The History of the Endocrine Society of Australia: The First Fifty Years

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The Endocrine Society of Australia was formed in 1958 with the aims of advancing knowledge and practice in endocrinology (the study of hormones) and to bring together physicians and scientists in this area of study. It was one of the first medical specialist societies in Australia. From humble beginnings with ninety-nine foundation members, it has flourished to a society with almost 950 members which annually runs three successful clinical and scientific meetings, and provides scholarships, research grants, and travel grants for its young members. Members have received international and national recognition within the field and more generally. Collaboration between scientists and physicians has been a key strength of the Society.

Birth and development of an Australian endocrine society

Endocrinology is the study of hormones, which are chemicals produced by one organ or endocrine gland that are secreted into the circulation and act on other organs. Major endocrine glands include the pituitary, thyroid, parathyroid, adrenal, pancreatic islets, and ovaries in women and testes in men. Endocrinologists are physicians who specialise in treating hormonal disorders. Endocrine gland dysfunction, resulting in over- or underproduction of hormones, leads to a range of common diseases including diabetes, hyperthyroidism, and hypothyroidism. Additionally, endocrine dysfunction leads to less common, treatable but potentially serious diseases such as Addison's disease, Cushing's syndrome, and acromegaly. Hormonal abnormalities contribute to male and female infertility and related metabolic changes result in bone diseases such as osteoporosis.

Although there are descriptions of endocrine glands and diseases extending for millennia in different cultures, major progress in

understanding the roles of hormones in physiology and disease accelerated in the nineteenth and early twentieth century.[1] Extracts from endocrine glands were used to demonstrate that hormones are distinct chemical entities, and some of these extracts were used to treat endocrine disorders with varying efficacy. In the United States, the Association for the Study of Internal Secretions was formed in 1917 (to be renamed the Endocrine Society in 1952) and commenced publication of its journal *Endocrinology*.[2] European societies soon followed and the British *Journal of Endocrinology* commenced in 1938 followed by formation of the Society for Endocrinology in 1946.[3]

The instigators of the Endocrine Society of Australia (ESA) were members and/or fellows of the Royal Australasian College of Physicians (RACP), which was formed in 1938, having evolved from the Association of Physicians in Australasia that was founded in 1930.[4] Sir Charles Blackburn, the first president of the RACP, stated the following:

> …its essential purpose is the promotion by all means in its power of the scientific approach to the study of disease. In achieving this purpose, it proposes to concern itself especially in fostering and cooperating in all undertakings designed to provide facilities for graduates to acquire advanced knowledge of medicine.[5]

Membership of the college was awarded by examination and this was recognised as an additional medical qualification in all states of Australia and New Zealand by 1951.[6]

The next decade saw the beginnings of many special societies focused on the various developing areas of specialisation within internal medicine. Of these, ESA was second after the Cardiac Society of Australia. Blackburn's comments could be taken as underlying the purpose of forming these organisations. The first moves towards the formation of the ESA occurred in May 1957, when Keith Harrison of the Royal Prince Alfred Hospital, Sydney, and Bryan Hudson of the Alfred Hospital, Melbourne, discussed the possible formation of an association of physicians interested in diabetes and metabolism. By the time of the first meeting of the Diabetic Association of Australia, which was predominantly a lay organisation working for improved management of patients with diabetes,[7] the formation of a professional society in this area of medicine had been discussed further. At this meeting in Sydney on 14–15 October, a scientific programme and a medico-lay session were presented, and a small number of fellows

and members of the RACP unanimously voted their intention to form a society for the study of diabetes and endocrinology. A steering committee (Ewen Downie, Bryan Hudson and Pincus Taft of Melbourne, Basil Hetzel of Adelaide, and Keith Harrison) was established to consider the society's membership and constitution, and the relationship it would have with the RACP. In early 1958, all those interested in the formation of an endocrine society were invited to attend a meeting at the BMA Hall, Sydney, on 2 June.[8]

Sixty-nine people attended this first meeting chaired by Ewen Downie. The Interim Committee's report was accepted with unanimous agreement that the society should be formed. After the passage of a further motion that 'all present here this afternoon who desire to become members shall in fact become members',[9] the acting secretary (Bryan Hudson) read out the names of eighty persons who had expressed interest. It was agreed that these, together with twelve others added at the meeting, should be considered as original members of the society; seven further names were added subsequently, so that there were 99 foundation members of the society.

