



Academic Life



From the Tyee Yearbook, University of Washington, 1965



Charles E. Slonecker, DDS, Univ. of Wash. 1965

PROTEIN PRODUCTION BY LYMPH NODE CELLS OF RATS STIMULATED WITH PERTUSSIS VACCINE

By CHARLES E, SLONECKER and Dr. WILLIAM O. RIEKE

Department of Biological Structure, University of Washington, School of Medicine, Seattle, Washington

R EXENT investigations have emphasized that lymphocytes are of major importance in the initiation of the primary immune response to certain antigens! A. Although it has been reported that small lymphocytes enlarge after antigenic stimulation. And that larger lymphocytes in germinal centres profiferate and produce certain immunoglobulists. Bitle is known of the protein metabolism of the various sizes of lymphocytes during such responses.

A group of eight adult male Lewis rate was given \$2 \times 10^6 (0.05 c.s.) inactivated pertussis cells (Lilly, \$7.103 pertussis vancino, fluid) subcutaneously in each hind footpad. Eight control animals received \$9.05 c.c. of normal saline. Six hours after the footpad injection, both experimental and control animals received \$6 \times \text{u}_{\cup \empty}\$ body-weight of tritieted methionine (sp. act. 191 me./mole) introvenously. Experimental and corresponding control rate were killed at 1, \$6, 15, 18, 24, 36, 40 and 90 h after injection of tritisted methionine. One popioed lymph node was mineed in rat serum for amena while the controllation of tritisted methionine. The population of the serum for amena while the controllation of the service and sections were made by techniques previously described and were exposed for \$2, 5 and \$3 weeks.

A second group of adult male Lewis rats was antigenically stimulated and hilled as described for the aforementioned animals. Both popliteal nodes were colorimetrically analyzed for decayribonucleic acid (DNA)* and ribonucleic acid (BNA)*.

Following stimulation with pertuasis vaccine, the popliteal nodes rapidly increased in weight. Quantification of DNA [Fig. 1] in the emisarged nodes indicated that this increase in weight was due to nell proliferation. Difforantial cell memts on swear preparations showed that this proliferation occurred principally in the tyrophocytic series. There was also a slight rise in the number of reticular cells present in the popitical nodes, but no appreciable change was observed in the plasma cell series.

Protein metabolism was analysed in each cell series and nategory by studying autoradiographs of node smears. Both the percentage of labelled cells and the grain density were determined. The most active cell type in metabolizing radioactive amino-acid was the large lymphocyte

(Table 1, Fig. 2). The stimulated large lymphocytes were much more heavily labelled per unit area than were the controls. Part of the labelling of stimulated large lymphosytes as doubt reflected only the normally occurring increases in cytoplasmic constituents prior to division. However, since control large lymphocytes are also known to be dividing., the difference in labelling between stimulated and control cells suggested increased protein. production and turnover in the stimulated cells. Further evidence of increased turnover of protein was seen from the decrease in label with reference to time (Fig. 2), which was greater in the stimulated large lymphocytes than in the corresponding controls. Many of the heavily labelled large lymphocytes in the stimulated animals appeared more basephilie than the large lymphocytes in control animals. This histochemical reaction also suggested increased protein metabolism. While the prosent investigation alone does not distinguish between a non-specific increase in protein metabolism in large lymphocytes and the production of specific immune substances, the work of others2.4 has implicated this cell type in the production of immunoglobulins.

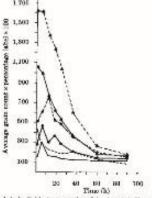


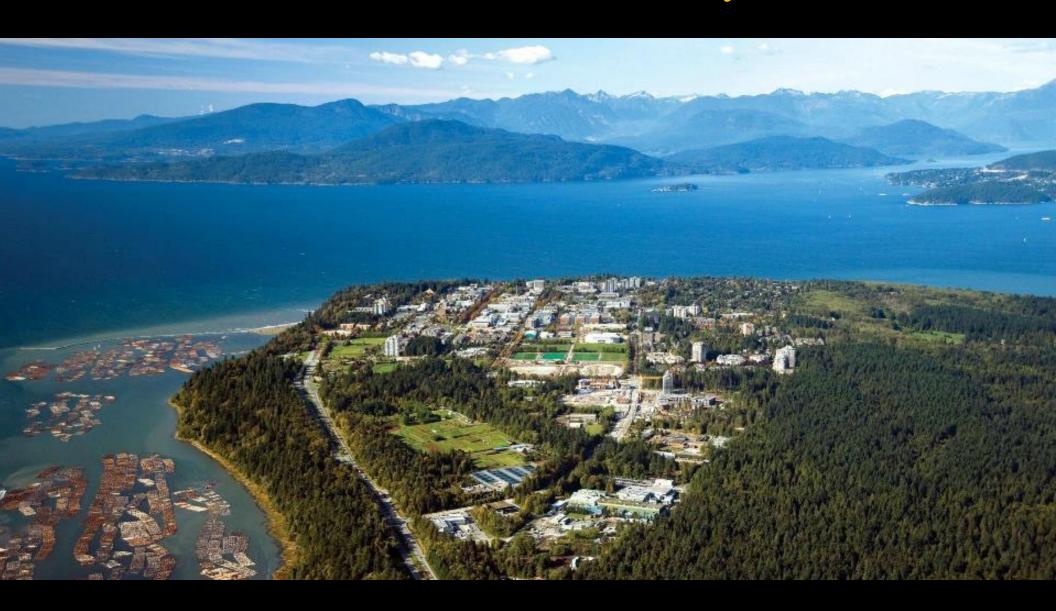
Fig. 9. The data in Table 1 are combined to show tabelling patherns of particula-drimitated and control lymphosoms at intervals after a single

