15/11/99

AVRU to participate in the "Australian Witness to Science and Medicine" seminar program.

The Australian Venom Research Unit is participating in a novel historical program, the "Australian Witness to Science and Medicine" series, organised by the University of Melbourne's Centre for the Study of Health and Society. The program consists of a series of seminars about the history of science and medicine in Australia, and includes invited speakers, audio-visual presentations and round table discussions, as well as supplementary written material, films and tapes and scientific papers for archiving.

AVRU is involved in the production of the seminar entitled "Venomous Country", scheduled to be presented in approximately 12 months time in conjunction with the Museum of Victoria. The program will include many of the researchers involved in understanding the venomous fauna of Australia and in the development of Australian antivenoms earlier this century. The fascinating story behind the development of funnel web spider antivenom is just one of the highlights planned fro the day. More news of the "venomous Country" seminar will be posted here as it becomes available.

15/11/99

Visiting spider researcher from Uzbekistan

DR Atakuziev at AVRU
Photo: Ken Winkel

DR Bakhadir Atakuziev, a spider researcher from Tashkent, arrived in Melbourne in late October 1999. He will join the Australian Venom Research Unit for several months over the coming summer to work on Australian spider venoms. DR Atakuziev is particularly interested in the venom of the redback spider, related to the European widow spiders on which he has been working in his native Uzbekistan.

10/99

Australian Defence Forces in East Timor

Australian Defence Forces stationed in East Timor as part of the UN peacekeeping force may face more than hostile militia during their stay on the island. Timor is home to a variety of venomous creatures, including the green pit viper, Trimeresurus albolabris . The Australian Venom Research Unit has been advising Australian forces on the types of venomous creatures they may encounter as well as management issues such as first aid and antivenoms.

7/10/99

Australia to host next Asia Pacific IST Congress in 2002

Australia will host the 6th Asia Pacific Congress on Animal, Plant and Microbial Toxins in 2002. The Congress, to be held at a beach resort in July-August 2002, will be the next Asia-Pacific regional meeting of the International Society on Toxinology. (The current meeting will be held in Pattaya, Thailand next week.) Information will be added to the Congress web site (OZIST) as it becomes available.

19/7/99

AVRU publication on skin ulceration following spider bite

“Acute and recurrent skin ulceration after spider bite" , SJ Pincus, KD Winkel, GM Hawdon and SK Sutherland. MJA 1999 171(2):98-102.

A series of 15 cases of ulceration or necrosis following witnessed spider bite has recently been published by the Australian Venom Research Unit in the Medical Journal of Australia. (Full text version of the article archived here.) Fourteen of the cases presented were associated with white tailed spiders, and one with a black house spider. Nine cases involved recurrent ulceration at the bite site, previously undescribed in the literature. See the Necrotising Arachnidism page for more information.

Lesions associated with bites by female Badumna sp. (Photo A. Ong)

18/7/99

New Edition of AVRU First Aid Leaflet

AVRU's successful leaflet on "FIRST AID for SNAKEBITE in AUSTRALIA" has now been revised and updated. It contains the latest information and instructions on first aid for snakebite and for bites and stings by other Australian venomous creatures, all packaged in a new colourful glossy cover. Copies of the leaflet are available by contacting AVRU. (A small fee may be applicable for multiple copies to help cover printing costs.) First Aid information is also available here.

5/99

New research on premedication for snakebite antivenom treatment

Two recently published papers provide experimental evidence on the efficacy of adrenaline and antihistamine premedication for snake antivenom treatment. "Low dose subcutaneous adrenaline to prevent acute adverse reactions to antivenom serum in people bitten by snakes: randomised placebo controlled trial."

This paper by Premawardhena et al ,published in the British Medical Journal (BMJ 1999 (318): 1041-1043), described a randomised controlled trial involving 105 patients bitten by snakes between March and July 1998 presenting to Polonnaruwa Hospital in north eastern Sri Lanka. 56 patients received adrenaline premedication (0.25 ml 1:1000 subcutaneously) prior to the administration of snake antivenom, while 49 patients received placebo premedication. The trial was stopped before the recruitment of the initially planned 210 patients, as a clear difference was evident between the treated and placebo groups. Acute adverse reactions to antivenom were observed in 43% of the control group and 11% of the adrenaline-treated group ($P<0.0002$) This study demonstrates the efficacy of subcutaneous adrenaline premedication in reducing acute adverse reactions to snake antivenom. Full text of the article is archived at the BMJ website.

A paper by Hui Wen Fan et al, also published in the BMJ, describes a "Sequential randomised and double blind trial on the use of promethazine prophylaxis against early anaphylactic reactions to antivenom for bothrops snake bites". (BMJ 1999 (318):1451-1452) This paper describes a trial in which 101 patients requiring antivenom for bothrops envenomation were randomised to pretreatment with 0.25mg of intramuscular promethazine (49 patients) or placebo (52 patients) prior to the administration of bothrops snake antivenom. 24 % of promethazine treated patients and 25% of controls developed early anaphylactic reactions to the antivenom, indicating no significant difference in the rate of acute allergic reactions between the two groups. Full text of this article available at the BMJ website.

