THE BULLETIN

Mount Desert Island Biological Laboratory



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TABLE OF CONTENTS

Introduction	ii-iii
Helen Cserr Memorial.	1V-V
Report Titles	vii-x
Reports	1-113
Officers and Trustees	114-116
Scientific Personnel	117-121
Seminars	122-125
Publications	126-127
Author Index	128-129
Species Index	129
Keyword Index	130-131

THE MOUNT DESERT ISLAND BIOLOGICAL LABORATORY

SERVING HUMANITY THROUGH RESEARCH AND TEACHING IN MARINE BIOMEDICINE

INTRODUCTION

The Mount Desert Island Biological Laboratory (MDIBL) is an independent non-profit biological station. It is located on the north shore of Mount Desert Island, overlooking the Gulf of Maine about 120 miles northeast of Portland near the mouth of the Bay of Fundy. The island, well known for Acadia National Park, provides a variety of habitats including shallow and deep saltwater, a broad intertidal zone, saltwater and freshwater marshes, freshwater lakes and streams, forests and meadows.

The Laboratory is the largest cold water research facility in the Eastern United States, and its unique site provides an outstanding environment for studying the physiology of marine and freshwater flora and fauna. During 1993, the scientific personnel included 46 principal investigators, 15 associates and 77 assistants/technicians, representing 62 institutions in 27 states and 4 European countries.

HISTORY AND ORGANIZATION

MDIBL was founded in 1898 at South Harpswell, Maine by J.S. Kingsley of Tufts University. Its present site at Salsbury Cove was donated by the Wild Gardens of Acadia and relocation was completed in 1921. The Wild Gardens of Acadia, a land-holding group headed by George B. Dorr and John D. Rockefeller, Jr., was instrumental in the founding of Acadia National Park.

The Laboratory was incorporated in 1914 under the laws of the State of Maine as a non-profit scientific and educational institution. Founded as a teaching laboratory, MDIBL is now a center for marine biomedical research and teaching that attracts investigators and students from across the U.S. and around the world. Since the pioneering work of H.W. Smith, E.K. Marshall, and Roy P. Forster on various aspects of renal and osmoregulatory physiology of local fauna, the Laboratory has become known worldwide as a center for investigations in electrolyte and transport physiology, developmental biology and electrophysiology.

The Mount Desert Island Biological Laboratory is owned and operated by the Board of Trustees and Members of the Corporation; at present, there are 434 members. Officers of the Corporation - Chair, Vice-Chair, Director, Secretary, Treasurer, Clerk - and an Executive Committee are elected from among the Trustees. The Chair and Executive Committee oversee the general administration and long range goals of the Laboratory. The Director, with the aid of a full-time Administrative Director and staff, is responsible for implementing the scientific, educational and public service activities of the Laboratory.

NIEHS TOXICOLOGY CENTER

In 1985, with the support of the National Institute of Environmental Health Sciences (NIEHS), MDIBL established a center dedicated to the study of the toxic effects of heavy metals and other environmental pollutants that pose an increasing health risk to humans and a threat to the marine environment. The focus of The Center for Membrane Toxicity Studies (CMTS), is the use of marine animals like the shark, the flounder and the skate to define sites of action for metals such as mercury and cadmium that enter the environment due to improper disposal of industrial waste and as a component of some pesticides. The effects of these pollutants are wide-spread in the human body, with affected organs including the brain, the kidney, the liver, the gastrointestinal tract and the reproductive system. The goal of the CMTS is to identify the molecular targets for toxic substances and to provide the scientific basis for the development of treatments for heavy-metal intoxication. Inquiries concerning the center are welcome.

APPLICATIONS & FELLOWSHIPS

Research space is available for the entire summer season (June 1 - September 30) or a half-season (June 1 - July 31 or August 1 - September 30). Applications for the coming summer must be submitted by February 1st each year. Investigators are invited to use the year-round facilities at other times of the year, but such plans should include prior consultation with the MDIBL Office concerning available facilities and specimen supply.