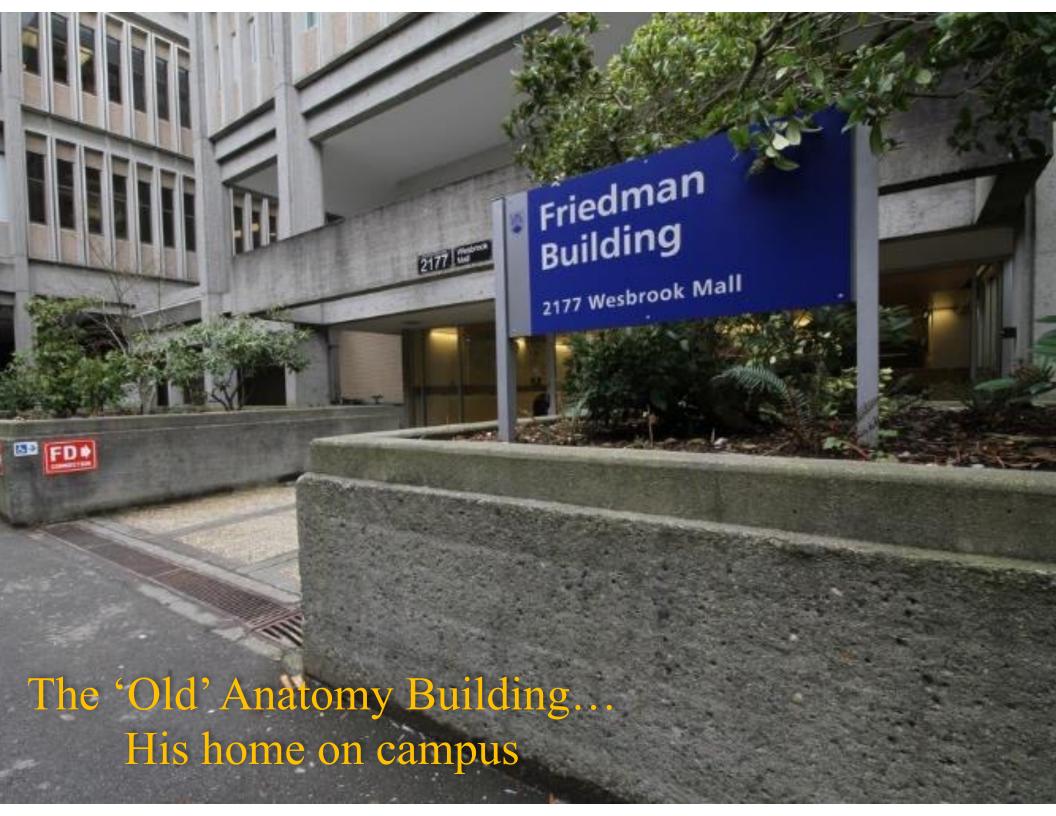
1965



Charles E. Slonecker, DDS, PhD

Chuck's UBC Family





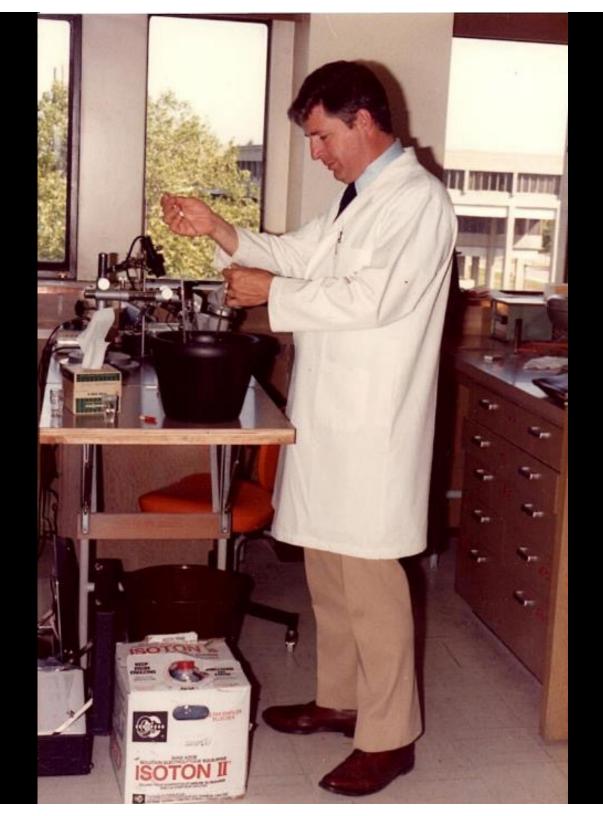
Chuck, Sydney, Hilda, Constance, Roseanne, Mickey, Sheila, Gisela and Inez











In the Research Lab...

Muscular Dystrophy research with colleagues

THE AMERICAN JOURNAL OF ANATOMY 168:291-304 (1983)

Abnormal Distribution of Fiber Types in the Slow-Twitch Soleus Muscle of the C57BL/6J DY^{2J}/DY^{2J} Dystrophic Mouse During Postnatal Development

W.K. OVALLE, B.H. BRESSLER, L.G. JASCH, AND C.E. SLONECKER Muscular Dystrophy Research Group, Department of Anatomy, Faculty of Medicine, University of British Columbia, Vancouver, B.C., Canada V&T 1W5

ABSTRACT The postnatal development of extrafusal fibers in the slow-twitch soleus muscle of genetically dystrophic C57BL/6J dy²/dy²/dy² mice and their normal age-matched controls was investigated by histochemical and quantitative methods at selected ages of 4, 8, 12, and 32 weeks. The majority of fibers in the soleus consisted of two kinds, fast-twitch oxidative-glycolytic (FOG) and slow-twitch oxidative (SO), according to reactions for alkaline-stable and acid-stable myosin ATPase and the oxidative enzyme, NADH-tetrazolium reductase. A minor population of fibers, stable for both alkaline- and acid-preincubated ATPase, but variable in staining intensity for NADH-TR, were designated "atypical" fibers.

With age, the normal soleus exhibited a gradual increase in the number and proportion of SO fibers and a reciprocal, steady decline in the percentage of FOG fibers. Atypical fibers were numerous at 4 weeks, but were substantially diminished at later ages. Since total extrafusal fiber number remained relatively constant between the periods examined, this change in relative proportions reflects an adaptive transformation of fiber types characteristic of normal postnatal growth.

A striking alteration in the number and distribution of fiber types was associated with the dystrophic soleus. At 4 weeks an 18% reduction in total fiber number was already noted. Subsequently, by 32 weeks a further 22% diminution in overall fiber number had occurred. With age, the absolute number and proportion of dystrophic SO fibers were drastically reduced. In contrast, the percentage of dystrophic FOG fibers increased significantly while their absolute numbers between 4 and 32 weeks remained relatively constant. Atypical fibers in the dystrophic solei were found in elevated numbers at all age groups, particularly at 12 weeks. They may, in part, represent attempts at regeneration or an intermediate stage in fiber-type transformation. Microscopically, both of the major fiber types appeared affected, albeit differently, by the dystrophic process. We suggest that a failure or retardation in the normal postnatal conversion of fiber types within the soleus muscle occurs in this murine model for muscular dystrophy.

The recently discovered C57BL/6J dy^{2J/} morphologic methods in search of specific fidy^{2J} strain of genetically dystrophic mouse ber-type involvement in this disease (Butler **EXPERIMENTAL NEUROLOGY 80, 457-470 (1983)**

Changes in Isometric Contractile Properties of Fast-Twitch and Slow-Twitch Skeletal Muscle of C57BL/6J dy^{2J}/dy^{2J} Dystrophic Mice during Postnatal Development

B. H. Bressler, L. G. Jasch, W. K. Ovalle, and C. E. Slonecker¹

Muscular Dystrophy Research Group, Department of Anatomy, University of British Columbia, Vancouver, British Columbia, V6T 1WS, Canada

Received July 27, 1982; revision received December 3, 1982

Our primary aim was to determine if there exists a preferential involvement of the fast-twitch or slow-twitch skeletal muscle fibers in the dy21/dy21 strain of murine dystrophy. The changes in the contractile properties of the slow-twitch soleus (SOL) and the fast-twitch extensor digitorum longus (EDL) muscles of normal and dystrophic mice were studied at 4, 8, 12, and 32 weeks of age. Isometric twitch and tetanus tension were decreased in the 4- and 8-week-old dystrophic EDL compared with controls, this situation being reversed in the older animals. At 12 weeks, the dystrophic EDL generated 15% more tetanic tension than normal EDL and by 32 weeks no significant difference was seen between normal and dystrophic EDL twitch or tetanus tension. By 8 weeks, dystrophic EDL exhibited a prolonged time-to-peak twitch tension (TTP) and half-relaxation time (1/2RT) of the isometric twitch which continued to 32 weeks. For the dystrophic SOL, decreased twitch and tetanus tension was observed from 4 to 32 weeks. At 8 and 12 weeks, TTP and 1/2RT of dystrophic SQL were prolonged. However, by 32 weeks there was no longer a significant difference seen in TTP or 1/1RT between normal and dystrophic SOL. Our results appear to indicate that a loss of the primary control which is determining the fiber composition of the individual muscles is occurring as the dystrophic process advances.

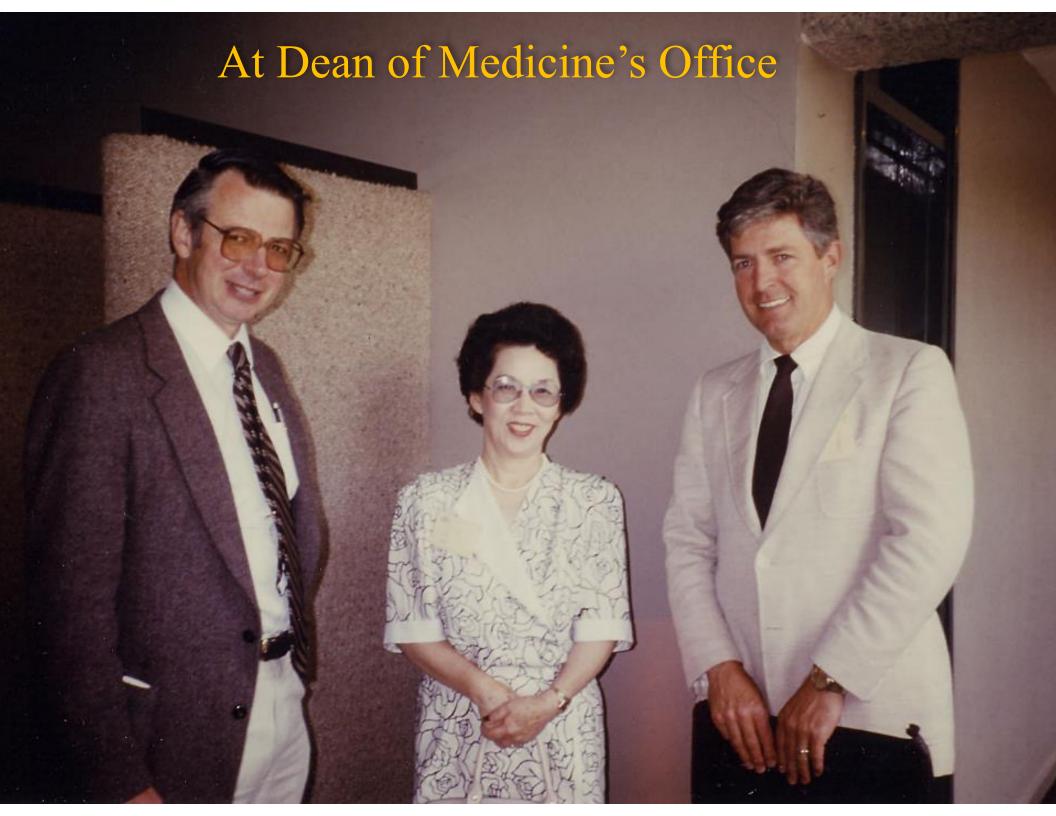
INTRODUCTION

Previous work by many investigators (10, 14, 25, 26) has provided evidence for a consistent deficit in the tension-generating ability of both the slowtwitch soleus (SOL) and the fast-twitch extensor digitorum longus (EDL)