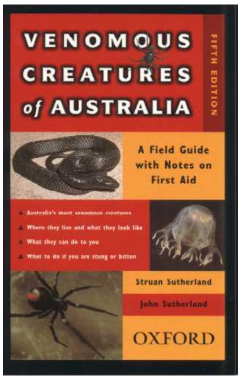
1/4/99

Foundation AVRU Director Struan Sutherland's retirement

Foundation Director of the Australian Venom Research Unit, Professor Struan K. Sutherland, retired on the first of April 1999. Officially, this marks the end of an exceptional career in venom and toxin research spanning some thirty years, and including achievements such as the development of funnel web spider antivenom and the pressure-immobilisation method of first aid for venomous bites and stings. Unofficially, the work will continue as he finalises the new edition of "Australian Animal Toxins", his outstanding text on Australian venomous creatures, their toxins and the care of the envenomed patient, as well as several other books and publications. He remains associated with the Australian Venom Research Unit as an Honorary Associate Professor and Principle Fellow. DR Ken Winkel, formerly Acting Director of the Unit, took up the Directorship after Professor Sutherland's retirement.

3/99

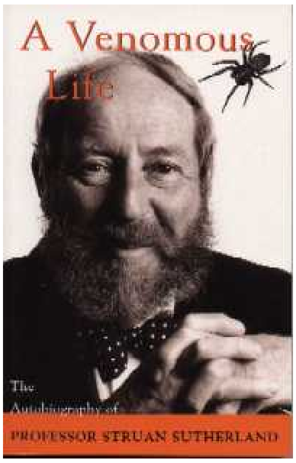
New Edition of Venomous Creatures of Australia



New Edition of Venomous Creatures of Australia released. This is the fifth edition of Professor Sutherland's successful field guide to Australia's venomous creatures, first aid and treatment of venomous bites and stings, this time revised with the help of John Sutherland. It is available at good bookstores, via Oxford University Press or by contacting AVRU.

16/11/98

AVRU Foundation Director's Life Story



"Truly it might be said that Struan Sutherland has lived life to the full. From the small boy in Bendigo who was driven by an insistent search for knowledge to experiment dangerously with explosives and electricity to the middle-aged scientist who risked his career for the sake of his principles, he has rushed on where fools might well fear to tread. To his dedication, his leadership and his intuition we owe the discovery of an antivenom to the bite of the Sydney Funnel-web spider, the development of venom detection kits and the pioneering pressure-immobilisation technique of first aid. It is all here in his autobiography: the debt he owed his family and friends, his problems with his superiors (including the famous or infamous paper clip incident), the thrill of success and the long heartbreaking years when there was so much to do and he was denied the means to do it. And then there are the discoveries that have never been implemented, especially in vitro assays for the monitoring of antivenoms, which would mainly replace the use of laboratory animals and the work on ant allergy. This autobiography might well provide a lesson both to the managers of research institutions and our lords and masters, the Australian governments both Labour and Liberal/National."

Professor Struan Sutherland's autobiography, "A Venomous Life" was launched on the 16th of November 1998. It contains the story of his early life, his stint in the Australian Navy, his time at CSL and the birth of the Australian Venom Research Unit. The development of an antivenom for the Sydney funnel web spider's bite and of pressure-immobilisation first aid for Australian venomous bites and stings are among the highlights of his amazing 30 year career in venom research. The book is available now at good bookshops throughout Australia, or may be ordered by contacting AVRU.

11/98

Possible new snake genus described

In Monitor 10(1)1998 pp5-9, 31, the Journal of the Victorian Herpetological Society, Raymond Hoser published a description of a possible new genus of Australian venomous snake, named Pailsus pailsei, after the collector of the original Queensland specimen, Roy Pails. Referred to as the "false king brown snake", this specimen has similarities with both the king brown or Mulga snake (*Pseudechis australis*), and the eastern or common brown snake (*Pseudonaja textilis*). The toxicity of the venom is unknown, as is the efficacy of existing snake antivenoms. AVRU is involved in assessing venom from the single captive specimen.

Pailsus pailsei
? new venomous snake genus

AVRU Grants
AVRU received a $25,000 per annum grant from Australian Rotary Health Foundation for study into the immunological response to spider bite. The grant, for a project to be carried out over three years, will enable AVRU to study the effects of bites from common spiders, including the white tailed spider, and may ultimately lead to the development of a test for this envenomation. $178,000 equipment grant from the Victorian State Government sets AVRU on a firmer footing for carrying out biomedical research into venoms, antivenoms and the care of the envenomed patient.
This July 1998 grant has allowed AVRU to purchase new liquid chromatography equipment for carrying out analyses of the chemical structure of venoms and the purification of venoms and venom components. The new equipment will initially be used on the Irukandji and necrotising arachnidism projects, but has wide applications for future venom research.

Steatoda: "new" spider envenomation
A recently reported case of spider bite involved a child who presented to hospital with redback like symptoms. The spider was subsequently identified as a Steatoda sp. by the Victorian Museum. The patient appeared to improve after treatment with redback spider antivenom, although it is difficult to say whether the antivenom was responsible for the improvement in his condition. (Details of this case will be published in the December 4 edition of the Medical Journal of Australia.) The Steatoda genus of spiders are relatives of the redback and other widow spiders.