A number of fellowships and scholarships are available to research scientists, undergraduate faculty and students, as well as high school students. These funds may be used to cover the cost of laboratory rent, housing and supplies. Stipends are granted with many of the student awards. Applications for fellowships for the coming summer research period are generally due in January.

For further information on applications and fellowships/scholarships, please contact:

Dr. Barbara Kent Mount Desert Island Biological Laboratory P.O. Box 35 Salsbury Cove, ME 04672 Tel. (207) 288-3605 Fax. (207) 288-2130

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The Mount Desert Island Biological Laboratory is indebted to the National Science Foundation and National Institutes of Health for substantial support. Funds for building renovations and new construction permitted the Laboratory to expand and upgrade its research and teaching facilities. Individual research projects served by the Laboratory are funded by private and government agencies, and all of these projects have benefited from the NSF and NIH grants to the Laboratory. For supporting our educational initiative, MDIBL acknowledges the Burroughs Wellcome Fund, Grass Foundation, Milbury Fellowship Fund, American Heart Association - Maine Affiliate, State of Maine EPSCoR funds, Mr. Robert E. Blum, Maine Community Foundation, NSF - Research Experience for Undergraduates and many local businesses and individuals.



Helen F. Cserr, Ph.D. June 23, 1937 - August 11, 1994

IN MEMORIAL TO HELEN F. CSERR, Ph.D.

While contemplating how best to express my feelings for Helen, I have learned something of which I was unaware.

My memories of Helen consist of a series of pictures or scenes in clear bright colors. Helen, always dignified, always kind, always brilliant and with a charming smile is there right in front of me. In looking through these mental snapshots, what surprises me the most is that my memory is so clear, so completely alive. I, who often have a poor memory for people, their faces or the circumstances under which I met them, have the clearest possible memories of Helen. How is it that Helen stands out in my memory so vividly? The impression she has made on me must have been far more profound than I, hitherto, had been aware.

My first mental picture of Helen is at a Federation meeting around 1963. I was introduced to this strikingly beautiful and obviously intelligent young woman physiologist. She was talking to someone and I sensed instantly that she was very special. The next time we met she had come to work at Mount Desert Island Biological Laboratory and we soon became friends. Helen and I introduced her daughter Ruthie and my granddaughter Mimi to each other and I can clearly see the four of us picking blueberries on our Blueberry Hill Farm in Maine. I have pictures of many a lovely dinner party with Helen and her husband Bob, both before and after they remodeled their summer home. I see Helen in her charming kitchen preparing a delicious salad, while Bob in the meantime is preparing the perfect steak. I see her pleasure as she shows us the tiles with birds in their kitchen and the wonderful flower garden she and Bob created. There was the time I got carried away and planted hosta plants on our own property. I planted them all through the flower garden, but Helen warned me that they would take over, which of course they did, and eventually we had to move them all.

I also see Helen and Bob Cserr in Budapest at the International Congress of Physiology in 1980. I was there without my husband Roger and they took me to charming restaurants with Hungarian music, and even decided what embroidered blouses I should buy.

Helen was an inspired scientist, and it was in this capacity that I came to know and appreciate her the most. Her work with lymph flow in the brain was original and ingenious. As I was working with the kidney papilla where I was convinced that lymph and macromolecules move from the papilla toward the cortex in extravascular channels, Helen and I had much of common interest to discuss. I see her standing in my laboratory giving me advice on which markers to use and I see her as we sat together talking science on her balcony looking out over Frenchman Bay. She tells me how she is re-educating herself by studying immunology. She took a courageous and wise step to better her research.

Helen was a true comparative physiologist, using animal models to study brain physiology in simpler forms and also to understand how the blood brain barrier had developed from primitive to more advanced vertebrates. I see her as she gives a seminar at MDIBL in Dahlgren Hall.