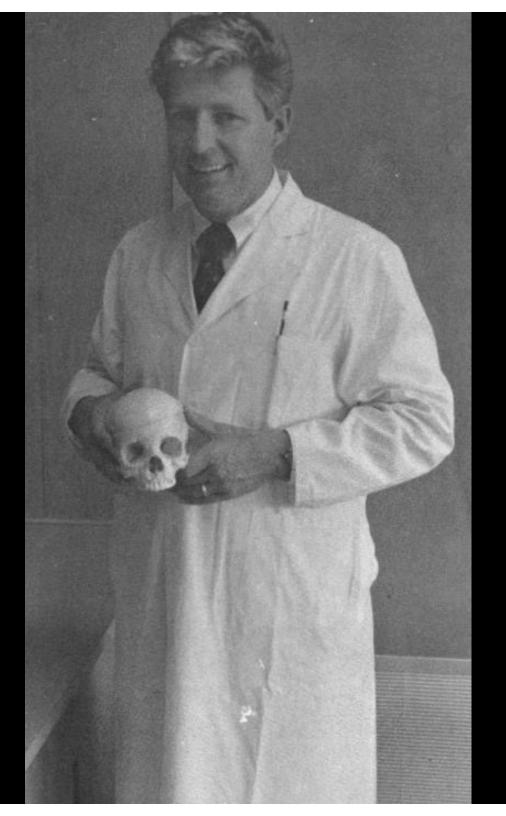
Abbreviations: SOL—soleus, EDL—extensor digitorum longus, P₁—isometric twitch, P₀—tetanic tension, V₁RT—half-relaxation time, TTP—time-to-peak twitch tension, SO—slow oxidative, FOG—fast oxidative glycolytic, FG—fast glycolytic.

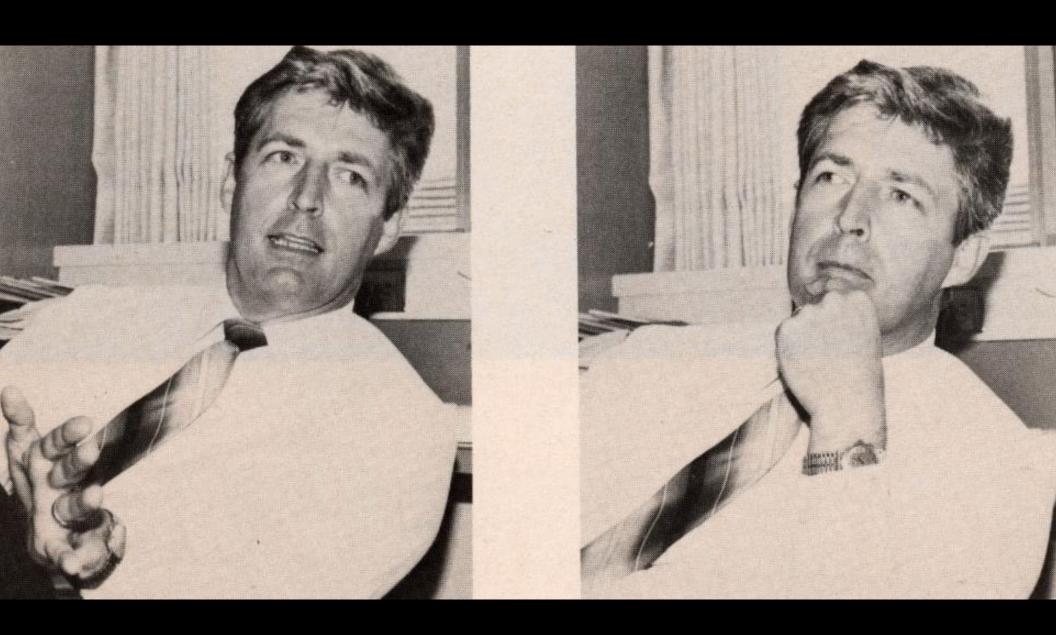
With Jan & the Friedmans



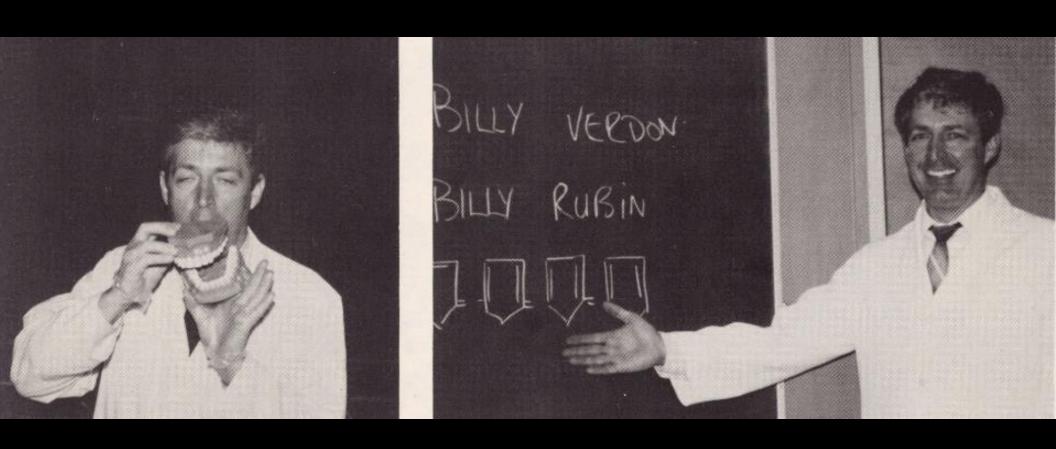


His love of Anatomy





The 'Master Teacher'



