

## New medical school opening in '68

# Need for anatomical materials increases

By DR. RICHARD L. de C.H. SAUNDERS  
Professor of Medicine

When the Governors of Dalhousie University asked the Medical Society of Halifax in 1864 if it would assist in the establishment of a medical school they were turned down flat. One reason, said the society, was that Nova Scotia did not have an Anatomy Act and the society was not prepared to get involved in the grave-robbing (or body-snatching) escapades which were not uncommon in many European and American medical education centres.

Eventually, the Anatomy Act was passed by the Legislature of Nova Scotia, and the Victoria General Hospital was organized as a joint city and provincial venture, and Dalhousie then established its medical school. That was in 1868.

In Newfoundland, Memorial University is now considering the establishment of a medical school, but the situation there is similar to that in Nova Scotia 100 years ago, Newfoundland has no Anatomy Act, but it is just as important that one is passed.

New Brunswick passed its Anatomy Act several years ago, and since that time has been extremely helpful to Dalhousie University in providing the necessary teaching material for medical students, some of whom are from that province.

Like Newfoundland, Prince Edward Island does not yet have an Anatomy Act, but as New Brunswick through a special commission, is also studying the feasibility of a medical school and since plans are rapidly going forward for the establishment of a medical school in Newfoundland, it is important that Anatomy Act legislation be considered by the provinces which do not have it.

The need for anatomical material is just as important today as it was in 1868; students have to understand the function and structure of the human body, and these students are increasing greatly in numbers.

### Need will increase

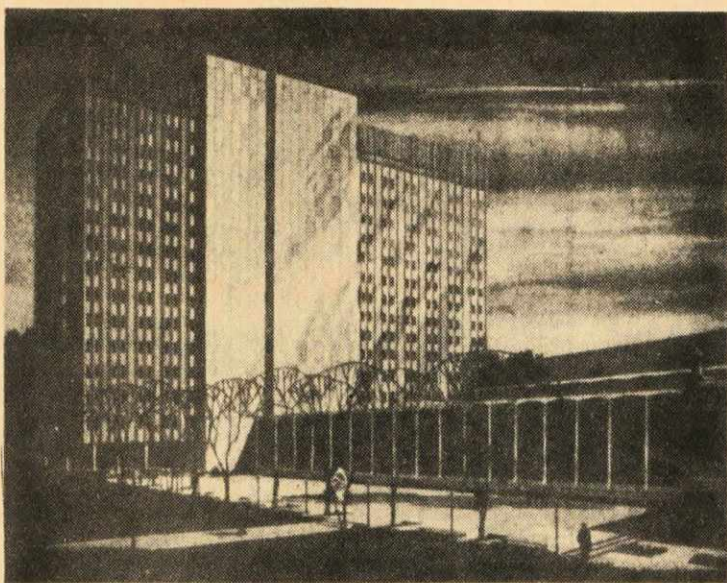
With the opening of the Sir Charles Tupper Medical Building, Dalhousie's new medical school, less than one year away, the number will increase even more.

In addition, recent legislation in Nova Scotia has made it possible for people to bequeath tissues that may be used as grafts to improve the health of someone, or even save a life or restore vision to a blind person. The transplantation of tissues to replace a diseased organ is a tremendous and exciting new area of research. Someone who is killed in an accident may have perfectly healthy organs; transplanted in them may save someone else's life.

It is hoped that in its new Clinical Research Centre (the remodelled Public Health Clinic) Dalhousie University will soon be able to embark on such research; much will be done on animals but at some stage, it may be important to have human tissues.

Meanwhile, an increasing number of people, are showing interest in donating their bodies, or parts of them, for purposes of medical study and research.

This is due in no small part to the frequent, and sometimes excellent coverage given by newspapers and magazines



When this \$7-million, 15-storey medical school, the Sir Charles Tupper Medical Building opens in 1967, the need for anatomical materials is certain to increase.

to advances in medical knowledge. The public is interested in health and in the development of new knowledge that points to the more effective treatment of future patients.

Even so, the public is not wholly aware of some of the modern reasons for the post-mortem examination of the human body. For example, the fact that autopsy may be used to evaluate the effects or effectiveness of new treatment, and so provide new knowledge, might result in future patients being more effectively treated.