My last picture of Helen is from our living room on Blueberry Hill Farm. Just a month before she fell ill, Helen and Bob visited us and Helen with her usual enthusiasm told us about her upcoming trip to Australia. I took a picture of her then and her smile lights up the room.

It is rare that we encounter such a handsome, enthusiastic, fearlessly independent and imaginative scientist as Helen, and because of tradition it is even rarer to find these characteristics in a woman. I salute you Helen. You were an example to many, you are greatly missed.

- Bodil Schmidt-Nielsen, Ph.D.

REPORT TITLES

Rappaport, R. Division mechanism establishment by single asters in sand dollar (<u>Echinarachnius</u> <u>parma</u>) eggsl
Henson, J.H., C.D. Roesener, S. Capuano, J.N. Forrest, Jr. and A. Klein- zeller. Cytoskeletal reorganizations following volume changes in cultured shark (<u>Squalus acanthias</u>) rectal gland cells
Conrad, A.H., M.J. Janasek, S.S. Schwarting and G.W. Conrad. The effects of heavy metals on cytoskeletal components involved in cell shape changes during first cleavage in <u>Ilyanassa obsoleta</u> 4
Trotter, J.A. and T.J. Koob. Bending tests on <u>Cucumaria frondosa</u> dermis show that extracellular Ca ²⁺ affects the cellular control of tissue viscosity, and that cell lysis produces a soluble stiffening factor6
Agre, P., G. Makker, K. Bhakta and G.M. Preston. Aquaporins from rectal gland of <u>Squalus</u> <u>acanthias</u> : Probable sites of mercury toxicity10
Harris, H.W. and C. Hosselet. Antidiuretic hormone (ADH) modulates the expression of the aquaporin-TB water channel protein in selected tissues of both anurans (<u>Bufo marinus</u>) and urodeles (<u>Ambystoma tigrinum</u>)11
Fan, J., L. Cleemann, B. Lara, L. Gandia and M. Morad. Ionic currents in adrenal chromaffin cells from <u>Rattus rattus</u> in primary culture
Cleemann, L., J. Fan, L. Gandia, B. Lara, A. Garcia and M. Morad. Secre- tion in adrenal chromaffin cells from <u>Rattus</u> is gated by L-type Ca ²⁺ channel
Takahashi, A., W.K. Suggs, J. Forrest and R.A. Frizzell. cAMP activated Cl ⁻ and K ⁴ currents in shark rectal gland cells
Smith, S.S., J. Stewart, G. Edmunds, L.L. Bries, P.Y. Watson and D.C. Dawson. Mercury inhibition of Na/K ATPase in <u>Xenopus</u> <u>laevis</u> oocytes18
Kinne-Saffran, E. and R.K.H. Kinne. Interaction of inorganic and organic mercurials with the Na-K-2Cl cotransporter in plasma membrane vesicles isolated from the rectal gland of <u>Squalus</u> <u>acanthias</u>
Cantiello, H.F., G.R. Jackson, Jr. and J.N. Forrest, Jr. Protein kinase A-activated ATP channels in cultured rectal gland cells from the shark <u>Squalus</u> <u>acanthias</u>
Lehrich, R.W., C. Kelmenson, W.K. Suggs and J.N. Forrest, Jr. Protein kinase C isoforms in primary cell cultures of rectal gland tubules of the dogfish shark, <u>Squalus</u> <u>acanthias</u> 24
Lehrich, R.W., C. Marino, H. Hentschel, C. Kelmenson, M. Ratner and J.N. Forrest, Jr. Immunolocalization of DFTR with the rodent CFTR antibody R3195 in the rectal gland of the dogfish shark, <u>Squalus</u> <u>acanthias</u>