Later in the meeting, some amendments were made to the draft constitution that had been circulated. Perhaps the most important of these related to the naming of the society. In draft, the constitution referred to the 'Endocrine Society of Australasia'. As it transpired that New Zealand colleagues had not been consulted, and as 'Australasia' was felt to be 'a fighting word in New Zealand', the name 'Endocrine Society of Australia' was agreed.[10]

The first council, elected at this meeting, consisted of Ewen Downie, Joseph Bornstein and Pincus Taft (Victoria), Keith Harrison, Terry Robinson and Cliff Emmens (NSW), R. Hawker (Queensland), and Basil Hetzel (South Australia). At the first council meeting the following day, Ewen Downie was elected president and Pincus Taft secretary/treasurer. It was resolved to circulate the proceedings of the scientific meeting, to advise the medical press of the formation of the society, and to hold the 1959 meeting in Adelaide.

Endocrinology is a scientific as well as a clinical discipline. Close integration of these two aspects is optimal to make rapid progress, whether this be pursuit of a new basic understanding of hormone action or the development of a new clinical treatment. Throughout its fifty-year history, ESA has recognised this and involved basic scientists and specialised clinicians equally in its activities, although some negotiation was necessary to establish the principle. The initial draft constitution circulated in 1957 reflected the fact that all

members of the Interim Committee were physicians. It proposed that there be three types of members: medical, scientific, and honorary life members. Annual meetings were to be held each year in association with the RACP annual meeting and members were to be encouraged to present material of clinical interest to the college, whereas matters of scientific or technical interest were to be presented to the society. These provisions were criticised on the general ground that they differentiated between scientific and medical members and might prejudice one of the society's stated objectives, namely 'to bring together physicians and scientists for scientific discussions and demonstrations'.[11] Cliff Emmens, Terry Robinson, and others argued for revision of these arrangements. It was felt that, on the one hand, holding meetings in conjunction with the RACP might limit scientific representation, particularly from other states; and on the other, that meetings held in conjunction with the Australian and New Zealand Association for the Advancement of Science (ANZAAS) might not be well attended by clinicians. As a result of this debate, the constitution was redrafted prior to the meeting of 2 June 1958, so as to provide for ordinary and honorary life memberships only and for more flexibility in the selection of meeting venues.

In the original Constitution, it was specified that members should hold a degree in either science or medicine. By 1970, it was felt that this was inappropriate and the annual general meeting passed a constitutional amendment that 'anyone working in a relevant field and showing an interest in Endocrinology and Metabolism should be considered for membership'.[12]

The question of state representation has been a constitutional problem from time to time. In 1970, the legality of council was called into question as Ron Cox had moved from Adelaide to Sydney and thereby reduced the number of states represented on council from four—as specified by the constitution—to three. The matter was finally settled honourably with Ivan Jarrett from Adelaide being appointed to fill the rest of Dr Cox's term and Ron being asked to attend by invitation; members of the thus legalised council were asked to approve all previous actions of the illegal council by mail. The problem surfaced again when endocrinology spread into previously unexplored geographical regions, necessitating a constitutional amendment to define the Australian Capital and Northern Territories as 'states' as far as the society was concerned.