Also the end stage of one disease may coexist with an early stage of another and thus the autopsy can be considered a research procedure. In addition, the dead human body has become in recent years a valuable source of organ and tissue grafts (e.g. kidneys, eyes and arteries) that has unexpectedly aided medical science to preserve life and restore health.

### Unaware of shortage

The public generally realize that knowledge of the "fearfully and wonderfully made" human body can only be gained first-hand by dissection, for this provides both students and doctors with basic information necessary for the diagnosis, prognosis, and treatment of illness and disease. Yet the public is not aware of the shortage of human material for such purposes.

Medical schools now require human material not only for the training of medical and dental students, but also for graduate training of specialists and for the training of para-

medical groups such as nurses, dental hygienists, and physical therapists.

The problem of procuring human material for medical schools is one that concerns the public, the clergy, and legislators; for the dead human body is surrounded with a spirituality of the deepest concern to man, and both the public and clergy have always been concerned that the process of dissection be carried out with respect and reverence.

The answer to whether this is so is a decisive "yes", for not only are the rules strictly observed at the medical school, but the laws of the medical school under a monetary bond and appoint inspectors to ensure proper use and decent burial according to the religious faith of the individual.

Recently there has been a modification of certain Nova Scotia laws. Recognizing the advances in medical science and the increasing need for research and treatment material, the Legislature of Nova Scotia recently enacted the Human Tissue Act (Statutes of Nova Scotia, 1964, Chapter 5) to make it easier for people to donate their bodies, or parts of them, for medical purposes. Under this act, it is now possible for a person to request that his or her body, or a specified part, or parts, be used after death for therapeutic purposes or for the purposes of medical education or research. The donor may express this in writing at any time, or orally in the presence of at least two witnesses during the last illness.

### Legal aspect

As a result there has been an increasing number of requests for answers and instructions concerning such donations, for this act answers the fundamental question as to the legality of willing one's body. It should be noted that the dead body of an individual cannot be sold for any purpose. Nevertheless, it has been recognized by the courts that those persons who are entitled to the possession of and custody of the dead body for the purpose of decent burial have certain legal rights to and in it, which the law recognizes and will protect.

A person desiring to leave his or her body to medical science may obtain and complete a form reading somewhat as follows: "I dedicate my body to medical science. If I die in Nova Scotia, I direct (clause A) that should any part or parts of my body be useful for transplanting to another person, such part or parts may be removed for this purpose, and (Clause B) that thereafter my body shall go to Dalhousie University, Halifax, Nova Scotia, at once and be used by that institution for the study of anatomy and furtherance of medical practice and research. Should I die outside of Nova Scotia my body shall go to the nearest medical school."

If the donor disapproves of clause A, he or she should delete it, and the donor's signature should be made in the presence of two witnesses. Such forms, together with full information regarding disposition of the body on death are obtainable from Dalhousie University medical school.

The medical staff of Dalhousie recognizes that the act of donation is one involving deep personal feeling, and that such donations do not mean a discarding of traditional faith. This does not interfere with the observance of the customary religious rites.



## the campus

### Expansion fund

## Alumni donations total \$1-million

Donations by alumni of Dalhousie University to the university's expansion fund have now passed the \$1 million mark, and the fund total now stands at \$1,110,861, Bruce G. Irwin, Director of Alumni Affairs, said yesterday.

Mr. Irwin, who is also director of the expansion fund, said that a recent gift of \$5,000 from an alumnus/alumna, raised to \$1,004,123 the total donated by alumni.

Of the balance of the \$1,110,861, \$5,106,738 had been donated by non-alumni, individuals and corporations.

The remaining \$5 million was in the form of two \$2,500,000 grants from each of the federal and Nova Scotia governments as assistance towards the capital construction cost of the Sir Charles Tupper Medical Building, Dalhousie's new medical school and the major Nova Scotia Confederation centennial project. Fund target is \$16,500,000.

## Dickson, Yogis join Dal Faculty of Law

Two recent graduates of Dalhousie University's law School, have returned to join the teaching staff of the Faculty of Law, Dr. Henry D. Hicks, the president has announced.