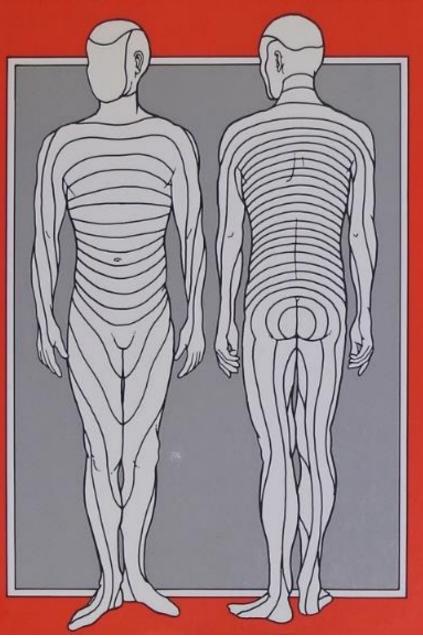


Grant's Eleventh Edition METHOD OF ANATOMY

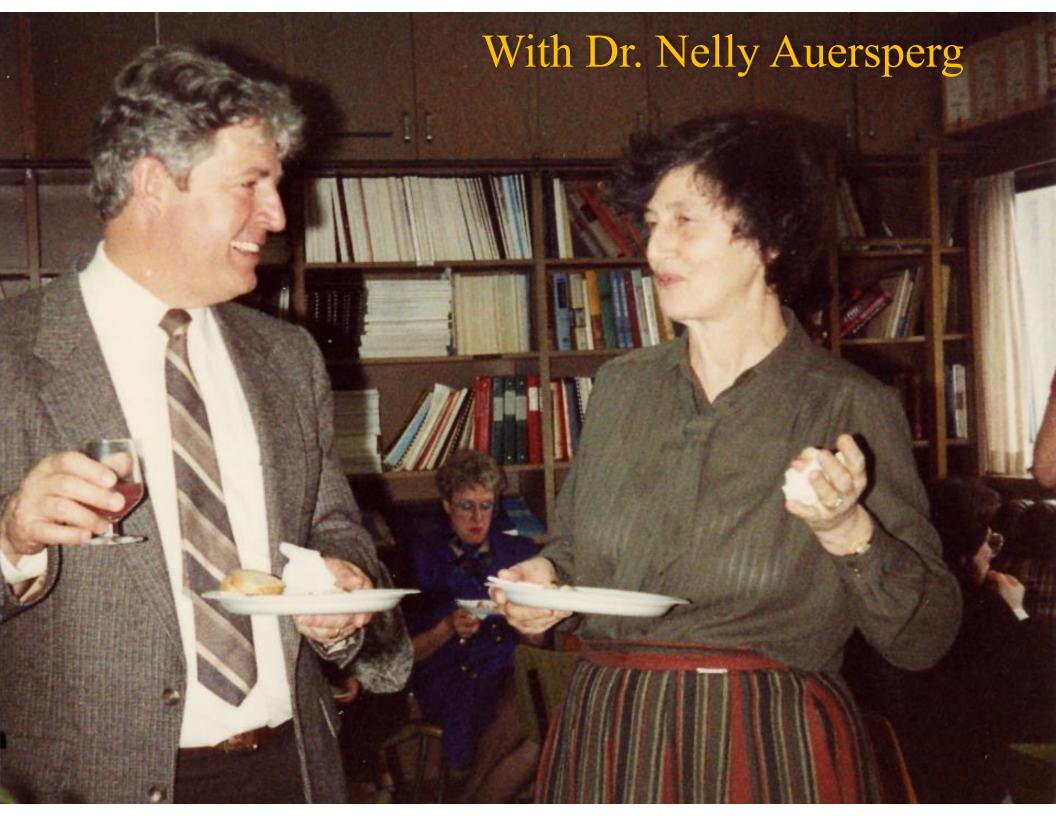
A CLINICAL PROBLEM-SOLVING APPROACH

JOHN V. BASMAJIAN

CHARLES E. SLONECKER

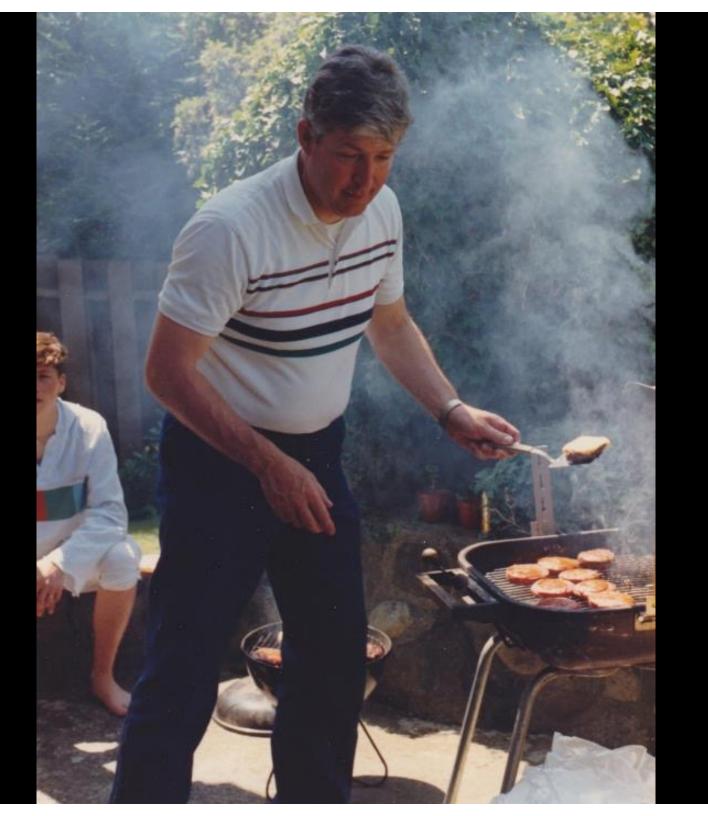


Textbook Author

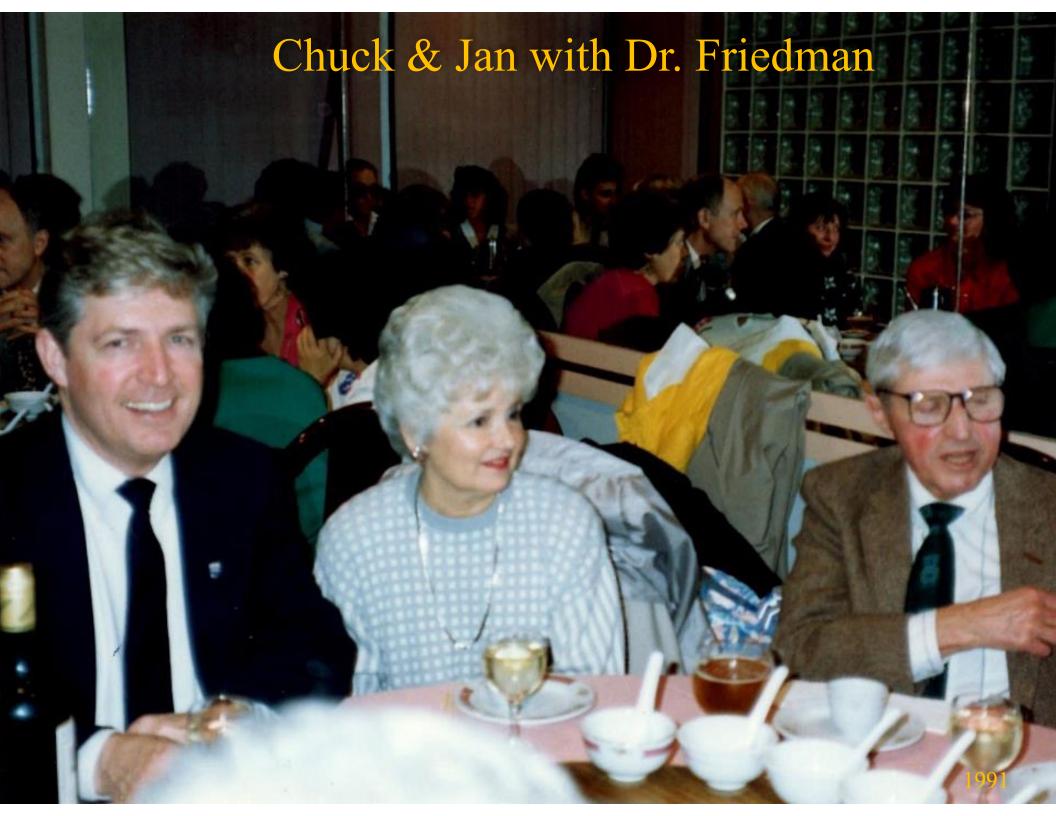


With Bernie Bressler, Shahira & Mickey





With Gordon, Bernie, Mickey & Roseanne









With fellow classmates at University of Washington Dentistry reunion







With Dr. Wayne Vogl

With first Visiting
Professor from
Mainland China



Helping out with United Way





With Lica Chui and Carole Forsythe

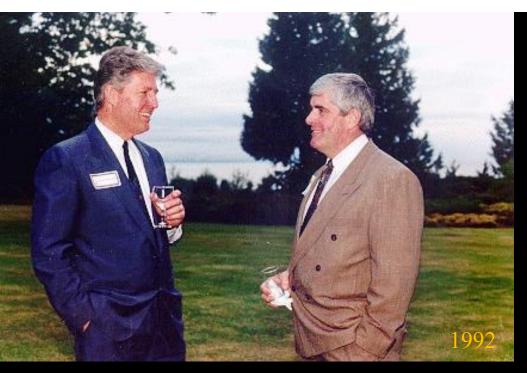








B























At Dr. David Strangway's Farewell





Former Anatomy Association Presidents





The A.J. Ladman AAA/Wiley Exemplary Service Award

The A.J. Ladman AAA/Wiley Exemplary Service Award is jointly presented by The American Association of Anatomists and John Wiley and Sons, Inc., Publishers. This award is presented to a member who has distinguished himself or herself in the field of anatomy and who has provided exemplary service to the AAA. The recipient of this award for 2002 is Dr. Charles E. Sionecker, Profeesor of Anatomy and former Chairman of the Department of Anatomy and former Acting Vice President for External Affairs at The University of British Columbia (UBC). He is currently the Director of Ceremonies and University Relations at UBC.