The ESA has grown significantly since its inception with ninety-nine foundation members to involve a vibrant mixture of clinicians in

practice and research together with basic scientists in endocrinology and associated fields. Currently there are 944 members of the Society, including 735 full members, 148 student members, 27 retired members and 34 honorary life members; of the membership, 70 are overseas members. In 1982, the society decided to confer honorary life memberships on all its foundation members who were still active members. Since then, there has been a sporadic conferring of honorary life membership to members who have provided outstanding service to the society. The most recent conferring was at the recent fiftieth anniversary annual scientific meeting (ASM) in Melbourne in 2008 when four members were made honorary life members.[13]

The tyranny of distance has always been an issue; consequently ESA council meetings are held by teleconference at roughly quarterly intervals, with a face-to-face meeting held at the ASM prior to the annual general meeting. In 1999, the secretariat was modernised with an established base at the RACP offices in Sydney rather than the previous nomadic model based around the location of the honorary secretary. The new structure has greatly improved the running of the society's activities and communication with its members. More recently, council was reorganised with overlapping terms for councillors and a president-elect to ensure that corporate memory is not lost after each election.

Scientific meetings and awards

The first scientific meeting was held on 3 June 1958, the day after ESA was formed. The papers presented are listed in Table 1. For this meeting, there was no call for abstracts, no programme committee and no referees' reports. For the second meeting in 1959, Pincus Taft, the secretary, circulated a Notice of Meeting which said:

> Members desiring to read papers at this meeting are requested to notify the Secretary by 1 March 1959 and to enclose a precis of 400 to 500 words suitable for circulation to members in the Society's Proceedings. This will facilitate circulation of these Proceedings soon after the meeting.[14]

Members were also requested to forward their annual subscription of two guineas ($4.20).[15] The 1959 meeting was the first to be threatened with disruption by an airline strike, thus establishing something of a tradition. It is recalled that the secretary and others from Melbourne decided to travel by train which they left at Murray Bridge to

Title	Authors
Studies of Pregnanetriol and Related Steroids	R.I. Cox, Department of Veterinary Physiology, University of Sydney
Neurohypophyseal Function	Peter Hall, Sydney Hospital
The Estimation of Urinary 17-ketosteroids: An Appraisal of Current Methods	June Sheath, Diabetic and Metabolic Unit, Alfred Hospital, Melbourne
Amenorrhoea and Virilism in Liver Disease	W. Hamilton-Smith, St. Vincent's Hospital, Melbourne
Thyroid Hormone Flow in Euthyroid Subjects with High Iodine Uptake Rates	I.D. Thomas, T.H. Oddie, and F.F. Rundle, Thyroid Investigation Clinic, Institute of Medical Research, Royal North Shore Hospital, Sydney
Observations on Body Hair	H.P. Taft and R. Melick, Royal Melbourne Hospital
Some Properties of an Oxytocic Substance in Blood and Hypothalamic Extracts	R.W. Hawker, Department of Physiology, University of Queensland
Studies on the Metabolic Effects of Salicylate in Man	B.S. Hetzel, Department of Medicine, University of Adelaide

Table 1. Papers presented at the first Scientific Meeting of ESA in Sydney, 1958. (Source: Endocrine Society of Australia Scientific Session Programme, 3 June 1958.)

complete the journey by taxi so as to arrive on time, thereby being missed by the local organisers who had gone to meet the train! The presidential address that year was given by Ewen Downie on the subject of oral hypoglycaemic compounds (medicines that reduce blood sugar in diabetes), with ten papers presented by other members of the society.

The second meeting in Adelaide in 1959 saw twelve new

members admitted. Cliff Emmens was appointed as the society's official representative to the International Society of Endocrinology and the Asia-Oceania Congress, which were both to meet for the first time within the subsequent year. In 1960, when Professor Emmens was president, a plenary session was held with the RACP in Melbourne and in the following year the annual meeting was held in conjunction with the ANZAAS meeting. By this time, a number of medical scientific societies were flourishing in Australia and liaisons were established with the Australian Biochemical Society, the Genetic Society of Australia, the Australian Society of Microbiology, the Australian Physiological Society and the Australian Society of Plant Physiologists, with agreements to circulate meeting dates and programmes between them. In 1962, it was decided that there should be a presidential address every second year and that in the intervening years the society should invite a visiting speaker. On 6 March 1963 the president of the society, Dr Keith Harrison, died, and Cliff Emmens became president for the remainder of Dr Harrison's term. Because of Dr Harrison's death in office, the constitution was amended to allow for a vice-president and it was decided that the guest lecture for 1964 be called the Keith Harrison Memorial Lecture; the inaugural Lecture was given by Ken Ferguson. This has become an annual event and remains the highest scientific award of the society.

