | Postgraduate Medical Council |
| 1993- | Chairman Workforce and Allocation Committee, Postgraduate |
| 4000 | Medical Council |
| 1993- | Western Sydney Area Health Service, Health Advancement |
| 1002 1004 | Committee Member, Customer Facus Facus NSW/ Department of Health |
| 1993-1994 | Member, Customer Focus Forum NSW Department of Health |
| 1993 | Member of the Executive of the Medical Staff Council, Westmead Hospital |
| 1993-1995 | Senior Examiner of the Australian Medical Council. |
| 1993-1995 | Member, Board of Examiners, AMC. |
| 1993-1994 | Special Societies Liasion Officer, RACP |
| 1993-1995 | Member Negotiating Team for Staff Specialist Award, NSW |
| | Department of Health |
| 1993- | Member, Curriculum for Endocrine Teaching, University of Sydney |
| 1993- | Member, Curriculum for Theme Teaching, University of Sydney |
| 1994-1998 | Chairman NSW State Committee RACP |
| 1994-1995 | Member Negotiating Team for WSAHS Enterprise Bargaining |
| 1994-1997 | Member Heart Health Reference Committee |
| 1994-1997 | Chairman, Diabetes Working Group, subcommittee of the Heart |
| | Heart Health Reference Committee |

| 1994-1994 | Chairman of the RACP Subcommittee Anabolic-Androgenic Steroids |
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| 1994 | Member NSW Health Diabetes Outcomes Expert Panel |
| 1994 | Member NSW Health Diabetes Guidelines Subcommittee |
| 1994 | Member Growth Hormone Advisory Board |
| 1995-1996 | Chairman, Westmead Association |
| 1995 | Member, Standing Committee of College Chairmen |
| 1995 | Member, Working Party, Committee of College Chairmen |
| 1995 | Member, Committee of Chairmen of NSW State Commitees of |
| Medical | Colleges |
| 1995-1997 | Chairman, Pre-Internship Committee, Graduate Medical Program, |
| | Western Clinical School, Westmead Hospital, Westmead |
| 1996- | Chairman, Standing Committee of College Chairmen |
| 1997 | Member, Western Sydney Area Stream Committee |
| 1997 | Member, MAAC Review Commitee |
| 1997 | Member, Revenue Enhancement Commiteee |
| 1997 | Member, Sydney Steering Commitee, Department of Rural Health, |
| | Faculty of Medicine, University of Sydney |
| 1997 | National Health Advisory Council, NHMRC |
| 1997 | Registration Committee, NSW Medical Board |
| 1997 | Senior Clinical Advisory Group, NSW Health |
| 1998 | Chairman, Asia-Pacific Committee, RACP |
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ASSOCIATIONS AND COLLEGES

| 1986 | Fellow of the Royal Australasian College of Physicians |
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| 1986 | Endocrine Society of Australia |
| 1991 | Australian Paediatric Endocrine Group |
| 1992 | Fellow of the Australian Faculty of Public Health Medicine |
| 1993 | European Thyroid Association |
| 1993 | Australian Diabetes Society |
| 1993 | British Endocrine Society |

COMPUTING SKILLS

High Level Competency in Vax Digital, IBM and Macintosh computing systems, including desk top publishing, statistical analysis, database manipulation and word-processing. Data analysis and statistical skills of high calibre. Familiar with Systat and Statview systems on Macintosh.