W.F. Dickson, who has been appointed an assistant professor of law, obtained his bachelor's degree from Dalhousie in 1965 and his master's from Harvard in 1966. He was awarded the Viscount Bennett scholarship for postgraduate study of the Canadian Bar Association and a Frank Knox Memorial Fellowship from Harvard. He will lecture in judicial remedies and assist in courses in legal research and writing, and legislation.

J.A.L. Yogis, appointed an assistant professor of law, obtained his Bachelor of Law degree from Dalhousie in 1964 and was awarded a graduate fellowship and a Sir James Dunn graduate scholarship in the same year. He will lecture on legal institutions and processes, agency, and will assist in legal research and writing.

The appointment of Malachi C. Jones as associate professor (part time) has also been announced. He received his bachelor's degree from Dalhousie in 1951 and has engaged in the practice of law with the Nova Scotia Attorney General's department since 1952. He is a senior solicitor in the department and was recently appointed legislative counsel. Mr. Jones will conduct a class in criminal law and act as director of legislative research at the Law School.

## Bennett speaks today

Dr. Peter B. Bennett of the Defence Research Medical Laboratories, Toronto, will be the guest speaker at the graduate colloquium of Dalhousie University's psychology department today.

Dr. Bennett, whose lecture will begin at 4 p.m. in Room 218 of the Arts and Administration Building, will talk about underwater physiology and behaviour.

Until this fall, Dr. Bennett was working as a senior scientist at the Royal Naval Physiological Laboratory in England, doing research on inert gas narcosis and related problems encountered in deep sea diving.

He came to Canada to direct underwater physiology group at the Defence Research Medical Laboratories, where a wet-dry pressure chamber has been installed.

Dr. Bennett is the author of a recent book, Etiology of compressed air intoxication and inert gas narcosis, as well as of a number of research papers in technical journals.

## Architecture School at Tech plan film series

The Nova Scotia Technical College's School of Architecture will run a series of films during the academic year.

The films which have been chosen for their architectural or design content will be shown at 1.25 p.m. at the School of Architecture. The schedule is as follows:

Nov. 3 -- Juggendstil Modern Dutch Architecture; Nov. 17 -- Art in Exhibition; Nov. 24 -- Finland design; Jan. 19 -- Discovering color; Jan. 26 -- Holland's Cornerstone; Feb. 2 -- Around My Way, Dance Squared, A Chairy Tale; Feb. 16 -- From Doric to Gothic; Feb. 23 -- Cathedral of Chartres; Mar. 9 -- Building a New World; Mar. 16 -- How to Look at a City; Mar. 30 -- A Lesson in Geometry; and April 13 -- Discovering Perspective, Lines Horizontal and Vertical, Fiddle-De-Dee.

## Notice to Science Students

After several years of futile attempts to generate interest in general meetings of biologists, chemists, geologists, mathematicians, and physicists, it became clear that the Science Society must change its framework. The new concept is one in which Clubs associated with the various disciplines, i.e. biology, physics, etc., hold meetings of interest to Science students in those disciplines. Meetings will always be open to all Science students, however, and when a meeting of general interest is planned by one club, all other clubs will be invited to attend.

Science Society funds will be available with some restrictions to the individual clubs. Some clubs may set up a membership fee, but this will not restrict attendance at general meetings and may be used for special projects, for which Science Society funds may not be used. The setting up of a membership fee will, of course, restrict to some extent the eligibility of the club for Science Society funds.

The Science Society Executive Council will have the responsibility for general social activities for all Science students, for sports, and for distribution of Science Society funds. The Executive Council will consist of 12 members: President, Secretary, Treasurer, the three Science representatives or the Council of Students, a male and a female sports representative, a publicity chairman, and the presidents of the four clubs now existing. The presidents of newly formed Scientific Clubs will be admitted as soon as the club is recognized. General meetings which will really be combined meetings of the clubs, will be held at least three times yearly, for business purposes. Club meetings will be held every month, for each club.

The Executive Council set-up may appear unnecessarily large, but as the Society grows, the number of people needed for administration will increase.

MEETING FOR NOMINATING SCIENCE QUEEN AND REVISION CONSTITUTION  
CHEM THEATRE  
TUES., NOV. 1, 11:30 A.M.

Signed,  
THE EXECUTIVE

## First-hand info on professions

Dalhousie students wishing to obtain first-hand information about a particular profession or occupation may arrange for a personal appointment with an Alumnus engaged in that profession, through the Alumni Counselling Service, Alumni Office, Room 133, Arts and Administration Building.