In 1959, Cliff Emmens was one of the few Australians to attend the inaugural Asia and Oceania Congress of Endocrinology at Kyoto, Japan. At the request of council, he applied successfully for the second congress to be held in Sydney in 1963. The credibility and reputation of ESA were established both nationally and internationally by the success of this congress at a very early stage of the society's history. It was opened by Lord Casey, the governor general, on Tuesday 28 May 1963. Over six days, a total of ninety-six papers were presented and there were symposia on fertility regulation, thyroid secretion, hormonal responses to the environment, protein hormones and growth, and steroid hormone assays. The society was actively involved in organising subsequent Asia-Oceania congresses in Manila (1967), Auckland (1971), Chandigarh (1974), Singapore (1978), and Tokyo (1983). It also hosted the Sixth International Congress of Endocrinology in Melbourne in 1980.

By 1966, the society had grown substantially to 180 members. Ewen Downie, the first president, had been nominated as its first honorary life member. In response to a suggestion for a summer school in endocrinology in 1968, council decided that it would

instead arrange a seminar in Melbourne in early 1969. This was the beginning of the Seminar Meeting that has continued ever since, interrupted only when international meetings are held in the same year. By this stage, society business had inevitably increased, resulting in extremely long council meetings. It was therefore decided that these meetings should be held twice a year in association with the seminar and ASMs. Council also ruled that councillors' travel expenses should be paid only for the interim meeting and not the ASM. In the early days of the society first-class fares were paid, the arrangement being changed to economy in 1965; later, all payments to council members to attend meetings of the society ceased. The 1970 council election was the first to be contested, the society by then having grown to over 250 members.

The scheduled ASM of the society, held annually since the first meeting in 1958, has undergone some subtle but significant changes over recent years. For a long time, the meeting was held in the September Australian Vice-Chancellor's Committee common week, which enabled it to be held at university venues with all the joys of undergraduate college accommodation, shared bathrooms, narrow beds and no heating coupled with draughty, inadequate lecture theatres and vast halls. There was a subsequent move to hotels, but over recent years as the society has grown, the ASM has been held in major purpose-built convention centres. In so doing, the meetings moved away from the university break, which was initially fought fiercely by a number of university academics, who felt that their commitments during term would preclude them attending the meetings.

Other notable reminiscences include the 2001 ASM on the Gold Coast, where a forklift setting up the trade display ran over a junction box and brought down the computer network, leading to unexplained chaos in the various meeting rooms as projectors stopped working. That meeting also coincided with the 9/11 terrorist attack in the United States. One of the plenary lecturers, Domenico Accili from New York, had spent the whole night watching the catastrophe unfold and frantically trying to contact family and colleagues. After asking for a moment of silence with extreme dignity, he then proceeded to dazzle the delegates with an outstanding lecture.

The society has also moved in recent years to a system of meetings with other societies, so that the Society for Reproductive Biology meets simultaneously at the same venue, followed by a

day's overlap with the Australian Diabetes Society meeting. ESA also meets on occasion with other relevant societies such as the Australian and New Zealand Bone and Mineral Society (ANZBMS) and the Australasia Paediatric Endocrine Group (APEG).

A major achievement was the society's successful bid to host the 2000 International Congress of Endocrinology (ICE) meeting, the second such congress to be held at an Australian venue, following the success of the Melbourne meeting in 1980. That process heavily relied on people like John Eisman, Robert Baxter, and David Handelsman and their colleagues in Sydney, and John Funder in Melbourne. Ultimately and somewhat ironically, the decision came down to a shoot-out between Beijing and Sydney as it had for the Olympics, and the outcome was the same. The Congress had 3,500 registrants and there were eighteen associated satellite meetings in Australia and New Zealand. Within Australia, it generated 62 radio or news items, 53 newspaper articles, 32 on-line news items, 20 television interviews, and three articles for general practice journals. Overseas coverage was not monitored but ten international media representatives covered the congress. As well as increasing the society's international profile, the meeting returned a profit of $260,000.