Dr. Sionecker's undergraduate years were spent at Olympic College (1957-1958) and at the University of Washington (1958-1960), where he was an undergraduate student in selence and chemistry. He entered the School of Dentistry at the University of Washington in September of 1960 and received his D.D.S. degree in June of 1965.

An interest in research, sparked by attending a meeting of the AAA in 1953 in Miami, precipitated Dr. Slonecker's compelling interest in graduate education in Anatomy. To satisfy this newfound desire for further training, he entered the Ph.D. program in the Department of Biological Structure at the University of Washington. His research for the Ph.D. was conducted in the laboratories of Drs. William O. Rieke and Newton B. Everett. produced the first four editions. Dr. Slonecker entered the field in an exciting and growing period in anatomical research and for the AAA. Numercus new discoveries were made in

the 1960s using elimmunology, cytoc chemical technieus raphy. In addition



Dr. Charles E. Slonecker and his wife, Jan Slonecker

Dr. N.B. Everett as his mentor. Ever- an Undergraduate Research Fellowship. of Functional Neuroanatomy, succeeding Dr. A.R. Buchanan who had

Before earning his Ph.D., Dr. Slonecker received several awards. These include membership in Omicron Kappa Upsilon, The American Acad

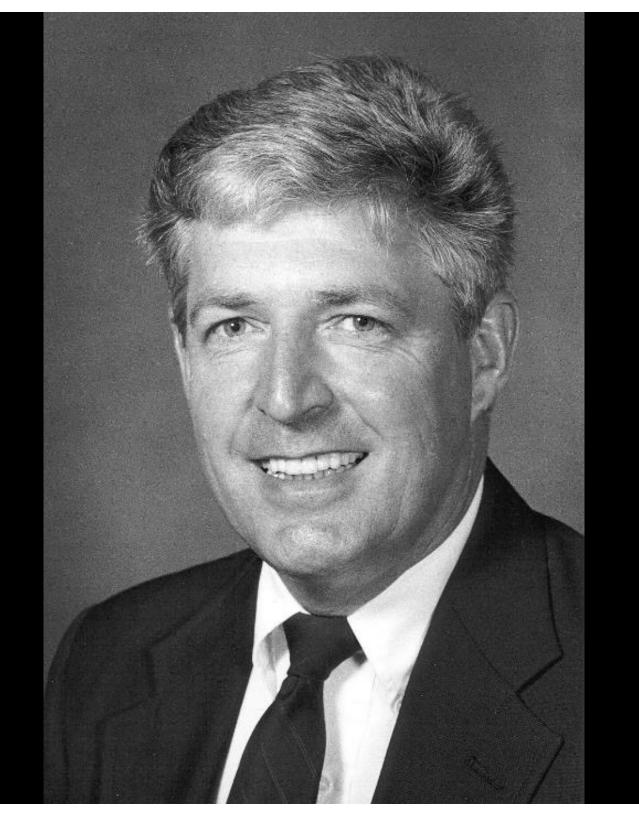
ett had just produced the 5th Edition from the U.S. Public Health Service. After receipt of his D.D.S. degree in 1965, he held a USPHS Postdoctoral Fellowship while working on his Ph.D.

After receiving his Ph.D. in Anatomy in 1967, Dr. Slonecker was a Postdoctoral Fellow in the Pathology Institute at the University of Bern, In-

an Assistant Profesat The University of a (UBC). Over the ough the ranks in the

American Association of Anatomists





At 25 yr Club Dinner with Garrads, Howes, Eilis & Joan

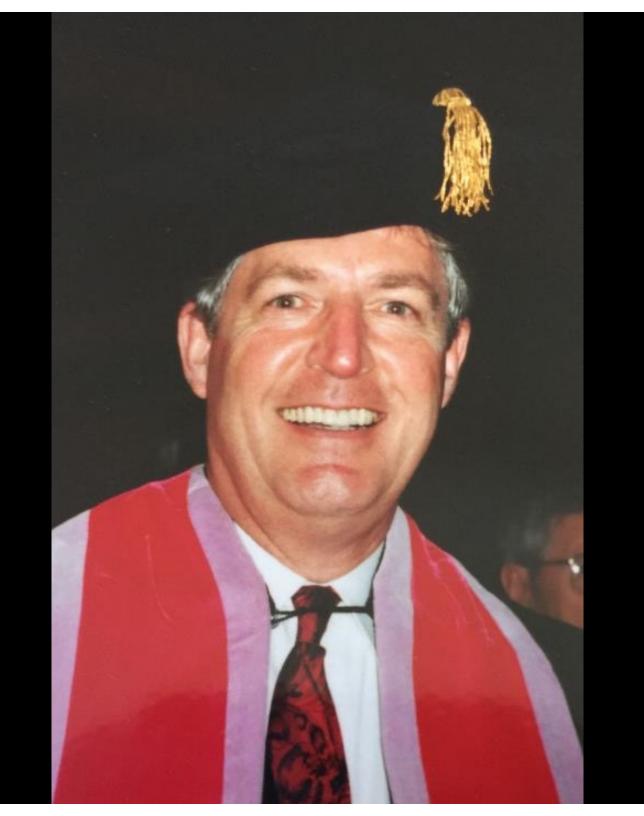


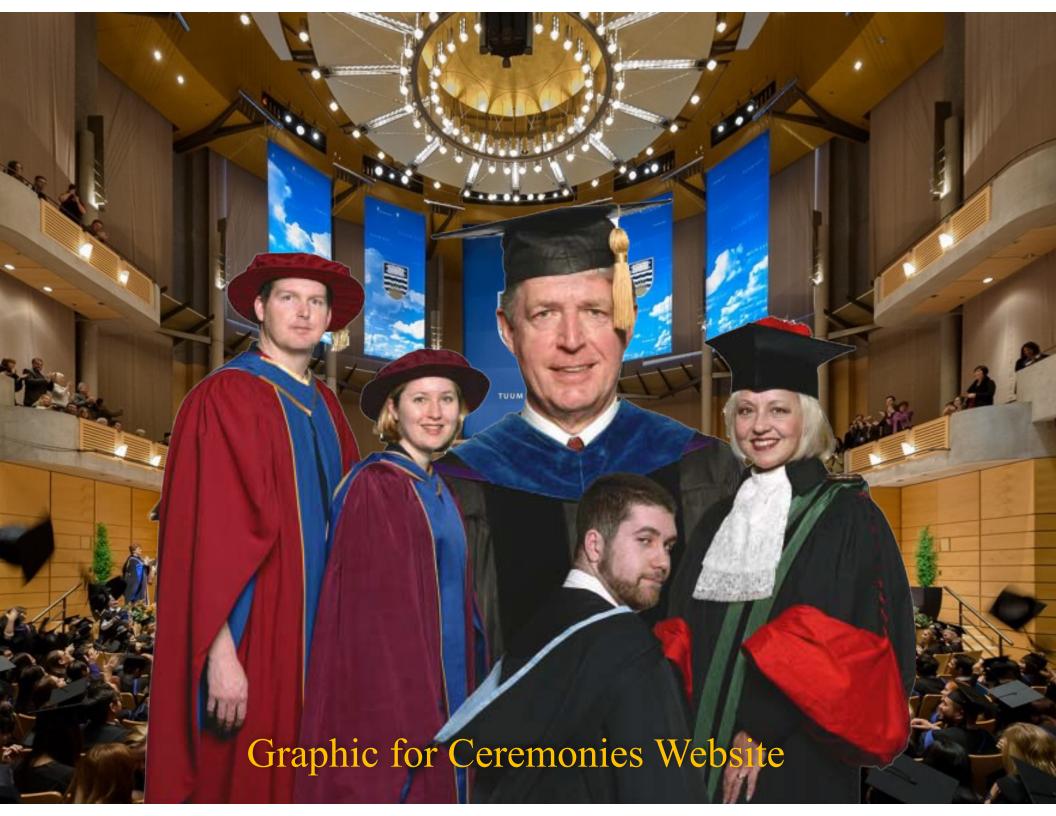
At Faculty Club with Bill Ovalle, Betty Akesson and Donna Ford