This special service for Dalhousie students is being sponsored for the first time this year by the Dalhousie Alumni Association.

## Aquatron: major step in marine biology research

The construction of an aquatron at Dalhousie University would be a major step forward in the development of marine biology, long hindered by the lack of desirable research facilities, Dr. Henry D. Hicks, president of Dalhousie, said yesterday.

Dr. Hicks, who welcomed the announcement by Health Minister Allan J. MacEachen that the Atlantic Development Board would contribute \$2 million toward the capital cost of the aquatron, said the establishment of a research facility of such an advanced nature ought to be met with enthusiasm.

The aquatron, however, was only the first phase of an extensive development in marine sciences and research that the university planned, said Dr. Hicks. Its construction would mark the start of the first major development on the western portion of Studley campus; the development of an Arts and Science complex would relate the aquatron and marine biology facilities to expanding departments of the Faculty of Arts and Science.

A preliminary plan, said Dr. Hicks, proposed a basic approach in distributing units around a common structure which would have a common floor, service and parking facilities, giving an overall courtyard effect, but with three levels, the roof of each of which would form paved terraces.

Dr. Hicks emphasized that while the plan was only preliminary, its concept of trunk and branches growing westward from the present Arts and Administration Building would allow considerable flexibility in the distribution of the units and the nature and position of future extensions.

The aquatron, said Dr. Hicks, would enable aquatic research to be done on aquatic plants and animals under closely controlled conditions of light, pressure and salinity. It would be housed in the basement of a modest high-rise building, with an adequate supply of fresh or salt water to be equally available.

The name "aquatron", said Dr. Hicks, had been coined because the facility was a significant departure from any existing aquarium or aquatic experimental equipment.

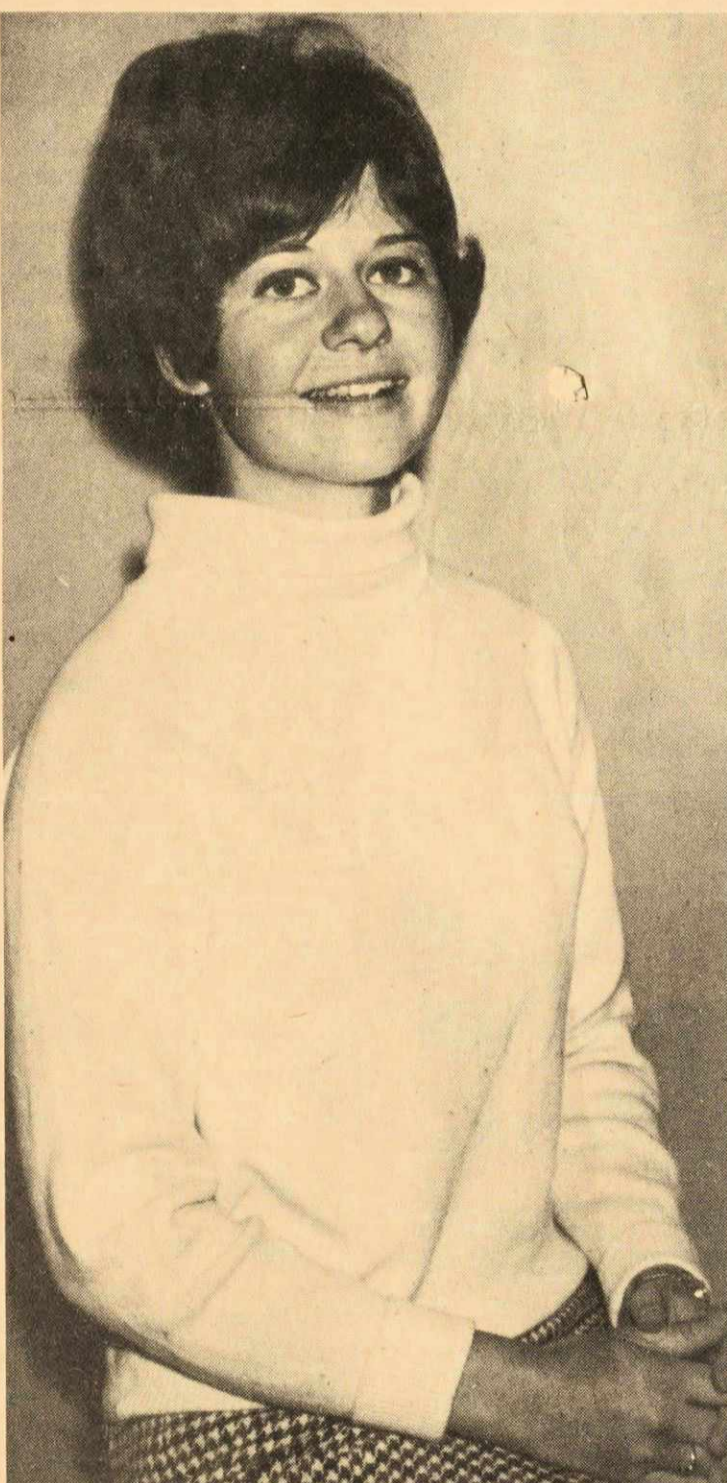
The purpose would be to create in a laboratory conditions encountered by marine animals and plants in their natural habitat. Investigators would be able to control simultaneously the more important variables in the aquatic environment — light, heat, salinity, clarity, flow rate, ionic ratios, and gas composition of water.