As noted above, the society has run its annual Seminar Meeting since 1969. In the mid 1990s, there was a series of colourful seminar meetings including three at the Lake Hume Resort in Albury, chosen more for its central location to address Melbourne and Sydney rivalries, than for any other virtue. The Albury meetings, however, marked the end of an era in that the seminar meetings had started out as a Gordon Conference/Laurentian Hormone Conference-type scientific meeting with two or three plenary lectures, usually including two overseas lecturers, followed by a symposium-style meeting with much time for discussion. Subsequently, a clinical update format was adopted, offering substantial educational experience to registrars and continuing education to endocrinologists and other physicians. At this time, Roger Smith was charged with finding a central location and went for geography rather than demography and took everyone off to Alice Springs! He then ran a couple of very successful meetings in Canberra. The newer format has been enormously successful as reflected in both attendance and income, but some members were somewhat saddened to see the loss of the generalist scientific-style meeting.

Another development of note at the ASM has been the instigation of the Taft Lectureship in 1994. Following the death of Pincus Taft, a pioneer of Australian clinical endocrinology, his seminal influence was celebrated by inviting clinically-oriented presentations to balance the Harrison Lecturer, which was increasingly and inevitably focused on the tremendous advances in basic research. A special relationship with the Japanese Endocrine Society saw the publication of the ASM proceedings as a supplement to the Endocrine Journal (2005–07) and the Australia-Japan Lecture featuring a plenary speaker from Japan at the ASM. Another recent innovation is the neuroendocrinology interest group that organises a symposium at the ASM dedicated to the study of hormones in the central nervous system.

The needs of clinical endocrinology have not been forgotten by ESA. The Clinical Weekend, which has preceded the ASM since 1986, is a wildly successful combination of clinical presentations, updates by local and international experts, time for colleagues to catch up with each other and a dose of 'endocrine trivial pursuit' in most years. For many clinicians, this weekend has become the main focus of their interaction with the society.

ESA has always regarded mentoring of its junior members as a top priority—a society needs new members to survive and a discipline needs new members to thrive. Over the years the ESA has expanded its portfolio of junior investigator awards to encourage trainees to do excellent work and present it at our meetings. An annual award for the best presentation by a junior investigator at the ASM was initiated in 1976 and many winners have gone on to forge outstanding research careers and contribute to the society as council members. In recognition of the fact that this award has been predominantly won by basic scientists, the Bryan Hudson Clinical Endocrinology Award, named in honour of the society pioneer, was initiated in 2004. An important component of the fiftieth anniversary celebration at the 2008 ASM was a Rising Star Symposium, which honoured four young members who have already made important contributions to endocrinology. A number of travel grants are also awarded annually to help junior members attend international meetings and visit overseas laboratories. In addition to awards and assistance with regards to meetings for its junior members, ESA now provides a postgraduate research scholarship and a postdoctoral award to support junior members at a particularly vulnerable time in their research careers.

Society finances and the need for a published record

The society has in recent years undergone a major restructure in financial management. David Handelsman, first as treasurer and then as president, undertook to stabilise and re-energise this part of the society's activities. He planned to achieve financial backing of at least twice the cost of the ASM outlays, which was then exceeded partly due to the ICE meeting profit in 2000. This ongoing financial stability allowed the recent initiation of ESA scholarship and postdoctoral awards in 2007–08, and also increased numbers of travel awards, not only to attend the ASM but also for overseas meetings. This has also been made possible in part by taking the bold step to invest more aggressively than previously, when all funds were held in bank accounts and term deposits. While this has been of tremendous benefit, the financial position of the society is thus subject to temporary fluctuations in stock market and share value, such as those related to 9/11 and the more recent global financial crisis.