Ceremonies – Faye, Sheila, Eilis, Carolyn & Mel







Directors of Ceremonies – John Stager, Ben Moyls, Joan King & Chuck



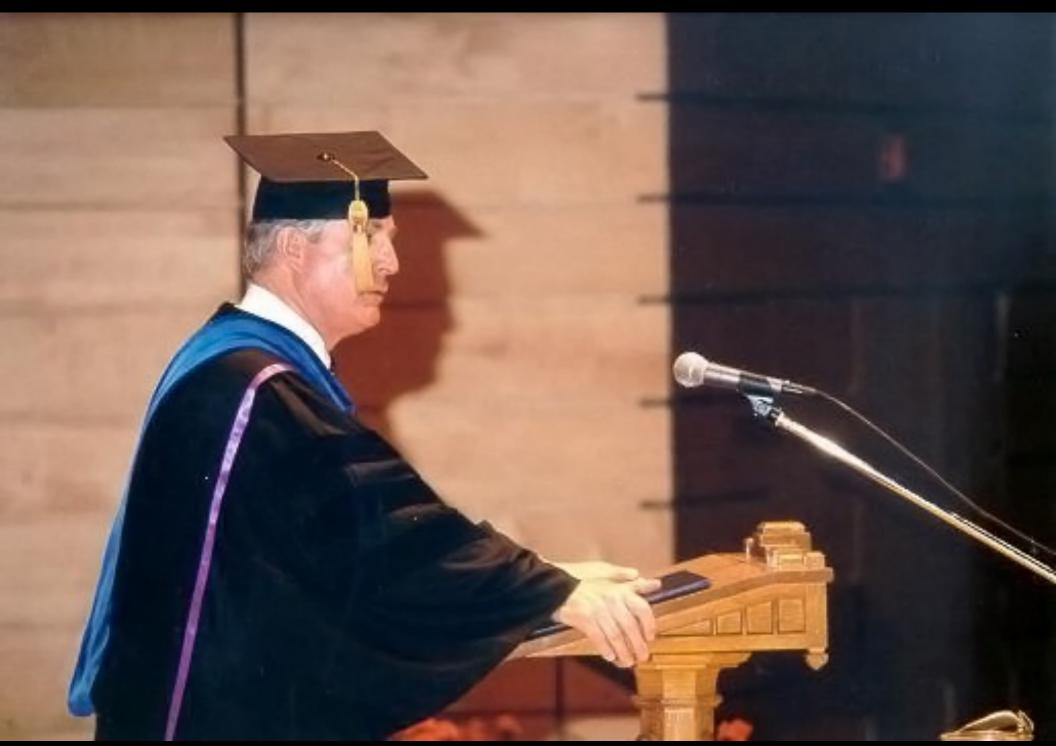
Ready for Graduation with Eilis, Joan & Mel



At Graduation Ceremonies







At NAM with Monica, Mel, Jan & Eilis



With Cheryl, Eilis, Joan, Mel & Celeste - Ceremonies



Atop Grouse Mountain







Ceremonies giving Bob Hindmarch a Special Honorary Degree



PUCCCK

(President's University Costume Croquet Klassic)



Nice form, and Uniform!