Hentschel, H., E. Kinne-Saffran, R.K.H. Kinne, M. Elger and J.N. Forrest, Jr. Glycoconjugates in the rectal gland of spiny dogfish, <u>Squalus</u> <u>acanthias</u> ; as revealed by lectin binding to cryostat sections
Kinne-Saffran, E., R. Lehrich, J.N. Forrest and R.K.H. Kinne. Enrichment of plasma membranes from dogfish rectal gland cell cultures (<u>Squalus acan-</u> <u>thias</u>
Silva, P., R. Solomon, M. Taylor, K. Spokes, L. Castelo, E. Franco, N. Katz, H. Solomon and F.H. Epstein. Functional characterization of the VIP receptor in the rectal gland of <u>Squalus</u> <u>acanthias</u>
Solomon, R., M. Nathanson, M. Taylor, P. Silva and F.H. Epstein. An increase in intracellular calcium is associated with inhibition and not stimulation of the rectal gland of <u>Squalus</u> <u>acanthias</u>
Lehrich, R.W., S. Brill, W.K. Suggs, S.G. Aller and J.N. Forrest, Jr. Inhibition of tyrosine phosphorylation induces chloride secretion in the rectal gland of the spiny dogfish, <u>Squalus</u> <u>acanthias</u>
Solomon, R., L. Castelo, E. Franco, M. Taylor, P. Silva and F.H. Epstein. Preliminary data on intracellular signalling mechanisms in the rectal gland of <u>Squalus</u> <u>acanthias</u> : a pharmacologic approach
Silva, P., R. Solomon, M. Taylor, K. Spokes, L. Castelo, E. Franco, N. Katz, H. Solomon and F.H. Epstein. Further characterization of the inhibitory effects of nucleotides on chloride secretion by the rectal gland of <u>Squalus</u> <u>acanthias</u>
Silva, P., M. Taylor, R. Solomon, K. Spokes and F.H. Epstein. Effect of mercuric chloride on transport in the rectal gland of <u>Squalus</u> <u>acanthias</u> 51
Brill, S., R. Behnke, P. Isenring, D. Rader, A. Pernak, N. Ringstadt and B. Forbush. Regulation of the Na-K-Cl cotransporter in the intact rectal gland of the spiny dogfish, <u>Squalus</u> <u>acanthias</u>
Solomon, R., N. Katz, P. Silva and F.H. Epstein. Evidence for a role of circulating shark C-type natriuretic peptide in the response of the explanted rectal gland of <u>Squalus</u> <u>acanthias</u> to volume expansion
Kinne, R.K.H. and E. Kinne-Saffran. Characterization of the sodium- phosphate cotransport system in a flounder (<u>Pseudopleuronectes</u> <u>americanus</u>) kidney brush border membrane fraction
Fleming, J.C. and I.G. Welsford. Ionic and osmotic effects on transepi- thelial current in the foot of the terrestrial slug, (<u>Limax maximus</u>)60
Claiborne, J.B. and S. Bellows. Chronic acidosis in the long-horned sculpin (<u>Myoxocephalus octodecimspinosus</u>); effect of low external sodium or chloride on acid-base transfers across the gills
Towle, D.W., M.K. Jordan and D.W. Shearer. Estimation of sodium/proton antiporter mRNA in gills of the green shore crab <u>Carcinus maenas</u> by quantitative RT-PCR