The ability of the society to publish proceedings is a positive result of achieving a stable financial situation. Scientists and clinicians involved in research are aware of the maxim 'publish or perish' and the same applies to special societies to which they belong, many of which publish their own journals. The question of publishing the society's abstracts was first discussed at the 1960 council meeting. In 1962, it was agreed to publish the Constitution and the membership list of the society in a booklet. The membership list was not published again until the 1982 Proceedings of the Annual Scientific Meeting. For the 1965 and 1966 meetings, abstracts were prepared by offset printing. The Medical Journal of Australia published the abstracts in 1967 and 1968, but was unable to allocate sufficient space for them in subsequent years. The British-based Journal of Endocrinology had quoted the equivalent of $440 to publish the abstracts and this was regarded as too expensive. A separate booklet was therefore published and a subcommittee formed to discuss the feasibility of a journal; their conclusion was that this would be too costly and their recommendations resulted in the first issue of a stand-alone proceedings being published for the 13th annual meeting in 1970. In 1975, Seminar Meeting abstracts were published together with those of the scientific meeting for the first time.

From the 1970s until 2003, the ASM Proceedings remained essentially unchanged, but recently have moved to a larger page format, partly prompted by being published as a supplement to *Endocrine Journal*. This created some debate in the membership, as the single bright colour scheme of the front cover changing year by year and the uniform size made it easy for the proceedings to sit on the office bookshelf; however, the principle of the abstracts being published in a recognised journal from which they can be appropriately cited is seen by most as more important. Publication of its own fully accredited journal with a reasonable level of impact in the medical and scientific literature remains beyond the resources of the society.

Newsletters are published twice a year, with the newsletter editor—a member of council—providing content to a professional graphic designer, with printing and mailing arranged off-site. This contrasts very much with earlier times when the newsletter was duplicated from typed copy on a Roneo machine.

Development of special interest groups

At various times it has been suggested that special interest groups be formed within the society. In 1967, Professor Emmens wrote to the council to ask whether a section of reproduction and fertility could be set up within the society and it was decided that papers on this subject should be encouraged and grouped together in the programme. Unaware of these moves, other investigators formed a separate society which became the Australian Society of Reproductive Biology (now the Society for Reproductive Biology, SRB).[16] ESA and SRB remain closely associated and, as already mentioned, hold their meetings in parallel with a joint organising committee. In 1973, the Australian Diabetes Society (ADS) was formed, in part because of dissatisfaction with the under-representation of diabetes at scientific meetings of ESA and the RACP.[17] In 1975, an attempt was made to differentiate areas of interest by means of a constitutional amendment 'to establish within the Society one or more chapters of the Society each having its primary object the advancement of knowledge … in a particular branch or branches of endocrinology'. This amendment was defeated.[18]

More recently, a number of special societies that focus on specific areas of endocrinology have been formed. These include the Australasian Menopause Society, formed in 1988, the ANZBMS in

1989 and the Australian Society for the Study of Obesity in 1991. The misgivings of the ESA membership in the 1970s about the potential for fragmentation of the society's activities have not proved to be justified; these groups have enhanced the development of their specific fields of interest and ESA retains its role as the overarching body for basic and clinical endocrinology in Australia.

Research and development in endocrinology

The pituitary gland, which is found at the base of the brain, is a 'master regulator' that secretes a number of hormones that control the adrenal, thyroid, ovary, and testis as well as growth hormone (GH). These hormones are important in the regulation of fertility, growth, and metabolism. Before technologies became available to synthesise some of these hormones, post-mortem pituitary extraction was the only means to provide them for patients who were infertile or GH-deficient. The pituitary gland is pea-sized so extraction of sufficient hormones for therapy was a major undertaking. The early years of the society coincided with the beginnings of this undertaking. In the late 1950s, glands were collected by Drs Roger Melick and Joseph Bornstein in Melbourne and Dr Robert Vines in Sydney, with growth hormone (GH) being extracted from the Sydney glands at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) at Prospect. In Melbourne, the initial batch of acetone-dried material was sent to Merck Sharp and Dohme in New Jersey for GH extraction but little biological activity was obtained. Collaboration with the College of Pathologists resulted in a more extensive collection programme being set up in Melbourne with glands being contributed from Brisbane. By 1962, Dr F.I.R. Martin was active in the expanded collection programme, with pituitaries arriving from other areas including New Zealand. Kevin Catt was preparing GH to treat GH-deficient short children and Jim Brown prepared gonadotrophins for management of infertility from the resulting acetone-processed material. The first infertile patient to receive follicle-stimulating hormone (FSH) was treated in 1963 and she conceived in her third cycle. Over the next five years, Jim Brown processed 9,000 pituitaries, producing over 11,000 ampoules of FSH. The residues from this process were further extracted by Kevin Catt and found to have satisfactory GH activity. The supply of FSH obtained was sufficient for Australian requirements and pituitaries were also processed for Halifax, Nova Scotia, Singapore, and New