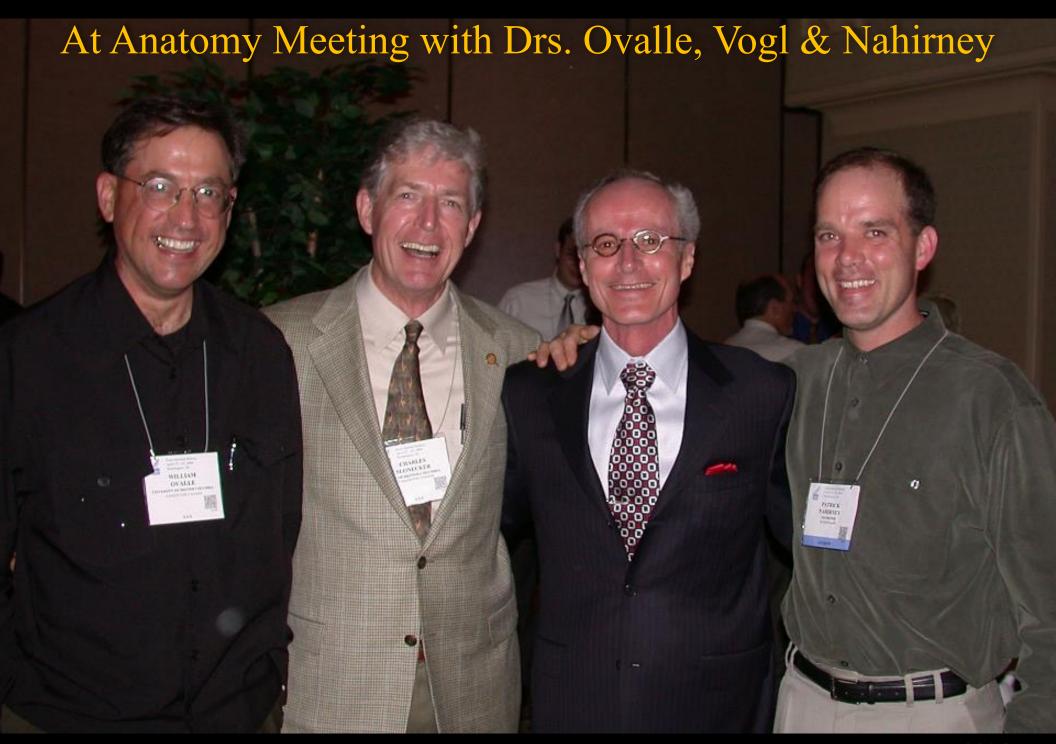
PUCCCK



With Cheryl, Mel and Eilis

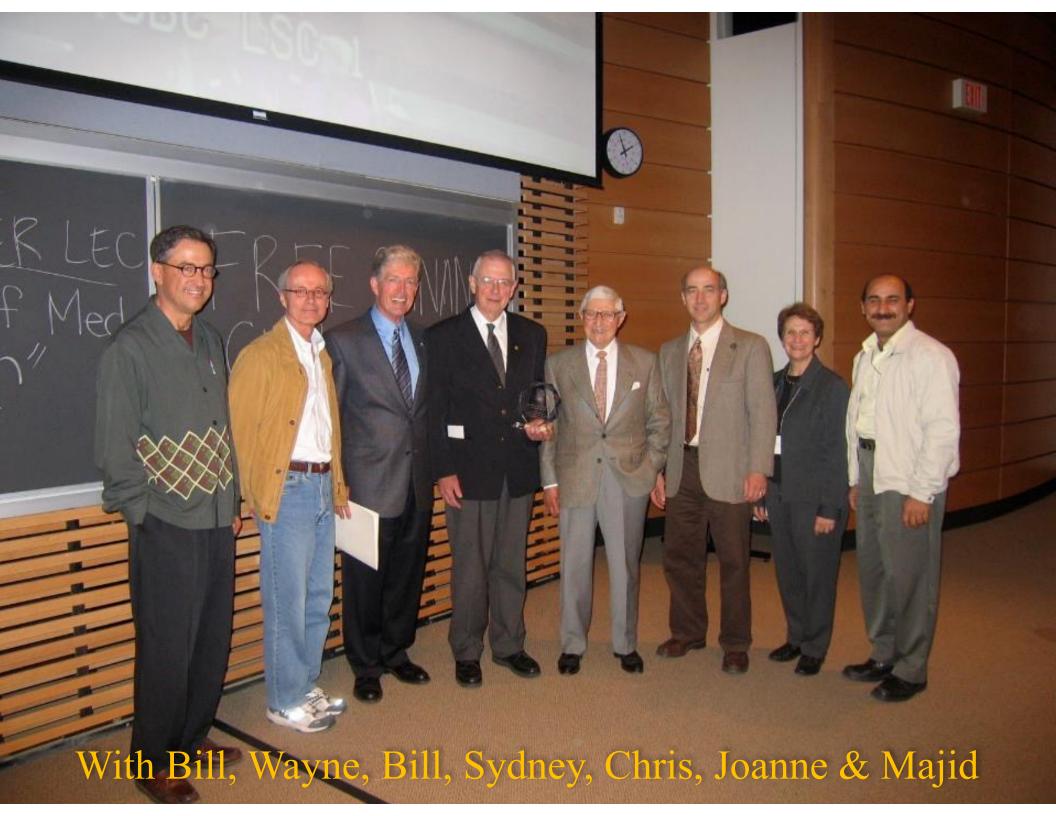
Joan and Chuck













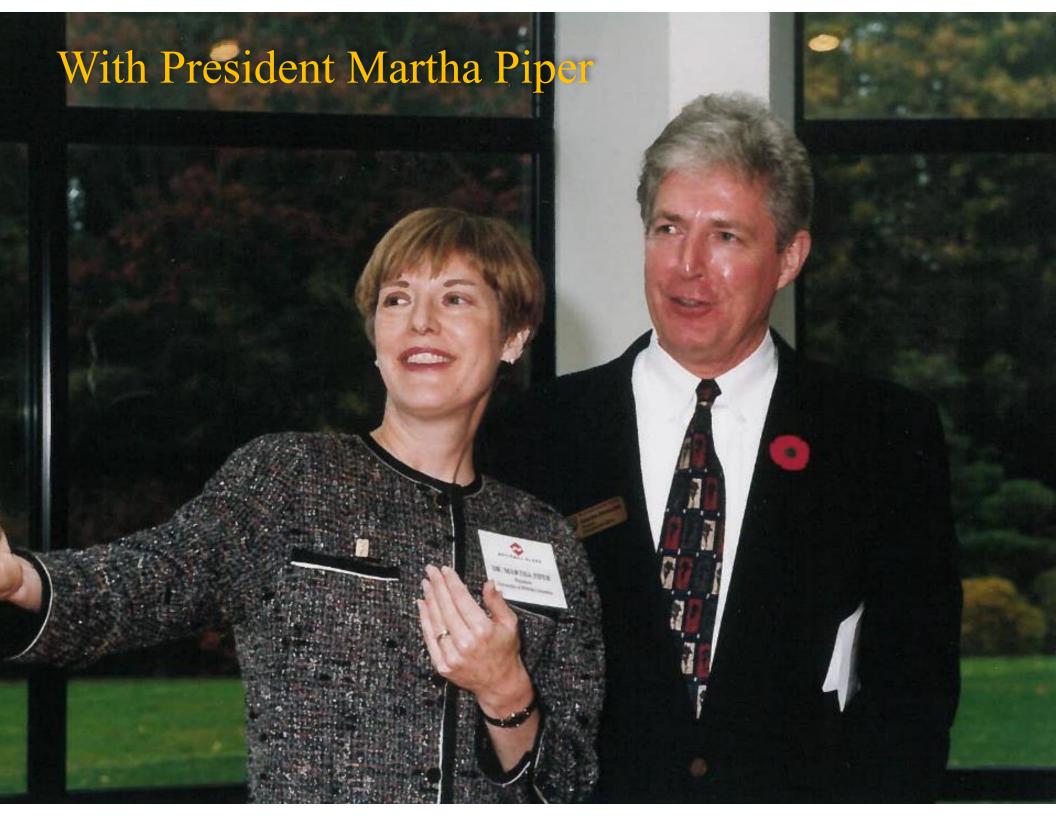
With Dean Martin Hollenberg & friends









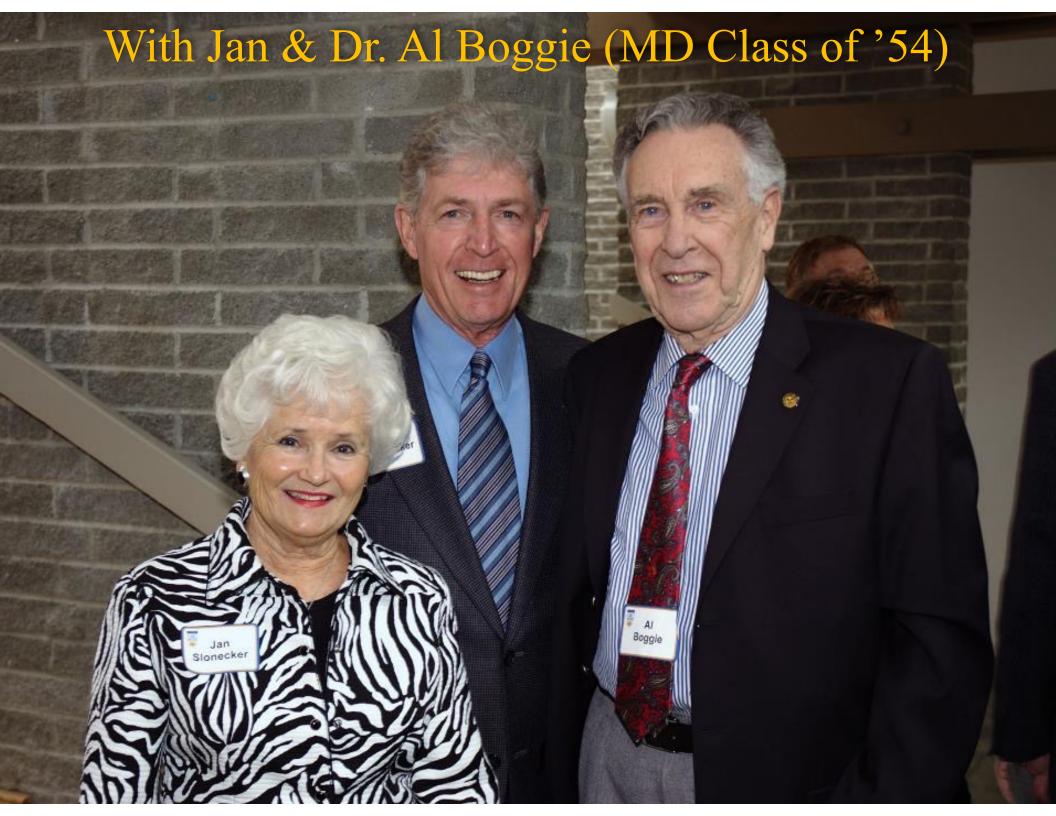


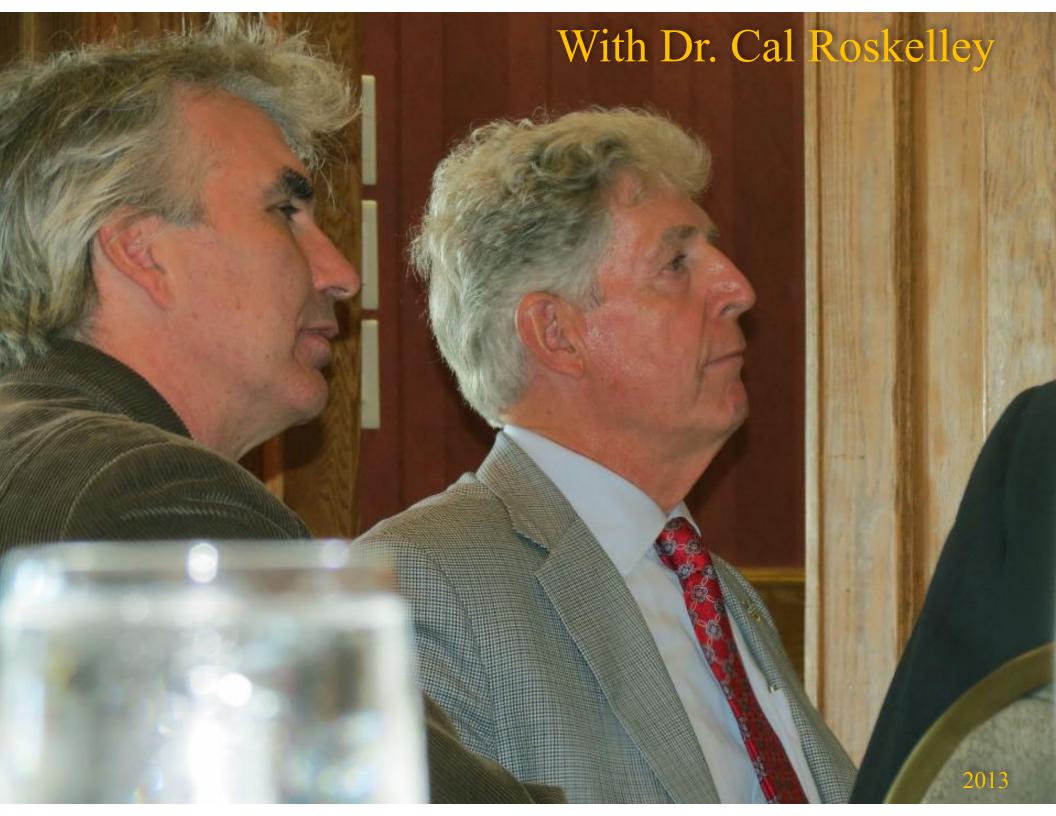
With David Hardwick and Wolfgang Felix



















Friedman Foundation Directors







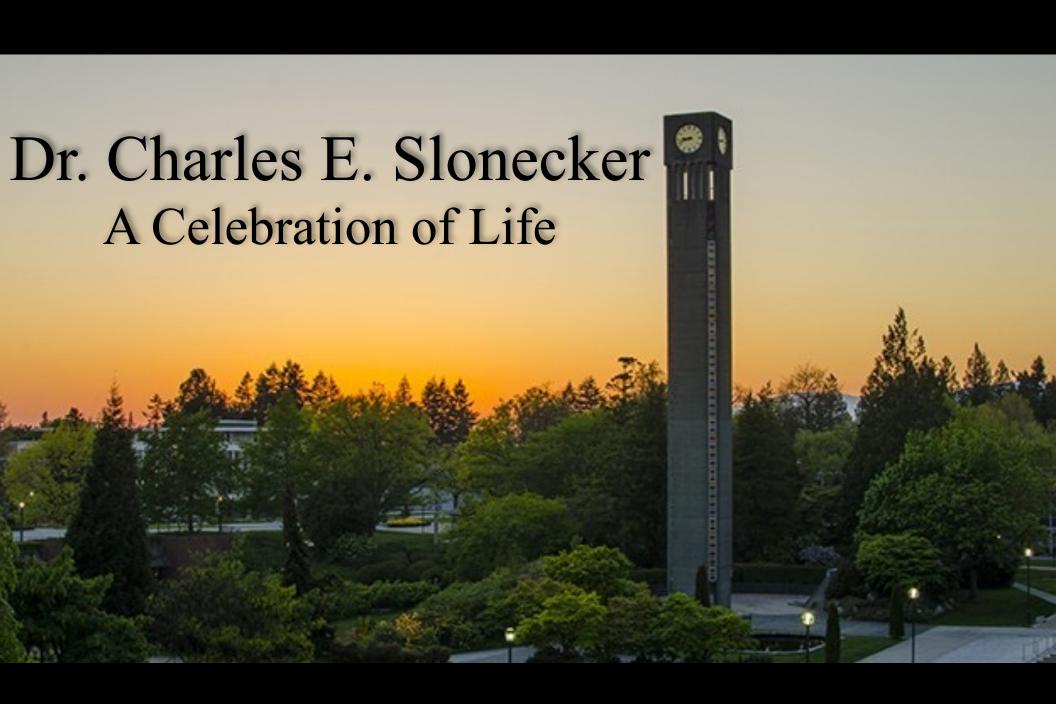