Towle, D.W., D.W. Shearer and M.K. Jordan. Identification of sodium/ proton antiporter mRNA in tissues of marine invertebrates by degenerate RT-PCR
Davis-Amaral, E.M., S.R. Carlson and L. Goldstein. Urea transport in skate (<u>Raja</u> <u>erinacea</u>) erythrocytes68
Jackson, P.S., K. Churchwell, N. Ballatori, J.L. Boyer and K. Strange. Properties and regulation of the volume-sensitive organic osmolyte/anion channel VSOAC in hepatocytes of the marine skate <u>Raja</u> <u>erinacea</u>
Musch, M.W., E.M. Davis-Amaral and L. Goldstein. Erythropoietin stimu- lates Na ⁺ -independent taurine flux through a tyrosine kinase-dependent pathway in little skate (<u>Raja erinacea</u>) erythrocytes
Ballatori, N., A.T. Truong, P.S. Jackson, K. Strange and J.L. Boyer. ATP depletion and inactivation of an ATP-sensitive taurine channel by classic ion channel blockers in hepatocytes from <u>Raja</u> <u>erinacea</u>
Kipp, H., E. Kinne-Saffran and R.K.H. Kinne. The renal sodium-D-glucose cotransporter in the skate (<u>Raja erinacea</u>) and shark (<u>Squalus acanthias</u>): interaction with inhibitors75
Morrison-Shetlar, A., B. Wolpin and D. Soto. Cloning and sequencing of the renal sodium-D-glucose cotransporter from marine animals
Letcher, S. and D.S. Miller. Organic anion secretion is not sensitive to membrane potential in isolated killifish (<u>Fundulus heteroclitus</u>) proximal tubules
Gehnrich, S.C., L.H. Lippincott and J.R. Mills. Partial nucleic acid sequence of renal carbonic anhydrase from the euryhaline American eel, <u>Anguilla</u> <u>rostrata</u>
Nathanson, M.H., K. Mariwalla, R.M. Jones, J. Kaljuvee, N. Ballatori and J.L. Boyer. Effect of Hg ²⁺ on cytosolic Ca ²⁺ in hepatocytes isolated from the little skate <u>Raja</u> <u>erinacea</u>
Nathanson, M.H. and K. Mariwalla. Characterization and function of ATP receptors on hepatocytes from the little skate <u>Raja</u> erinacea
Newton, C.R., L. Hatfield and C.D. Jude. Sugar selectivity and opsoniza- tion potential of a Ca ²⁺ -independent serum lectin isolated from the spiny dogfish (<u>Squalus</u> <u>acanthias</u>)
Kormanik, G.A. and R. Verity. Effect of elevated plasma ammonia on tissue levels of glutamine and glutamate in embryos of the dogfish (<u>Squalus acanthias</u>)
Swenson, E.R., L. Lippincott and T.H. Maren. Effect of gill membrane- bound carbonic anhydrase inhibition on branchial bicarbonate excretion in the dogfish shark. Squalus <u>acanthias</u> 94

Gehnrich, S.C., L.H. Lippincott, E.R. Swenson and T.H. Maren. Further attempts to separate renal from hematopoietic tissue in the euryhaline eel, <u>Anguilla rostrata</u>
Elger, M., H. Hentschel and R.K.H. Kinne. The proximal tubule of the winter flounder, <u>Pseudopleuronectes</u> <u>americanus</u> , as revealed by micro- dissection and quantitative histology97
Kelley, G.G. Glucose stimulation of phospholipase C in the Brockmann body of the long horned sculpin <u>Myoxocephalus</u> <u>octodecimspinosus</u>
Kidder, G.W., III and A.A. McCoy. Electromyographic determination of mercury toxicity in <u>Mytilis edulus</u> 102
Conrad, A.H., S.S. Schwarting and G.W. Conrad. Natriuretic peptide expression in <u>Ilyanassa</u> obsoleta103
Welsford, I.G., J. Fleming and H.L. Matanock. Evidence for structural heterogeneity in the alpha subunit of AChRs from <u>Asterias forbesi</u> and <u>Nereis virens</u> : immuno- and southern blotting studies
Evans, D.H. and M. Gunderson. Apparent lack of the nitric oxide/soluble guanylyl cyclase axis in the aortic vascular smooth muscle of the shark, <u>Squalus</u> <u>acanthias</u>
Evans, D.H. and M. Gunderson. Further characterization of muscarinic and endothelin receptors in the aortic vascular smooth muscle of the dogfish shark, <u>Squalus</u> <u>acanthias</u> 110
Krasnow, H.L. and G.V. Callard. Cloning of a β -tubulin cDNA from shark (<u>Squalus</u> <u>acanthias</u>) testis
Charnock-Jones, D.S., C. Stenstrom and I.P. Callard. Steroidal regulation of vitellogenin mRNA levels in the liver of the painted turtle <u>Chrysemys picta</u>

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