Zealand. In Melbourne, supplies were sufficient for treatment of all anovulatory women as well as about twenty men. In 1964, the Victorian Pituitary Group began to assess applications for GH to treat short stature. At about the same time, a meeting between CSIRO, Commonwealth Serum Laboratories (CSL), the Australian Medical Association, Royal College of Obstetricians and Gynaecologists, and the RACP ultimately resulted in the formation of the Human Pituitary Advisory Committee. The ESA was originally represented by Cliff Emmens and subsequently by Les Lazarus who became committee secretary and then its chairman.

In 1966, CSL started to process frozen glands while the Melbourne group continued with their acetone drying procedure until 1968. By that stage, Dr Lazarus reported that 5,000 glands per year were being collected and that 25 patients were being treated with GH and 56 with FSH. In 1970, the collection was 8,000 glands per year; 65 patients were being treated with GH and 109 with FSH as a result of which there had been 45 pregnancies. Although this programme provided treatments that would not otherwise have been available, all involved were unaware of the potential dangers of pituitary extracts that later emerged. The programme was stopped in 1985 after the first report of Creutzfeld-Jakob disease, a rapidly progressive, incurable neurodegenerative disorder, in a patient treated with pituitary-derived GH in the US.[19] Tragically, five cases of this disease have been attributed to infertility treatment with pituitary extracts in Australia, most recently in 1991.[20]

ESA members have made major research contributions to endocrinology. These include the contributions of Geoff Tregear and Hugh Niall that led to the sequencing of parathyroid hormone (PTH), which regulates calcium,[21] and relaxin, which was first described as a pregnancy-related hormone, and other peptides.[22] Subsequently, the full characterisation of relaxin at the Howard Florey Institute made it almost an Australian hormone. Similar claims could also be made on the purification and characterisation of the inhibin, activin, and follistatin family—which are important regulators of reproductive function—by the groups led by Henry Burger and David de Kretser.[23] While leading efforts were made at the same time by the Sugino group in Japan and Wylie Vale's group at the Salk, the reputation of the Melbourne groups in this field is undisputed. The identification of parathyroid hormone–related peptide as a cause of high calcium levels in the blood of some patients with cancer by Jack Martin's group is another highlight of Australian endocrinology.[24] Other notable efforts

include the endocrinological advances leading to *in vitro* fertilisation and assisted reproductive procedures and Australia's profile in the ongoing use of stem cells and their application in endocrinology and related applications.

Over the lifetime of the society, research has changed dramatically, and in the early years researchers were driven by available methods to focus on identification and purification of individual hormones and their early clinical use. Our ability to directly and sensitively measure hormone levels beginning in 1959 revolutionised endocrine research and clinical practice. Subsequently, new technologies allowed the study of hormone genes and cellular actions, and methods became available to synthesise large amounts of hormones, making them more readily available for research and clinical use. More recently, science has benefited enormously from large-scale approaches including the Human Genome Project that allow a global assessment of hormone action through arrays and bioinformatics. We are now at the point where we can envisage individualised gene therapy for patients in the near future.