A high-pressure laboratory would be included because pressure was an obvious factor of marine environment, and the study of high pressures on bacteria, protozoa, and smaller metazoa — which has received some attention — would be extended to research on the effects on deep-sea organisms, such as fish, crustaceans, and other life.

While the final design of the aquatron has not been approved, it will include two large pools and smaller units. Each tank will have viewing ports and apparatus on the perimeter for diving nets or other sampling devices. The tanks will be made of reinforced concrete and lined with plastic or plastic paint. Additional service equipment will include a machine shop, a sea water reservoir, and constant temperature rooms.

It is estimated that at least 10 professional scientists and 50 pre- and post-doctoral students will be able to conduct their research with the aquatron. Training will be specifically in basic subjects such as biology, microbiology, biochemistry and chemistry.

Dr. Walter Trost, former Dean of Graduate Studies at Dalhousie, and now vice-president of the University of Calgary, was involved in the preliminary moves to establish the aquatron. When the proposal to establish the



**Sweater Girl**  
(Jennifer Johnson)

aquatron was announced several years ago, Dalhousie sought advice from several firms of consulting engineers and architects. Thomas Riddick and Associates of New York, a firm which designed several marine and fresh water public aquaria and has long experience in designing water and sewage treatment plants, was given the job of designing Dalhousie's aquatron.

## First production: Nov. 2-5

# Workshop ready for Richard II

Final rehearsals are in progress for Dalhousie Drama Workshop's production of Shakespeare's Richard II, to be presented from Nov. 2 to Nov. 5 inclusive in the university gymnasium.

The workshop's first production of the 1966-67 season, Richard II tells the story of the toppling of a king. Directed by Lionel H. Lawrence of the university's English department and the Drama Workshop, the play will be performed on the relatively new thrust stage in the gymnasium.

Heading the cast is Dr. John Ripley, also of the English de-

partment and director of the workshop, who portrays Richard II. The king's uncles, York and Gaunt, will be played by Douglas French and Tom Dunphy, both students at Dalhousie.

Bolingbroke, the man who became king, will be portrayed by Hamilton McClymont, and the king's supporters — Northumberland, Ross and Willoughby — are played by Ivan Blake, Alex Jones and Peter Morrison.

Nancy White will play the queen, and Leslie Campbell and Jane Purves her ladies-in-waiting. The Duchess of Gloucester will be portrayed by Madeleine Lejeune, and the Duchess of York by Isabell White.

Others in the cast include, Lloyd Gesner, Phil Phelan, Peter Roy, Hugh Williamson, Michael Bradley, John Wright, Fred Giffin, Jim Archibald, Peter Hinton, Dave Archibald, Buckle MacNutt and Jean Paul Chavy.

The forty-six roles in the play will be shared by the cast of 26. Tickets at \$1.10 and \$1.65 are available from the Drama Workshop, 6188 South Street, phone number 923-4143, or 429-1420 (local 347).



DR. HENRY D. HICKS