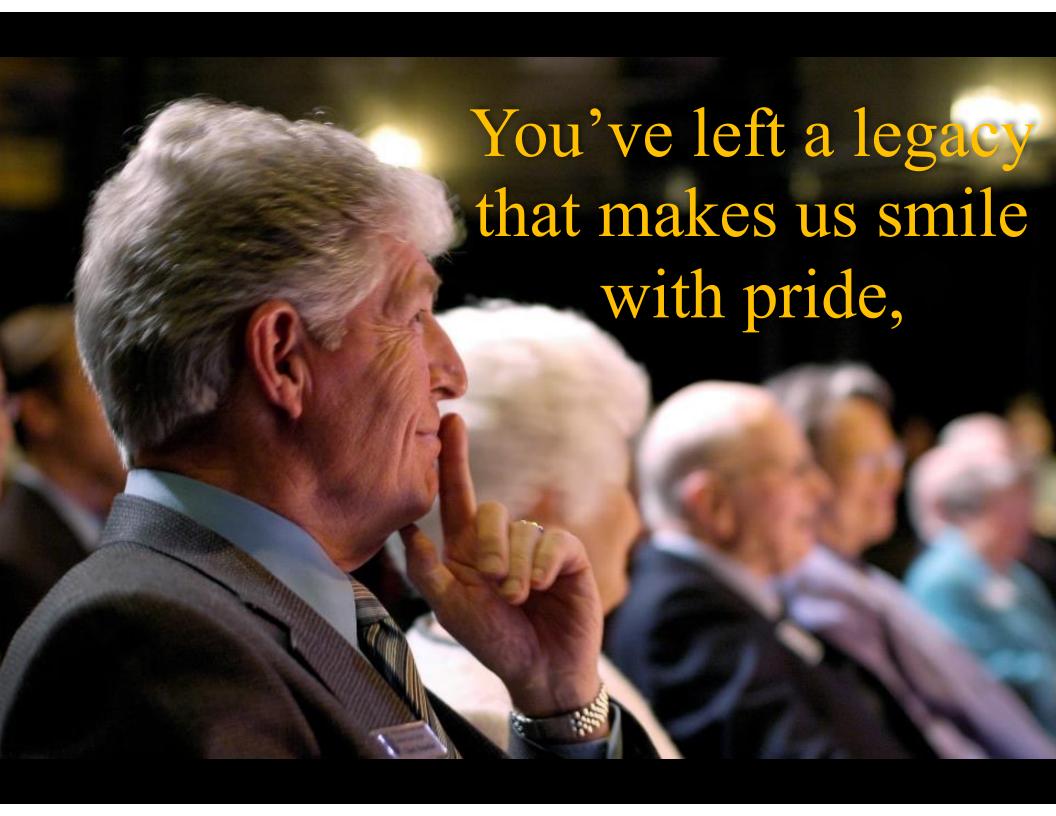


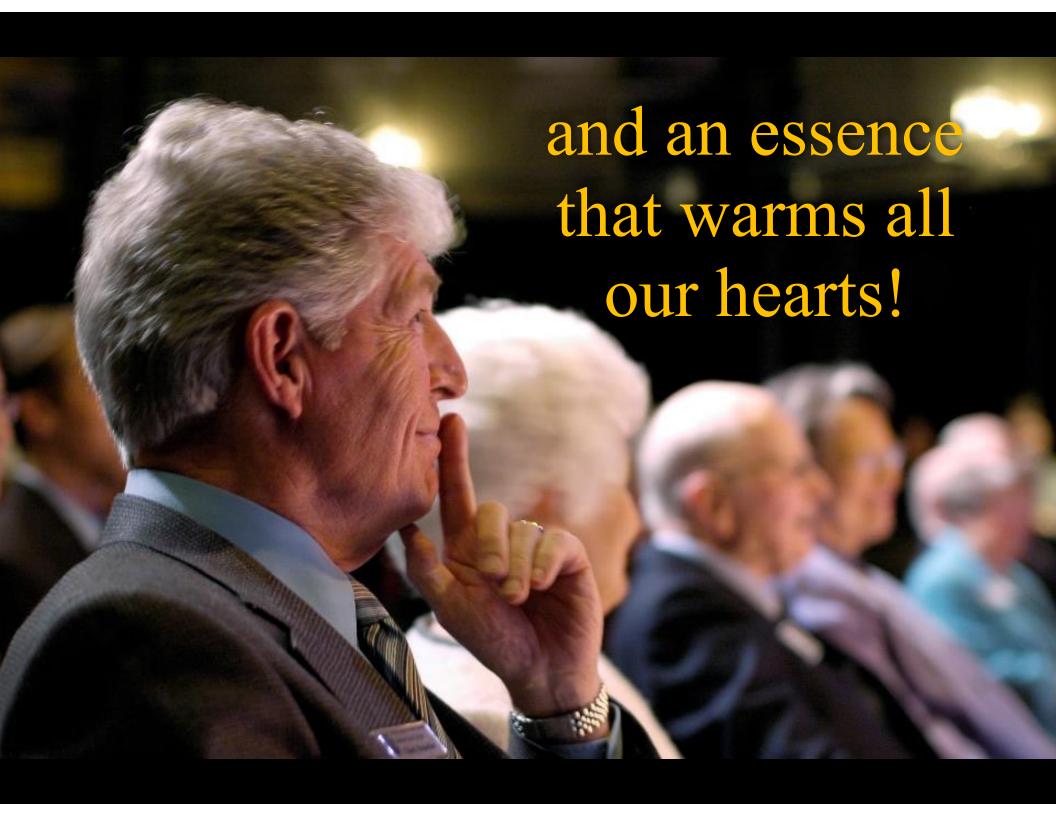
Lowering of the BC Flag













Dr. Charles E. Slonecker A Celebration of Life

Photographs kindly provided by:

The Slonecker Family
UBC Department of Anatomy/CPS
Roseanne McIndoe
William K. Ovalle
Jim Jorgenson
Eilis Courtney
UBC Ceremonies Office
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Presentation created by Patrick C. Nahirney September 2016