Goals, achievements, and recognition

The ESA has evolved into a well-respected professional body whose expert opinion is sought by government bodies and other organisations. As many of these requests refer to clinical matters, a position was created on council with responsibility for clinical affairs opinions in the late 1980s. This position acts as a mechanism of liaison between ESA and RACP, and its appointee is involved in curriculum development for training of clinical endocrinologists. ESA also has input into regulatory matters of particular concern to clinical endocrinologists, often in response to requests from the Therapeutic Goods Administration. Reports have been commissioned from expert members of the society covering topics such as the use of growth hormone in adults, androgen treatments for men,[25] the use of metformin to treat polycystic ovarian syndrome,[26] the use of postmenopausal hormone therapy by medical practitioners (with the RANZCOG and Menopause Society), and vitamin D deficiency in Australia (with ANZBMS). These reports have been utilised by various government agencies.

Many ESA members have been recognised for their outstanding research by international and national bodies. The Dale Medal—the highest accolade of the British Society for Endocrinology

in recognition of outstanding studies which have changed our understanding of endocrinology in a fundamental way—has been awarded to Robert Baxter, Henry Burger, John Coghlan, Jock Findlay, and Jack Martin. Various laureate awards of the U.S. Endocrine Society have been presented to David de Kretser, John Funder, Evan Simpson, and Henry Burger. The Neuman Award, the highest honour of the American Society for Bone and Mineral Research, has been awarded to Jack Martin. The Volhard Award of the International Society of Hypertension was presented to Colin Johnston. Eleven current fellows of the Australian Academy of Science are members of the ESA and/or have primary endocrine research interests.

Members have also made significant contributions to society outside their areas of specific expertise. Professor David de Kretser is currently governor of the state of Victoria. Professor Richard Larkins recently retired as the vice-chancellor of Monash University and has served as president of the RACP, an office which has also been held by Bryan Hudson, Alex Cohen, Donald Cameron, and Robin Mortimer. A number of members have been deans of Australian medical faculties and directors of research institutes.

In 1958, the ESA Constitution[27] stated the following objectives:

1. The advancement of knowledge in endocrinology and metabolism.
2. The promotion of interest in the practice of endocrinology and in research into this and allied subjects.
3. To bring together physicians and scientists for scientific discussions and demonstrations.
4. To disseminate knowledge of the principles and practice of endocrinology by such means as may be thought desirable.
5. To take such other action as may be appropriate to stimulate interest in the subject of endocrinology.

This brief history of the ESA demonstrates that each of those objectives has been achieved to an extent that could hardly have been imagined when Keith Harrison and Bryan Hudson commenced their discussions in 1957.

Monash University

1. V.C. Medvei, *The History of Clinical Endocrinology* (Carnforth: Parthenon, 1993) 117–274.
2. *Ibid.*, 276.
3. *Ibid.*, 276.
4. R. Winton, *Why the Pomegranate?* (Sydney: The Royal Australasian College of Physicians, 1988) 3–23.
5. *Ibid.*, 23.
6. *Ibid.*, 95.
7. F.I.R. Martin, *A History of Diabetes in Australia* (Melbourne: Miranova, 1998) 49–51.
8. Letter from Bryan Hudson (acting secretary, Interim Committee) to interested parties, 17 April 1958.
9. Minutes of the Meeting of Persons Interested in the Formation of an Endocrine Society, held in the B.M.A. Hall, 135 Macquarie Street, Sydney, 2 June 1958, at 2.30 p.m., 1.
10. *Ibid*, 2–3.
11. Proposed Constitution of The Endocrine Society of Australia, 1957, 1.
12. P.E. Harding, "Editorial: Historical Notes", *Proceedings of the Endocrine Society of Australia* 25 (1982).
13. A membership database can be found online, with entries including members' fields of interest in a members' only area. See https://www.endocrinesociety.org.au/members/index.cfm (accessed 9 May 2011).
14. Letter from Pincus Taft (honorary secretary, ESA) to members, 12 December 1958.
15. *Ibid.*
16. B.P. Setchell, "History of the Australian Society for Reproductive Biology 1968–1994," *Reproduction Fertility and Development* 7 (1995): 961–6.
17. Martin, 59–60.
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